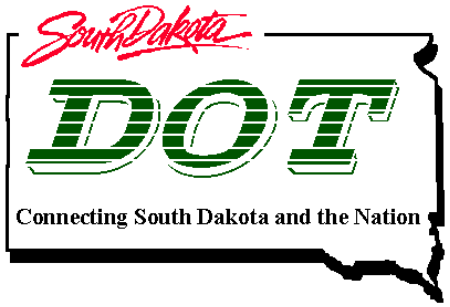
Environmental Procedures Manual

FINAL

2019

South Dakota DOT

Connecting South Dakota and the Nation



Environmental Procedures Manual

Updated July 2019

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ACRONYMS AND ABBREVIATIONS

AASHTO	American Association of State Highway and Transportation Officials
ACHP	Advisory Council on Historic Preservation
APE	Area of Potential Effect
ARC	State Archeological Research Center
ARSD	South Dakota Administrative Rules
BGEPA	Bald and Golden Eagle Protection Act
BMP	Best Management Practice
BO	Biological Opinion
C2C	Concept to Contract
CAA	Clean Air Act
CE	Categorical Exclusion
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFR	Code of Federal Regulations
CIA	Community Impact Assessment
CO	Carbon Monoxide
CSV	Comma-separated Value
CWA	Clean Water Act
dBA	A-weighted Decibel
DOT	Department of Transportation
EA	Environmental Assessment
ECC	Environmental Commitments Checklist
EIS	Environmental Impact Statement
eNOI	Electronic Notice of Intent
EO	Environmental Office
EPC	Environmental Project Coordinator
EPM	Environmental Procedure Manual
ESA	Endangered Species Act
FAA	Federal Aviation Administration
FHWA	Federal Highway Administration

FONSI	Finding of No Significant Impact
FPPA	Farmland Protection Policy Act
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
GIS	Geographic Information System
HGM	Hydrogeomorphic
IPaC	Information for Planning and Conservation
JD	Jurisdictional Determination
LWCF	Land and Water Conservation Fund
LOS	Level of Service
MBTA	Migratory Bird Treaty Act
MOA	Memorandum of Agreement
MSAT	Mobile Source Air Toxics
MS4	Municipal Separate Storm Sewer System
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NLEB	Northern Long-eared Bat
NOI	Notice of Intent
NOT	Notice of Termination
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
OHWE	Ordinary High-Water Elevation
OWJ	Official with Jurisdiction
PCE Agreement	Programmatic Agreement between FHWA and SDDOT Regarding the Processing of Actions Classified as Categorical Exclusions for Federal-Aid Highway Projects
PCN	Project Control Number
PD	Project Development
PM	Particulate Matter

RCRA	Resource Conservation and Recovery Act
ROD	Record of Decision
ROW	Right-of-Way
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
SARA	Superfund Amendments and Reauthorization Act
SCORP	Statewide Comprehensive Outdoor Recreation Plan
SDDENR	South Dakota Department of Environment and Natural Resources
SDDOT	South Dakota Department of Transportation
SDGFP	South Dakota Game, Fish and Parks
SHPO	State Historic Preservation Office
STIP	Statewide Transportation Improvement Program
SWPPP	Storm Water Pollution Prevention Plan
TCP	Traditional Cultural Property
THPO	Tribal Historic Preservation Office
TNM	Traffic Noise Model
USACE	U.S. Army Corps of Engineers
USC	United States Code
USDOT	U.S. Department of Transportation
USEPA	U.S. Environmental Protection Agency
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VIA	Visual Impact Assessment

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FORWARD

The South Dakota Department of Transportation (SDDOT) Environmental Procedure Manual (EPM) has been developed to provide guidance to SDDOT, consultant, and contractor personnel performing environmental services associated with SDDOT transportation projects, including appropriate local government projects. The goal of the EPM is to effectively communicate preferred environmental processes and procedures, evaluate environmental impacts due to projects, and implement subsequent environmental commitments in an efficient and effective manner. This manual is an overview of the environmental procedures to be followed for projects funded in part by the Federal Highway Administration (FHWA). It is not inclusive of all FHWA environmental policies and requirements or the environmental requirements of other agencies. This manual is not intended to reinterpret federal or state laws; it should be used in conjunction with all applicable laws, regulations, guidance, and internal coordination procedures.

The EPM presents information normally required for the environmental analysis and documentation of SDDOT projects; however, it is impossible to address every situation that a user will encounter. Therefore, users must exercise good judgment on individual projects and, frequently, be innovative in their approach to addressing environmental concerns and impacts. This may require different approaches than described in the following chapters. Where questions exist regarding the appropriate approach, users should seek guidance from the Environmental Office staff, FHWA Environmental Engineer, and other experienced individuals with knowledge in the specific environmental field.

It is also important to recognize that environmental rules and regulations continue to evolve with changes in environmental requirements (e.g., Section 4(f), Clean Water Act 404(b)(1), Endangered Species Act Section 7 consultation, Section 106 of the National Historic Preservation Act), new transportation reauthorization laws, issuance of presidential Executive Orders (e.g., 11988, 11990, 12898), as well as court case decisions. With these changes, new methods of avoidance, minimization, and mitigation will be identified adding to the methods described in this EPM and reinforcing the nature of this dynamic document.

Joanne Hight

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1.0 OVERVIEW

1.1 Purpose and Organization of the Environmental Procedures Manual

1.1.1 Purpose

The purpose of the Environmental Procedures Manual (EPM) is to support the South Dakota Department of Transportation (SDDOT) in meeting the environmental commitments required under law for the planning, design, construction, and maintenance of transportation projects across the state. The manual also provides the public, contractors, consultants, stakeholders, and other agencies the ability to understand the SDDOT environmental processes in an open and transparent way. The goal of the EPM is to effectively communicate preferred processes and procedures, evaluate environmental impacts due to projects, and implement subsequent environmental commitments in an efficient and effective manner.

The manual is a high-level stepwise guide to the actions required to successfully comply with environmental laws and regulations throughout the planning, design, construction, and maintenance of a project throughout its lifecycle. It is not a how-to manual; rather, environmental and transportation professionals are expected to complete their work to the highest standards possible in meeting the spirit and letter of the laws and regulations.

The manual provides via hyperlinks the necessary forms, templates, and checklists to be used in completing each step of the environmental process and informing the next step of the process. Other supporting resources are identified throughout the manual to provide for the successful compliance of all applicable environmental requirements.

1.1.2 Organization

The manual is organized by chapter, in the following manner:

Chapter 1: Overview

Describes the manual, its purpose, the SDDOT organization, and its regulatory and legal authorities and requirements, and the step-by-step procedures for transportation projects.

Chapter 2: Environmental Review Processes

Describes how classes of action for proposed projects are first evaluated to determine the level of environmental analysis. Discusses the classes of action, coordination, and public involvement.

Chapter 3: Environmental Analyses

Describes the technical environmental requirements during the development of a project, construction, and maintenance phases of transportation projects, including the

requirements for water resources, threatened and endangered species, historical and archeological resources, socioeconomics, and other resources.

Chapter 4: Intra-departmental Coordination

Describes the types and timing of environmental considerations in the planning and engineering of transportation projects. Describes the involvement of field offices during the construction of projects and maintenance throughout the life of the projects.

Chapter 5: Contractor Procedures

Describes the expected environmental documentation and measures required by a successful bidder in starting and constructing a transportation project.

1.1.3 Environmental Procedures Manual Revision Process

The EPM is expected to be updated periodically to address changes to environmental laws and regulations and to include the latest avoidance, minimization, and mitigation techniques. Revisions to the EPM will be made by a Review Committee as described below.

Revision and Review

- The Review Committee will consist of six members, including the Environmental Supervisor, Environmental Engineer, EPM Manager, Federal Highway Administration (FHWA) Environmental Engineer, one representative from the Division of Operations, and one representative from Road Design office to ensure a full understanding of the impacts of proposed changes.
- The Review Committee will meet annually, or as necessary, to review and approve appropriate proposed changes and updates to the EPM.
- All proposed revisions will be submitted on the Revision Request Form to the EPM Manager.
- If the revisions represent a policy change, the EPM Manager will present the revisions to the appropriate entity.
- All revisions will be maintained in a chronological, tabulated summary of all revisions and will include the reason for the change.
- If the EPM will be revised as recommended, a memo describing the revision will be distributed by the EPM Manager and posted on SDDOT's website.
- The EPM Manager will provide a written response to the party requesting the revision within 60 days.

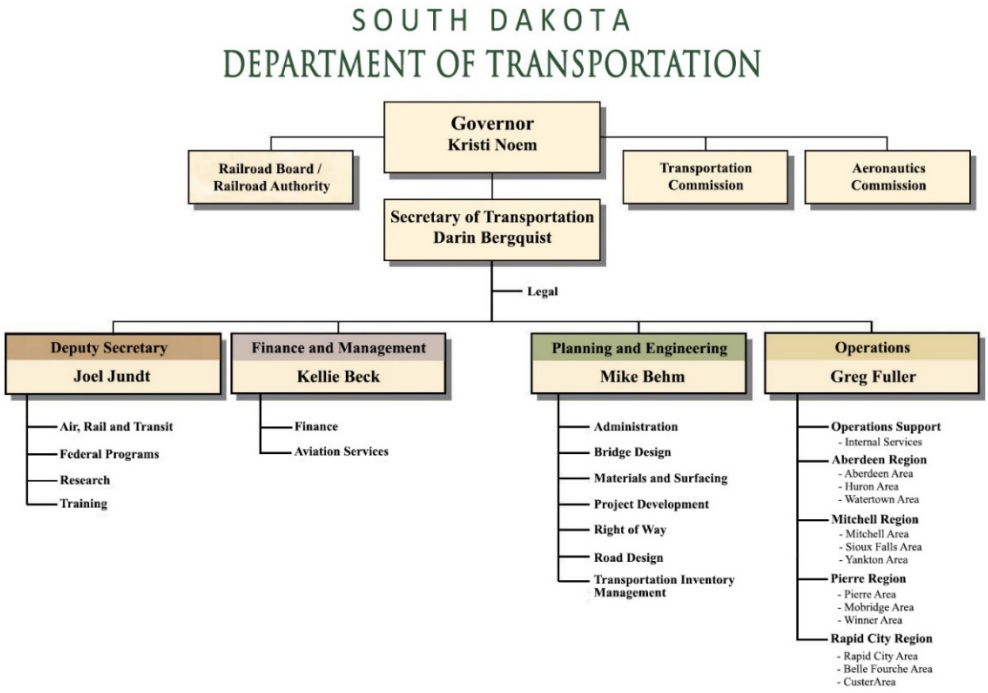
1.2 South Dakota Department of Transportation Organization

*The **mission of SDDOT** is to efficiently provide a safe and effective public transportation system.*

*The **vision of SDDOT** is to achieve excellence in providing transportation facilities that meet the needs of the public. (2018-2019 SDDOT Strategic Plan)*

SDDOT is responsible for planning, developing, and implementing improvement projects on transportation systems throughout the state. These responsibilities include: designing, constructing, operating, and maintaining the state highway system; providing assistance to local units of government for transportation improvements; administering state and federal assistance to rehabilitate rail lines; developing and administering airport improvement programs; and developing and administering the Statewide Transportation Improvement Program (STIP).

SDDOT manages multi-modal transportation components, including highway and road systems, aeronautics and airport facilities, railroads, transit and bicycles, and pedestrian facilities. The state agency has three boards/commissions that review, discuss, and approve many activities of the department. The Secretary of Transportation, a gubernatorial appointment, leads SDDOT, which includes three divisions. See Figure 1.2-1.



Source: SDDOT

Figure 1.2-1 Organizational Chart

1.2.1 Commissions and Boards

SDDOT has three boards/commissions that meet on a regular basis to review, discuss, and approve many activities of the department. The boards/commissions include: The Transportation Commission, the Aeronautics Commission, and the Railroad Board.

Transportation Commission

The nine members of the Transportation Commission meet monthly to discuss issues relating to SDDOT, review and approve the STIP, award projects let to bid, and discuss numerous other activities that govern the SDDOT. The nine members are appointed to 4-year terms by the governor and each represents one of the four regions of the state.

Aeronautics Commission

The Aeronautics Commission supervises aeronautical facilities and activities across the state. This includes supervision and control of airports, air instruction, air marking, air beacons, and all other air navigation facilities. This body gives formal approval to pass-through Federal Aviation Administration (FAA) airport improvement program funds, state aeronautics fund grants, and airport requests to use allocated fuel tax receipts for improvements. The seven members are appointed to 3-year terms by the governor.

Railroad Board

The South Dakota State Railroad Board approves matters of operation, management, finance, marketing, and development of rail service over all properties and facilities acquired, leased, or controlled by the state. The seven members are appointed to 3-year terms by the governor.

1.2.2 Departmental Structure

SDDOT, which is led by the Secretary of Transportation, has three divisions—Finance and Management, Planning and Engineering, and Operations. The Division of Planning and Engineering houses Project Development (PD), which in turn is home to the Environmental Office (EO). The EO leads the department in meeting its environmental commitments. A Contact List is available to the public.

Secretary of Transportation

The Secretary of Transportation is appointed by the governor to lead SDDOT. The primary responsibility of the Secretary is to set statewide transportation policy for SDDOT and be responsible for all activities and services of the department. The Secretariat Division of Transportation includes offices for aviation services, federal programs, and legal services.

Division of Finance and Management

The Finance and Management Division includes two offices—the Finance Office and the Air, Rail, and Transit Office. The Finance Office is responsible for managing department budgets and finances, including payroll, construction billing and contract tracking, revenues and fuel taxes, and financial statements. The Air, Rail, and Transit Office provides planning and engineering expertise to communities interested in improving or building airports, expanding and improving rail systems, and managing and advancing transit systems throughout the state.

Division of Planning and Engineering

The Planning and Engineering Division is responsible for delivering scoping, design, research, and safety documents to assist in maintaining and developing an effective transportation system for public travel. High quality planning and design combined with timely delivery of complete, reviewed project plans that consider stewardship, safety of the public and workforce, cost-effectiveness and public service are integral to the division to effectively manage the state transportation system and assets. All environmental projects and environmental compliance issues are managed by the EO within PD. See Table 1.2-1.

Table 1.2-1 Programs within the Planning and Engineering Division

Administration	Asset Management, Contracting (Consultants), Primavera, Local Government Assistance, Environmental
Bridge Design	Hydraulics, Structure Design, Maintenance Design, Inventory, Construction
Materials and Surfacing	Surfacing Plans, Geotechnical, Materials, Certification and Accreditation
Project Development	Planning, Scoping, Traffic Safety, Bid Letting, Railroad, Safety
Research	Research Administration, Intelligent Transportation Systems Coordination, Local Transportation Assistance Program, SDDOT Library
Right-of-Way	Title Work, Appraisals, Negotiations and Relocation, Excess Property Management, Land Transfers, Exchanges and Abandonments
Road Design	Standard Plates, Roadside Development, Traffic Design, Roadway Design, Utilities, Miscellaneous Surveys
Transportation Inventory Management	Traffic Monitoring, GIS, Public Road Inventory, Computer Aided Design and Drafting Mapping, Pavement Condition Monitoring

Notes: GIS – Geographic Information System, SDDOT – South Dakota Department of Transportation

The EO is responsible for a systematic, interdisciplinary approach that will ensure the integrated use of the natural science, social science, and the environmental design arts in planning and decision making when evaluating potential impacts on the environment. As a department, SDDOT must comply with the National Environmental Policy Act (NEPA) and other federal and state regulations. The EO's functional commitment at

SDDOT is to cultivate and ensure NEPA and other associated environmental regulations are implemented throughout SDDOT's overall transportation decisions. Specific functions central to the EO include:

- Identify environmental considerations in the early phases of project formation.
- Identify environmentall issues that could affect schedule or budget.
- Establish and prepare environmental documentation required for transportation projects. This includes collecting and compiling information on social, economic, and environmental concerns for all transportation projects; developing and documenting environmental effects; involving the public, tribes, and federal and state resource agencies in the decision-making process; assembling environmental commitments; and finalizing the environmental document(s), as appropriate.
- Protect historical, archeological, and cultural resources, combined with the analysis of air, noise, and hazardous materials interests associated with transportation projects.
- Preserve ecological resources (wetlands, waterways, and protected species) associated with transportation project actions in conjunction with assessing, preparing, and acquiring environmental permits.
- Ensuring transportation projects and facilities comply with environmental commitments, monitoring/reporting requirements, and current environmental regulations. The EO is also responsible for oversight of environmental issues that may arise during construction of projects.

Division of Operations

The Division of Operations completes maintenance activities and manages construction projects on roads and bridges. Operations and maintenance are performed in Regional and Area Offices and maintenance shops located throughout the state.

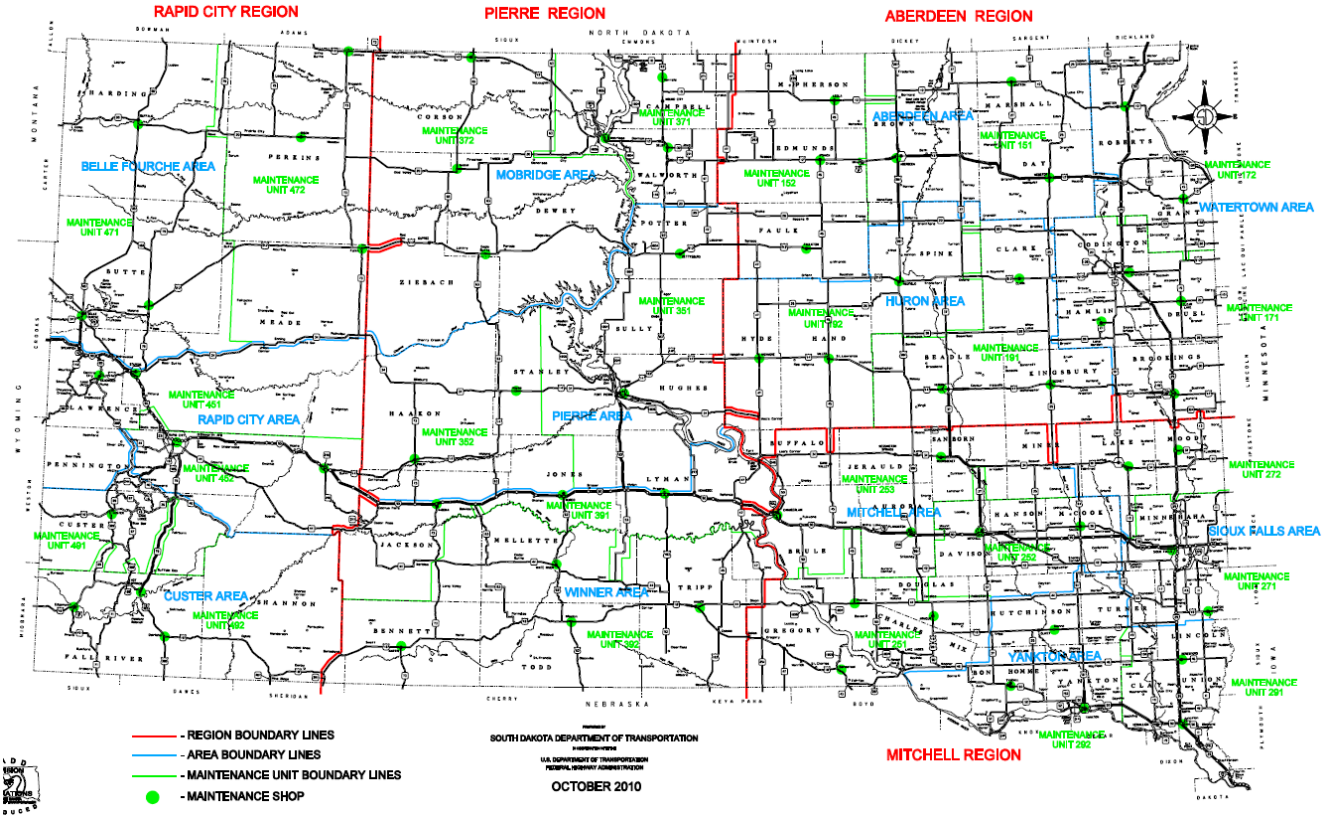
- **Operations Support** encompasses construction/maintenance, Disadvantaged Business Enterprise, and Internal Services/Internal Audit, which provides assistance to offices throughout the state.

Construction projects are managed in the Area Offices but report to the Region Engineer responsible for all operations within their region. The Area Engineer is responsible for the engineering details and administration of any construction project assigned to their area. The four regions and 12 areas as shown in Figure 1.2-2 include:

- **Aberdeen Region** encompasses the counties of Beadle, Brookings, Brown, parts of Buffalo, Clark, Codington, Day, Deuel, Edmunds, Faulk, Grant, Hamlin, Hand, Hyde, Kingsbury, most of McPherson, Marshall, parts of Miner, Roberts and Spink. It is divided into three areas with local offices in Aberdeen, Huron, and Watertown.
- **Mitchell Region** encompasses the counties of Aurora, Bon Homme, Brule, most of Buffalo, Charles Mix, Clay, Davison, Douglas, most of Gregory, Hanson,

Hutchinson, Jerauld, Lake, Lincoln, part of Lyman, McCook, most of Miner, Minnehaha, Moody, Sanborn, Turner, Union and Yankton. It is divided into three areas with local offices in Mitchell, Sioux Falls, and Yankton.

- **Pierre Region** encompasses the counties of Bennett, Campbell, Corson, Dewey, a portion of Edmunds and Gregory, Haakon, Hughes, most of Jackson, Jones, most of Lyman, a portion of McPherson, Mellette, Potter, Stanley, Sully, Todd, Tripp, Walworth and most of Ziebach. It is divided into three areas with local offices in Mobridge, Pierre, and Winner.
- **Rapid City Region** encompasses the counties of Butte, Custer, Fall River, Harding, portions of Jackson, Lawrence, Meade, Pennington, Perkins, most of Oglala Lakota, and a portion of Ziebach. It is divided into three areas with local offices in Belle Fourche, Custer, and Rapid City.



Source: http://sddot.com/dot/region/docs/dot_region_area_maint_map.pdf

Figure 1.2-2 Region/Area/Maintenance Unit Map

1.2.3 Key Roles in the Environmental Processes

Several individuals in key roles are essential to effectively achieving environmental reviews, coordination, and commitments for transportation projects. They are found in SDDOT PD, EO, other SDDOT divisions and offices, and other agencies.

Administration

In Administration, the Planning and Engineering Administration Program Manager is the key position, overseeing the EO in addition to several other offices.

- **PD Engineer** is responsible for all aspects of project development, including the offices of bid letting, environmental, project planning, system planning, and coordination and safety. The PD Engineer reports directly to the Director of the Division of Planning and Engineering.

Environmental Office

The overall role of the EO is to ensure compliance with applicable environmental laws, executive orders, and other related requirements. EO personnel must understand their own roles and responsibilities as well as those of other departments and agency personnel. The following are key positions:

- **Environmental Engineer Manager** is responsible for the management and operations of the EO and reports directly to the Planning and Engineering Administration Program Manager.
- **Environmental Engineer** is responsible for ensuring all projects and activities comply with federal and state environmental laws.
- **Environmental Project Coordinator (EPC)** is assigned by the Environmental Supervisor or designee upon an Approved Scope of work for a project and is responsible for ensuring all environmental review, coordination, and commitments on transportation projects are met. Any manager or specialist within the EO may serve as an EPC.
- **Environmental Procedure Manual (EPM) Coordinator** is responsible for the integrity of the EPM and incorporates any updates or improvements to the EPM.
- **USACE Permit Coordinator** is responsible for compliance in all projects regarding the Clean Water Act (CWA) and prepares portions of NEPA documents as appropriate.
- **NEPA Specialist** serves as a technical resource for issues regarding NEPA and prepares and reviews NEPA documents.
- **Storm Water Coordinator** is responsible for compliance in all projects regarding storm water and prepares portions of NEPA documents, as appropriate.
- **Wetlands Coordinator** is responsible for compliance in all projects regarding wetlands and prepares portions of NEPA documents, as appropriate.
- **Wildlife Biologist** is responsible for compliance in all projects regarding threatened and endangered species and prepares portions of NEPA documents, as appropriate.

Other South Dakota Department of Transportation Offices and Key Positions

In addition to the EO, several key positions throughout the department serve to facilitate compliance with environmental commitments, including the following:

- **Design/Right-of-Way (ROW)** reports to the Division of Planning and Engineering. Design is responsible for all plans and specifications for a project, while ROW is responsible for acquiring all property needed for a project. The term Design/ROW is used to simplify reference to reviews by road design, bridge design and ROW.
- **Landscape Architect** reports to Road Design and assists in the preparation of the Storm Water Pollution Prevention Plan (SWPPP) and designing wetlands mitigation plans.
- **Region Engineer** reports to the Division of Operations and is responsible for managing regional construction projects, maintenance, and operations.
- **Area Engineer** reports to the Region Engineer and is responsible for managing area construction projects, maintenance, and operations.
- **Area Survey Crew** report to the Area Engineer and assist in incorporating existing wetlands and archeological sites into plans.
- **Region Materials Engineer** reports to Region Engineer and assists in verifying environmental requirements for state-furnished sites.
- **Project Engineer** reports to the Area/Region Engineer in the Division of Operations and is responsible for field administration of the construction contract, control of the work, enforcement of the terms of the contract, and acceptance of the amount of work performed and materials furnished.

Other Agencies

Many state, Tribal, and federal agencies have individuals who are responsible for working with the EO in a timely manner to comply with environmental regulations, but the following are key roles:

- **FHWA** individual is responsible for the review and approval of Federal-aid highway program NEPA documents. As FHWA's manager of the federal-aid environmental program, assistance is provided to the SDDOT to ensure studies and documents on Federal-aid highway projects comply with NEPA, Section 4(f) of the U.S. Department of Transportation (USDOT) Act, Section 106 of the National Historic Preservation Act (NHPA), archeology, noise impacts, Presidential Executive Orders, and other Federal environmental laws and requirements.
- **State Historic Preservation Office (SHPO)** administers the national historic preservation program in South Dakota, reviews National Register of Historic Places (NRHP) nominations, maintains data on historic properties that have been

identified but not yet nominated, and consults with federal agencies during NHPA Section 106 review.

- **Tribal Historic Preservation Office (THPO)** assumes any and all functions of a SHPO with respect to its own Tribal lands, as set forth in amendments to the NHPA in 1992.

1.3 Departmental Regulatory and Legal Requirements and Authorities

South Dakota Codified Law Chapter 1–44 creates and provides the legal framework for SDDOT. It establishes the Secretary of Transportation as the head of SDDOT; creates commissions and boards, including the make-up of the commissions and boards and their duties and responsibilities; and other activities deemed necessary by the South Dakota Legislature.

Other state laws governing the planning, construction, and operation and maintenance of proposed transportation projects include the following titles:

- Title 18: South Dakota Historical Society
- Title 19: Historic Sites and Monuments
- Title 20: Archeological Exploration
- Title 39: Department of Game, Fish, and Parks
- Title 40: Department of Environment and Natural Resources
- Title 54: Department of Tribal Relations

Administrative Rules of South Dakota Title 70 governs the activities of SDDOT. It includes areas of regulation in highway safety, aeronautics, oversize and overweight vehicles, signage, financial assistance, contracting, eminent domain, utility corridor management, rest areas, and the State Railroad Board and railroad's exercise of eminent domain

Federal laws and rules govern many activities of SDDOT, including the following:

- National Environmental Policy Act (NEPA)
- Clean Air Act (CAA)
- Clean Water Act, Section 404 (CWA)
- Endangered Species Act (ESA)
- Migratory Bird Treaty Act (MBTA)
- National Historic Preservation Act (NHPA), Section 106
- Land and Water Conservation Fund (LWCF) Act
- Native American Graves and Protection and Repatriation Act

- Section 4(f) of the USDOT Act
- Wild and Scenic Rivers Act

FHWA is the primary agency responsible for legal and regulatory compliance of transportation projects involving federal funding, primarily in Title 23 Chapter I, Subchapter H of the Code of Federal Regulations (CFR). Specific authorizations for environmental compliance are cited in the respective chapters and sections in the EPM.

1.4 Environmental Management of Transportation Projects

Transportation projects originate from a wide variety of sources, studies, and needs assessments. Projects are prioritized and programmed in 4-year increments and compiled in the STIP. The Transportation Commission annually approves the STIP.

The STIP identifies the route, project length and location, type of improvement, estimated project costs, and planned federal fiscal year for bid letting. It also identifies each project by its unique Project Control Number (PCN) and Federal Aid Project Number. Financing for projects in the STIP is provided by federal, state and local funds. Federal funds are channeled through one of the USDOT operating administrations, such as FHWA, FAA, Federal Railroad Administration, or Federal Transit Administration (FTA).

The following sections describe the environmental activity during each stage of a transportation project, the project management systems used to schedule and track those activities, and procedures for obtaining consultant services to support the department during a project.

1.4.1 Project Environmental Requirements

Preconstruction, construction, and post-construction make up the complete life of a transportation project. These projects can be broken down into six distinct stages including planning, preliminary design, final design, bid letting, construction, and operations and maintenance. Specific environmental activities are included within each of these stages. This section describes each stage of a project, followed by the specific environmental activities required for that stage. Chapter 2 of the EPM describes the environmental review processes in greater detail, and Chapter 3 describes the types of environmental analyses and their role in meeting the environmental commitments for a project.

Planning

The Planning Stage includes programming a project in the STIP and determination of a project scope of work. The scope defines the purpose and need for a project, and defines parameters for design through activities, such as environmental, planning, and traffic studies. This stage includes the review of alternatives with agencies, stakeholders, and the public to understand the potential environmental impacts of the project.

Environmental Requirements: Project initiation occurs within the Division of Planning and Engineering. The Environmental Supervisor or his/her designee will make a preliminary assessment of the class of action and possible types of environmental analysis required for the project. The Environmental Supervisor assigns an EPC and provides the EPC with an Approved Scope, schedule, and an overall approach to completing the environmental commitments. Key project information is entered into the project management software systems, described in Section 1.4.2.

Even if the NEPA process is not required, environmental issues are still considered. The environmental analysis is documented with the project environmental file rather than in a separate environmental approval document.

Preliminary Design

The Preliminary Design Stage begins to narrow the project location and design concepts. It consists of iterative communications between all offices within the Division of Planning and Engineering, working collaboratively to find the optimal design solution for the project. See Chapter 3 of the Road Design Manual for further information.

Environmental Requirements

The EPC works closely with Design/ROW to understand constraints by various natural resources, working to avoid and minimize impacts on the environment, while accomplishing the purpose and need of the transportation project. Refer to Chapter 3 for specific resources actions. Generally, actions include, but are not limited to:

- Desktop reviews and field reviews, if necessary
- Confirm the preliminary class of action
- Letters sent to applicable agencies for project review and comment: South Dakota Department of Environment and Natural Resources (SDDENR); South Dakota Game, Fish and Parks (SDGFP); state Archeological Research Center (ARC); U.S. Fish and Wildlife Service (USFWS); U.S. Army Corps of Engineers (USACE); and U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS). Information is requested on some or all of the following topic areas:
  - Wetland locations
  - Threatened or endangered species
  - Refuges
  - SDGFP game production and recreation areas
  - Parks
  - Water quality standards
  - Section 404 permits
  - Section 10 permits
  - Air quality

  - Hazardous waste
  - Land and water conservation funds
  - Underground storage tanks
- Consultation letters sent to Tribes, through ancestral ties, have expressed an interest in an area.
- Completion of environmental analyses, as required by the class of action and project requirements. Coordination with Local Governments, where applicable. (see Chapter 3, Environmental Analyses):
  - Water resources, including the waters of the U.S., wetlands, storm water, floodplains, and wild and scenic rivers
  - Threatened and endangered species
  - Historic and archeological properties
  - Section 4(f) and 6(f)
  - Economic and social analysis, including environmental justice, farmland, land use, user access, and visual/aesthetics
  - Other resources, including air quality, contaminated materials, and noise
- Completion of the Categorical Exclusion (CE) checklist and Environmental Commitments Checklist (ECC), environmental impact statement (EIS), or environmental assessment (EA), record of decision (ROD), finding of no significant impact (FONSI)

Final Design

The Final Design Stage includes the preparation of final construction plans and detailed specifications for the performance of construction work. It involves communication between offices within the Division of Planning and Engineering to ensure all environmental commitments are included in the plans and specifications for the project.

It is important to note that federal funds for projects are not released until the environmental classification is approved. The CE/ECC, EA/FONSI, EIS/ROD must be completed prior to design for final plans.

Environmental Requirements

The EPC coordinates all requirements with Design/ROW to support the successful release of bid documents. Specific actions include:

- Inclusion of environmental commitments in Section A Plan notes and specifications, referring contractors to the EPM.
- Review of bid package as a quality assurance measure
- Reevaluation of NEPA documents after 3 years, if the project has not been bid and constructed

Bid Letting

The Bid Letting Stage includes the preparation of the bid package and the advertisement for requesting construction bids. A project should not go out for advertisement until environmental clearance. No environmental requirements apply to this stage of the transportation project.

Environmental Requirements

During the Bid Letting, review compliance with Section A-Environmental Commitments, environmental special provisions, and environmental permits.

Construction

The Construction Stage begins with the contract award. The Contractor must complete the submittals required in Form DOT 272 prior to scheduling a preconstruction meeting and starting work. The stage also includes the successful completion of the work required in the plans and specifications to ensure the project is constructed in accordance with plans and specifications. Also see Chapter 5 for guidance on what permits, and forms need to be filed prior to the preconstruction meetings.

Environmental Requirements

The Division of Operations and its Project Engineer become involved in implementing the contract with the construction Contractor. The EPC coordinates with the Project Engineer and attends, when appropriate, the preconstruction meeting that is scheduled and conducted prior to beginning work. The EPC makes himself/herself available throughout the course of the construction project to support the Project Engineer in ensuring that all environmental commitments are met.

Operations and Maintenance

The Operations and Maintenance Stage involves both protection of the transportation asset management and compliance with applicable environmental permit conditions.

Environmental Requirements

The EPC works closely with the Area Engineer to ensure that environmental resources are protected after the construction of the project is complete. Additionally, the EPC oversees the timely completion of various compliance reports. Specific actions include:

- FHWA—State Wetland Tracker, MOAs with SHPO, Monitoring and Annual Reports, as required by the 404 permit, Annual Compliance Report and Annual Monitoring Report on certain species, QA/QC reports for CatEx.
- SDDENR—Municipal Separate Storm Sewer System (MS4) Report/Checklist
- SDGFP—Fish Seine Report
- SHPO—Memorandum of Agreement (MOA) Report

- USFWS—Annual Compliance Report and Annual Monitoring Report on certain species
- USACE—Monitoring and annual reports, as required by the 404 permits. Area personnel maintain wetlands, control noxious weeds, and other required actions.

1.4.2 Project Management Software

SDDOT uses three software packages to manage schedules and status of the multiple components of a transportation projects prior to bid letting. All divisions in the department may access the tools through the department's Citrix network. Questions about the software may be directed to the Bureau of Information and Telecommunications.

Documentation is stored in the Departmental U: drive for individual projects and updated by the Environmental Engineer in Concept to Contract (C2C) and Primavera. U: drive information is stored in the Project PD subdirectory. Select the department folder of Environmental, then the folder of PRJ for Project. Projects in this subdirectory are listed by a four-letter county abbreviation paired with the appropriate PCN number acting as the document repository for the project (e.g., U:\PD\Environmental\PRJ\(County and PCN of Project)). Table 1.4-1 provides the county abbreviations for C2C, Primavera, and ATLAS.

Table 1.4-1 County Abbreviations for Concept to Contract, Primavera, and ATLAS

County	Abbr	SPC Zone
Aurora	auro	South
Beadle	bead	North
Bennett	benn	South
Bon Homme	bonh	South
Brookings	brok	North
Brown	brwn	North
Brule	brul	South
Buffalo	buff	South
Butte	bute	North
Campbell	camb	North
Charles Mix	cmix	South
Clark	clrk	North
Clay	clay	South
Codington	codn	North
Corson	cors	North
Custer	cust	South
Davison	davs	South
Day	day	North
Deuel	duel	North
Dewey	dewy	North
Douglas	doug	South
Edmunds	edms	North
Fall River	friv	South
Faulk	falk	North
Grant	grnt	North
Gregory	greg	South
Haakon	hakn	South
Hamlin	haml	North
Hand	hand	North
Hanson	hans	South
Harding	hard	North
Hughes	hugh	South
Hutchinson	huch	South
Hyde	hyde	North
Jackson	jack	South
Jerauld	jrld	South
Jones	jons	South
Kingsbury	king	North
Lake	lake	South
Lawrence	lawr	North
Lincoln	linc	South
Lyman	lymn	South
McCook	mcck	South
McPherson	mcph	North
Marshall	mrsh	North
Meade	mead	North
Mellette	mell	South
Miner	minr	South
Minnehaha	minn	South
Moody	mody	South
Pennington	penn	South
Perkins	perk	North
Potter	pott	North
Roberts	robt	North
Sanborn	sanb	South
Oglala Lakota	ogla	South
Spink	spnk	North
Stanley	stan	South
Sully	suly	North
Todd	todd	South
Tripp	trip	South
Turner	turn	South
Union	unin	South
Walworth	wlth	North
Yankton	yank	South
Ziebach	zieb	North

Notes: Abbr – Abbreviation, SPC – State Plane Coordinate System

Concept to Contract

C2C is used to schedule, forecast, monitor, and coordinate project development and resources until bid letting. C2C consists of an underlying database that supports project management modules in the areas of scoping, programming (STIP), scheduling (Primavera), funding, electronic plans, cost estimating, and bid letting. Responsibility for maintaining the current information, as it relates to the status of environmental steps, rests with the Environmental Supervisor or Environmental Engineer.

Primavera Scheduling

The Primavera system is used for scheduling specific sequential project activities. Primavera includes standard duration periods for specific activities, such as securing environmental classification or wetland mitigation tasks. The start dates for all necessary activities for the project are entered and Primavera software automatically establishes deadlines for completion of these activities. Projects include several defined activities with estimated durations and resource-hours required for a project to meet the established deadlines at various stages of the project.

Activities are prepared for entry into Primavera. For consistency, an Activity ID is coupled with a suffix to indicate the appropriate Activity Name for an entry into Primavera. Table 1.4-2 provides an example.

Table 1.4-2 Primavera Nomenclature for Environmental Activities

Activity ID	Suffix	Activity Name
3013		Secure Environmental Class II Classification—CE
3014		Class I Environmental Impact Statement or Class III Environmental Assessment
	AGN	Agency Coordination
	GEO	Drilling Clearance
	PUB	Public Participation
	SHPO	ARC/SHPO/THPO Coordination
	TRB	Tribal Coordination
	FLD	Field Investigation for 3013 TE and 3013 WET
	TE	Threatened and Endangered Species
	WET	Wetland Mitigation
	4(F)	Section 4(f) Parks and Public Lands and Section 6(f), Land and Water Conservation Fund lands

Notes: ARC – State Archeological Research Center, CE – Categorical Exclusion, SHPO – State Historic Preservation Office, THPO – Tribal Historic Preservation Office

ATLAS

ATLAS is the South Dakota Environmental Tracking System. It is an online application that facilitates communication on SDDOT projects with stakeholders, environmental planning documents, environmental commitments and levels of completion for project phases, improves review and accessibility of project development processes, project management, and compliance review. The ATLAS system when complete will work to satisfy applicable State and Federal environmental regulations. ATLAS is specific to SDDOT projects and therefore will allow environmental commitments to be identified and documented to completion.

1.4.3 Consultant Selection

The department's consultant procurement process is managed by the Division of Finance and Management's Administration Office. In order to streamline procurement, the office has developed a Consultant Retainer List for SDDOT to use for procuring routine services. Solicitation for statements of interest and qualifications for the retainer list is conducted every 3 years through advertisements in newspapers and direct mailing to those that are either on the current list or have shown an interest to be notified.

When a consultant is needed, the office prepares work orders describing the scope of services. A final contract includes components from the scope of services through contract completion and final payment for work performed. For local government projects, the local governments choose the consultant of their choice from the SDDOT Consultant Retainer List.

For projects requiring services not readily identified on the retainer list and greater than $50,000, the Administration Office may support SDDOT in developing a scope of work and budget for consultant services. The consultant is selected using the procurement regulations set forth in State of South Dakota Codified Law Chapter 5-18-A.

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2.0 ENVIRONMENTAL REVIEW PROCESSES

2.1 Overview of Environmental Review Processes

Chapter 2 of the EPM describes the processes implemented by SDDOT to effectively comply with federal and state laws during the planning, construction, and operations and maintenance of transportation projects. The regulatory and legal authorities and requirements are rooted in NEPA, providing the context for the environmental reviews and complying with federal, state, and local laws. FHWA adopted the policy of managing NEPA as an "umbrella," under which all applicable environmental laws, executive orders, and regulations are considered and addressed prior to the final project decision and document approval.

The class of action determination, NEPA documentation, early coordination, public involvement, and Tribal consultation are a suite of actions required to proceed with a transportation project to ensure that it will be built in full compliance with the law and with an understanding of its impact on the environment.

2.2 Defining the Project

Prior to determining the class of action and type of environmental document required, the project subject to environmental review needs to be sufficiently defined in terms of project limits and scope. In developing a project concept that can be advanced through the stages of planning, environment, design, and construction, the SDDOT or the local project sponsor must consider a “whole” or integrated project. This project should satisfy an identified need (e.g., safety rehabilitation, economic development, capacity improvements) and should be considered in the context of the local area socioeconomic and topography, the future travel demand, and other infrastructure improvements in the area. Without framing a project in this way, proposed improvements may miss the mark by only peripherally satisfying the need or by causing unexpected side effects that require additional corrective action. A problem of “segmentation” may also occur where a transportation need extends throughout an entire corridor, but environmental issues and transportation needs are inappropriately discussed for only a segment of the corridor.

FHWA regulations outline three general principles in 23 CFR 771.111(f) that are used to frame a highway project (regardless of the NEPA Class of Action):

(1) Connect logical termini and be of sufficient length to address environmental matters on a broad scope.

(2) Have independent utility or independent significance, i.e., be usable and be a reasonable expenditure even if no additional transportation improvements in the area are made.

(3) Not restrict consideration of alternatives for other reasonably foreseeable transportation improvements.

Logical termini for project development are defined as (1) rational end points for a transportation improvement, and (2) rational end points for a review of the environmental impacts. The environmental impact review frequently covers a broader geographic area than the strict limits of the transportation improvements. In the past, the most common termini have been points of major traffic generation, especially intersecting roadways. This is because in most cases traffic generators determine the size and type of facility being proposed. However, there are also cases where the project improvement is not primarily related to congestion due to traffic generators, and the choice of termini based on these generators may not be appropriate. Choosing a corridor of sufficient length to look at all impacts need not preclude staged construction. Therefore, related improvements within a transportation facility should be evaluated as one project, rather than selecting termini based on what is programmed as short-range improvements. Construction may then be "staged" or programmed for shorter sections or discrete construction elements as funding permits. It is important to obtain the concurrence of FHWA in the logical termini for a project early in the project development. FHWA guidance is available on the considerations involved in identifying logical termini.

2.3 Class of Action Determination

This section defines key terms in determining an environmental class of action and describes the legal and regulatory considerations and the actions required to fulfill environmental commitments with appropriate NEPA documentation.

Common Definitions:

Classes of Actions prescribe the level of documentation required in the NEPA process, including Class I, Class II, and Class III.

Class I EIS are prepared when the Administration determines that the action is likely to cause significant impacts on the environment.

Class II CEs are actions that, based on experience with similar actions, do not individually or cumulatively have a significant effect on the environment. These projects are categorically excluded from the requirement to prepare an EA or EIS under NEPA.

Class III EAs are prepared when an action is not a CE and does not clearly require the preparation of an EIS, or where SDDOT or FHWA believes an EA would assist in determining the significance of impacts and the need for an EIS.

Emergency relief funds from FHWA are for the repair or reconstruction of Federal-aid highways and roads on Federal lands which have suffered serious damage as a result of (1) natural disasters or (2) catastrophic failures from an external cause. Refer to 23 United States Code (USC) 125.

Authorization:

The class of action is a term used by FHWA to prescribe the level of documentation required under the NEPA process (23 CFR 771.115).

Introduction

During a scope review, the Environmental Supervisor or their designee consider the project extent, location, and potential for environmental impact. Once the review is complete, a class of action determination is made and documented. If the class of action falls into the limits of the Programmatic Agreement between FHWA and SDDOT Regarding the Processing of Actions Classified as Categorical Exclusions for Federal-Aid Highway Projects (PCE), then coordination proceeds per section 2.3.2. When the class of action is anticipated to be an EA or EIS, the class of action is recommended to FHWA. FHWA then concurs or recommends changes to the class of action determination. The class of action made on the project determines the level of environmental review required: Class I EIS, Class II CE, or Class III EA. As more information is gathered about the project, the class of action may be revised if impacts are different than originally anticipated.

Overview of the SDDOT Class of Action Process

The vast majority of SDDOT transportation projects fall into Class II (CEs) and are prepared according to the PCE Agreement. This agreement was entered into between SDDOT and FHWA to streamline the decision-making process by "establishing procedures to expeditiously and efficiently process actions that are excluded from the requirements to prepare either an EIS or an EA." The discussion of NEPA procedures below is tailored for projects for which FHWA is serving as the lead federal agency (as is the case for the majority of SDDOT projects that involve FHWA funding or approvals). For projects with a different USDOT Modal Administration as the lead agency (such as Federal Railroad Administration (FRA), FTA, or FAA), different procedures apply, and the user should refer to the applicable laws and regulations of the lead agency. For example, although FTA and FRA NEPA regulations are also contained in 23 CFR 771, FTA and FRA are not parties to FHWA-SDDOT PCE Agreement and thus the PCE procedures could not be used for an FTA or FRA project.

The procedures for the SDDOT class of action determination are illustrated in Figure 2.3-1, summarized in Table 2.3-1, and described in further detail throughout this section.

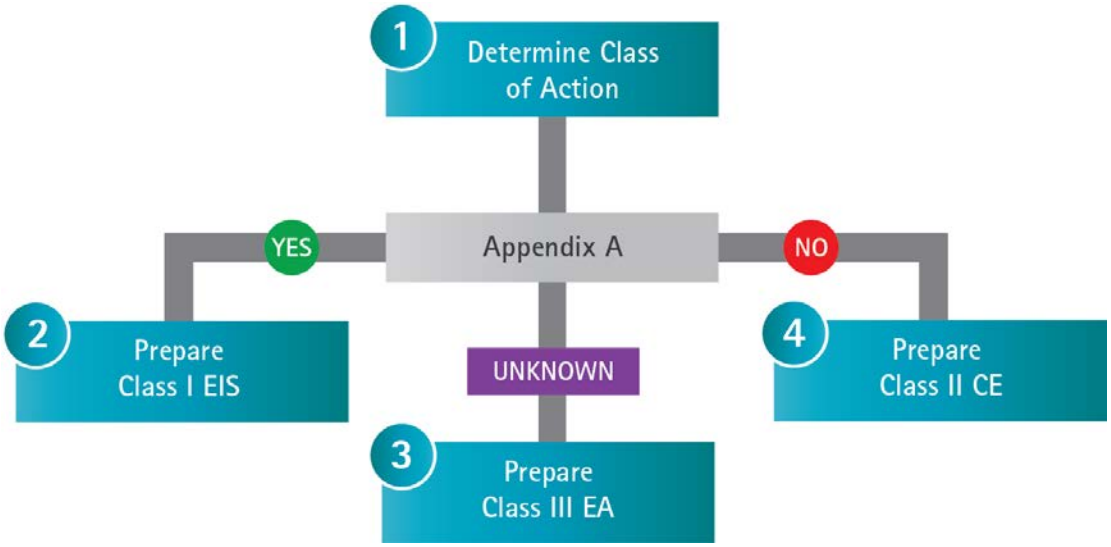

Figure 2.3-1 Class of Action Determination

Table 2.3-1 Steps in the Class of Action Determination Process

Step	Participant(s)	Result(s)
1. Determine Class of Action	Environmental Supervisor/Environmental Engineer, FHWA (as required)	Determination of level of documentation required for NEPA process
2. Prepare Class I EIS	EPC, FHWA, and Consultants (as required)	Draft EIS, Final EIS, Record of Decision
3. Prepare Class III EA	EPC, FHWA, and Consultants (as required)	EA, FONSI or if there is a significant impact, prepare an EIS
4. Prepare Class II CE	EPC	Designation of CE1, CE2, or CE3

Notes: CE – Categorical Exclusion, ECC – Environmental Commitments Checklist, EA – Environmental Assessment, EIS – Environmental Impact Statement, EPC – Environmental Project Coordinator, FHWA – Federal Highway Administration, FONSI – Finding of No Significant Impact, NEPA – National Environmental Policy Act

Class of Action Process Description

Step 1. Determine Class of Action

The primary determining factor in deciding the type of environmental document and process to use for a project is whether the proposed transportation project is a federal action that would significantly affect the quality of the human environment. The Environmental Supervisor, Environmental Engineer, or their designee evaluates the

available information to determine the type of NEPA documentation required, or in other words, the class of action and its associated documentation.

- Class I actions significantly affect the environment and require an EIS. Examples of Class I actions that normally require an EIS include new controlled access freeway and a highway project with four or more lanes on new location (23 CFR 771.115).
- *Class II* actions (CEs) that do not individually or cumulatively have a significant environmental effect are excluded from the requirement to prepare an EA or EIS. A list of categorically excluded actions and requirements/exceptions associated with their use is provided at 23 CFR 771.117 and in the PCE Agreement. If the proposed project falls into the category of a CE, the EPC makes a further determination on the type of CE, in accordance with the PCE. This class of action determination is recommended to FHWA and is ultimately approved by the environmental engineer early in scoping and planning.
- All actions that are not Class I or Class II are Class III and require an EA. If while preparing the EA, it is determined that significant impacts will result, an EIS is prepared. A FONSI is prepared when the impacts identified are not found to be significant.

Step 2. Prepare Environmental Impact Statement

An EIS is prepared when there is a significant impact to the quality of the human environment anticipated from the proposed transportation project that is a federal action. An EIS is a full disclosure document that details the process through which a transportation project was developed, considers a range of reasonable alternatives, analyzes the potential impacts resulting from the alternatives, and demonstrates compliance with other applicable environmental laws and executive orders. Section 2.4.2 describes the process and components of an EIS.

Step 3. Prepare Environmental Assessment

An EA is prepared if the significance of an impact is uncertain. If an action is not a Class I EIS or a Class II CE, then it is deemed as a Class III EA. SDDOT, in coordination with FHWA, will proceed with the preparation of an EA. If it is found that significant impacts will result, the preparation of an EIS will commence. Section 2.4.4 describes the process and components of an EA.

Step 4. Prepare Categorical Exclusion

A CE is prepared if there are no significant impacts, either individually or cumulatively on the human environment. In accordance with the PCE between SDDOT and FHWA, SDDOT prepares the required documentation. Further determination on the type of CE results in an identification as a batch CE1, CE2, or FHWA CE3, as identified in Step 5, Step 7, and Step 8. Section 2.4.3 describes the process and components of a CE.

2.4 National Environmental Policy Act Documentation

To effectively carry out the NEPA process, complete and relevant environmental documentation promoting public involvement and interagency coordination is essential in evaluating projects. The results of the analysis and the effects of project implementation on the environment must be disclosed and comments solicited on the proposals from interested and affected parties. The conclusion of the NEPA process results in a decision that addresses all concerns identified under the NEPA umbrella which includes all legal and regulatory requirements.

A NEPA document must be prepared in a manner that is understandable by SDDOT, FHWA, other agencies, and the public to have a fully informed decision-making process. In 2006, American Association of State Highway and Transportation Officials (AASHTO) and American Council of Engineering Companies in cooperation with FHWA, published a joint report, entitled "Improving the Quality of Environmental Documents." This report offers three core principles for quality NEPA documents: (1) tell the story of the project so that the reader can easily understand what the purpose and need of the project is and describe the strengths and weaknesses of alternatives; (2) keep the document as brief as possible by using clear, concise writing, an easy-to-use format, effective graphics and visual elements, and discussion of issues and impacts in proportion to their relative importance; and (3) ensure that the document meets all legal requirements in a way that is easy to follow for regulators and technical reviewers.

As discussed in the previous section, the first step in the NEPA process is determining the class of action of a proposed project. Once it is determined, SDDOT proceeds with the preparation of the NEPA document as described in this section. An overview of the classes of action, examples of projects in each, and the corresponding decision document is shown in Table 2.4-1.

Table 2.4-1 Overview of the NEPA Processes

CLASS I	CLASS II	CLASS III
Environmental Impact Statement	**Categorical Exclusion**	**Environmental Assessment**
23 CFR 771.123–127	**23 CFR 771.117 and PCE Agreement**	**23 CFR 771.119-121**
Description		
An EIS is prepared for projects where it is known that the action will have a significant effect on the environment.	CEs are issued for actions that do not individually or cumulatively have a significant impact on the environment.	An EA is prepared for actions in which the significance of the environmental impact is not clearly established.
Examples		
▪ A new, controlled access freeway	▪ Reconstruction, restoration, and resurfacing activities within the previously disturbed ROW	▪ Actions that are not clearly Class II (CE) ▪ Actions that are not clearly Class I (EIS)

CLASS I	CLASS II	CLASS III
Environmental Impact Statement	**Categorical Exclusion**	**Environmental Assessment**
23 CFR 771.123–127	**23 CFR 771.117 and PCE Agreement**	**23 CFR 771.119-121**
▪ A highway project of four or more lanes on a new location ▪ Construction or extension of a fixed transit facility that will not be located within an existing transportation ROW ▪ New construction or extension of a separate roadway for buses or high occupancy vehicles not located within an existing highway facility	▪ Routine maintenance of bridges and culverts, including bridge repairs, deck replacement or repairs, overlays, railing repair, painting, and berm repairs	▪ New construction of a highway interchange ▪ Urban construction with ROW needs ▪ Projects that are deemed controversial
Decision		
ROD, signed by FHWA. Includes summary of any mitigation measures	▪ Batched CE1 for incorporation into Quarterly Environmental Status Reports ▪ CE2 signed by SDDOT ▪ CE3 signed by SDDOT and FHWA	FONSI signed by FHWA or, if a significant impact is found, a decision to prepare an EIS

Notes: CE – Categorical Exclusion, EA – Environmental Assessment; EIS – Environmental Impact Statement, FONSI – Finding of No Significant Impact, FHWA – Federal Highway Administration, ROD – Record of Decision, ROW – Right-of-Way, SDDOT – South Dakota Department of Transportation

Common Definitions:

Lead agency is the federal agency responsible for approving the environmental document under NEPA. Considerations in identifying the lead agency where multiple federal agencies are involved in an action are provided at 40 CFR 1501.5. For FHWA projects, SDDOT or a local governmental entity applicant that is expected to be a direct recipient of funds under title 23 USC or chapter 53 of title 49, USC for the action must serve as a joint lead agency with FHWA in accordance with 23 USC 139, and may prepare environmental review documents if FHWA furnishes guidance and independently evaluates the documents

Cooperating agency is another agency that has jurisdiction by law or special expertise on the proposed action and are invited by the lead agency. Cooperating agencies may assist in writing sections of the documents utilized in project decision making (40 CFR 1501.6). Cooperating agencies may adopt the lead agency's environmental document to satisfy NEPA compliance for their approval of the project (such as issuance of a permit).

Participating agency refers to a Federal, State, local, or federally recognized Indian Tribal governmental unit that may have an interest in the proposed project and has accepted an invitation to be a participating agency or, in the case of a Federal agency, has not declined the invitation in accordance with 23 USC 139(d)(3).These agencies may provide review and comment on the project (23 CFR 771.107).

The following sections provide information on the basic components of preparing a Class I EIS, Class II CE, and Class III EA.

2.4.1 Emergency Relief

Roads and bridges on Federal-aid highways that are damaged as a direct result of a natural disaster or catastrophic failure from an external cause are eligible for emergency relief funds. The emergency relief program generally provides funding to repair and restore highway facilities to pre-disaster conditions. Emergency relief funds are not intended to replace other federal-aid, state, or local funds for new construction, to correct non-disaster related deficiencies, or to otherwise improve highway facilities.

2.4.2 Class I Environmental Impact Statement

EISs are known as Class I actions and are required for transportation projects that significantly affect the environment. This section defines what constitutes the need for an EIS and provides an overview of the process of completing an EIS and the contents of an EIS, including the decision document.

EISs are prepared less often, because most projects do not have a significant impact on the environment. As appropriate, a consultant qualified in the preparation of NEPA

documents may be engaged to support the department and FHWA throughout the NEPA process. Generally, FHWA will be the lead agency with SDDOT being a joint lead agency. All other agencies that will be part of the review process are designated at two levels: participating or cooperating.

Additional information can be found in 40 CFR 1500–1508 and other guidance issued by the Council on Environmental Quality (CEQ), AASHTO's Practitioner's Handbook 9 and 15, and FHWA's Environmental Toolkit. Following are the major components and steps of an EIS.

Environmental Impact Statement Process

The EIS process is set forth in the implementing regulations of NEPA (40 CFR Part 1502 and 23 CFR 771.123-127). The primary purpose of an EIS is to serve as an action-forcing device to ensure that the policies and goals defined in NEPA are infused into the ongoing programs and actions of the federal government. The major steps in the EIS process include the Notice of Intent (NOI), scoping, draft EIS (including preliminary draft, draft and final draft), public comment, and final EIS and ROD. Figure 2.4-1 illustrates the EIS preparation process. The environmental process description below incorporates the changes to 23 USC 139 enacted under the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for User (SAFETEA-LU), Moving Ahead for Progress in the 21st Century Act, and the FAST Act, and the Final Rulemaking on changes to FHWA's environmental regulations at 23 CFR 771 (effective November 28, 2018). Note that the 23 USC 139 environmental review process is only required for EISs.

Project Initiation Letter

Per 23 USC 139(e), SDDOT or the local project sponsor must notify FHWA of the project and request FHWA to initiate the environmental review process. The minimum requirements for a project initiation letter include type of work, termini, length and general location of the proposed project, together with a statement of any Federal approvals anticipated to be necessary for the proposed project. SDDOT may include the draft NOI in the project initiation letter package. FHWA has 45 days to respond to the project initiation letter by initiating the EIS process, by denying the request or by requesting additional information.

Notice of Intent

An EIS is initiated with the publication of an NOI. A draft NOI is submitted to FHWA or the lead federal agency, which is responsible for publishing it in the Federal Register. The NOI will be used as a tool to officially begin the EIS process. At a minimum, the NOI will briefly describe the proposed project and possible alternatives, provide a brief purpose and need, note any proposed scoping meetings, and provide a contact person with the lead agencies.

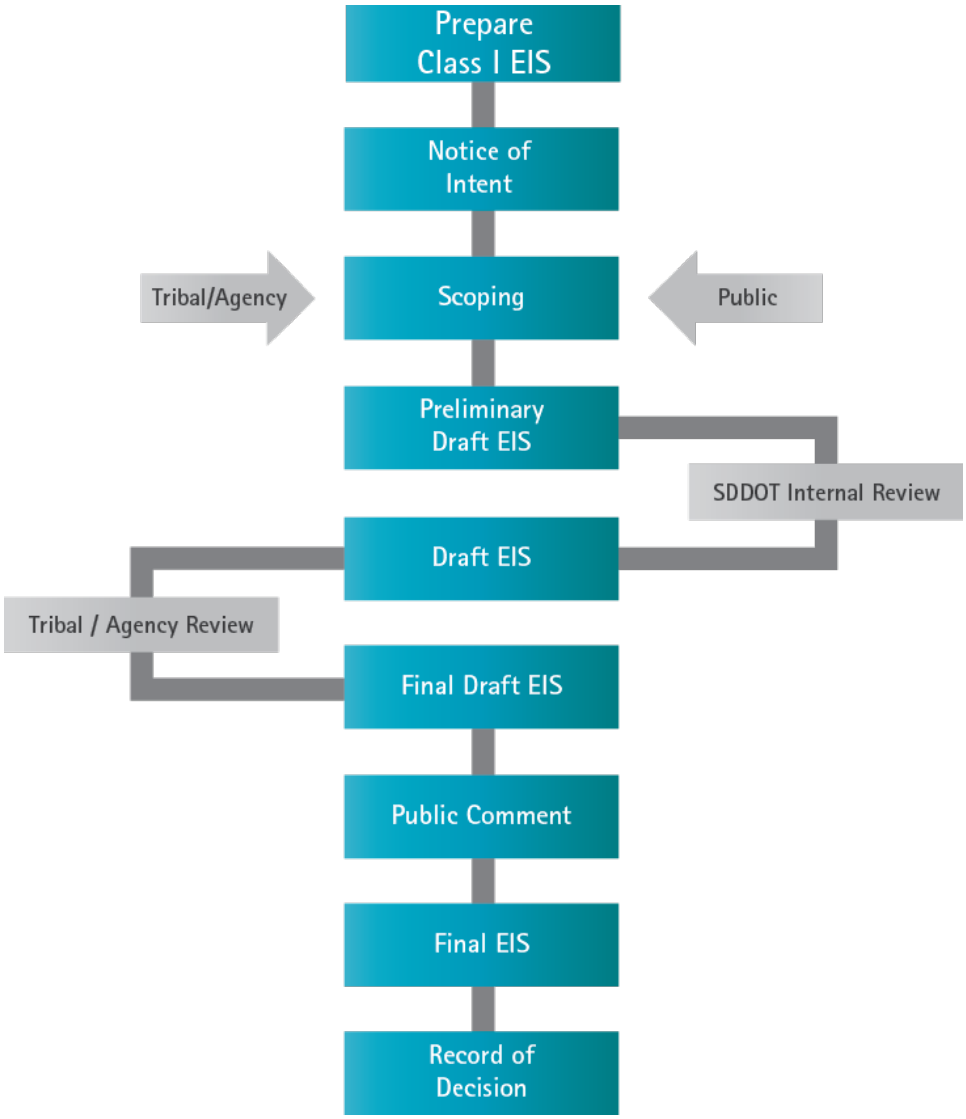

Figure 2.4-1 EIS Preparation Process

Coordination Plan

Within 90 days after the publication of an NOI, the lead agency (or agencies) are required to establish a Coordination Plan for agency participation and comment (23 USC 139(g)). A key objective of the Coordination Plan and related requirements is to identify and resolve environmental issues early in the process to prevent project delays. The Coordination Plan should contain the following information:

- **Identification of Cooperating and Participating Agencies**. The coordination plan should identify the cooperating and participating agencies, and the process by which agencies were identified and invited. Participating agency refers to state federal, local or tribal organizations with an interest in the project. The lead agency must identify participating agencies no later than 45 days after the date of publication of an NOI.

Cooperating agencies reflect a higher level of involvement (jurisdiction by law or special expertise). By definition, all cooperating agencies are also participating agencies, not all participating agencies are cooperating agencies. For example, USACE may be a cooperating agency because of its jurisdiction over a Section 404 permit required for a project and would also function as participating agency. A County government where the project is located may be interested in the project, but if it does not have any legal jurisdiction over the project (and thus could not be a cooperating agency) it could still be involved in the process as a participating agency.

- **Environmental process schedule** (requires consultation and concurrence of participating agencies). The schedule must be made available to all participating agencies, the state Department of Transportation (DOT), the project sponsor and made available to the public.
- **Comment deadlines**. Most comment periods (such as agency review of initial technical reports or administrative drafts of the EIS) are limited to a maximum of 30 days. The maximum comment period allowed for a published DEIS is 60 days. These deadlines can be extended if certain conditions are met, such as by through agreement between the lead agency, project sponsor and participating agencies.
- **Public involvement plans**. While not required by statute, it is a good practice to include information on the approach to public outreach for the project in the coordination plan (such as public information meetings, project website, mailings and other outreach activities)

Scoping

The scoping process is used to identify the purpose and need, the range of alternatives and impacts, and the significant issues to be addressed in the EIS and to achieve the other objectives of 40 CFR 1501.7. Scoping is normally achieved through public and agency involvement procedures required by 23 CFR 771.111. If a scoping meeting is to be held, it should be announced in the notice of intent and by appropriate means at the State or Local Level Scoping is the first major public outreach effort inviting public and governmental agency participation and should clearly be defined as part of the project Public Involvement Plan and/or Coordination Plan.

Draft Environmental Impact Statement

The draft EIS documents the results of studies conducted on the social, economic, and environmental impacts of all alternatives under consideration. Thus, all reasonable alternatives must be identified and analyzed, and compliance with applicable state and local environmental regulations must be demonstrated in accordance with NEPA. The analysis for each of the alternatives should identify the type and severity of environmental impacts anticipated, how adverse impacts have been avoided, and the measures to minimize and/or mitigate unavoidable impacts.

SDDOT employs intermediate steps in the draft EIS to ensure a full review by EO staff, agencies, and Tribes:

- Preliminary draft—for SDDOT internal review
- Draft—for agency and Tribal review
- Final draft—for public comment

Final Environmental Impact Statement/Record of Decision

The final EIS identifies the preferred alternative (if the draft did not) and summarizes and responds to all substantive comments received during the draft EIS circulation period and public hearing(s). It must demonstrate compliance with all applicable environmental laws and Executive Orders and the mitigation measures incorporated in the proposed action. The document also will note where the EIS was changed in response to comments, and any other changes or corrections. The final EIS may take the form of an errata sheet pursuant to 23 USC 139(n)(1) and 40 CFR 1503.4(c).

Unless there are substantial changes to the project relevant to environmental or safety concerns, or significant new circumstances relevant to environmental concerns since the DEIS was prepared, a combined final EIS and ROD must be issued (23 CFR 771.124). The ROD identifies the selected alternative, presents the basis for the decision, and identifies all the alternatives considered, specifies the "environmentally preferable alternative," and provides information on the adopted means to avoid, minimize, and compensate for environmental impacts.

Environmental Impact Statement Contents

The standard EIS format includes the major chapters listed below, prefaced by a cover sheet, summary, and table of contents (40 CFR 1502.10). The layout provided is intended as informational, the EPC should use the best information available to layout the EIS document to fit the project in question. Additional information is available in FHWA's 1987 Technical Advisory T 6640.8A and the AASHTO Practitioners handbooks.

Chapter 1: Purpose and Need

The purpose and need section of an EIS is one of the most important and should therefore be clear and well documented. The purpose and need drives the development of the range of alternatives. Some of the common needs include transportation demand, safety, legislative direction, urban transportation plan consistency, modal interrelationships, system linkage, and the condition of an existing facility.

Chapter 2: Alternatives

The alternatives section describes the process that was used to develop, evaluate, and eliminate potential alternatives based on the purpose and need of the project. The discussion should include how alternatives were selected for detailed study, the reasons why some alternatives were eliminated from consideration, and how the alternatives meet the need for the project and avoid or minimize environmental harm. In developing

alternatives, it is important to consider the requirements of 23 CFR 771.111(f), which states that projects must connect logical termini, have independent utility, and not restrict the consideration of future transportation alternatives.

In the draft EIS, all reasonable alternatives should be discussed at a comparable level of detail. There is no requirement at this stage to have a "preferred" alternative.

Chapter 3: Affected Environment

The affected environment section provides information on the existing resources and condition of the environment. Generally, this section should focus on the important issues to provide an understanding of the project area relative to the impacts of the alternatives. The affected environment should discuss, commensurate with the importance of the potential impacts, the existing social, economic, and environmental settings surrounding the project. It should also identify environmentally sensitive features in the project corridor.

Chapter 4: Environmental Consequences

The environmental consequences section describes the impacts of project alternatives on the environment and documents the methodologies used in evaluating these impacts. Information in this section is used to compare project alternatives and their impacts, indirectly, directly, and cumulatively. This section should describe in detail both the impacts of the proposed action and the potential measures that could be taken to mitigate these impacts. Mitigation must be considered for all impacts, regardless of their significance. Environmental impacts should be discussed in terms of their context and intensity.

Other Environmental Impact Statement Content Requirements

Comments and Coordination—The EIS must summarize the scoping process, the results of any meetings that have been held, and any comments received during preliminary coordination. Between the draft and final EIS, the state DOT and FHWA must consider and respond to all substantive comments received on the draft EIS, including those from public hearings. The final EIS must include copies of the comments received and the agencies' responses. If comments are voluminous, they may be summarized. If the EIS was changed in response to comments, changes should be referenced in the responses.

List of Preparers—This section includes a list of the individuals primarily responsible for preparing the EIS or technical reports. Preparers are identified by name, qualifications, expertise, experience, and professional discipline.

2.4.3 Class II Categorical Exclusion

CEs are known as Class II actions, a category of actions that do not individually or cumulatively have a significant effect on the human environment and which have been found to have no such effect in procedures adopted by a Federal agency in implementation of these regulations and for which, therefore, neither an EA nor an EIS is required (40 CFR 1508.4). This section defines CEs and the types of CEs and provides an overview of the Programmatic Agreement with FHWA for determining CEs.

CEs are actions that meet the definition contained in 40 CFR 1508.4, and, based on experience with similar actions, do not involve significant environmental impacts, as defined in the previous section. They are actions that do not (1) induce significant impacts to planned growth or land use for the area, (2) require the relocation of significant numbers of people; (3) have a significant impact on any natural, cultural, recreational, historic or other resource; (4) involve significant air, noise, or water quality impacts; (5) have significant impacts on travel patterns; and (6) otherwise, either individually or cumulatively, have any significant environmental impacts (23 CFR 771.117[a]).

Any action that normally would be classified as a CE, but involves unusual circumstances as described in Step 5, will require SDDOT in cooperation with the applicant to conduct appropriate environmental studies to determine if the CE classification is proper.

Instructions for SDDOT Categorical Exclusion Checklist and Environmental Commitments Checklist provides the preparer of a CE and its accompanying Environmental Commitments a step-by-step guide. Refer to Chapter 3 for guidance on consideration of resources.

The procedures for the SDDOT Class II CE are illustrated in Figure 2.4-2, summarized in Table 2.4-2, and described in further detail below.

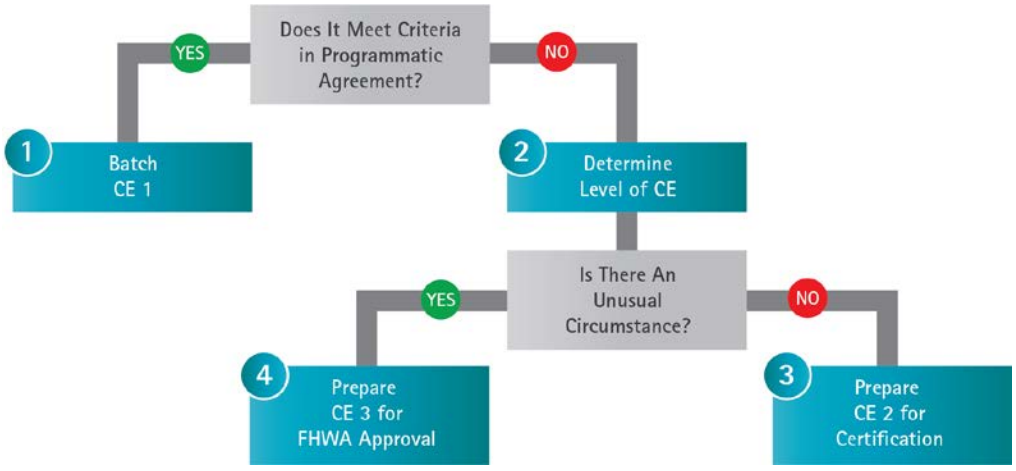

Figure 2.4-2 Class II Categorical Exclusion

Table 2.4-2 Steps in the Class II Categorical Exclusion

1. Batch CE1	EPC	Documentation in project file
2. Determine level of CE	EPC, Resource Agencies, other environmental specialists	Determination of unusual circumstance and CE approval threshold
3. Prepare CE2	EPC, Environmental Engineer	SD DOT signs the CE, documentation in ECC and CE Checklist
4. Prepare CE3 for FHWA approval	EPC, FHWA Environmental Engineer	Certification of CE, documentation for FHWA review, FHWA approval

Notes: CE – Categorical Exclusion, ECC – Environmental Commitments Checklist, EA – Environmental Assessment, EIS – Environmental Impact Statement, EPC – Environmental Project Coordinator, FHWA – Federal Highway Administration, FONSI – Finding of No Significant Impact, NEPA – National Environmental Policy Act

Class II Categorical Exclusion Description

Step 1. Batch Categorical Exclusions 1

Batch Approved CEs (or CE1) do not require FHWA approval. CE1 designation occurs when the type of transportation project is identified in the Appendix A of the PCE, which is based on a subset of actions listed in 23 CFR 771.117(c) and (d). If an action or project is in Appendix A and meets the following administrative conditions, the CE can be "batched" by SDDOT. The administrative conditions are as follows:

- Undertaking is on an existing transportation facility
- Undertaking is within previously disturbed ROW and all disturbance to previously placed fill material will not exceed the depth of the previously placed fill material
- Undertaking may involve waters of the U.S., but is limited to those approved under a Nationwide Permit
- Undertaking has no known public controversy
- Undertaking is limited to the activities (in the appendix) and not part of a larger project
- Undertaking will not require tree clearing

Step 2. Determine Level of Categorical Exclusion

If the CE does not fall into a CE1 designation, the proposed transportation project must be evaluated further to determine if CE2 or SDDOT-approval is applicable. CE2 status requires confirmation that there are no unusual circumstances and the "CE Approval Threshold" is not exceeded by completing the CE Checklist. Additional information is gathered during the completion of the CE Checklist, described further in Chapter 3. If the CE meets the PCE CE approval threshold and there are no unusual circumstances, the CE will be prepared and signed by SDDOT as a CE2. If the CE does not meet the PCE CE approval threshold or there are unusual circumstances, the CE will be prepared and signed by SDDOT as a CE3 and then forwarded to FHWA for review and approval.

Consideration of unusual circumstances includes whether the action or project might result in:

- Significant environmental impacts
- Substantial controversy on environmental concerns
- Significant impacts on properties protected by Section 4(f) of the USDOT Act (23 USC 138 and 49 USC 303) or Section 106 of the NHPA
- Inconsistencies with any federal, state, or local law, requirement, or administrative determination relating to the environmental aspects of the action

The CE approval thresholds are listed below (an exceedance of any of the thresholds means the project does not qualify for CE2).

Step 3. Prepare Categorical Exclusion 2

As described in Step 2, if there are no circumstances requiring further study, SDDOT will prepare and have the CE2 signed by Environmental office staff, using the CE Checklist.

Step 4. Prepare Categorical Exclusion 3 for Federal Highway Administration Approval

As described in Step 2, if an unusual circumstance occurs, or the CE does not meet the PCE approval threshold, SDDOT will prepare and send the CE Checklist to the Environmental Engineer or Supervisor for signature of the CE3, at which point the document will be sent it to FHWA for review and approval.

According to the *Programmatic Agreement between the FHWA and SDDOT Regarding the Processing of Actions Classified as Categorical Exclusions for Federal-Aid Highway Project*, at the beginning of each quarter (January, April, July, and October) SDDOT will publish the *Quarterly Environmental Status Report*. The report will include approval dates for all CEs that have been completed for projects in the current 4-year STIP. The report will also include contact information for agencies and the public to request additional information.

Programmatic Agreement for Determining Categorical Exclusions

The Programmatic Agreement allows SDDOT to determine, on behalf of FHWA, whether an action covered within the Programmatic Agreement is categorically excluded from preparation of an EA or EIS under NEPA. The Programmatic Agreement identifies the level of review to be performed based on the specific project conditions. At the end of the preparation of each CE, the documentation is filed in the Quarterly Environmental Status report, listing the environmental status of all projects by county. The information also becomes part of the project file.

- **Batched CE (CE1)**—documentation for actions that, based on experience, FHWA and SDDOT have determined do not result in significant natural or human environmental impacts and are listed in the appendix of the Programmatic Agreement. SDDOT documents in the project file (Figure 2.4-3). CE1 projects do not require completion of the CE Checklist and typically require no environmental studies.

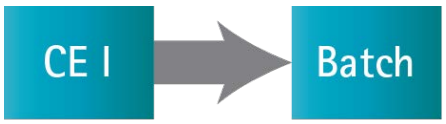

Figure 2.4-3 CE1 Preparation Process

- **Certified CE (CE2)**—documentation for actions that do not individually or cumulatively have significant human environmental impacts, do not have unusual circumstances, do not exceed the CE Approval Threshold, and are not listed in the appendix of the Programmatic Agreement. SDDOT certifies the finding and documents in the ECC (Figure 2.4-4).

Figure 2.4-4 CE2 Preparation Process

- **Approved CE (CE3**)—documentation for an action that does not individually or cumulatively have significant human environmental impacts but has one or more unusual circumstances or exceeds the CE Approval Threshold. SDDOT certifies and forwards to FHWA for review and approval (Figure 2.4-5).

Figure 2.4-5 CE3 Preparation Process

2.4.4 Class III Environmental Assessment

EAs are known as Class III actions, and are the environmental documentation required for transportation projects when it is unclear if a project should be processed as an EIS or CE. This section defines what constitutes the need for an EA and provides an overview of NEPA requirements for an EA, including its decision document.

When the significance of the impacts of a transportation project proposal are uncertain, an EA is prepared. If it is found that significant impacts will result, the preparation of an EIS and ROD should be completed. When impacts are found to not be significant, a FONSI will be prepared.

According to 40 CFR 1508.9, the EA:

a) Means a concise public document for which a federal agency is responsible that serves to:
    1. Briefly provide sufficient evidence and analysis for determining whether to prepare an EIS or a finding of no significant impact.
    2. Aid an agency's compliance with the Act when no EIS is necessary.
    3. Facilitate preparation of a statement when one is necessary.
b) Shall include brief discussions of the need for the proposal, of alternatives as required by Section 102(2)(E), of the environmental impacts of the proposed action and alternatives, and a listing of agencies and persons consulted.

FHWA must approve an EA before it is made available to the public. EAs do not need to be circulated, but they must be made available to the public through notices of availability in local, state, or regional clearinghouses, newspapers, and other means. Depending on FHWA-approved state public involvement procedures, a public meeting may or may not be required. A 30-day review period is required but may be reduced in rare circumstances.

The process for preparing an EA is shown in Figure 2.4-6.

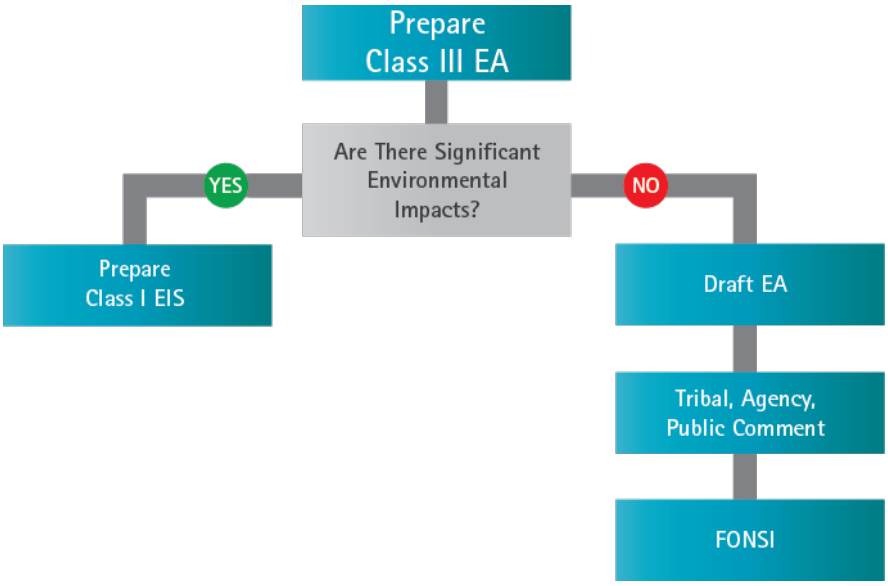

Figure 2.4-6 EA Preparation Process

After public comments are received and considered, a determination of the significance of the impacts is made:

- If at any point in the process of preparing an EA it is discovered that the project would result in significant impacts, an EIS must be prepared.
- If, after completing the EA, it is evident that there are no significant impacts associated with the project, a finding of no significant impact (FONSI) may be prepared.

Finding of No Significant Impact

If it is determined that there will be no significant impacts, a FONSI will be prepared to conclude the process and document the decision. A FONSI is issued when environmental analysis and interagency review during the EA process finds a project to have no significant impacts on the quality of the environment. The FONSI document is the EA modified to reflect all applicable comments and responses. If it was not done in the EA, the FONSI must include the selected alternative. No formal public circulation of the FONSI is required, but the FONSI is made available on the SDDOT website. In addition, FHWA recommends that the public be notified through notices in local newspapers.

2.5 Early Coordination, Public Involvement, and Tribal Coordination

SDDOT strives to ensure all federally funded transportation projects comply with NEPA and its regulations 40 CFR Parts 1500–1508, including provisions for an interdisciplinary approach in the preparation of a NEPA document and public involvement. Early coordination and public involvement efforts are designed to streamline environmental processes and develop public and agency confidence in process to develop the proposed transportation projects.

The EO works closely with other SDDOT offices in providing relevant environmental information for other public meetings associated with project planning and engineering.

This section addresses SDDOT processes involved in meeting the letter and spirit of NEPA to improve the efficiency in decision making for transportation projects. It addresses early coordination, public involvement, scoping, and Tribal consultation.

Common Definitions:

Early Coordination is the notification to other agencies, governments, and Tribes as soon as possible after a decision is made to move ahead on a proposed action. The lead agency requests initial comments to identify potential issues for the environmental review.

Public Involvement is the suite of actions that make a proposed action known to the public, including a notice of intent, public meetings, and notice of availability of environmental documents. Public comments will be requested and considered. If the NEPA action is an EIS, the comments will be addressed in the decision document.

Government-to-Government Consultation seeks early and meaningful input from Tribes by FHWA for the planning and decision-making processes for proposed actions that affect or may affect one or more Tribes. It is rooted in the special relationship between the federal government and Tribes established in the United States Constitution and recognizes and supports tribal sovereignty. It differs from what is commonly viewed as public participation in that it involves a discussion between or among sovereigns.

Tribal Consultation is a term used for communication and early coordination with Tribes about the STIP and ongoing programs and projects in South Dakota. These efforts by SDDOT fosters mutual understanding of transportation challenges and projects. It is not a substitute for government-to-government consultation mandated for federal agencies.

Authorization:

The spirit of agency, public, and Tribal involvement in projects is embodied in the implementing regulations of NEPA (40 CFR 1500–1508) and other laws, including the NHPA (36 CFR 800). FHWA has implemented various transportation laws (Moving Ahead for Progress in the 21st Century Act; Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users; and the Transportation Equity Act for the 21st Century) and Executive Orders (13175, 13274, and 13604) to achieve coordination and integration of efforts to fully understand the impacts of a proposed project during the environmental review process.

2.5.1 Planning and Environmental Linkages

Planning and Environment Linkages refers to an FHWA initiative intended to foster early consideration of environmental issues in the transportation planning process (when it is most efficient to make project adjustments to avoid or minimize issues that could cause later project delays), and to make use of information and analyses from the planning process in the NEPA process, as appropriate. For example, an alternatives analysis conducted during an initial planning study could be incorporated by reference in a NEPA document and not repeated/duplicated during NEPA if certain conditions are met. Refer to the references section for numerous resources available on the implementation of Planning and Environment Linkages.

2.5.2 Early Coordination

Early coordination efforts are determined once the class of action is determined. If the project is a Class II CE, SDDOT takes the lead in early coordination. One of the first tasks in a CE is for the EPC to contact various agencies to inquire about potential issues that might arise from the proposed project (see section 1.4.1.2, Preliminary Design Stage). If the CE is an Approved CE3, the EPC alerts FHWA because the project will ultimately require FHWA approval. If the project is a Class I EIS or Class III EA, SDDOT works closely with FHWA to develop a plan for coordination with other agencies. FHWA and SDDOT represent joint lead agencies in most cases, but there are circumstances in which other federal agencies can be the lead agency. Other federal agencies or local or Tribal governments may request to become a cooperating agency to participate more fully in the NEPA process. The lead agency may also request other agencies or governments to become a cooperating agency.

For any class of action, early coordination is most effective when the EPC identifies potential issues and brings the appropriate parties to the table for resolving concerns as soon as possible. NEPA regulations address early coordination for EIS preparation, stating that “agencies shall reduce delay by integrating the NEPA process into early planning (40 CFR 1501.2) and by emphasizing interagency cooperation before the EIS is prepared, rather than waiting for the submission of adversarial comments on a completed document (40 CFR 1501.5).”

The early coordination practiced by SDDOT is in accordance with the Transportation Equity Act for the 21st Century and enables the timely delivery of transportation projects while protecting and enhancing the environment. The "environmental streamlining" requires transportation and natural, cultural, and historic resource agencies to establish realistic timeframes for projects, and then to work cooperatively to adhere to those timeframes.

Several resource agencies have developed their own policies and procedures to assure the protection of resources. For example, the finding of effects under NHPA may require agency, Tribal, and public participation, along with research and field studies. Depending on the location of the project, either the SHPO or the THPO would be engaged to discuss the proposed project. SDDOT and FHWA work closely with the SHPO and THPO to coordinate all efforts that might be required under both NEPA and NHPA. The CEQ recently published a document, called "NEPA and NHPA: a Handbook for Integrating NEPA and 106" and AASHTO Practitioners handbook 06 was also developed to assist agencies in efficiently managing environmental commitments.

2.5.3 Public Involvement

NEPA regulations require agencies to "make diligent efforts to involve the public in preparing and implementing their NEPA procedures" (40 CFR 1506.6). In its effort to implement the spirit and letter of NEPA, SDDOT follows its Public Involvement Plan, which provides guidance for effective public involvement for many transportation project types and stages. Depending on the project activity, specific suggestions and requirements are recommended.

The Public Involvement Plan includes information for public meetings required for (1) the adoption of the STIP; (2) various stages of a project, including project development, design and ROW; and (3) Tribal consultation. While each meeting is designed to inform the outcome of the subject of that meeting, SDDOT considers all the public input from all meetings as a body of knowledge that assists in making informed decisions.

Public Hearings and Public Meetings

Public hearings and public meetings offer the public an opportunity to comment about a proposed project. SDDOT evaluates the potential interest in a project and determines the type of meeting that would be most appropriate. In evaluating the type of meeting, consideration is given to potential controversy about the proposed project, level of interest, or a request by another agency with jurisdiction in the project (40 CFR 1506.6). For SDDOT projects, public meetings are the most common form of collecting comments. Public hearings are much less common but are required in relation to a draft EIS.

When SDDOT or FHWA determine that the potential for public controversy to be minimal or non-existent, a Notice of Opportunity for a Public Hearing may be used rather than directly scheduling a hearing. Individual meetings with affected parties may be held to explain the project and answer any questions. Criteria are also given in the Public Involvement Plan when a public hearing or meeting can be waived.

Public Hearing—*A structured meeting between SDDOT and the "public" audience. A project team of experts explain the project to the audience. The audience, one at a time, responds with comments and questions. The hearing activities are formally recorded and entered into a hearing record.*

Public Meeting—*An informal public hearing/open house is conducted that may include a map showing or project briefing. The public may arrive at various times, be given a brief explanation of the project, and then directed to project design team members for one-on-one explanations and discussions about specific questions and concerns.*

The Public Involvement Plan provides information to the EPC on the logistics and framework for holding a public meeting including:

- Required for both public hearing and public meeting:
  - Publication requirements
  - Notification recommendations
  - Locations for posting
  - Notice contents, including type of meeting, date and time, location, and Americans with Disabilities Act provisions
  - Press releases and/or paid advertising
  - Notification of public officials
  - Information to provide at the public hearing/meeting
  - Procedures for oral and written comments, including comment forms and comment periods
  - Registration
- Additional requirements for a public hearing:
  - Legal notice of availability of the document and where it could be obtained
  - Third party hearing officer
  - Official transcript
  - Public meeting records

If a public meeting is warranted, SDDOT and FHWA make a further decision on the type of meeting to be held.

2.5.4 Tribal Consultation

> *"Our study found that the most successful programs involve tribes at the earliest stages and continue that involvement through project delivery. Participants operate with respect, promote relationship building, understand the government-to-government trust relationship, and are knowledgeable in tribal culture and history."*
> *Successful Practices for Effective Tribal Consultation (National Cooperative Highway Research Program)*

Tribal consultation is conducted for all transportation projects that may be of interest to a Tribe in South Dakota and with Tribes with aboriginal ties to lands in South Dakota, particularly the Black Hills. Because many of the projects involve federal funding, FHWA works closely with SDDOT to conduct regular and meaningful consultation with Tribes, in accordance with Executive Order 13175 on Tribal Consultation. This order mandate s agency consultation with Indian Tribes regarding federal policies that have Tribal implications and requires each federal agency to prepare its own plan for carrying out consultation. The USDOT issued its own Tribal Consultation Plan, which guides all projects within USDOT operating administrations, including FHWA. Working with FHWA, SDDOT developed Tribal consultation procedures that are included in the Public Involvement Plan and Stewardship Agreement.

Nine Tribes are located in South Dakota—Cheyenne River Sioux Tribe, Crow Creek Sioux Tribe, Flandreau Santee Sioux Tribe, Lower Brule Sioux Tribe, Oglala Sioux Tribe (Pine Ridge Reservation), Rosebud Sioux Tribe, Sisseton Wahpeton Oyate (Lake Traverse Reservation), Standing Rock Sioux Tribe, and Yankton Sioux Tribe (see Figure 2.5-1).

SDDOT implements its policy on Tribal consultation through annual consultation meetings. SDDOT also consults on a project-by-project basis. This ongoing and project-specific consultation process keeps communications between SDDOT and the Tribes open and enhances the opportunity for meaningful communications and coordination on transportation projects.

Source: South Dakota Department of Tribal Relations

Figure 2.5-1 Map of Indian Reservations in South Dakota

Annual Consultation Meetings

SDDOT has recognized the importance of meeting with South Dakota Tribes on an ongoing basis to discuss current and upcoming projects and to listen to any concerns regarding transportation issues. Each year, SDDOT and FHWA schedules meetings with each Tribe in South Dakota at the Tribal headquarters or their choice of venue on the reservation. Typical topics of discussion include:

- Current STIP projects
- Coordination procedures
- Discussion of EIS/EA projects individually
- Review of Listed Batch and other CE projects
- Projects with Tribal construction monitors

If a Tribe wishes to enter into formal consultation, it may request a government-to-government meeting with FHWA. During the annual consultation meeting, issues may be raised by a Tribe for further study. Generally, the Environmental Supervisor leads the SDDOT team, and the FHWA joins the delegation for the annual meeting.

Project-specific Tribal Consultation

When a specific transportation project is under consideration, SDDOT and FHWA use a list developed and maintained by FHWA to notify interested Tribes through formal written contact about the upcoming project, as shown in Table 2.5-1. In some cases, an ethnographic profile of associated tribes (historic context) helps determine “the who” in any project. Other agencies, such as the U.S. Department of Agriculture, Forest Service, maintain lists of Tribes with interests in given geographic areas. These efforts help ensure that the appropriate Tribes are notified about transportation projects. However, if a Tribe provides information about ties to the project area not discovered during the historical research, SDDOT may add them as an interested Tribe. FHWA also maintains a list of Tribal chairmen/chairwomen, presidents, and THPOs for notifications.

Table 2.5-1 Counties of Interest for Tribes in and near South Dakota

Tribe	Counties of Interest
Cheyenne River Sioux Tribe	All counties west of the Missouri River
Chippewa Cree Tribe	All counties
Crow Creek Sioux Tribe	Beadle, Brown, Buffalo, Clark, Codington, Faulk, Hand, Hughes, Hyde, and Spink
Flandreau Santee Sioux Tribe	Brookings, Lake, Lincoln, Minnehaha, Moody, and Union
Lower Brule Sioux Tribe	All counties
Northern Arapaho Tribe of Wyoming	Butte, Custer, Lawrence, Meade, Pennington
Oglala Sioux Tribe	All counties west of the Missouri River
Rosebud Sioux Tribe	Gregory, Mellette, Todd, and Tripp
Sisseton-Wahpeton Oyate	All counties
Standing Rock Sioux Tribe	All counties
Yankton Sioux	All counties
Iowa Tribe of Oklahoma	Clay, Lincoln, Turner, Union
Three Affiliated Tribes	All counties
Ponca Tribe of Nebraska	Bon Homme, Charles Mix, Clay, Custer, Douglas, Fall River, Gregory, Lawrence, Lincoln, Minnehaha, Pennington, Union, and Yankton

As part of the early coordination and scoping of a project, a written notification is sent to the Tribes with a potential interest in a transportation project. If a response is not received from the Tribe(s) within 30 days, SDDOT will proceed with advancing the project. This information will be included in the NEPA document, environmental project tracking database, and project file.

In addition to notification at the start of a project, SDDOT or FHWA notifies Tribal officials about public meetings regarding projects in counties of interest to Tribes. Tribal officials may initiate discussion when they identify a property of Tribal spiritual or cultural significance during any stage of a project. If there are significant issues identified for a project, consultation under Section 106 is conducted (see section 3.3). NEPA and NHPA requirements may be considered together as part of the early considerations and environmental streamlining discussed previously. Tribal officials are notified immediately of any disturbances that affect sensitive properties of interest to them.

On-reservation Projects—SDDOT and FHWA work with the THPO and other appropriate Tribal officials when a transportation project is wholly or in part within the exterior boundaries of a reservation. All requirements under NEPA and NHPA will be coordinated with the Tribe as part of the Tribal consultation process, early coordination, and scoping.

Off-reservation Projects—SDDOT will work with the SHPO when there is a potential to disturb a property of Tribal spiritual or cultural significance. Through the consultation processes, SDDOT, FHWA, and SHPO may develop a plan for working with Tribes for addressing and resolving issues under NEPA and NHPA. The plan may include additional studies to further understand the resource of cultural significance.

2.6 Environmental Review Processes Laws, Regulations, and Guidance

Laws, regulations, and guidance relevant to environmental review processes are presented by agency, with executive orders presented first. The list is not all inclusive; a complete list may be found at Federal-aid Highway Program Policy and Guidance.

Executive Orders

Executive Order 13175: Consultation and Coordination with Indian Tribal Governments (2000)—This Executive Order 13175 directs federal agencies to respect tribal self-government and sovereignty, Tribal rights, and Tribal responsibilities whenever they formulate policies "significantly or uniquely affecting Indian Tribal governments." The executive order applies to all federal agencies other than those considered independent federal agencies, encouraging "meaningful and timely" consultation with Tribes, and consideration of compliance costs imposed on Tribal governments when developing policies or regulations that may affect Native American Tribes.

Executive Order 13604: Improving Performance of Federal Permitting and Review of Infrastructure Projects—Executive Order 13604 reinforces that federal permitting and review processes be conducted with maximum efficiency and effectiveness, ensuring the

health, safety, and security of communities and the environment while supporting vital economic growth. The executive order also directs that these processes must be transparent, consistent, and predictable, and that agencies should set and adhere to timelines and schedules for completing reviews, as well as set and track progress against performance goals.

Executive Order 13274: Environmental Stewardship and Transportation Infrastructure Project Reviews—Executive Order 13274 emphasizes the importance of expedited transportation project delivery while being good stewards of the environment. The executive order complements and reinforces the strategic direction that FHWA established in its Environmental Stewardship and Streamlining Vital Few Goal.

Council on Environmental Quality

40 CFR Chapter V are the regulatory requirements for compliance with NEPA, which authority was passed as the Environmental Quality Improvement Act of 1970, as amended (42 USC 4371 *et seq.*), Section 309 of the CAA, as amended (42 USC 7609) and Executive Order 11514, March 5, 1970, as amended by Executive Order 11991, May 24, 1977).

Advisory Council on Historic Preservation

16 USC 470 and ***36 CFR Part 800***—These sections provide coordination recommendations for NEPA and NHPA. They also include requirements for consultation with Tribes and define the THPO, as the tribal official appointed by the tribe's chief governing authority or designated by a tribal ordinance or preservation program who has assumed the responsibilities of the SHPO for purposes of Section 106 compliance on tribal lands, which are defined as all lands within the exterior boundaries of any Indian reservation and all dependent Indian communities.

Federal Highway Administration

Environmental Impact and Related Procedures for FHWA—23 CFR Part 771 contains transportation-specific regulations for implementing NEPA, including the classes of actions and expected contents and procedures for completing environmental documentation.

23 USC 139**: Efficient environmental reviews for project decision-making—**23 USC 139 incorporates changes through the FAST Act.

FHWA Environmental Review Toolkit—NEPA and Project Development. https://www.environment.fhwa.dot.gov/nepa/nepa_projDev.aspx.

Technical Advisory (T 6640.8A): Guidance for Preparing and Processing Environmental and Section 4(f) Documents—The Technical Advisory provides detailed information on the contents and processing of environmental documents.

U.S. Department of Transportation

USDOT Order 5301.1 on Department of Transportation Programs, Policies and Procedures Affecting American Indians, Alaska Native and Tribes (1999)—This USDOT order ensures that programs, policies, and procedures administered by the USDOT are responsive to the needs and concerns of Native Americans, Alaska Natives, and Tribes.

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3.0 ENVIRONMENTAL ANALYSIS

Environmental Analysis covers much of the human environment, addressing natural, physical, cultural, and community resources. SDDOT and, when appropriate, FHWA analyze the current condition of resources to understand the possible impact that proposed transportation projects may have on them. The procedures for analyzing impacts to the resources are set forth in Chapter 3, including aquatic resources, threatened and endangered species, historical and archeological resources, Section 4(f) resources, Section 6(f) resources, economic and social analysis, and other resources.

Environmental analysis is documented in several methods throughout the process, these may include, but are not limited to, the CE Checklist, ECC, EA, and EIS. The resource analyses are used to identify the direct, indirect and cumulative impacts of proposed projects. The level of analysis of any given resource depends on the type and location of a transportation project. For example, if a repair and maintenance project has no potential for significant impacts, a review of the impact to environmental resources may be a review of key elements and documentation in a CE Checklist. However, if a project is a structure replacement involving waters of the United States in Topeka shiner habitat, more in-depth study and documentation would be required to ensure appropriate environmental commitments are identified and implemented for the project.

Chapter 3 will assist in understanding the procedures required at any level of environmental analysis in the planning of transportation projects.

3.1 Water Resources

All waters in South Dakota fall into one of two categories: waters of the United States and waters of the state. According to the CWA, waters are regulated in one of the following ways: (1) obtain permit for dredge or fill material from USACE or the state agency, as appropriate (Section 404), (2) National Pollutant Discharge Elimination System (NPDES) permit and other discharge permits are to be acquired from the U.S. Environmental Protection Agency (USEPA) or SDDENR (Section 402), (3) water quality certification is required from state water resource agency, or for projects impacting tribal lands from the USEPA (Section 401), and (4) all projects shall be consistent with the state nonpoint source pollution management program (Section 319).

Rapid Creek in Pennington County, South Dakota. (SDDOT)

Aquatic resources that are considered “jurisdictional” are subject to the multiple regulatory requirements set forth with Section 404 of the CWA. The CWA additionally requires that each state develop standards for their aquatic resources to ensure the beneficial uses are protected. South Dakota has

developed surface water quality standards for all waters of the state. If water resources are determined to be non-jurisdictional the regulatory requirements are subject to guidance set forth by the state.

The environmental analysis of aquatic resources encompasses many types of resources that may be encountered in the planning, construction, and maintenance of transportation projects. This section discusses the types of aquatic resources and the procedures to follow to ensure that SDDOT is meeting its environmental commitments. The aquatic resources discussion includes: waters of the United States; wetlands; erosion, sediment and storm water management; and wild and scenic rivers.

3.1.1 Waters of the United States

When proposed transportation projects have the potential to impact aquatic resources, the first consideration is avoidance of construction activities within the identified aquatic resource, unless there is no practicable alternative. SDDOT seeks alternatives in construction techniques to avoid aquatic resources; however, if avoidance is not possible, permitting requirements are considered to ensure compliance with environmental laws and regulations.

Common Definitions:

The term *waters of the United States* defined:

(1) All waters that are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters that are subject to the ebb and flow of the tide;

(2) All interstate waters, including interstate wetlands;

(3) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce, including any such waters:

(i) Which are or could be used by interstate or foreign travelers for recreational or other purposes; or

(ii) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or

(iii) Which are used or could be used for industrial purposes by industries in interstate commerce.

(4) All impoundments of waters otherwise defined as waters of the United States under the definition;

(5) Tributaries of waters identified in paragraphs (a) (1) through (4) of this section;

(6) The territorial seas;

(7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) (1) through (6) of this section.

Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the CWA, the final authority regarding CWA jurisdiction remains with the USEPA (40 CFR Part 230.3[s]).

Waters of the State are all waters within the jurisdiction of this state, including all streams, lakes, ponds, impounding reservoirs, marshes, watercourses, waterways, wells, springs, irrigation systems, drainage systems, and all other bodies or accumulations of water, surface and underground, natural or artificial, public or private, situated wholly or partly within or bordering upon the state; and

Jurisdictional determination (JD) means a written USACE determination that a wetland and/or water body is subject to regulatory jurisdiction under Section 404 of the CWA (33 USC 1344) or a written determination that a water body is subject to regulatory jurisdiction under Section 9 or 10 of the Rivers and Harbors Act of 1899 (33 USC 401 et seq.). Additionally, the term includes a written reverification of expired JDs and a written reverification of JDs where new information has become available that may affect the previously written determination. For example, such geographic JDs may include, but are not limited to, one or more of the following determinations: the presence or absence of wetlands; the location(s) of the wetland boundary, ordinary high-water mark, mean high water mark, and/or high tide line; interstate commerce nexus for isolated waters; and adjacency of wetlands to other waters of the United States. All JDs will be in writing and will be identified as either preliminary or approved. JDs do not include determinations that a particular activity requires a [Department of the Army] permit. (33 CFR 331.2)

Preamble waters include artificial wetlands, irrigation, ditches, ponds or lakes, ornamental bodies, and water filled depressions created in upland, that generally are not considered to be waters of the United States. These features typically occur in uplands but because of some type of construction (e.g., roadway) they no longer drain and allow water to pool followed by development of wetland soils and vegetation.

Authorization:

In addition to the CWA (33 CFR 328.3[a]), several court decisions and considerations for the MBTA and ESA have provided the legal framework for consideration of waters of the United States. The SDDOT and the FHWA are still guided by 23 CFR 777 and Executive Order 11990, which directs the agencies to avoid new construction in wetlands unless there is no practicable alternative.

These actions are driven by the CWA, the purpose of which is to restore and maintain the chemical, physical and biological integrity of the Nation's waters through the prevention, reduction and elimination of pollution. The USEPA, acting through the USACE, has authority to permit the discharge of dredged or fill material in waters of the United States under Section 404 of the CWA, and permit work and the placement of structures in navigable waters of the United States under Sections 9 and 10 of the Rivers and Harbors Act of 1899 (USACE Jurisdictional Determination Form Instructional Guidebook).

USACE performs a step-by-step analysis to determine whether a water/wetland is found to be waters of the United States and subject to permitting under either the CWA or the Rivers and Harbors Act. The result of the analysis is known as a JD. Information on wetlands planning and permitting is found in Section 3.1.2.

USACE has constructed many Civil Works projects (e.g., levee construction, dam operations) across the United States through the Civil Works program to provide the nation with quality and responsive management of aquatic resources. Congress mandates under Section 408 (33 USC 408) that any use or alteration of a Civil Works project by another party is subject to the approval of the USACE to ensure that these projects continue to provide the intended benefits to the public. Under Section 408 the USACE may grant permission for another party to alter a Civil Works project upon a determination that the alteration proposed will not be injurious to the public interest and will not impair the usefulness of the Civil Works project (e.g., flood risk management). The USACE is required to review the requested modification for engineering, environmental, legal and safety issues.

3.1.2 Wetlands

Protecting wetlands in the planning, construction, and maintenance of transportation projects is important for managing water quality and habitat for fish and wildlife. This section defines key terms in wetlands evaluation, introduces the authorities for wetlands management, and presents an introduction of wetland environmental commitments. The process by which the SDDOT manages wetlands is shown in Figure 3.1-1, is summarized in Table 3.1-1 (below), and described in further detail throughout this section. Relevant regulations are cited at the end of the section for further reading.

Common Definitions:

The term *wetlands* mean those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas (40 CFR Part 230.3 [t]).

Authorization:

Wetlands are regulated under Sections 401 and 404 of the CWA and implemented by the USACE, SDDENR, and the USEPA, depending on the type of permit required. The USEPA provides oversight with the power to veto decisions by the USACE. Wetlands also are afforded protection under Federal Executive Order 11990, USDOT Order 5660.1A, and other directives.

Introduction

The potential for impacts on wetlands is an important starting point for the aquatic resources review. Wetlands across South Dakota's landscape function to feed downstream waters, dissipate floodwaters, provide erosion control, filter particulates, and provide critical support to ground water and aquifer connections. The resulting benefits include:

Roberts County wetland with brood of ducks using emergent vegetation. (SDDOT)

- Maintaining and improving water quality
- Recharging ground water supplies
- Managing floodwater quantity and flow
- Providing habitat for fish, wildlife, and plants
- Providing recreational opportunities
- Providing sites for research and education
- Contributing to the aesthetic qualities of the land

Various types of wetlands are located within the state's geological and ecological regions. Wetlands function to store water, transform nutrients, grow living matter, and provide a diversity of wetland plants. In performing these functions, wetlands provide social and economic benefits by reducing flooding impacts, improving water quality, and providing wildlife habitat for recreational uses.

Wetlands can serve to slow down and store water flows, reducing immediate impacts of heavy rains and runoff. They also can improve water quality to streams and rivers by filtering runoff as water moves across the landscape and through the wetlands. Wetlands can host unique flora and fauna in the ecosystems found in the transition between land and water. Many species of birds such as ducks, geese, hawks, wading and song birds require functioning wetlands during adult and juvenile life stages (U.S. Geological Survey [USGS] Water Supply Paper 2425).

SDDOT seeks to avoid, minimize, and mitigate any impacts to wetlands as a direct result of proposed transportation construction projects. This section describes the procedures to ensure compliance with applicable federal and state laws and regulations.

Overview of the South Dakota Department of Transportation Wetland Process

When a transportation project is proposed, the Environmental Supervisor/Environmental Engineer reviews the potential impacts on wetlands in the project area during the completion of the preliminary Class of Action determination. If there is an indication of a potential impact, an EPC is assigned an approved scope to conduct further evaluation.

In accordance with federal laws and regulations, SDDOT is required to avoid all wetland impacts, or where avoidance is not practical, to minimize impacts to the greatest extent practical. Special emphasis is placed on avoiding impacts on high-quality wetlands, including those wetlands with known or potential endangered species support functions. When the objectives of a transportation project cannot be met without significant adverse impacts on wetlands adjacent to the project, a wetland mitigation plan is prepared, detailing how affected wetland functions will be compensated.

FHWA Wetland Audit, Old Bank Site Kneip Wetland Complex, Brookings County. (SDDOT)

SDDOT and the FHWA have worked together to develop a Statewide Finding Regarding Wetlands (FHWA and SDDOT 2018) for transportation improvement projects classified as a CE, streamlining the methodology to determine avoidance, minimization, and mitigation measures. With this document in place, actions that are deemed "not significant" by the finding and that meet the applicable criteria are not required to develop an individual wetland finding. Additional information on the Statewide Wetlands Finding can be found in the Applicable Laws, Regulations, and Guidance section or at http://www.sddot.com/business/environmental/docs/StatewideWetlandFinding.pdf.

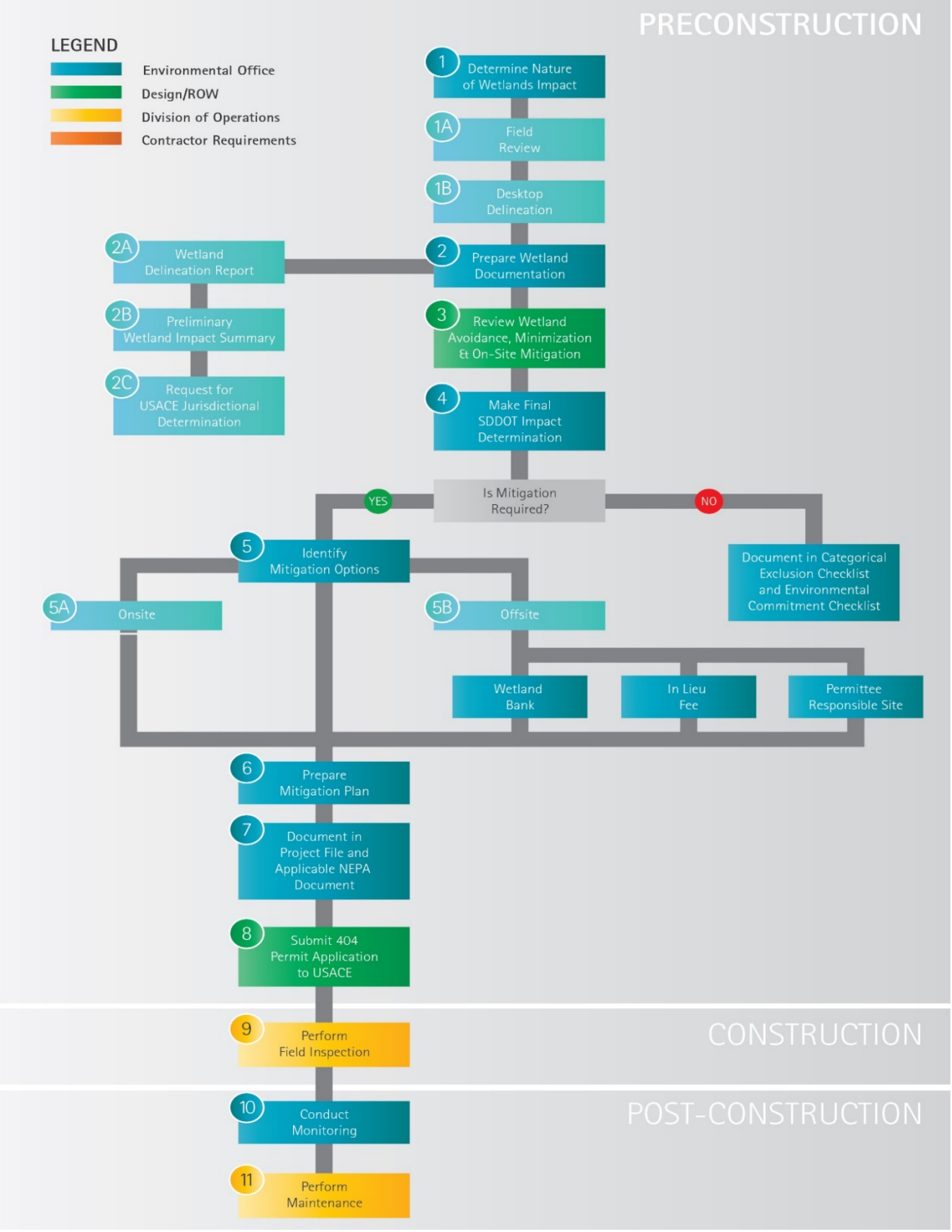


Figure 3.1-1 Wetland Process

Table 3.1-1 Steps in the Wetland Process

Step	Participant(s)	Result(s)
Pre-construction		
1. Determine nature of wetlands impact through a desktop survey	EPC	Determination of information sufficiency to characterize wetland criteria Sufficient information: Prepare wetland summary Insufficient information: Conduct field review (1A)
1A. Field review	EPC, Wetlands Coordinator or retained consultant	Wetlands Delineation Report, Contract for Delineation Work
1B. Desktop Delineation	EPC, Wetlands Coordinator or retained consultant	Wetlands Delineation Report
2. Prepare wetland documentation	EPC, Wetlands Coordinator or retained consultant	See Steps 2A, 2B, and 2C
2A. Prepare Wetland Delineation Report	EPC, Wetlands Coordinator or retained consultant	Wetland Delineation Report
2B. Prepare Preliminary Wetland Impact Summary	EPC, Wetlands Coordinator	Preliminary Wetland Impact Summary, CSV file
2C. Request USACE Jurisdictional Determination	EPC, Wetlands Coordinator, USACE	Jurisdictional determination
3. Review wetland avoidance, minimization, and on-site mitigation	EPC, Wetlands Coordinator	CSV email, Preliminary Wetland Impact Summary
4. Make final SDDOT impact determination	EPC, Wetlands Coordinator, retained consultant, FHWA or USACE as appropriate	If mitigation is not required, CE Checklist and ECC. If mitigation is required, Statewide or Individual Wetlands Finding. Tech Memo.
5. Identify mitigation options	EPC, Wetlands Coordinator or retained consultant	See Steps 5A and 5B
5A. On-site	EPC, Design/ROW, Wetlands Coordinator	Additional ROW needs; same PCN
5B. Off-site	EPC, Design/ROW, Wetlands Coordinator	Additional ROW needs; new PCN, as needed; revise STIP
Wetland Bank	EPC, Wetlands Coordinator, Bank Owner	Contract
In-lieu fee	EPC, Wetlands Coordinator, In-lieu Fee Coordinator	Contract

Step	Participant(s)	Result(s)
Permittee Responsible Site	EPC, Design/ROW, Wetlands Coordinator	Contract
6. Prepare Mitigation Plan	EPC Wetlands Coordinator, retained consultant	Mitigation Plan
7. Document in project file and applicable NEPA document	EPC, retained consultant	Project file, CE Checklist and ECC, EA/FONSI, EIS/ROD, copy of Section A Plan Notes (if applicable) incorporate in Final Plan set
8. Submit 404 permit application	EPC, retained consultant, Environmental Office 404 Coordinator USACE	404 permit application package
Construction		
9. Perform field inspection	Project Engineer, EPC, Wetlands Coordinator and/or retained consultant	Correspondence as needed
Post-construction		
10. Conduct monitoring	EPC, Wetlands Coordinator, retained consultant	Monitoring Report and documentation of construction findings in project file
11. Perform maintenance	SDDOT Maintenance Shops, retained consultant	Maintenance

Notes: CE – Categorical Exclusion, CSV – Comma-separated Values, EA – Environmental Assessment, ECC – Environmental Commitments Checklist, EIS – Environmental Impact Statement, EPC – Environmental Project Coordinator, FHWA – Federal Highway Administration, NEPA – National Environmental Policy Act, PCN – Project Control Number, FONSI – Finding of No Significant Impact, ROD – Record of Decision, ROW – Right of Way, STIP – Statewide Transportation Improvement Program, USACE – U.S. Army Corps of Engineers

Wetlands Process Description

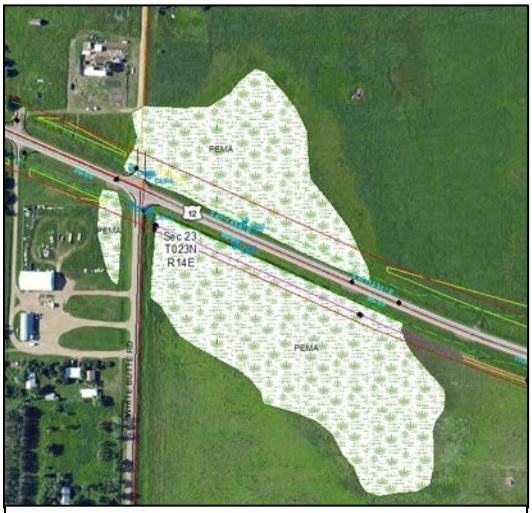
Step 1. Determine Nature of Wetlands Impact

Upon receipt of the Approved Scope, the EPC conducts a desktop review to determine the extent of wetlands. Examples of tools for the desktop review include preliminary survey, aerial photography, USGS quadrangle maps, the National Wetlands Inventory (NWI), NRCS soils and land cover maps, and available survey data. A desktop review is completed for projects that will include scour protection, and pipe and box culvert work. Desktop reviews are considered to be sufficient for routine determinations for which information is available to characterize the vegetation, hydrology, and soils. A wetland summary (i.e. Wetland Delineation Report) is prepared from the information obtained during the desktop review.

A desktop review is generally deemed not sufficient for projects that will include shoulder widening or grading, where the project will involve substantial earthwork and a potentially significant impact to aquatic resources. The EPC will consult the Wetlands Coordinator to gather additional information and to request a wetland delineation based on the USACE 1987 Wetlands Delineation Manual to be conducted either by SDDOT personnel or a retained consultant.

Unless an area has been altered or is a rare natural situation, positive indicators of all three of the following characteristics must be present for an area to be a wetland.

- Vegetation—Wetland vegetation consists of plants that require saturated soils to survive and plants that gain a competitive advantage over others because they can tolerate prolonged wet soil conditions.
- Soil—Hydric soils develop in conditions where soil oxygen is or was limited by the presence of water for periods of the growing season. By examining the soil, one can determine if hydric indicators are present.
- Hydrology—The presence of water, either above the soil surface or within the soil, but near the surface (12 to 18 inches below the soil surface, depending on the soil type) for a sufficient period of the year.
- **Step 1A. Field Review—**Consists of a wetland delineation, conducted by the Wetlands Coordinator or a retained consultant. If a consultant conducts the field review, the Wetlands Coordinator and/or the Consultant Manager prepares a scope of work and follows contracting guidelines as set forth by SDDOT for the selection of a qualified consultant. A field review may be completed for single structures such as bridges, box culverts, and culvert replacements and is typically completed for larger scale projects such as shoulder-widening, grading, and roadway alignment projects and projects for which the foot print of the road is being increased. The result of the field review is the wetland delineation to be used in the Preliminary Wetland Impact Summary. All wetland determinations and delineations are conducted in accordance with the USACE 1987 Wetlands Delineation Manual and appropriate Supplements: Great Plains Region, Mid-West Region, or Western Mountains, Valleys, and Coast Region. The SDDOT, EO, Wetland Delineations & Reporting Scope of Work for consultants is located SDDOT SOW.



ArcMap imaging of NWI wetlands around an anticipated shoulder widening project. (SDDOT)

Step 2. Prepare Wetland Documentation

The Wetlands Coordinator or retained consultant prepares and compiles the following information, as applicable:

- **Step 2A. Wetland Delineation Report—**All wetlands in the study area are identified based on the desktop and/or field review. The report includes a written description with sufficient detail to adequately characterize the study area and all delineated aquatic features, along with a map identifying wetlands within the study area. A detailed description of the information required for the Wetland Delineation Report is provided in the SDDOT, EO, Wetland Delineations & Reporting Scope of Work for consultants. Water/wetland summary tables will also be prepared by the consultant and provided to SDDOT to allow for the compiling of the Section A Plan notes. The Wetland Delineation Report is provided to the EPC. The Comma-separated Values (CSV) file of the delineation includes information that is then incorporated into the topography file for the project. Specific information that is included in the CSV file is provided in the SDDOT, EO, Wetland Delineations & Reporting Scope of Work for consultants.
- **Step 2B. Preliminary Wetland Impact Summary—**A written description of the impacted wetlands and the number of acres impacted is provided and is supported by a geographic information system (GIS) graphic overlay of preliminary work limits within the study area. The EPC, Wetlands Coordinator or the retained consultant will make the preliminary impact determination. If needed, at the request of the Wetlands Coordinator and/or Consultant Manager, a consultant will make the preliminary impact determination using design files provided by the SDDOT. The Preliminary Wetland Impact Summary is provided to the EPC.
  - The USACE Mitigation Rule dictates that a functional assessment should be provided when appropriate, such as:
  - Hydrogeomorphic (HGM) Approach. Various HGM analyses are available as described in the NRCS, SD Technical Guide Resource Evaluation Tools used on the eastern side of South Dakota.
  - Floristic Quality Index is prepared if HGM does not apply (i.e., west of the Missouri River).
- **Step 2C. Request USACE Jurisdictional Determination—**The EPC, Wetlands Coordinator, or retained consultant sends a request to the USACE along with the Wetland Delineation Report and the project scope via USPS or the USACE SAFE file sharing system. The USACE Jurisdictional Determination Form Instructional Guidebook (May 30, 2007) outlines the standard operating procedures currently used by the USACE for conducting JDs and documenting practices to support approved JDs. The determination identifies the wetlands in question as waters of the United States or waters of the state. This indicates if coordination should be continued with USACE or with FHWA. The USACE provides a JD for the project, which is added to the project file.

Step 3. Review Wetland Avoidance, Minimization, and On-site Mitigation

The Wetlands Coordinator will send the Wetlands Delineation Report to the EPC. The Wetlands Coordinator will send a CSV email to the Responsible Manager and FHWA that includes the Preliminary Wetland Impact Summary to identify wetlands for avoidance, minimization, and mitigation during establishment of the cut/fill limits. Design staff will work with the Wetlands Coordinator to identify the alternative that avoids and minimizes impacts on wetlands to the extent possible.

Design staff will adjust the preliminary cut/fill limits and send an email to the Wetlands Coordinator that includes the wetland impacts deemed unavoidable.

Step 4. Make Final SDDOT Impact Determination

Road Design will provide the EPC, Wetlands Coordinator, or the retained consultant with the final cut/fill limits that are incorporated into the design.

The final wetland impact determination qualifies the temporary or permanent wetland impacts based on the following:

- Temporary impacts include wetlands that will revert to the same soil, vegetation, and water regime after construction is complete (e.g., fill placed on existing slope; excavation within a wetland that will not drain the wetland or impact hydrology or change the wetland class; fill placed in a wetland that is completely removed to original contour, also known as temporary fill).
- Permanent impacts include unavoidable wetland impacts that convert the wetland area to non-wetland (e.g., fill converting wetland to upland; fill beyond the existing toe of slope; excavation or impounding water converting wetland to deep water (> 2.0 meters [6.6 feet]) changing the wetland class; draining an existing wetland by lowering the natural outlet elevation; reducing the wetland size or hydrology inside or outside the existing right of way (ROW) to any degree; and placement of fill that changes the elevation. The duration of the project is also considered and may require coordination with the USACE.

The EPC and the Wetlands Coordinator determines if the SDDOT/FHWA Statewide Finding Regarding Wetlands or Individual Wetland Finding applies:

- **Statewide Finding Regarding Wetlands** applies to projects where the following criteria are met: It is determined there is no practicable alternative to the proposed construction in wetlands and the proposed action includes all practicable measures to minimize harm to wetlands that may result from such use.
  - The project is a federally-funded action;
  - The project is a CE under NEPA in accordance with 23 CFR 771 and follows the current ‘Programmatic Agreement between the FHWA and the SDDOT regarding the DOT’s process for determining CEs;
  - The project is a transportation construction activity as defined within this document;

- The project requires a permanent loss of less than 1.0 acre of wetland and each project will provide for replacement of permanent wetland impacts greater than 0.1 acre per discrete aquatic resource with an equivalent wetland function and value;
- Projects constructed under this Finding include all practicable measures to minimize harm to wetlands;
- The project will fully restore temporary wetland impacts to a condition (i.e. function-for-function replacement or better) that existed prior to the project within the established service area;
- The project has been coordinated with the Resource Agencies and they have not expressed concerns over the proposed project action to wetlands; and
- The project meets the terms of a USACE Nationwide Permit.

- **Individual Wetland Finding** applies for projects where any one or more of the criteria above cannot be met. This requires communication with FHWA and USACE throughout the remainder of the wetland process to ensure that both agencies are aware of and agree to the finding.

The result of the final wetland impact determination will indicate whether mitigation is required. If no mitigation is required, it will be documented in the project file and applicable NEPA document (EA, EIS, CE Checklist, and ECC). The project's Responsible Manager (as designated in C2C or Primavera) receives a copy of the ECC (if applicable) to include notes in the Construction Plans. If mitigation is required, the process continues with Step 5 and the CE and ECC will not be completed until Step 7.

The Wetlands Coordinator sends a tech memo to the EPC and FHWA so that the CE and ECC (if applicable) can be filled out. The wetland determination is documented in the Wetlands Tracking Ledger by the Wetlands Coordinator.

Step 5. Identify Mitigation Options

In coordination with Design/ROW, the EPC, Wetlands Coordinator, and/or retained consultant will identify mitigation options and determine whether on-site or off-site mitigation will occur.

- **Step 5A. On-site Mitigation**—Design/ROW will identify mitigation sites located along the construction corridor. This option may require an additional easement. The original PCN will be used for on-site mitigation. The design will be modified to incorporate the required on-site mitigation.
- **Step 5B. Off-site Mitigation**—There are three options according to mitigation hierarchy: Wetland Bank; In-lieu fee; and Permittee Responsible Site. For off-site mitigation. In coordination with Design/ROW, the EPC, Wetlands Coordinator, and/or the retained consultant will select the option that meets the USACE mitigation criteria and project goals. All these options require an easement, revision to the STIP to include a new PCN, internal form DOT 121, preparation of NEPA documentation (CE, EA, EIS) as appropriate, and a Mitigation Plan.

- **Wetland Bank**—If the off-site mitigation uses a wetland bank option, the EPC negotiates the terms of the banking activity. The SDDOT is in the process of developing a wetland bank system and GIS database.
- **In-lieu Fee**—If the off-site mitigation uses an in-lieu fee option, the EPC negotiates the fee and coordinates with the in-lieu fee coordinators to make the payment.
- **Permittee Responsible Site** If the off-site mitigation option is a new site, a new PCN, as needed, will be issued. Either an easement or purchase of property will be required. EPC works with Project Development staff to develop a new PCN.

Regulatory In-lieu Fee and Bank Information Tracking System (RIBITS) *is a web-based application developed by the USACE with support from the U.S. Environmental Protection Agency and USFWS. USACE and USFWS use the Regulatory In-lieu Fee and Bank Information Tracking System to provide information on mitigation and conservation banking activities, including bank locations, service areas, credit type and availability, ledgers, and supporting documentation.*

If a Wetland Bank or In-lieu Fee are utilized, the USACE will document this use in their Regulatory In-Lieu Fee & Bank Information Tracking System (RIBITS) online database.

The type of mitigation used to replace impacted areas is important to consider. Mitigation ratios are identified in the SDDOT Statewide Umbrella Mitigation Bank, Mitigation Banking Instrument. Ratios may vary, but should not be below the following listed ratios:

- Restoration (re-establishment) 1.5:1
- Restoration (rehabilitation) 1.5:1
- Enhancement 4:1
- Establishment 2:1
- Preservation 10:1

Based on the guidelines, a wetland that is newly established (i.e. created) will have a 2:1 mitigation ratio. This means that for every 1 acre of wetland affected during construction, 2 acres of wetland will have to be developed. The protection of existing wetlands has a ratio of 10:1; for each acre of impacted wetland on the construction site, 10 acres will have to be protected by purchasing existing wetlands. However, if an Optimized Bank option exists, in many cases, mitigation can occur at a 1:1 ratio. One impacted acre in the plans would constitute 1 acre of banked wetlands purchased. The type of mitigation selected may depend on available properties and what enhancements, establishment, or restoration can take place on that property.

Step 6. Prepare Mitigation Plan

For unavoidable impacts on wetlands, the EPC, Wetlands Coordinator, or retained consultant will prepare a Mitigation Plan in accordance with USACE guidelines and submit the Mitigation Plan to Bridge Design. The Mitigation Plan, which has attached to it the Wetlands Delineation Report, Functional Analysis, wetland permanent easement

agreement, and plat will be provided to the EO 404 Coordinator to be submitted to USACE as part of the Section 404 permit application.

Step 7. Document Wetlands Mitigation in Project File and Applicable NEPA Document

EPC and/or retained consultant will document in the project file and applicable NEPA document (EA/EIS, CE Checklist, and ECC) the need for a 404 permit; the mitigation required, including total impacted wetland acreage, permanent and temporary, total compensatory wetlands needed; and a summation of how mitigation will be accomplished. EPC documents whether a Statewide Wetland Finding applies or whether an Individual Wetland Finding applies along with the date FHWA approved the Individual Wetland Finding. Design receives a copy of ECC (if applicable) for indication of the project-specific Section A Plan Notes, Commitment A and Commitment N – 404, to incorporate into final construction plans.

Before the project is sent to bid letting, the EPC will coordinate with the Road Design office to determine that final plans have been received and to ensure all environmental commitments have been captured within the final plan.

Step 8. Submit 404 Permit Application

EPC will provide the applicable wetland data to the EO 404 Coordinator for the Section 404 permit application. SDDOT projects typically fall under the following USACE permits:

- Nationwide Permits—Nationwide permits are a type of General Permit and represent authorizations that have been issued by regulation (33 CFR 330) for certain specified activities nationwide. If certain conditions are met, the specified activities can take place without the need for an individual or regional permit.
- Individual permits—A standard individual permit is one that has been processed through the public interest review procedures, including public notice and receipt of comments. The standard individual permit is issued using ENG Form 1721.

All documentation should be completed prior to submitting the information to the USACE. A CE will be approved or certified before the 404 permit is finalized. The EO 404 Coordinator will compile the information and submit it to USACE, Omaha District, South Dakota Regulatory Office.

Step 9. Perform Field Inspection

During construction, the Project Engineer will ensure that the Contractor adheres to all plans and specifications. Following construction, the EPC, Wetlands Coordinator and/or retained consultant will confirm that the wetland mitigation has been completed in accordance with the as-built plans and begin baseline monitoring. If construction deficiencies are identified, the Wetlands Coordinator will report to the EO and corrective actions will take place.

New Effington Mitigation Site, Roberts County South Dakota. (SDDOT)

Step 10. Conduct Monitoring

In accordance with the USACE Guidance for Compensatory Mitigation document, once the construction project and the associated compensatory wetland mitigation is complete, annual monitoring will be conducted by a retained consultant during the first growing season following construction, in accordance with the Section 404 permit. The monitoring period must be sufficient to demonstrate that the compensatory mitigation project has met performance standards. Active intervention for replanting or other management activities may be necessary in the first years. Annual monitoring and reporting should be completed for the wetland until the USACE determines that the wetland has "optimized" and is able to fully function without further action. The USACE will then provide documentation that the wetland has "optimized" and annual reports will no longer be necessary.

Monitoring Reports are submitted annually to USACE for all jurisdictional wetlands and to FHWA for all wetlands. The Monitoring Report will be prepared in accordance with the SDDOT Wetland Mitigation Monitoring & Reporting Scope of Services. The Scope of Services also includes a checklist that details all items needed for a submittal to be considered complete by the SDDOT. Additional information for Minimum Monitoring Requirements for Compensatory Mitigation Projects can be gathered from the USACE Regulatory Guidance Letter No. 08-03.

Step 11. Perform Maintenance

The SDDOT's EO will work with the maintenance shops to ensure that the wetland mitigation sites are receiving the appropriate annual maintenance Particular maintenance activities may include removal of invasive species, mowing, prescribed burning, or other permit requirements. For the first 5 years, the maintenance activities will be reported in the Monitoring Report, which will be submitted annually to the USACE and FHWA and documented in the project file.

Applicable Laws, Regulations, and Guidance

Laws, regulations, and guidance relevant to wetlands are presented by agency, with executive orders presented first.

Executive Orders

Protection of Wetlands (Executive Order 11990)—Executive Order 11990, issued in 1977, created policies that direct federal actions to avoid, to the extent possible, the long- and short-term, adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support of new construction in wetlands wherever there is a practicable alternative.

Executive Order 11990 requires each agency to develop procedures for federal actions whose impact is not significant enough to require the preparation of an EIS under Section 102(2) (c) of the NEPA, as amended.

Federal Highway Administration

Mitigation of Impacts to Wetlands and Natural Habitat (23 CFR 777)—These regulations direct the policy and procedures used by FHWA on the Federal Lands Highway Program regarding the evaluation and mitigation of adverse environmental impacts on wetlands and natural habitat resulting from federal-aid projects. These policies and procedures are applied by FHWA to projects to the extent such application is deemed appropriate by the FHWA.

Statewide Finding by FHWA and SDDOT, Regarding Wetlands for South Dakota Federal-aid Highway Projects—SDDOT and FHWA developed a Statewide Finding Regarding Wetlands for transportation improvement projects, classified as a CE. The finding satisfies the requirements of Executive Order 11990, *Protection of Wetlands,* and USDOT Order 5660.1A, *Preservation of the Nation's Wetlands*. Those wetland impacts on CE projects meeting the applicability criteria stated below have been determined not significant and will not require preparation of an Individual Wetland Finding. An Individual Wetland Finding will be prepared for all other projects that involve wetland impacts.

FHWA Technical Advisory T 6640.8A—The FHWA Technical Advisory T 6640.8A, dated October 30, 1987, provides the following guidance for addressing wetland impacts in environmental documents:

> **Wetland Determination:** Wetlands should be identified by using the definition of 33 CFR 328.3(b) (issued on November 13, 1986), which requires the presence of hydrophytic vegetation, hydric soils, and wetland hydrology. Exhibits should be provided that show wetlands in the project impact area in relation to the alternatives.
>
> In evaluating the importance of the wetlands, the analysis should consider such factors as: (1) the primary functions of the wetlands (e.g., flood control, wildlife habitat, and groundwater recharge), (2) the relative importance of these functions

to the total wetland resource of the area, and (3) other factors, such as uniqueness, that may contribute to the wetland's importance.

In determining the wetland impact, the analysis should show the project's effects on the stability and quality of the wetland(s). This analysis should consider the short- and long-term effects on the wetlands and the importance of any loss such as: (1) flood-control capacity, (2) shoreline anchorage potential, (3) water-pollution abatement capacity, and (4) fish and wildlife habitat value. The methodology developed by FHWA and described in reports numbered FHWA-IP-82-23 and FHWA IP-82-24, *A Method for Wetland Functional Assessment Volumes I and II*, is recommended for use in conducting this analysis. Knowing the importance of the wetlands involved and the degree of the impact, the Highway Administration and the FHWA will be in a better position to determine the mitigation efforts necessary to minimize harm to these wetlands. Mitigation measures that should be considered include preservation and improvement of existing wetlands and creation of new wetlands (consistent with 23 CFR 777).

U.S. Army Corps of Engineers

Wetlands Delineation Manual and Regional Supplements and Websites—USACE issued the *Wetlands Delineation Manual* in 1987 that defined the approach for identifying and delineating wetlands for purposes of implementing Section 404 of the CWA. From 2007 to 2012, USACE issued 10 regional supplements (version 2.0) that provide technical guidance on evaluating the wetland hydrology, hydric soils, and wetland vegetation. These manuals are mandatory for performing wetland determination and delineation. In South Dakota, the regional supplements to the Wetlands Delineation Manual for the Western Mountains, Valleys, and Coast Range and for the Great Plains regions apply.

A regional wetland indicator plant list is associated with each regional supplement. USACE is responsible for maintaining the wetland plant database and issuing updates on the status of wetland plants. The regional lists and information on wetland vegetation occur on the USACE National Wetland Plant List (NWPL) website.

Permits for Dredged or Fill Material (33 USC 1344)—Section 404 of the CWA establishes a program for regulating the discharge of dredged and fill material into waters of the United States, including wetlands. Implementing regulations for USACE and U.S. Environmental Protection Agency (USEPA) are found in 33 CFR 320-330 and 40 CFR 230-233, respectively.

Compensatory Mitigation for Losses of Aquatic Resources (33 CFR 332)—33 CFR 332 issued by the USACE and the USEPA amends 33 CFR 325, 33 CFR 332, and 40 CFR 230. This part establishes the standards and criteria for the use of all types of compensatory mitigation, including on-site and off-site permittee-responsible mitigation, mitigation banks, and in-lieu fee mitigation to offset unavoidable impacts on waters of the United States authorized through the issuance of Department of the Army permits pursuant to Section 404 of the CWA (33 USC 1344) and/or Sections 9 or 10 of the Rivers and Harbors Act of 1899 (33 USC 401, 403).

The objective of compensatory mitigation is to offset environmental losses resulting from unavoidable impacts on waters of the United States authorized by USACE permits. The rule is intended to improve planning, implementing, and managing compensatory mitigation projects. It stresses a watershed approach for selecting mitigation sites and requires measurable and enforceable ecological performance standards and regular monitoring for all types of compensation. The rule also provides guidance on how to create a complete compensatory mitigation plan, including assurances for the long-term protection of the site and its finances and the identification of those responsible for specific project tasks.

***Regulatory Guidance Letter Number 16-01*—**On October 31, 2016, USACE issued a Regulatory Guidance Letter updating the explanation of the difference between an approved JD and preliminary JD to help implement Section 404 of the CWA and Sections 9 and 10 of the Rivers and Harbors Act of 1899. The letter also addressed when an approved JD is required and when a landowner, permit applicant, or other affected party can decline to request and obtain an approved JD and elect to use a preliminary JD instead. Regulatory Guidance Letter 16-02 supersedes Regulatory Guidance Letters 07-01 and 08-02.

U.S. Department of Transportation

***Preservation of the Nation's Wetlands (USDOT Order 5660.1A)*—**USDOT Order 5660.1A implements Executive Order 11990 and requires that transportation facilities and projects be planned, constructed, and operated to ensure the protection, preservation, and enhancement of the nation's wetlands to the fullest extent practicable, and establishes procedures for implementing the policy. Economic, environmental, and other factors must be considered in developing alternatives.

U.S. Environmental Protection Agency

***USEPA Water: Wetlands Website*—**USEPA hosts a website that provides information on wetlands; waters of the United States; jurisdiction, laws and regulations; wetland monitoring and assessment; and more.

On January 15, 2015, USEPA released the availability of the final report of the *Connectivity of Streams and Wetlands to Downstream Waters: A Review and Synthesis of the Scientific Evidence*. This final report presents a review and synthesis of relevant peer-reviewed scientific literature that will inform upcoming joint USEPA/USACE rule-making to enhance protection of the chemical, physical, and biological integrity of the nation's waters by clarifying the jurisdiction of the CWA.

U.S. Fish and Wildlife Service

Classification of Wetlands and Deepwater Habitats of the United States—In 1979, USFWS published the Classification of Wetlands and Deepwater Habitats, which provided a national classification system and is used as the basis for categorizing wetlands, including the NWI. This classification is also referred to as the Cowardin system or classification.

National Wetlands Inventory Website—USFWS hosts an NWI website that provides information on wetlands and the NWI. The NWI produces wetlands maps and geospatial wetland data for the United States. NWI maps are available on-line through the Wetland Mapper.

U.S. Geological Survey

National Wetlands Research Center Website—USGS hosts the National Wetlands Research Center website. The National Wetlands Research Center develops and disseminates scientific research on the ecology, values, management, and restoration of wetlands, coastal habitats, and associated plant and animal communities.

U.S. Supreme Court Decisions

U.S. Supreme Court's Decision in Rapanos vs. U.S. & Carabell vs. U.S.—Both the Rapanos and Carabell cases resulted in the USEPA and the USACE redefining how they determine jurisdiction over potential waters of the U.S. Following these court cases, the agencies released a memorandum (June 6, 2007) regarding new procedures for JDs. The agencies followed this with a superseding memorandum (December 2, 2008) that further refined and defined new procedures for JDs. The decision affirmed USACE jurisdiction over the following waters:

- Traditional navigable waters
- Wetlands adjacent to traditional navigable waters
- Non-navigable tributaries of traditional navigable waters that are relatively permanent where the tributaries typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months)
- Wetlands that directly about such tributaries

U.S. Supreme Court's Decision in Solid Waste Agency of Northern Cook County vs. USACE—The USACE interpretation was that the use of isolated, non-navigable intrastate waters by migratory birds was sufficient basis for asserting jurisdiction. The Solid Waste Agency of Northern Cook County ruling negated that isolated waters (intrastate waters with no connection to any navigable waters) were not subject to USACE authority under the CWA.

Headwaters Inc. vs Talent Irrigation District—As part of the 2001 court decision, the Talent Irrigation District disputed that irrigation canals were navigable waters. The Ninth Circuit Court concluded that the canals are navigable waters because they exchange water with streams and other natural bodies of water. The court determined that the irrigation canals are tributaries because they are streams that contribute their flow to a larger stream or other body of water. Under the CWA, tributaries are considered waters of the United States. The Ninth Circuit rejected Talent Irrigation District's argument that irrigation canals are isolated waters because they have closed waste gates that form a closed system. The court determined that irrigation canals are intermittent streams because they exchange water with natural streams. Under the CWA, intermittent streams qualify as waters of the United States.

3.1.3 Erosion, Sediment, and Stormwater Management

Managing stormwater runoff protects water quality by minimizing the discharge of potential pollutants into South Dakota waterways. This section defines key terms related to stormwater management, defines the authorities involved with stormwater management, and describes best management practices (BMPs) to minimize erosion and sediment loading to nearby streams and lakes. The process by which SDDOT manages stormwater is shown in Figure 3.1-2, summarized in Table 3.1-2, and described in further detail throughout this section. Relevant regulations and manuals are cited at the end of the section for further reading.

Common Definitions:

Best management practices (or BMPs) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of "waters of the United States." Examples of BMPs include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage (40 CFR 122.2). Examples can be found in the SDDOT Manual, listed at the end of this section.

Point source means any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged (40 CFR 122.2).

Pollutant means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials (except those regulated under the Atomic Energy Act of 1954, as amended (42 USC 2011 et seq.), heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water (40 CFR 122.2).

Stormwater means stormwater runoff, snowmelt runoff, and surface runoff and drainage (40 CFR 122.26[b][13]).

Stormwater Pollution Prevention Plan identifies potential sources of stormwater pollution at a construction site and specifies structural and non-structural controls that will be in place to minimize negative impacts caused by stormwater discharges associated with construction activity. The purpose of these controls is to minimize erosion and run-off of pollutants and sediment (SDDENR General Permit for Stormwater Discharges Associates with Construction Activities, SDR100000).

Authorization:

The CWA establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters.

In 1987, under the Water Quality Act, Congress amended the CWA to require implementation of a comprehensive national program for addressing stormwater discharges. 40 CFR Parts 122, 123, and 124 implement the NPDES program under Sections 318, 404, and 405 for the CWA, which covers basic U.S. Environmental Protection Agency permitting requirements, including administering approved state programs.

South Dakota has been delegated the authority to implement the NPDES program, and SDDENR is the permitting authority.

Introduction

Water quality standards are mandated by the CWA and designate the uses for each water body, set criteria to protect those uses, and establish provisions to protect the water from pollutants. South Dakota has developed surface water quality standards and defined beneficial uses for all the lakes and streams in the state to protect the public health and welfare of the people of the state and enhance the quality of water.

South Dakota regulates stormwater to reduce the amount of pollutants entering lakes, wetlands, streams, and rivers as a result of runoff from industrial facilities, construction sites, and urban areas. Stormwater runoff occurs when rain or snowmelt flows over the ground at a rate higher than it can infiltrate into the ground. Stormwater can pick up debris, chemicals, dirt, and other pollutants and flow into surface waters. Common pollutants from construction sites in stormwater are sediments and the constituents contained within.

Stormwater Management at the Pierre Landfill Cap Project 2009 – straw wattles/mulch/turf reinforcement mat. (SDDENR)

SDDENR has been delegated authority under the NPDES to control the amount of pollution that can enter waters of the United States and protect the beneficial uses of all streams and lakes. The U.S. Environmental Protection Agency (USEPA) retains authority for the issuance of construction General Permits on Indian reservations.

A stormwater discharge permit is one type of NPDES permit. SDDENR manages stormwater discharges through its General Permit Program, entitled SDDENR

Stormwater Permitting Program. The permit application is an NOI for one of four types of stormwater discharge: construction activities, industrial activities, MS4s, and temporary discharges and dewatering. The two types of permits are known as:

- Phase I permits—for stormwater discharges from many priority sources, including MS4s serving a population of more than 100,000, industrial activity, or construction sites that disturb 5 or more acres.
- Phase II permits—for discharges not covered under Phase I, such as small MS4s, construction sites of 1 to 5 acres, and industrial facilities owned or operated by small MS4s. For South Dakota, Phase II permits include small MS4s at state and interstate highways, rights-of-way (ROWs), and thoroughfares (including streets, roads, structures, maintenance facilities, service areas, and rest areas).

SDDOT falls under the Phase II permitting program and applies for construction permits for all projects with 1 acre or more of land disturbance and projects that are directly adjacent to water bodies, regardless of disturbed acreage. Permit applicants are required to develop an SWPPP detailing the BMPs that will reduce or eliminate any possible water quality impacts, due to erosion and sedimentation. BMPs include physical, structural, and/or managerial practices that, when used singly or in combination, prevent or reduce pollution of stormwater.

Overview of the South Dakota Department of Transportation Water Quality and Stormwater Management Process

SDDOT is committed to constructing transportation projects in a manner necessary to preserve and protect South Dakota's water resources and works closely with SDDENR to comply with all federal and state laws and regulations. This includes designing, inspecting, and enforcing stormwater pollution prevention measures for all SDDOT construction projects.

When a transportation project is proposed, the potential impacts on water quality and stormwater discharge in the project area are reviewed by the Environmental Supervisor or Environmental Engineer during the completion of the preliminary class of action determination. If there is an indication of a potential impact on water resources or a potential for stormwater discharge from construction activity, an EPC is assigned to conduct further evaluation.

The procedures for SDDOT for projects involving water quality and stormwater impacts are illustrated in Figure 3.1-2, summarized in Table 3.1-1, and further described in the narrative following the table.

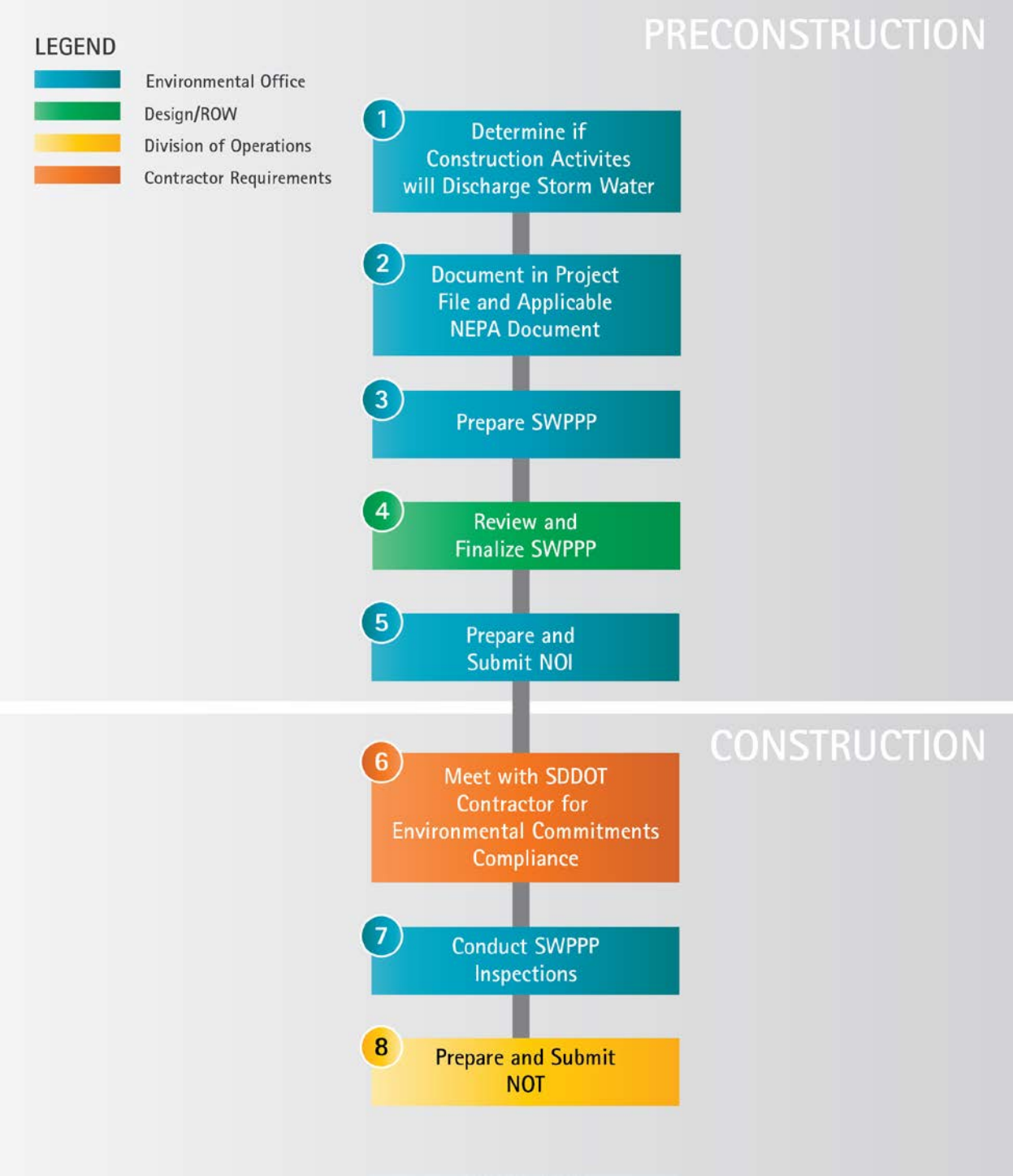


Figure 3.1-2 Erosion, Sediment, and Stormwater Management Process

Table 3.1-2 Steps in the Erosion, Sediment, and Stormwater Management Process

Step	Participant/s	Result(s)
Preconstruction		
1. Determine if construction activities will discharge stormwater	EPC, SDDENR, Stormwater Coordinator	Determination for preparation of stormwater General Permit
2. Document in project file and applicable NEPA document	EPC	Project file, CE Checklist and ECC, EA/FONSI, EIS/ROD, copy of Section A Plan Notes (if applicable) incorporate in Final Plan set
3. Prepare SWPPP	Design/ROW Landscape Architect	Draft SWPPP
4. Review and finalize SWPPP	Review: Project Engineer, Area Office, Stormwater Coordinator	Approved SWPPP
	Finalize: Design/ROW	Completed Section A Plan Notes
Construction		
5. Prepare and submit NOI	Stormwater Coordinator	NOI
6. Meet with SDDOT for EC Compliance	Contractor	Form DOT-272
7. Conduct SWPPP Inspections	Project Engineer	Inspection Report DOT 298, signed Contractor Certification Form
8. Prepare and submit NOT	Project Engineer	NOT, submit to SDDENR and document in C2C

Notes: C2C – Concept to Contract, CE Checklist – Categorical Exclusion Checklists, EA – Environmental Assessment, ECC – Environmental Commitments Checklist, EIS – Environmental Impact Statement, EPC – Environmental Project Coordinator, FONSI – Finding of No Significant Impact, NOI – Notice of Intent, NOT – Notice of Termination, ROD – Record of Decision, ROW – Right of Way, SDDENR – South Dakota Department of Environment and Natural Resources, SWPPP– Stormwater Pollution Prevention Plan

Erosion, Sediment, and Stormwater Process Description

Step 1. Determine if Construction Activities will Discharge Stormwater

Upon receipt of the Approved Scope, the EPC consults with the Stormwater Coordinator to further examine the information available to determine if stormwater discharge into water resources is anticipated in the project area. Examples of tools for this desktop review include websites such as USGS, NWI, aerial photography, and GIS.

Also, the Stormwater Coordinator routinely checks the Advertisement of Highway Bid Letting, reviews individual project plan cover sheets to determine if permits are required for construction.

The EPC prepares and submits a letter to SDDENR to identify impacts on water resources and documents this information in the applicable NEPA documents and project files. SDDENR responds and provides comments relevant to the project area.

Step 2. Document in Project File and Applicable NEPA Document

The EPC documents SDDENR correspondence in the project file and applicable NEPA document (CE, EA, or EIS). The ECC identifies the name of the waterbody and construction practices for temporary dewatering activities which the EPC uses to fill out Section A Plan Notes for Commitment E and SWPPP in Section D and sends to Design/ROW.

Step 3. Prepare Stormwater Pollution Prevention Plan

Design/ROW Landscape Architect prepares a SWPPP, including the associated BMPs to ensure compliance with the requirements of both SDDENR and USEPA General Permits for stormwater discharge.

FAA Stormwater Management at the Capital Avenue Reconstruction Project in Pierre 2009 – Inlet protection. (Dale Healey, SDDENR)

Step 4. Review and Finalize Stormwater Pollution Prevention Plan

The Stormwater Coordinator, other PD staff as assigned, and area offices review and provides comments to SWPPP preparers. Design/ROW updates the SWPPP to incorporate comments and make adjustments if the project design has changed after the preparation of the SWPPP.

Step 5. Prepare and Submit Notice of Intent

The Stormwater Coordinator prepares the NOI using SDDENR Form 2112LD v1 for construction activities. For projects on reservations, the Stormwater Coordinator submits the NOI using EPA's electronic NOI (eNOI) system through the Central Data Exchange website. First time users will need to register with the EPA's eNOI system to submit NOI's to SDDENR or USEPA at least 15 days prior to beginning construction; it must be approved prior to the start of construction. The approved NOI is documented in the stormwater tracking database, project file, and filed in the Stormwater Coordinator's folder.

Step 6. Meet with South Dakota Department of Transportation for Environmental Commitments Compliance

At the preconstruction meeting, the Contractor will prepare and submit for the SDDOT approval Form DOT-272, as described in section 5.1.2. Construction cannot begin until all requirements are met.

If water is to be transferred or moved from one place to another during construction activities, a temporary (dewatering) permit and dewatering plan are required and amended into the SWPPP and NOI. Temporary dewatering permits are prepared by the Contractor and can include cofferdams, diversions, and the re-routing of streams.

A Contractor Certification Form is required when a Contractor will have day-to-day responsibility for sediment and control measures. It is submitted to SDDENR prior to the preconstruction meeting.

Step 7. Conduct Stormwater Pollution Prevention Plan Inspections

The SWPPP should be revised and kept up to date during the construction of the project. Any site changes made in erosion and sediment control methods are noted on the SWPPP and drawings.

During construction, the Project Engineer conducts inspections of the site for compliance with the SWPPP and General Permit. The construction site must be inspected every 7 days. SWPPP Inspections are recorded on the DOT-298 form (SWPPP Inspection Form) located on the SDDOT website and maintained for inspection by SDDENR or USEPA as requested. The SWPPP inspection is signed by both a SDDOT representative and the contractor. The SWPPP inspection form provides the necessary backup information for the notes made on the drawings and ensures compliance with the General Permit.

> ***Temporary Discharges*** *are applied for by the Contractor and apply to construction temporary discharge activities within the State. The water discharged must be relatively uncontaminated and must not cause violation of the South Dakota State Water Quality Standards. A typical construction activity under this General Permit is dewatering.*

Additionally, the Stormwater Coordinator performs field audits randomly during construction to verify compliance with the General Permit.

Step 8. Prepare and Submit Notice of Termination

Once the Project Engineer verifies that the conditions of the SWPPP have been met and the checklist and certifications are complete, the Project Engineer prepares a SDDENR Notice of Termination (NOT). For projects on a reservation, EPA NPDES Form 3510-13 NOT is used. Erosion, Sediment and Stormwater Laws, Regulations, and Guidance

Laws, regulations, and guidance relevant to stormwater management are presented by agency, with executive orders presented first.

South Dakota Department of Transportation Resources

Erosion and Sediment Control and Stormwater Management Manual—This manual discusses the principles of stormwater management, BMPs, SWPPPs, Work sequencing, dewatering and construction site inspections.

Construction Field Manual—This manual is to assist field personnel with establishing and maintaining construction site compliance with the 2004 South Dakota Standard Spec

Book – Division II and the General Permit for Stormwater Discharges Associated with Construction Activities.

Erosion and Sediment Control Stormwater Management Pocket Guide—This field guide was developed to assist field personnel with establishing and maintaining construction site compliance with the 2004 South Dakota Standard Spec Book – Division II and the General Permit for Stormwater Discharges Associated with Construction Activities.

Water Quality Enhancement Program Manual—This manual was developed to consolidate USEPA and SDDENR regulations, DOT design policies, standards and recommended procedures to ensure water quality.

Earthwork—This manual was intended as a reference guide during the performance of duties by the Earthwork Inspector.

Federal Highway Administration

FHWA Technical Advisory T 6640.8A—The FHWA Technical Advisory T 6640.8A, dated October 30, 1987, provides guidance for addressing water quality, water body modification, and stormwater in environmental documents.

- Water Quality—The technical advisory recommends summaries of coordination with state and local water quality agencies and descriptions of ambient water-quality conditions. It should address the potential of adverse impacts from road runoff and nonpoint pollution sources on sensitive water resources and mitigation measures to reduce water-quality impacts. If drinking water supplies can be impacted, there should be an assessment of the potential to impact surface water and groundwater supplies.
- Water Body Modification—For each alternative under-detailed study, the draft environmental document should contain exhibits and discussions identifying the location and extent of water-body modifications (e.g., impoundment, relocation, channel deepening, filling). The use of the stream or body of water for recreation, water supply, or other purposes should be identified. Impacts on fish and wildlife resulting from the loss degradation, or modification of aquatic or terrestrial habitat should also be discussed. The results of coordination with appropriate federal, state and local agencies should be documented in the draft environmental document (e.g., coordination with USFWS under the Fish and Wildlife Coordination Act of 1958).

U.S. Geological Survey

South Dakota Water Science Center Website—This website hosted by USGS provides information on South Dakota's rivers, streams, water quality, groundwater, and other topics.

National Streamflow Information Program Website—This website hosted by USGS provides streamflow information and information for meeting local, state, regional, and national needs.

U.S. Environmental Protection Agency

Identification of Areas with Insufficient Controls; Maximum Daily Load; Certain Effluent Limitations Revision (33 UCS 313[d])—Section 303(d) of the CWA, establishes requirements and procedures for identifying impaired waters and implementing total maximum daily loads that are necessary for achieving applicable water quality standards. Implementing regulations are found in 40 CFR 130.7, Total Maximum Daily Loads and Individual Water Quality-Based Effluent Limitations.

National Pollutant Discharge Elimination System (33 USC 1342)—Section 402 of the CWA authorizes USEPA to administer a program for permitting point source discharges of pollutants (including those from stormwater conveyance structures and/or disturbed areas). It allows USEPA to determine effluent limitations and conditions to meet the objectives for water pollution prevention and control. The primary USEPA regulations for implementing Section 402 occur in 40 CFR Parts 122-125.

Stormwater Discharges from Construction Activities Website—The NPDES stormwater program requires construction site operators engaged in clearing, grading, and excavating activities that disturb 1 acre or more, including smaller sites in a larger common plan of development or sale to obtain coverage under an NPDES permit for their stormwater discharges. In South Dakota, USEPA is the permitting authority to issue an NPDES on only Native American lands. This website hosted by USEPA provides information regarding stormwater and construction.

Stormwater Discharges from Municipal Separate Storm Sewer Systems Website—The website hosted by USEPA provides information on the NPDES permitting process for MS4s.

3.1.4 Wild and Scenic Rivers

Applicable Laws, Regulations, and Guidance

Laws, regulations, and guidance relevant to wild and scenic rivers are presented by agency, with executive orders presented first.

Wild and Scenic Rivers (36 CFR 297)—This part of the CFR implements the provisions of 16 USC 1278 for designated wild and scenic rivers and study rivers that are administered by the U.S. Forest Service (USFS). It contains definitions, compliance requirements for federal agency projects, and requirements of environmental analyses. The National Wild and Scenic Rivers System hosts a website that provides information on the National Wild and Scenic Rivers System, including designated rivers and study rivers located within the 48 contiguous states.

Parks, Recreation Areas, Wildlife and Waterfowl Refuges, and Historic Sites (23 CFR 774)—The regulations in 23 CFR 774 include provisions addressing Section 4(f) applicability to wild and scenic rivers.

Wild and Scenic Rivers, Restrictions on Water Resources Projects (16 USC 1278)—The Federal Energy Regulatory Commission shall not license the construction of any dam, water conduit, reservoir, powerhouse, transmission line, or other project works under the Federal Power Act (41 Stat. 1063), as amended (16 USC 791a et seq.) that would affect the free-flowing characteristics of a wild and scenic river. No license, permit, or authorization can be issued without notice to the secretary responsible for administering the river (i.e., the Secretary of Interior for the National Park Service [NPS], USFWS, Bureau of Land Management, and the Secretary of Agriculture for USFS) and a determination that the project will not have a direct and adverse effect on the values that created the designation. It also restricts federal agencies from assisting with loans and grants.

Federal Highway Administration

FHWA Policy Guidance for Wild and Scenic Rivers—FHWA memorandum dated October 3, 1980, clarifies guidance for compliance with the Wild and Scenic Rivers Act for proposed transportation projects.

FHWA Section 4(f) Policy Paper—The FHWA Section 4(f) Policy Paper of July 20, 2012, supplements FHWA's regulations governing the use of land from publicly owned parks, recreation areas, wildlife and waterfowl refuges, and public or private historic sites for federal highway projects. It contains some guidance on the applicability of Section 4(f) to designated wild and scenic rivers and study rivers.

The FHWA Technical Advisory T 6640.8A—The FHWA Technical Advisory T 6640.8A, dated October 30, 1987, provides guidance for addressing effects on a designated wild and scenic river and study river. The guidance states that the environmental document should accomplish the following:

- Identify early coordination undertaken with the agency responsible for managing the listed or study river (i.e., NPS, USFWS, Bureau of Land Management, or USFS)
- Identify, for each alternative under consideration, the potential adverse effects on the natural, cultural, and recreational values of the listed or study river
- Reflect consultation with the managing agency on avoiding or mitigating the impacts (23 CFR 771.123[c])
- Identify measures that will be included in the preferred alternative to avoid or mitigate adverse impacts.

The guidance also states that publicly owned waters of designated wild and scenic rivers are protected by Section 4(f) and public lands adjacent to a wild and scenic river may be subject to Section 4(f) protection. The guidance recommends coordination with adopted or proposed management plans for a listed river to determine the applicability of Section 4(f).

3.2 Threatened and Endangered Species, Migratory Birds, and Eagles

NEPA requires the identification and assessment of reasonable alternatives that will avoid and minimize adverse effects on the quality of the human environment, which includes species and habitats protected under the Endangered Species Act (ESA), the Migratory Bird Treaty Act (MBTA), and the Bald and Golden Eagle Protection Act (BGEPA). SDDOT Wildlife Biologists are involved in all stages of project development, evaluating potential adverse impacts and recommending impact avoidance or minimization measures.

Protecting threatened and endangered species in the planning, construction, and maintenance of transportation projects is an important step in complying with the ESA. The remainder of this section defines key terms used in the protection of threatened and endangered species and their habitat, the applicable authorities, and the environmental commitments established for highway projects, especially those involving stream crossings. The process by which SDDOT evaluates impacts on potential federal and state-listed threatened and endangered species is shown in Figure 3.2-1, summarized in Table 3.2-1, and described in further detail throughout this section. Relevant regulations are cited at the end of the section for further reading.

The MBTA is one of the nation's oldest and most significant environmental laws, in effect since 1918. The MBTA makes it unlawful to take, import, export, possess, sell, purchase, or barter any migratory bird, with the exception of the taking of game birds during established hunting seasons. The law also applies to feathers, eggs, nests, and products made from migratory birds. The migratory birds that are covered are found in 50 CFR 10.3. The USFWS Birds of Conservation Concern list identifies birds that are potentially threatened by disturbance and construction. To minimize the likelihood of adverse impacts to migratory birds, USFWS recommends that construction activities occur outside the general bird nesting season from March through August, or that areas proposed for construction during the nesting season be surveyed, and when occupied, avoided until the young have fledged. This law is of particular concern when birds nest on bridges, signs, lights, or other highway structures. If migratory birds would be negatively impacted by a SDDOT project, this information must be disclosed in the NEPA process and appropriate mitigation considered. During the preconstruction meeting it is the contractor's responsibility to schedule construction to accommodate the conducting of avian surveys and submitting the necessary documentation for the project file.

The bald eagle was delisted under the ESA in 2007 and removed from South Dakota's threatened list in 2015. Golden eagles have never been listed as threatened or endangered. Both the bald eagle and golden eagle are protected under the MBTA, but the BGEPA affords them additional federal protection by making it unlawful to "disturb" an eagle without the proper permit. To avoid potential disturbance to bald eagles, the National Bald Eagle Management Guidelines provide recommendations that will likely avoid take for a list of activities, and SDGFP provides similar guidance in the state management plan. Further information on bald and golden eagle management guidelines is available at the USFWS eagle management website. If a nest is observed within one

mile of the project site, notify the Project Engineer immediately so that he/she can consult with the EO for an appropriate course of action. SDDOT will determine if a buffer is recommended by USFWS for the construction activities, as well as the recommended buffer width. Documentation of adherence to recommended buffers will be maintained in the project file.

Common Definitions:

Threatened means a species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range. (50 CFR Part 402.02)

Endangered means a species is in danger of extinction throughout all or a significant portion of its range. *Species* includes any species or subspecies of fish, wildlife, or plant, and any distinct population segment of any vertebrate species that interbreeds when mature. (50 CFR Part 402.02)

Take means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or to attempt to engage in any such conduct.

Incidental take refers to takings that result from, but are not the purpose of, carrying out an otherwise lawful activity conducted by the federal agency or applicant. (50 CFR Part 402.02)

Biological opinion refers to a document stating the opinion of the USFWS or National Oceanic and Atmospheric Administration Fisheries on whether a federal action is likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat. (50 CFR Part 402.02).

Authorization:

The ESA was enacted by Congress in 1973. Under the ESA, the federal government has the responsibility to protect endangered species, threatened species and critical habitat. It is administered by the Department of the Interior (USFWS) and the Commerce Department's National Marine Fisheries Service. USFWS has primary responsibility for terrestrial and freshwater organisms, while the responsibilities of the National Marine Fisheries Service are mainly marine wildlife.

Section 7 of the ESA requires federal agencies to use their legal authorities to promote the conservation purposes of the ESA and to consult with USFWS, as appropriate, to ensure that effects of actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of designated critical habitat.

Section 9 discusses acts that are prohibited with respect to any listed endangered species, including the take of any listed species or the violation of any regulation pertaining to any listed species.

The ESA also requires the designation of "critical habitat" for listed species when "prudent and determinable." Critical habitat includes geographic areas that contain the physical or biological features that are essential to the conservation of the species and that may need special management or protection. Critical habitat designations affect only federal agency actions or federally funded or permitted activities. Federal agencies are required to avoid "destruction" or "adverse modification" of designated critical habitat (*USFWS ESA Basics www.fws.gov/endangered/).*

Introduction

In South Dakota, there are 18 species listed federally as threatened or endangered, under the ESA, as shown in Table 3.2-1. USFWS provides a list of species by county and a list of threatened and endangered species for specific areas can also be accessed by requesting an Official Species List through the USFWS Information for Planning and Conservation (IPaC) system.

Table 3.2-1 Federally Listed Species in South Dakota

Group	Species/Listing Name	Status
Mammals	Black-footed ferret (*Mustela nigripes*)	LE
	Northern long-eared bat *(Myotis septentrionalis)*	LT
	Gray wolf (*Canus lupus*)	LE
Birds	Least tern (*Sterna antillarum*)	LE
	Piping plover (*Charadrius melodus*)	LT
	Rufa red knot (*Calidris canutus rufa*)	LT
	Whooping crane (*Grus americana*)	LE
	Eskimo curlew (*Numenius borealis*)	LE
Fishes	Pallid sturgeon (*Scaphirhynchus albus*)	LE
	Shovelnose sturgeon (*Scaphirhynchus platorynchus*)	LT (S/A)
	Topeka shiner *(Notropis topeka)*	LE
Invertebrates	American burying beetle (*Nicrophorus americanus*)	LE
	Dakota skipper (*Hesperia dacotae*)	LT

Group	Species/Listing Name	Status
	Higgins eye (pearlymussel) (*Lampsilis higginsii*)	LE
	Poweshiek skipperling (*Oarisma poweshiek*)	LE
	Scaleshell mussel (*Leptodea leptodon*)	LE
Plants	Leedy's roseroot (*Rhodiola integrifolia ssp. leedyi*)	LT
	Western prairie fringed orchid (*Platanthera praeclara*)	LT

Notes: LE – Federally endangered, LT – Federally threatened, LT (S/A) – Federally threatened due to similarity of appearance to a federally threatened species.

Source: https://ecos.fws.gov/ipac/location/OLNYVEEPOVFUFK6DJEZJG7VUKU/resources (10/30/18)
https://www.fws.gov/mountain-prairie/es/southdakota/species.php (10/30/18)

The SDGFP Commission promulgates a list of animal species that are determined to be endangered or threatened within the State of South Dakota (SDCL 34A-8). Sixteen additional species are listed as threatened or endangered by the state, as shown in Table 3.2-2. Note that the black-footed ferret, pallid sturgeon, least tern, piping plover, and whooping crane are both federally and state-listed. SDGFP provides a list by county of state and federally listed threatened, endangered, and candidate species documented in South Dakota.

Table 3.2-2 South Dakota Listed Species

Group	Species/Listing Name	Status
Mammals	Black-footed ferret (*Mustela nigripes*)	SE
	Northern river otter (*Lontra Canadensis*)	ST
	Swift fox (*Vulpes velox*)	ST
Birds	American dipper (*Cinclus mexicanus*)	ST
	Least tern (*Sternula antillarum*)	SE
	Osprey (*Pandion haliaetus*)	ST
	Peregrine falcon (*Falco peregrinus*)	SE
	Piping plover (*Charadrius melodus*)	ST
	Whooping crane (*Grus Americana*)	SE
	Eskimo curlew (*Numenius borealis*)	SE
Reptiles and amphibians	Eastern hognose snake (*Heterodon platirhinos*)	ST
	False map turtle (*Graptemys pseudogeographica*)	ST
	Lined snake (*Tropidoclonion lineatum*)	SE
Fishes	Banded killifish (*Fundulus diaphanous*)	SE
	Blacknose shiner (*Notropis heterolepis*)	SE
	Finescale dace (*Chrosomus neogaeus*)	SE
	Longnose sucker (*Catostomus catostomus*)	ST

Group	Species/Listing Name	Status
	Northern pearl dace (*Margariscus nachtriebi*)	ST
	Northern redbelly dace (*Chrosomus eos*)	ST
	Pallid sturgeon (*Scaphirhynchus albus*)	SE
	Sicklefin chub (*Macrhybopsis meeki*)	SE
	Sturgeon chub (*Macrhybopsis gelida*)	ST

Notes: SE – State endangered, ST – State threatened

Source: https://gfp.sd.gov/threatened-endangered/ (10/30/18)

Overview of the SDDOT Threatened and Endangered Species Process

As transportation projects are evaluated, the goal is to make sure actions are in compliance with federal and state law and not likely to jeopardize the continued existence of listed species. When a transportation project is proposed, the potential impacts on federally and state-listed threatened and endangered species are reviewed by the Environmental Supervisor/Environmental Engineer during the completion of the preliminary Class of Action determination. If there is an indication of a potential impact, an EPC is assigned an Approved Scope to conduct further evaluation.

Topeka shiner seined from a SDDOT project in 2004. (SDDOT)

Coordination with SDGFP is integral in identifying potential impacts to state-listed species. In Table 3.2-2, the species listed as threatened or endangered by the state of South Dakota will be identified through a coordination letter to SDGFP. SDGFP will then identify the potential for impacts to any state listed species. If further action is required to ensure habitat degradation is limited, the EPC will work with staff at SDGFP to avoid and minimize the potential for impacts or activities that might result in a "take."

Compliance with Section 7 of the ESA is required for nearly all transportation projects because most are partially funded by the FHWA and/or require the obtainment of a permit under Section 404 of the CWA for dredge and fill activities within waters of the United States. To streamline Section 7 consultation for transportation projects, USFWS has developed two programmatic consultations that apply to transportation projects in South Dakota. SDDOT may rely on these programmatic consultations and associated biological opinion (BO) for conducting Section 7 consultation with USFWS for certain projects that: (1) cross streams within the range of Topeka shiner or American burying beetle, or (2) are within the range of the northern long-eared bat. By standardizing interagency policies,

programmatic consultation is intended to increase the consistency of project design and review and reduce consultation time while also contributing meaningfully to the conservation of threatened and endangered species. Further detail is provided below for both programmatic consultations.

Programmatic consultation does not substitute for an individual project consultation under section 7 of the ESA unless SDDOT determines that only the covered species would be affected, and all project activities would comply with the reasonable and prudent measures in the BO. Transportation projects not covered by the scope of either BO that could potentially impact a listed species or listed species habitat (e.g., scour protection or channel armoring) require individual Section 7 consultation of the ESA (informal or formal). If a project requires formal consultation for other listed species or designated critical habitats, USFWS will verify project consistency with the programmatic BOs within a project-specific BO that addresses all adversely affected species/critical habitats, to which the standard consultation procedures and timeline (135 calendar days) would apply.

In accordance with federal and state regulations and policies, SDDOT's procedures for projects involving threatened and endangered species is illustrated in Figure 3.2-1, summarized in Table 3.2-3, and further described in the narrative following Table 3.2-3.

Programmatic Consultation for Stream Crossings

In 2008, USFWS issued the current Programmatic BO for Stream Crossing Projects Administered/Funded by FHWA and SDDOT to guide construction activities in stream crossings. USFWS determined that stream crossings by SDDOT projects likely to adversely affect the American burying beetle and Topeka shiner, and provided guidance for highway construction activities that could affect them. The previous BO (2004) contained detailed terms and conditions that were drawn from SDDOT's Special Provision for Construction Practices in Streams Inhabited by the Topeka shiner (effective February 11, 2004). It was later determined that not all measures were feasible and USFWS reissued the BO in consideration of new information (2008).

In May 2010, SDDOT revised the Special Provision for Construction Practices in Streams Inhabited by the Topeka shiner. This document outlines requisite conditions to be implemented to minimize the impact of stream-crossing construction on the Topeka shiner. Examples of the construction requirements include monitoring water turbidity as well as installing and maintaining BMPs for erosion and sediment control. The Special Provision includes guidelines for fish rescue/relocation, de-watering and water extraction, temporary work platforms, removal of structures and obstructions, temporary diversion channels, preconstruction meetings, and Contractor work plans.

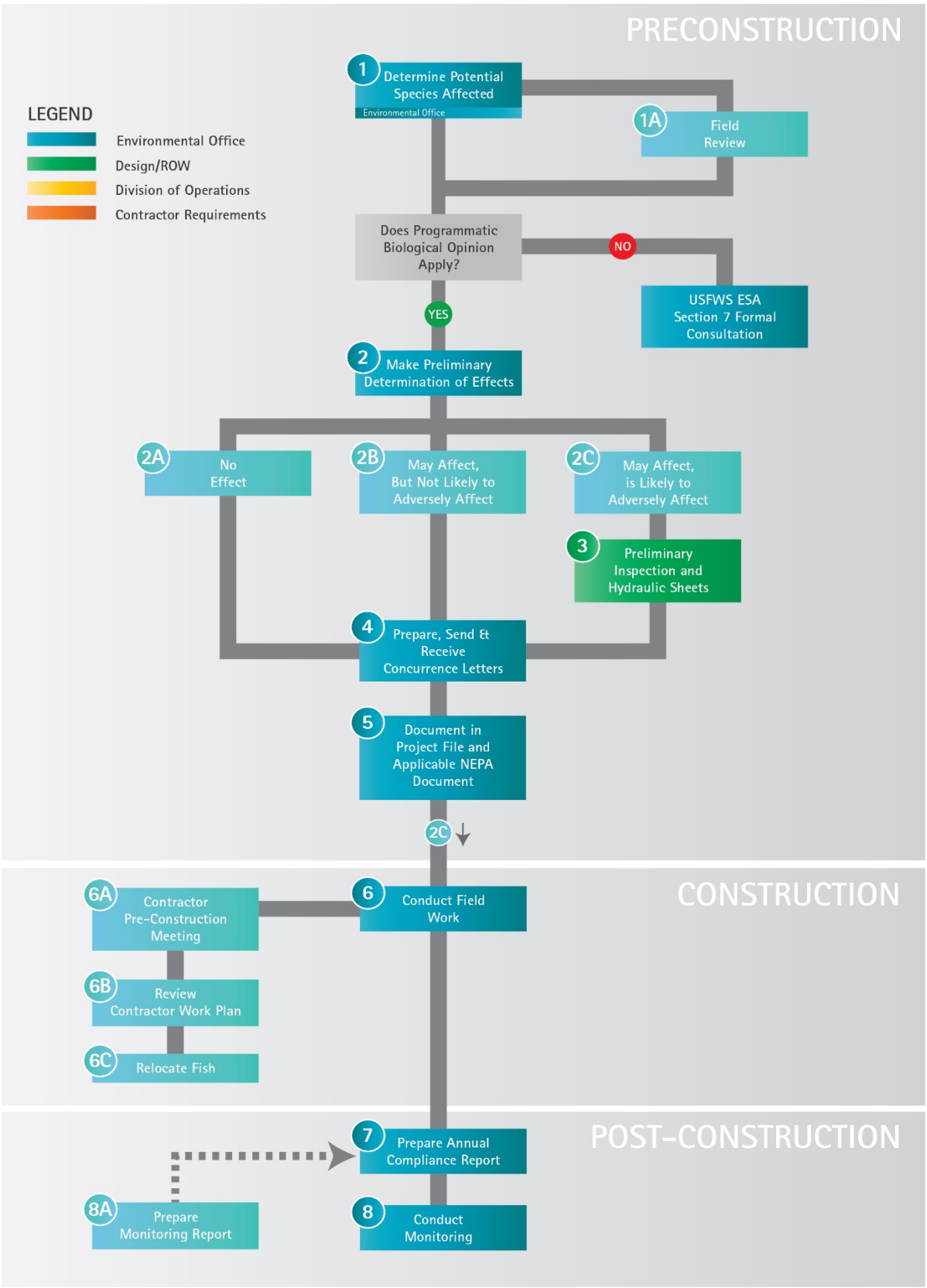


Figure 3.2-1 Threatened and Endangered Species Process Diagram

Table 3.2-3 Steps in the Threatened and Endangered Species Process

Step	Participant(s)	Result(s)
Preconstruction		
1. Determine potential species affected	EPC, SDGFP	SDGFP coordination letter, document in Environmental Project Tracking Database
1A. Field review	EPC, Wildlife Biologist	Photo documentation of site
2. Make preliminary determination of effect	EPC	Preliminary determination in steps 2A, 2B, 2C
2A. "No effect"	EPC	Preliminary determination, USFWS concurrence letter
2B. "May affect, not likely to adversely affect"	EPC	Preliminary determination for least tern, whooping crane, Topeka shiner, and American burying beetle, USFWS concurrence letter
2C. "May affect, is likely to adversely affect"	EPC, Wildlife Biologist, USFWS	Preliminary determination, concurrence letter and Biological Assessment
3. Conduct preliminary inspection and hydraulic sheets	Bridge Design or Local Government Assistance Consultant	Preliminary assessment and hydraulic sheets
4. Prepare, send, and receive concurrence letter	EPC, USFWS	Concurrence letter, document in Environmental Project Tracking Database
5. Document in project file and applicable NEPA document	EPC	Project file, Environmental Tracking Database, CE Checklist and ECC, EA/FONSI, EIS, ROD, Copy of Section A Plan Notes (if applicable) to Design to incorporate in Final Plan set
Construction		
6. Conduct field work	Wildlife Biologist	See steps 6A, 6B, 6C
6A. Preconstruction meeting	Wildlife Biologist, Area Engineer, Project Engineer, Contractor, and Subcontractor	Preconstruction meeting checklist, Environmental Needs Form
6B. Review contractor plans	Wildlife Biologist, Project Engineer	Work plan

Step	Participant(s)	Result(s)
6C. Relocate fish	Wildlife Biologist	Project Reporting Form
Post-construction		
7. Prepare Annual Compliance Report	Wildlife Biologist, FHWA, USFWS	Annual Compliance Report
8. Conduct structure monitoring	Wildlife Biologist	Fish Passage Assessment Worksheet
8A. Prepare Annual Monitoring Report	Wildlife Biologist, FHWA, USFWS	Annual Monitoring Report

Notes: BO – Biological Opinion, CE – Categorical Exclusion, EA – Environmental Assessment, ECC – Environmental Commitments Checklist, EIS – Environmental Impact Statement, EPC – Environmental Project Coordinator, FHWA – Federal Highway Administration, FONSI – Finding of No Significant Impact, ROD – Record of Decision, SDGFP – South Dakota Game, Fish and Parks, USFWS – U.S. Fish and Wildlife Service

The BO includes all FHWA/SDDOT crossings of waterways in South Dakota, except those that cross the Missouri River; these crossings are consulted on individually. Projects include stream-crossing replacements, maintenance, emergency stream crossing, and water withdrawal. A majority of the projects involve physical disturbance to a stream-crossing below the 2-year flow (Q2) elevation and those that withdraw water from streams for construction purposes.

The BO determined that there would be no effect stemming from stream crossing or water withdrawal projects for all federally listed species, except for the least tern, whooping crane, Topeka shiner, and American burying beetle. Some species require additional information, surveys, or actions to ensure no adverse effects. The requirements are summarized in Table 3.2-4.

Post construction inspection of a completed structure replacement. (SDDOT)

Table 3.2-4 Summary of the Programmatic BO for Stream Crossings

Determination	Species*	Additional Requirements
No effect	Dakota skipper Piping plover Eskimo curlew Black-footed ferret Pallid sturgeon Western prairie fringed orchid Scaleshell mussel Higgins eye pearlymussel	None
	Least tern	Coordinate with USFWS if individuals or habitat are identified within 0.5 mile of project
	Black-footed ferret	Coordinate with USFWS if work will occur in/near occupied areas
May affect, not likely to adversely affect	Least tern	Surveys required on Cheyenne River Projects
	Whooping crane	Notify USFWS of any sightings, and cease activities and avoid harassment
May affect, is likely to adversely affect	Topeka shiner	Found in James, Big Sioux, and Vermillion Watersheds
	American burying beetle	See incidental take statement (Range known in Bennett, Gregory, Tripp, and Todd counties)

Notes: USFWS – U.S. Fish and Wildlife Service

*Species not included in the BO will require consultation with USFWS to determine effects.

The BO further set forth terms and conditions for the implementation of reasonable and prudent measures that are incorporated into Incidental Take Statements for the Topeka shiner and American burying beetle to ensure compliance with the ESA. For the Topeka shiner, the reasonable and prudent measures are related to the following:

Reasonable and prudent measures (50 CFR 402.02) *are actions that USFWS or NOAA Fisheries believes necessary or appropriate to minimize the impacts (the amount or extent) of incidental take caused by an action that was subject to consultation.*

- Habitat fragmentation/fish passage
- Minimization of fish mortality
- Sediment and erosion control and minimization of construction footprint
- Monitoring
- Training
- Reporting
- Incorporation of new scientific information

For the American burying beetle, the reasonable and prudent measures are related to the following:

- Minimization of construction footprint impacts
- Training
- Reporting
- Application of new scientific information

The BO requires SDDOT to report annually on construction activities affecting the Topeka shiner and American burying beetle from January to December of each year, reporting on the implementation and effectiveness of the terms and conditions of the reasonable and prudent measures.

Programmatic Consultation for Northern Long-Eared Bat

Due to severe declines and continued spread of the disease, the ESA listed the northern long-eared bat as threatened in April 2015. USFWS also released a 4(d) Programmatic BO on a 4(d) Rule for northern long-eared bat in January 2016, which specifically outlines "take" prohibitions for the species in their hibernacula and within areas affected by white-nose syndrome. Under the 4(d) rule, incidental take is prohibited if it occurs from tree removal activities occurring within a quarter-mile of a hibernaculum or from activities that cut down or destroy any trees within 150 feet of a known maternity roost tree, during the pup-rearing season (June 1 through July 31). Because many SDDOT projects would have either no effect on, or would not likely adversely affect the federally threatened northern long-eared bat, FHWA, FRA, and FTA entered into an interagency agreement with USFWS to develop a programmatic consultation process and conservation strategy. USFWS released a programmatic BO in 2016. Rather than prohibiting all adverse effects within the species' range, the programmatic consultation enables transportation projects to proceed with appropriate conservation and mitigation measures, while safeguarding the species under the ESA.

Under this programmatic consultation, SDDOT must determine the effect of project actions on the northern long-eared bat (see Step 2 below). USFWS has included an Assisted Determination Key in the IPaC System as a means of identifying a project's effect determination under the BO and electronically submitting that determination to USFWS. Projects that would not affect the species can proceed without further delays. Projects with insignificant effects on northern long-eared bat are considered "not likely to adversely affect," and may include projects at sites with confirmed absence of the species, or activities that involve maintenance of existing facilities that do not directly remove or alter bat habitat. Projects that may affect the northern long-eared bat must implement action-specific avoidance and mitigation measures to ensure that impacts have been mitigated to the point of insignificant or discountable effect and allow the project to reach a "may affect, not likely to adversely affect" determination. For example, in projects where lighting could be disruptive to the northern long-eared bat, the programmatic consultation establishes two avoidance and mitigation measures: (1) temporary lighting should be directed away from suitable habitat during the active season; and (2) permanent lighting should use downward-facing lens lights and should

direct lighting away from suitable habitat. For further information about this programmatic consultation, see the USFS User's Guide for the Range-wide Programmatic Consultation for Indiana Bat and Northern Long-eared Bat.

Threatened and Endangered Process Description

Step 1. Determine Potential Species Affected

Upon receipt of the Approved Scope, the EPC conducts a desktop review to determine the likelihood of the presence of a listed or proposed species and/or suitable habitat within the project area. During the review, consideration for bald eagle nesting sites within 1 mile of the project and any fields that have potential to provide nesting locations for migratory birds should be reviewed, and information on any state listed species should be incorporated into the review of the project area. The desktop review includes information from the USFWS Pierre Ecological Services Field Office, SDDOT GIS layers, and aerial photography.

The EPC sends a coordination letter to SDGFP to identify the potential for state-listed species in the project area. This review and coordination provides documentation of species and/or critical habitat, a determination of whether a field review should be conducted, and if the programmatic BOs apply. If the BOs do not apply, USFWS Section 7 consultation is conducted following guidelines in the USFWS Consultation Handbook or the USFWS Section 7 Consultation Technical Assistance website. If the programmatic BOs apply, the EPC makes a preliminary determination of effect from the data collected.

Structure field inspection to determine if aquatic species may be affected by replacement. (SDDOT)

- **Step 1A. Field Review**—The field review is used to determine the likelihood of the presence of a species and/or suitable habitat and to gain a clearer understanding of the stream habitat, condition, and adjacent land use. The field review helps determine the level of effect. For example, if the adjacent land use and instream habitat are poor or the field investigation identifies a lack of connection to a stream, the determination could be a "no effect" even if the structure to be replaced is in the statewide range for the species. Similar for the American burying beetle, if the location of a proposed road widening project does not anticipate impacting habitat as designated in the programmatic BOs, a "no effect" or "may affect, not likely to adversely affect" determination could be made. The rationale for the effect determination must be detailed in the concurrence letter to USFWS (Step 4). Field reviews often produce photo documentation of the visit.

Step 2. Make Preliminary Determination of Effect

Based on the desktop or field review, the EPC determines whether the proposed action may affect listed species or critical habitat in accordance with USFWS Consultation Handbook, Procedures for Conducting Consultation Act (1998).

- **Step 2A. No Effect**—Based on the data collected in the desktop or field review, the EPC determines that listed species will not be affected, directly or indirectly. The information collected in Step 1 supports the preliminary determination of "no effect" for the concurrence letter in Step 4.
- **Step 2B. May Affect, Not Likely to Adversely Affect**—Based on the data collected in the desktop or field review, the EPC determines that all effects for listed species are beneficial, insignificant, or discountable. The information collected in Step 1 supports the "may affect, not likely to affect" determination for the concurrence letter in Step 4.
- **Step 2C. May Affect, Is Likely to Adversely Affect**—Based on the desktop and/or field review, the EPC determines that the listed species are likely to be exposed to the actions and are likely to result in "take" or adverse effects. The EPC uses Step 1 data to prepare a biological assessment that is appended to the concurrence letter in Step 4. The Wildlife Biologist reviews the biological assessment. The biological assessment documents SDDOT's conclusions and rationale regarding the effects of its actions on protected resources. SDDOT's biological assessment Form includes (a) a project description, (b) eligibility for inclusion under the programmatic BOs, (c) effects to listed species, (d) implementation of Special Provisions, (e) preliminary description of fish passage design criteria and project footprint, and (f) conservation recommendations.

> ***Biological assessment*** *refers to information prepared by or under the direction of an action agency to determine whether a proposed action (major construction activity) is likely to affect listed and proposed species and designated and proposed critical habitat that may be present in the project action area, including the evaluation of potential effects of the action on such species and habitat. The outcome of the biological assessment determines whether formal consultation or a conference is necessary.*

Step 3. Preliminary Design Inspection and Hydraulic Sheets

Bridge design or local government assistance consultants submit a preliminary design inspection and prepare hydraulic sheets for structures that will be replaced. The EPC will review the fish passage designs and hydraulic sheets to determine if any adjustments are necessary for compliance under the *Topeka Shiner Special Provision*.

Data from the hydraulic sheets will be used to complete the biological assessment.

Step 4. Prepare, Send and Receive Concurrence Letter

The EPC prepares and sends a letter of potential impacts to USFWS for concurrence. SDDOT uses four types of concurrence letter templates. The EPC documents the letter in the Environmental Project Tracking Database.

*The **Special Provision** for Construction Practices in Streams Inhabited by the Topeka Shiner (2010) provides conditions that must be implemented to minimize the impact of stream-crossing construction on the Topeka shiner. Failure to implement the conditions may result in violation of the Endangered Species Act.*

1. Coordination Letter 1—No Effect and May Affect, Not Likely to Adversely Affect letter is prepared when there will be no impact to listed species, all determinations excluding the Topeka shiner, American burying beetle, and northern long-eared bat align with the programmatic BO determinations.
2. Coordination Letter 2—Informal Consultation letter is prepared when the project falls outside the parameters of the programmatic BOs. A biological assessment is required.
3. Coordination Letter 3—Prepared when the programmatic BOs apply, but minimal impacts on the stream channel will occur. A biological assessment is required and should be reviewed by the Wildlife Biologist prior to sending it to USFWS.
4. Coordination Letter 4—Prepared when the programmatic BOs apply, and a stream crossing structure is being constructed. A biological assessment will be completed, reviewed by the Wildlife Biologist, and included in the coordination letter to USFWS.

Attachments to the coordination letters include (1) a project summary from C2C; (2) a location map from ArcMap or Plan Set, biological assessment, if required; and (3) hydraulic data sheets (if structure is located within Topeka shiner's range).

The EPC will document the receipt of the concurrence letter in the Environmental Project Tracking Database and will address any comments in the response letter.

Step 5. Document in Project File and Applicable NEPA Document

The EPC will document the final determination of effect in the project file and applicable NEPA document (CEs, EA, or EIS) based on the response letter from USFWS, including if the federally listed species apply to the programmatic BOs. The EPC will request inclusion of Commitments B1-5 for the Threatened and Endangered Species and Commitment F for season work restriction for fisheries in the plan notes or special provisions. The commitments included in Section A Plan Notes, based on determinations for each species in the ECC (if applicable), will be sent to Design for inclusion in the Final Plan set.

Step 6. Conduct Field Work

Stream diversion on a Turner County project. Culverts with a 60-inch diameter were used to divert the creek around the project area. (SDDOT)

The Wildlife Biologist conducts field work for implementation of the Special Provision for the Topeka shiner, including preconstruction meetings, review of Contractor work plans, and fish seining (when required).

- **Step 6A. Contractor Preconstruction Meeting—** A preconstruction meeting is held with ROW, the Contractor, Subcontractors, Project Engineer, and Wildlife Biologist to ensure that the conditions of the Special Provision and all environmental permits are clearly understood. A Construction Plan for Work in Topeka Shiner Streams is completed by the contractor then reviewed/approved by the Wildlife Biologist. During the meeting, the Wildlife Biologist and Engineer will indicate which plan notes have been included based on determinations for each species in the review plans for stock pile placements, handling, storage, and disposal of excavated material. This review ensures the Contractor and Project Engineer are aware of environmentally sensitive resources, turbidity standards, requirements of the 404 permit, and other required permits. The review also makes the Wildlife Biologist aware that the Contractor will be dewatering, have fish relocated, using temporary works, and have proper sediment and erosion controls in place. Other environmental commitments or plan notes should be pointed out as necessary to the Contractor and Project Engineer.

- **Step 6B. Review Construction Work Plan—** The Contractor provides work plans to the Engineer. The Engineer sends the plans to the Wildlife Biologist for review and approval on projects involving temporary water barriers, cofferdams, and diversion channels (including de-watering and pumped effluent). The Wildlife Biologist provides recommended changes to the Engineer, who incorporates them into the Final Contractor Work Plan. No work shall proceed without the approval of the Contractor Work Plan by the Engineer and Wildlife Biologist.

*The **Construction Work Plan** includes a drawing and written description of the process for constructing the stream diversion channel, including blockage of natural channel and dewatering.*

- **Step 6C. Relocate Fish—** Contractors are required to give a 48-hour notice to the Wildlife Biologist before the Contractor is ready to have fish removed from the project area and dewatering can occur. The Wildlife Biologist will review the site to be seined upon arrival, check the water depth, any construction activities that are occurring in the area, and verify a water pump is present with the required screens to prevent fish from getting entrained. The Wildlife Biologist uses seine nets to collect fish for release into the remaining portions of the stream. Fish species and the number of fish is recorded. Seining continues until no more new species are identified or the number of fish netted is no longer significant based on professional judgment. The Wildlife Biologist documents fish seining activity in the Project Reporting Form and reports it in the Annual Compliance Report in Step 8.

  SDDOT Wildlife Biologist and Wetland Coordinator seining a project for the presence of Topeka shiner. (SDDOT)

  The Project Reporting Form includes project-specific information as well as description of stream habitat, diversion channel information, BMPs for erosion control, fish removal, other impacts on endangered species (nesting), and conservation recommendations.

Step 7. Prepare Annual Compliance Report

The Wildlife Biologist prepares and submits an Annual Compliance Report to USFWS and FHWA documenting compliance with the programmatic BO, BMPs and observations during construction of transportation projects with a “May Affect, Is Likely to Adversely Affect” determination for a species. The Annual Compliance Report includes all Project Reporting Form s and documents all construction activities completed during the calendar year for projects that had the potential to adversely affect the Topeka shiner or American burying beetle. The Wildlife Biologist tracks fish passage projects in an Excel spreadsheet for future monitoring in post-construction years 1, 3, and 5, at a minimum. (Note: Year 1 is the first field season following the completion of construction.)

Step 8. Conduct Monitoring

Following completion of a construction project that adversely affects the Topeka shiner or the American burying beetle, the Wildlife Biologist conducts monitoring on the effectiveness of fish passage biannually for 5 years, or as requested by USFWS, in accordance with guidelines for projects impacting the Topeka shiner or other fishery resources. The information is documented in the Fish Passage Assessment Worksheet

and reported in the Annual Monitoring Report, which is submitted with the Annual Compliance Report to USFWS and FHWA.

Fish passage guidelines include requirements that culverts are designed in a manner that does not impact fish movement. Culverts are required to be sunk below the stream flow line to allow the development of natural channel features, allow for sediment deposition, and prevent restrictions to fish movement.

- **Step 8A**. **Annual Monitoring Report—**The Wildlife Biologist prepares the Annual Monitoring Report to document the assessment of fish passage in years 1, 3, and 5, at a minimum. The Monitoring Report is submitted to USFWS and FHWA at the same time as the Annual Compliance Report. If noncompliance or concerns arise throughout project construction and monitoring, USFWS, FHWA, or the Wildlife Biologist may determine more frequent monitoring is required.

Applicable Laws, Regulations, and Guidance

Laws, regulations, and guidance relevant to threatened and endangered species are presented by agency, with executive orders presented first.

Federal Highway Administration

Endangered Species Act, Formal Programmatic Section 7 Consultation, Programmatic Biological Opinion, Stream-Crossing Projects Administered/Funded by SDDOT and FHWA, Revised August 2008—FHWA and SDDOT initiated formal consultation with USFWS under Section 7 of the ESA on January 5, 2004, via submittal of a biological assessment. A programmatic BO that covers all endangered species known to exist in South Dakota was issued by USFWS on April 28, 2004. It includes all FHWA/SDDOT crossings of waterways in South Dakota, except for those over the Missouri River (which are consulted on individually). Most projects involve physical disturbance to a stream crossing below the 2-year flow elevation and those that withdraw water from streams for construction purposes. The document provides guidance for the construction activities impacting endangered species and may provide mandatory terms and conditions to be implemented at stream-crossing projects impacting the Topeka shiner.

The programmatic BO requires SDDOT to submit to the USFWS by March 1 of each year, a report on the impact of stream-crossing construction activities on endangered species during the previous year. Principal objectives of this document are to report on the implementation of term and conditions and conservation measures and to evaluate the effectiveness of the term and conditions that are implemented to minimize the impact of incidental take on the Topeka shiner.

Programmatic Biological Opinion for Transportation Projects in the Range of the Indiana Bat and Northern Long-eared Bat, Revised February 2018—This programmatic consultation streamlines the process for transportation projects and negates the need for project-level effect analyses and individual consultations with the USFWS, reducing the timeline for project approval from months, or even years, to 30

days or less. SDDOT is to either complete the Assisted Determination Key using the IPaC System or send a Project Submittal Form to the appropriate USFWS Field Office. Two tiers of review apply to transportation projects depending on the severity of impacts to the species. For projects with a "no effect" or "may affect, is not likely to adversely affect" determination, the USFWS has 14 days to review the project and notify SDDOT if they determine the project does not meet the criteria for that determination. If SDDOT is not so notified, they may proceed under the programmatic consultation. For projects with a "may affect, is likely to adversely affect," USFWS is to respond within 30 days to SDDOT to: (1) verity that all applicable conservation measures are included in the project proposal; (2) verify that the project is consistent with the programmatic sideboards for covered project; and (3) identify any project-specific monitoring and reporting requirements, consistent with the monitoring and reporting requirements for the program as a whole.

User's Guide for the Range-wide Programmatic Consultation for Indiana Bat and Northern Long-eared Bat, Version 5.0, February 2018—This document provides guidance for the implementation of the 2016 range-wide programmatic consultation for the Indiana bat and northern long-eared bat. This user guide provides a summary of the scope the programmatic consultation by describing the actions appropriate to its use and key decision points during an effects analysis. It defines standard operating procedures for project(s) submission, review and tracking of the range-wide programmatic consultation. Included as appendices are: (1) the recommended IPaC Assisted Determination Key; (2) a project submittal form for transportation agencies to submit project-level information to USFWS; (3) a summary of avoidance and minimization measures to be implemented, as applicable, to reduce the potential effects of projects within the scope of the range-wide programmatic consultation; (4) a bridge/abandoned structure assessment guidance and form to determine if any bat species are likely using bridges/structures, and a form for documenting and submitting a site-specific bridge/abandoned structure assessment; and (5) a post-assessment discovery of bats at bridge/structure form to report incidental take of bats that may occur during construction of bridge activities.

Environmental Review Toolkit, ESA Webtool—Glossary**—**This Web tool provides a glossary of key terms often encountered when researching and writing biological assessments. In addition, USFWS also maintains a helpful glossary of key terms related to the ESA.

FHWA Technical Advisory T 6640.8A—The FHWA Technical Advisory T6640.8A, dated October 30, 1987, provides guidance for addressing impacts on threatened and endangered species. These guidelines should be followed if a species is present in a project area that is not covered under the current Programmatic Agreement. These steps include:

- Informational Gathering—The State Highway Agency must obtain information from USFWS to determine the presence or absence of listed and proposed threatened or endangered species and designated and proposed critical habitat in the proposed project area (50 CFR 402.12[c]). The information may be (1) a published

geographical list of such species or critical habitat; (2) a project-specific notification of a list of such species or critical habitat; or (3) substantiated information from other credible sources. Where the information is obtained from a published geographical list, the reasons why this would satisfy the coordination with the Department of the Interior should be explained. If there are no species or critical habitat in the proposed project area, the ESA requirements have been met. The results of this coordination should be included in the draft environmental document.

- Proposed Species/Proposed Critical Habitat—When a proposed species or a proposed critical habitat may be present in the proposed project area, an evaluation or, if appropriate, a biological assessment is made on the potential impacts to identify whether any such species or critical habitat are likely to be adversely affected by the project. Informal consultation with USFWS should be undertaken during the evaluation. The draft environmental document should include exhibits showing the location of the species or habitat, summarize the evaluation and potential impacts, identify proposed mitigation measures, and provide evidence of coordination with USFWS.

If the project is likely to jeopardize the continued existence of any proposed species or result in the destruction or adverse modification of proposed critical habitat, the State Highway Agency in consultation with FHWA must confer with USFWS to attempt to resolve potential conflicts by avoiding, minimizing, or reducing the project impacts (50 CFR 402.10[a]). If the preferred alternative is likely to jeopardize the continued existence of any proposed species or result in the destruction or adverse modification of proposed critical habitat, a conference with USFWS must be held to assist in identifying and resolving potential conflicts. To the fullest extent possible, the final environmental document needs to summarize the results of the conference and identify reasonable and prudent alternatives to avoid the jeopardy to such proposed species or critical habitat. If no alternatives exist, the final environmental document should explain the reasons why and identify any proposed mitigation measures to minimize adverse effects.

- Listed Species/Designated Critical Habitat—When a listed species or a designated critical habitat may be present in the proposed project area, a biological assessment must be prepared to identify any such species or habitat that are likely to be adversely affected by the proposed project (50 CFR 402.12). Informal consultation should be undertaken or, if desirable, a conference held with USFWS and/or the National Marine Fisheries Service during preparation of the biological assessment. The draft environmental document should summarize the following data from the biological assessment:
  - The species distribution, habitat needs, and other biological requirements
  - The affected areas of the proposed project
  - Possible impacts on the species, including opinions of recognized experts on the species at issue
  - Measures to avoid or minimize adverse impacts
  - Results of consultation with USFWS

In selecting an alternative, jeopardy to a listed species or the destruction or adverse modification of designated critical habitat must be avoided (50 CFR 402.01[a]). If the biological assessment indicates that there are no listed species or critical habitat present that are likely to be adversely affected by the preferred alternative, the final environmental document should provide evidence of concurrence by USFWS and identify any proposed mitigation for the preferred alternative.

If the results of the biological assessment or consultation with USFWS show that the preferred alternative is likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of designated critical habitat, to the fullest extent possible, the final environmental document needs to contain: (1) a summary of the biological assessment (2) a summary of the steps taken, including alternatives or measures evaluated and conferences and consultations held to resolve the project's conflicts with the listed species or critical habitat; (3) a copy of the BO; (4) a request for an exemption from the ESA; (5) the results of the exemption request; and (6) a statement that (if the exemption is denied) the action is not eligible for federal funding.

State of South Dakota

Chapter 34A-8. Endangered and Threatened Species—On the basis of determinations pursuant SDCL 34A-8, the SDGFP promulgates a list of those species of wildlife that are determined to be endangered or threatened within the state. SDGFP makes these determinations based on the best scientific, commercial, and other data available and after consultation, as appropriate, with federal agencies, other interested state agencies, other states having a common interest in the species, and interested persons and organizations

State of South Dakota Department of Transportation, Special Provision for Construction Practices in Stream-crossing Inhabited by the Topeka Shiner (May 10, 2010*)*—Special provisions were developed for construction on streams inhabited by or likely to be inhabited by, the Topeka shiner. The Topeka shiner is a small pool-dwelling minnow that is found in prairie streams of the lower Missouri River Basin and upper Mississippi River Basin. In South Dakota, the Topeka shiner has been found in about 40 streams in the James River, Big Sioux River, and Vermillion River Watersheds. The Topeka shiner currently retains its historic distribution and is locally abundant in South Dakota; however, population trends are unclear. Most stream-crossing projects constructed in the James River, Big Sioux River, and Vermillion River Basins may impact the Topeka shiner.

South Dakota Game Fish and Parks, South Dakota Natural Heritage Program—The South Dakota Natural Heritage Program is part of SDGFP. The website provides links to acquiring data that is useful for evaluating threatened, endangered, and rare plant and animal species for proposed projects.

U.S. Fish and Wildlife Service

Endangered Species *(*16 USC 1531-1541*)*—Codifies the provisions of the ESA of 1973, as amended. Section 7 of the Act (16 USC 1536) requires federal agencies proposing major construction activities to complete a biological assessment to determine the effects of the proposed action on listed and proposed threatened and endangered species. A major construction activity is defined as "a construction project (or other undertaking having similar physical impacts), which is a major federal action significantly affecting the quality of the human environment as referred to in the NEPA." If a biological assessment is not required, then the federal agency is required to review its proposed activities to determine whether listed species may be affected. If such a determination is made, formal consultation with USFWS is required.

Regulations 50 CFR 17, Endangered and Threatened Wildlife and Plants, and 50 CFR 402, Interagency Cooperation-Endangered Species Act of 1973, as Amended—Contain the primary implementing rules for the ESA. The regulations for permitting "incidental taking" of listed species are contained in 50 CFR 17. In accordance with 16 USC 1532(19), take means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct."

USFWS Mountain-Prairie Region "Endangered Species Program" Website—This USFWS website provides current information on the status, biology, and ecology of threatened, endangered, proposed, and candidate species in Region 6 of USFWS. It provides information at the region, state, county, and species level.

USFWS Endangered Species Glossary—The glossary is intended to define key words but does not necessarily provide a legal definition or thorough description.

Migratory Birds (16 USC 701-715)—The MBTA prohibits the taking of migratory birds, nests, and eggs, except as permitted by the USFWS Migratory Bird Office. Despite its age, the MBTA suffers from statutory ambiguity and unpredictable enforcement. The prohibitions under the MBTA are narrower than the prohibitions of the ESA and generally do not apply to habitat. Courts vary widely in how they interpret liability under the MBTA, and USFWS has broad discretion in how it chooses to enforce the MBTA.

Bald and Golden Eagles (16 USC 668-668c)—The BGEPA makes it illegal to take, possess, sell, purchase, barter, or transport any bald or golden eagle, alive or dead, or any part, nest, or egg thereof. "Take" includes to pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb (50 CFR 22.3). Under the BGEPA, USFWS may issue limited permits to incidentally "take" eagles (e.g., injury, interfering with breeding, feeding, or causing nest abandonment). In 2009, USFWS promulgated regulations that established incidental take permitting, which authorizes non-purposeful take (disturbance, injury, or killing) of eagles where the take is incidental to an otherwise lawful activity. Those regulations were revised in 2016 to better facilitate the issuance of longer-term, programmatic permits that cover any unintended eagle take.

3.3 Historic, Archeological and Cultural Resources

A multitude of federal and state laws, rules, and regulations dictate that SDDOT's project development process takes into consideration historic, archeological, and cultural resources that may be affected by a proposed transportation project. Examples of Federal laws include Section 4(f) of the USDOT Act, the Archaeological Resources Protection Act, and the Native American Graves Protection and Repatriation Act.

South Dakota state codified laws include SDCL 1-19A-11.1 Preservation of Historic Sites and as well as other state laws relating to preservation or discovery of human remains (SDCL 34-27-25, 34-27-28 and 34-27-31). SDCL 1-19A-11.1 specifically applies to SDDOT projects that do not involve any federal funding or licensing.

Applicable laws, regulations, and guidance are cited at the end of this section.

Section 106 of the National Historic Preservation Act of 1966

Native American Tipi designed for several rest areas in South Dakota is the only property in SD excluded from the Interstate Exemption (SDDOT)

Section 106 of the NHPA, as amended, guides the process of considering the effects of federal undertakings on historic properties. As such, Section 106 applies to federal agencies and to projects that are carried out with federal financial assistance; or those requiring a federal permit, license, or approval.

Section 106 seeks to accommodate historic preservation concerns with the needs of federal undertakings through consultation among the agency officials and other parties with an interest in the effects of the undertaking on historic properties. This section defines key terms used in the protection of historic properties, introduces the applicable authorities, and describes the environmental commitments established for compliance with Section 106.

SD DOT, working on behalf of the FHWA, must comply with Section 106. The process by which SDDOT complies with Section 106 is illustrated in Figure 3.3-1, summarized in Table 3.3-1, and described in further detail throughout this section. Relevant regulations are cited at the end of the section for further reading.

Common Definitions:

Historic property means any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the NRHP maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the NRHP criteria.

The Area of Potential Effect (APE) is the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if any such properties exist. The APE is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking.

Undertaking means a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a federal agency, including those carried out by or on behalf of a federal agency; those carried out with federal financial assistance; and those requiring a federal permit, license, or approval.

Consultation means the process of seeking, discussing, and considering the views of other participants, and, where feasible, seeking agreement with them regarding matters arising in the Section 106 process. The Secretary's "Standards and Guidelines for Federal Agency Preservation Programs pursuant to the National Historic Preservation Act" provide further guidance on consultation.

The term *eligible for inclusion in the NRHP* includes both properties formally determined as such in accordance with regulations of the Secretary of the Interior and all other properties that meet the NRHP criteria.

Memorandum of agreement means the document that records the terms and conditions agreed upon to resolve the adverse effects of an undertaking upon historic properties.

Note: All definitions are cited at 36 CFR § 800.16.

Authorization:

Section 106 of the NHPA (54 USC 306108) requires federal agencies to consider the effects of their actions on historic properties and afford the ACHP a reasonable opportunity to comment on such undertakings.

The regulations that implement Section 106, Protection of Historic Properties (36 CFR §800), encourage agencies to plan Section 106 consultations in coordination with other requirements of other statutes, as applicable, such as NEPA.

Introduction

Section 106 of NHPA requires federal agencies to consider the effects of their action on historic properties. NHPA created the ACHP and authorized to issue regulations governing the implementation of Section 106. These regulations are set forth in 36 CFR Part 800. Other federal and state laws, rules, and regulations require the project development process take into consideration historic, archeological, and cultural resources that may be affected by a proposed transportation project. Examples include Section 4(f) of the USDOT Act, Archaeological Resources Protection Act, and Native American Graves Protection and Repatriation Act. South Dakota state codified laws include SDCL1-19A-11.1 Preservation of Historic Sites and as well as others state laws relating to preservation or discovery of human remains. Applicable laws, regulations, and guidance are cited at the end of this section.

WHAT IS A HISTORIC PROPERTY?

"Historic property" means any prehistoric or historic district, site, building, structure, or object included in or eligible for inclusion in the National Register of Historic Places maintained by the Secretary of the Interior (NPS). This term includes artifacts, records, and material remains that are related to and located within such properties. Properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization may be determined eligible for inclusion in the National Register. [36 C.F.R. § 800.16(l)(1)]

WHAT IS A CULTURAL RESOURCE?

Effects considered under NEPA include cultural and historic. [40 C.F.R. § 1508.8] The term "cultural resources" covers a wider range of resources than "historic properties," such as sacred sites, archeological sites not eligible for the National Register of Historic Places, and archeological collections.

[CEQ NEPA and NHPA A Handbook for Integrating NEPA and Section 106]

The Section 106 process is conducted in conjunction with other environmental considerations for projects. The CEQ and the ACHP encourage integration of the NEPA process with other environmental reviews, such as Section 106 of NHPA. SDDOT will work closely with the SHPO/THPO to coordinate efforts that may be required under both NEPA and NHPA.

Historic, Archeological, and Cultural Resources Process Overview

The Section 106 process seeks to incorporate historic preservation principles into project planning through consultation between a federal agency and other parties with an interest in the effects of the federal agency's action on historic properties. Section 106 consultation involves four steps: (1) initiate the process, (2) identify historic properties that could be affected by the undertaking, (3) assess the undertaking's potential effects to such properties, (4) seek ways to avoid, minimize or mitigate any adverse effects to historic properties. The procedures for SDDOT projects involving historic, archeological and cultural resources are illustrated in Figure 3.3-1, summarized in Table 3.3-1, and are further described in the narrative in the next section.

The entire process begins with a broad outreach by SDDOT to agencies, Tribes, local governments and federal agencies with a possible interest in the historic properties in the APE for the proposed undertaking. Specific parties with interest in the Section 106 process include the SHPO and federally recognized Indian Tribes, represented by THPOs or appropriate Tribal leadership. Section 106 requires that SDDOT allow SHPO/THPO the opportunity to comment on the proposed transportation project and consult with federally recognized Tribes when undertakings have the potential to affect properties on Tribal lands or properties of religious and cultural significance located on non-Tribal lands.

Generally, the Section 106 process is a series of consultations between SDDOT and the SHPO or THPO, and other consulting parties identified during the consultation process. If there is disagreement at any step of the process, FHWA is asked to make a decision. FHWA may in turn ask the ACHP for a decision on disagreements regarding project effects. Disagreements regarding eligibility may be appealed to the Keeper of the National Register of Historic Places for a final decision.

Under the 2015 Stewardship and Oversight of the Federal-aid Highway Program Agreement between SDDOT and FHWA, authorizes SDDOT to assume specific project approvals but does not delegate the FHWA's decision-making authority. However, at any time, the state may request that FHWA get involved in any specific project or issue regardless of the delegations in this Agreement.

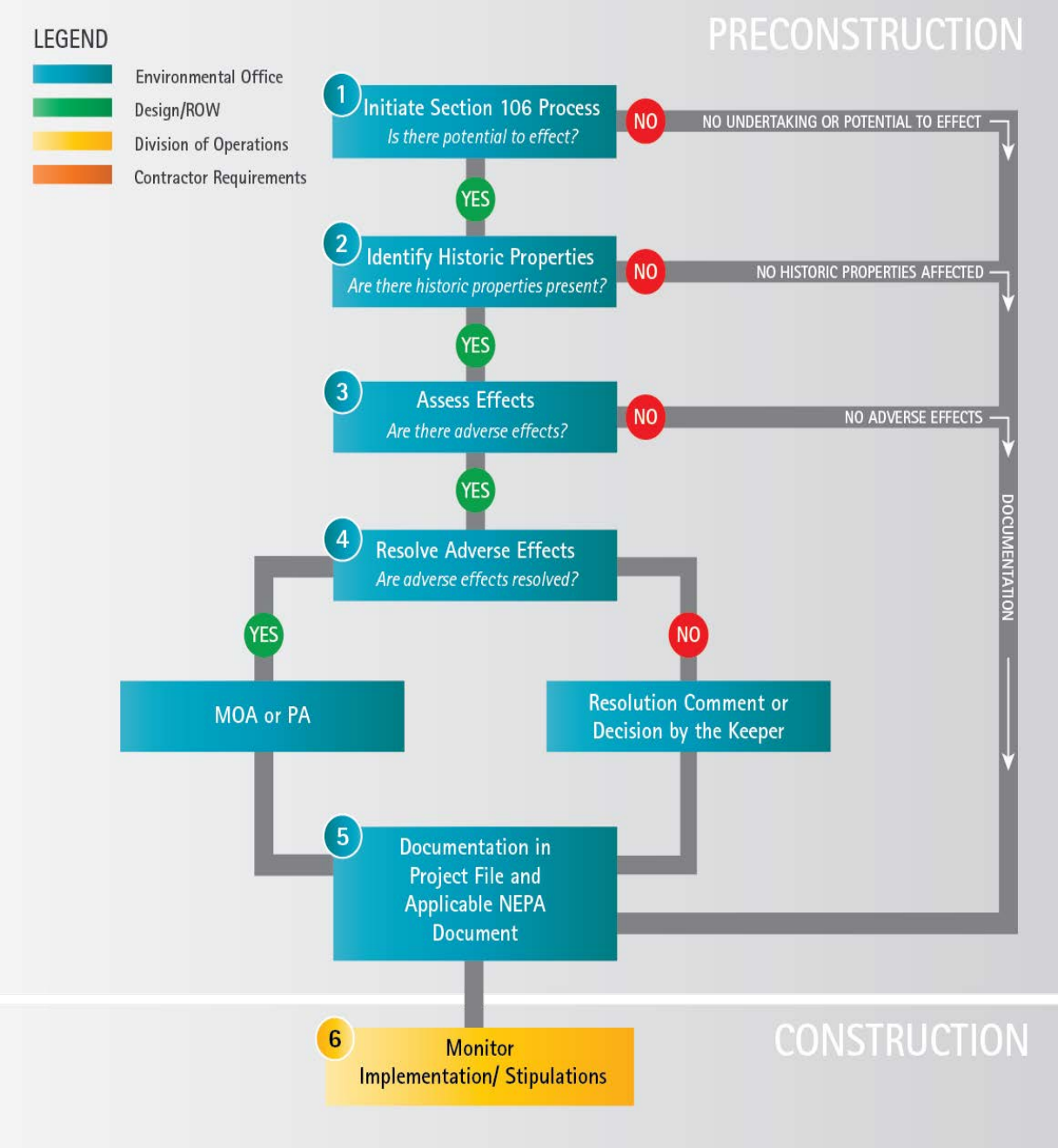


Figure 3.3-1 Section 106 Process

Table 3.3-1 Steps in the SDDOT Section 106 Process

Step	Participant(s)	Result(s)
Preconstruction		
1. Initiate Section 106 process.	EPC, ARC, Tribes/THPOs, SHPO	APE Determination, Identification of appropriate consulting parties, Coordination Letter(s), Environmental Project Tracking Database
2. Identify historic properties	EPC, ARC, SHPO/THPO, Tribes, Consulting Parties, BIA, Local Historic Preservation Commissions, NPS, Certified Local Government programs, public	Record Search or Cultural Resources Survey, Tribal Response Letters, SHPO/THPO consultation of effects, Environmental Project Tracking Database
3. Assess adverse effects	EPC, SHPO/THPO, ACHP, Consulting Parties	SHPO/THPO Concurrence, e-106 Form (adverse effect), project file
4. Resolve adverse effects *4a. MOA or Programmatic Agreement* *4b. Resolution Comment or Decision by the Keeper*	EPC, SHPO/THPO, FHWA, ACHP (if involved), Consulting Parties	Memorandum of Agreement or Programmatic Agreement, ACHP Comment (if unresolved adverse effects)
5. Document in project file and applicable NEPA document	EPC, FHWA	Project file, CE Checklist and ECC, EA/FONSI, EIS/ROD, copy of Section A Plan Notes (if applicable) to Design to incorporate in Final Plan set
Construction		
6. Monitor implementation (MOA/Programmatic Agreement)	EPC, Project Engineer, ARC, THPO, and/or Tribal Monitor, Contractor	Documentation of construction findings in project file

Notes: ACHP – Advisory Council on Historic Preservation, APE – Area of Potential Effect, ARC – State Archeological Research Center, BIA – Bureau of Indian Affairs, CE – Categorical Exclusion, EA – Environmental Assessment, ECC – Environmental Commitment Checklist, EIS – Environmental Impact Statement, EPC – Environmental Project Coordinator, FHWA – Federal Highway Administration, FONSI - Finding of No Significant Impact, ROD – Record of Decision, SHPO – State Historic Preservation Office, THPO – Tribal Historic Preservation Office

SDDOT's Process for Compliance with Section 106

Step 1. Initiate the Section 106 Process (36 CFR § 800.3)

If a project is federally funded and the undertaking has the potential to effect historic properties, it is subject to Section 106 of the NHPA. Once the determination is made that the proposed action is a federal undertaking (confirmed through inclusion in the STIP) and has the potential to cause effect, the EPC identifies either the SHPO or THPO, if project is located on tribal lands. The EPC will prepare coordination letters to the ARC, federally recognized Tribes, Certified Local Governments (Local Historic Preservation Commissions), and resource agencies to determine the potential for effect, describing the project, and identifying contacts and consulting parties for Section 106 consultation. The EPC will document consultation letters in the project file and Environmental Project Tracking Database.

If it is determined there is no undertaking, or that the undertaking is a type of activity that has no potential to affect historic properties, Section 106 obligations are finished. If historic properties may be affected by the action, the EPC will consult with the SHPO or THPO and Tribes to identify the APE.

> ***Adverse Effect***—*undertaking that may alter, directly or indirectly, any of the characteristics of a historic property in a manner that would diminish the integrity of the property's location, design, setting, materials, work-manship, feeling, or association.*

Step 2. Identify Historic Properties (36 CFR 800.4)

Under Section 106, SDDOT needs to consider the effect of an undertaking on any historic property (including unevaluated sites), which is any property that is included in, or eligible for inclusion in, the NRHP. SDDOT must identify and evaluate the eligibility of those resources for inclusion in the NRHP. SDDOT uses Secretary of the Interior-qualified professionals to identify historic properties.

NRHP criteria for evaluation include the quality of significance in American history, architecture, archeology, engineering, and culture that is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association. Additionally, to be eligible for the NRHP, a resource must be significant under one or more of the following criteria:

- **Criterion A:** Association with events that have made a significant contribution to the broad patterns of our history
- **Criterion B:** Association with the lives of persons significant in our past
- **Criterion C:** Embodiment of the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction

- **Criterion D:** Has yielded, or is likely to yield, information important in history or prehistory (this generally is understood to refer to archeological significance) [36 CFR 60.4]

The criteria considerations provide further guidance on the eligibility of resources that are less than 50 years of age, cemeteries, birthplaces, or graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, and properties primarily commemorative in nature (NRHP Criteria for Evaluation).

SDDOT determines the nature and level of effort required for the identification of historic properties. Historic properties may include Traditional Cultural Properties (TCP) or properties of religious or cultural significance. Tribes possess special expertise in identifying and assessing these properties.

The EPC sends a letter to the ARC requesting a records search or cultural resource survey to identify historic properties within the APE. If the ARC is unavailable, a qualified preservation consultant may conduct the survey and prepare the cultural resources survey report. If necessary, the EPC also requests an architectural or historic structure survey. The survey work is conducted in compliance with the South Dakota Guidelines for Compliance with the National Historic Preservation Act and South Dakota Codified Law 1-19A-11.1. If cultural resources are identified during the survey, the cultural resources survey report makes a recommended determination of eligibility of those resources. SDDOT, on behalf of FHWA, must make the official determination. The EPC consults with the identified consulting parties and SHPO or THPO, depending on whether the project is on Tribal lands.

To be considered eligible, a property must meet the National Register Criteria for Evaluation. This involves examining the property's age, integrity, and significance.

36 CFR Part 63 provides regulations to assist federal agencies in identifying and evaluating the eligibility of properties for inclusion in the National Register.

The majority of the Interstate Highway System is exempt from consideration as an historic property under Section 106 of NHPA and Section 4(f) of the USDOT Act requirements because of the ACHP's Exemption Regarding Historic Preservation Review Process for Effects to the Interstate Highway System. The only properties in South Dakota which are excluded from the Interstate Exemption are the Tipi Structures located at six rest areas along the interstate system. SDDOT projects which have the potential to affect any of the tipi structures are subject to Section 106 of NHPA.

The determination of eligibility will be submitted to the SHPO or THPO prior to requesting approval of the draft EA/EIS for public availability. A response is requested within 30 days of the submittal. If a Tribe does not have a THPO, the SHPO will be consulted and a copy of the archeological and/or historic survey will be forwarded to the Tribe's 106 coordinator.

The Bureau of Indian Affairs' archeologist will also be sent a copy of request for THPO concurrence along with a copy of the Cultural Resources Survey report when tribal lands are adjacent to the project.

The EPC will make a determination of eligibility in accordance with the NRHP's criteria for evaluation. The following may result:

- If the SHPO or THPO, consulting parties and SDDOT agree that a property is eligible, the property shall be considered eligible and it meets the definition of a historic property.
- If the SHPO or THPO, consulting parties and SDDOT agree that a property is not eligible, the property shall be considered not eligible and it does not meet the definition of a historic property.
- If the SHPO or THPO, consulting parties and SDDOT do not agree on determination of eligibility, FHWA will be asked to resolve the issue.
- If FHWA is unable to determine eligibility, FHWA may request a determination of eligibility from the Keeper of the NRHP.
- The Keeper's determination is final regarding eligibility.

When do you consult with SHPO?

The SHPO is consulted for all Section 106 matters on Non-Tribal Lands and for those undertakings on tribal lands for which the Tribe does not have a THPO.

When do you consult with THPO?

The THPO is consulted for all Section 106 matters on Tribal Lands. If a Tribe does not have a THPO, the SHPO is consulted with an informational copy to the Tribe.

Keeper of the National Register of Historic Places

The Keeper is the individual who has been delegated the authority by NPS to list properties and determine their eligibility for the National Register. The Keeper may further delegate this authority as he or she deems appropriate.

[36 CFR 60.3 Definitions]

Determination of No Historic Properties Affected: If the EPC, with guidance and recommendations from Secretary of the Interior-qualified professionals, determines there are no historic properties in the APE or that there are historic properties are present, but the project will have no effect upon the property, a determination of No Historic Properties Affected is made. According to SDDOT MOU If the SHPO does not object to the determination in 10 days, the Section 106 process is complete. The THPO is given 30 days to comment/concur with the determination.

Ineligible properties may be considered as resources for NEPA, and SDDOT will coordinate with the interested parties under NEPA.

The EPC will document the finding in the project file and applicable NEPA document and Environmental Project Tracking Database, providing the date the finding was received and attaching SHPO/THPO documentation.

Effect is an alteration to the characteristics of a historic property qualifying it for inclusion in or eligibility for the National Register.

36 CFR 800.16(i)

Determination of Effect to Historic Properties: If there is a historic property present and it is affected by the undertaking, the EPC will proceed to Step 3 to assess effects.

Step 3. Assess Adverse Effects (36 CFR § 800.5)

If SDDOT identifies historic properties in the APE, it must determine the effect of the project on the historic property. The criteria for determining an adverse effect is a systematic process of evaluating an undertaking that may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the NRHP in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration is given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the NRHP. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative. (36 CFR 800.5)

The EPC will make a determination of effects on historic properties (including places of traditional spiritual and cultural significance to Tribes) within the APE. All direct, indirect and cumulative effects must be considered. It may be necessary to re-assess the significant characteristics of properties that were listed or determined eligible prior to the beginning of the study.

The procedures for no adverse effect and adverse effect findings are described below:

- No Adverse Effect Finding
  - The EPC notifies FHWA and the SHPO/THPO, Tribes, and/or consulting parties, providing documentation in accordance with 36 CFR Part 800.11.
  - The SHPO/THPO, Tribes and/or consulting parties have 30 days to comment or object to the finding. If no objection is stated or response provided after 30 days, the project may proceed.
  - The EPC will consult with any objecting parties to resolve.
  - FHWA may seek ACHP's opinion. Tribes may request ACHP review and comment. ACHP has 15 to 30 days to offer its opinion.
  - FHWA will make a final decision and report the decision to the SHPO/THPO, Tribes and/or consulting parties. Section 106 consultation is complete, and the project may proceed. The EPC documents the No Adverse Effect determination in the project file and applicable NEPA documents.

- Adverse Effect Finding
  - The EPC submits adverse effects findings to SHPO/THPO, Tribes, and/or consulting parties and they have 30 days to comment or object to the finding. If no objection is stated or response provided after 30 days, the project may proceed.
  - The EPC documents the adverse finding by preparing notice to ACHP of Finding of Adverse Effect, using an e-106 form and FHWA submits to ACHP. This form serves as notice of the project and invites ACHP participation in the review. Although ACHP has 15 days to decide whether to participate in the process, it may enter the process at any time at its discretion.
  - The EPC and FHWA consult with SHPO, THPO, Tribes, and/or consulting parties to develop a plan to avoid, minimize or mitigate adverse effects.
  - The adverse finding is documented and the EPC and FHWA notifies all consulting parties and makes the finding available to the public. The EPC documents the finding in the Environmental Project Tracking Database, project file, and applicable NEPA document, providing the date the finding was received and attaching SHPO/THPO documentation.

If adverse effects are found, SDDOT documents the findings as set forth in 36 CFR § 800.11(e), sends documentation to SHPO/THPO and consulting parties, and makes the documentation available to the public using SDDOT's Public Involvement Plan, subject to the confidentiality provisions of 36 CFR § 800.11(c). FHWA sends the documentation to the ACHP and invites them to participate in the Section 106 process. The EPC will coordinate with FHWA and ACHP for any actions resulting in "Adverse Effect" findings. See Step 4.

Step 4. Resolve Adverse Effects (36 CFR § 800.6)

Once adverse effects are determined, SDDOT and FHWA must work with the consulting parties to resolve differences. The EPC and FHWA consult with the SHPO or THPO and other consulting parties to develop and evaluate alternatives or modifications that could avoid or minimize adverse effects to historic properties. FHWA is ultimately responsible for deciding what actions, if any, should be taken to avoid, minimize or mitigate the adverse effects.

FHWA and SDDOT involve the consulting parties to consider alternative methods to avoid or minimize effects. The top priority is to avoid 4(f) properties, which include NRHP eligible/listed properties. If avoidance cannot occur other alternatives are considered to minimize the impact. Avoidance or minimization alternatives may include options such as alignment shifts, design changes, or developing landscaping or screening for visual impacts.

Finally, mitigation for the adverse effect must be considered if avoidance or minimization are not feasible or prudent. Mitigation measures are also considered as ways to resolve adverse effects by finding ways to offset or compensate for the negative effects. Mitigation may take many forms and creative approaches are encouraged. Examples of mitigation

may include, but are not limited to: relocating a historic bridge to a new site, conducting archeological data recovery or intensive historic building documentation, providing interpretive or educational material and documenting and/or salvaging materials in the case of a demolition.

The consulting parties may enter into a formal agreement with FHWA and SDDOT through an MOA or Programmatic Agreement to set forth the mitigation measures. If there is not agreement, FHWA issues a resolution comment, outlining the issues and the failure to resolve them. Consulting parties may appeal the decision to the ACHP for final resolution.

- ***Step 4a Memorandum of Agreement or Programmatic Agreement—***Resolution of adverse effects involves preparation of an MOA or Programmatic Agreement among the SHPO/THPO, Tribes, and/or the invited consulting parties that outlines how adverse effects will be addressed and resolved. Draft agreements are sent to the SHPO/THPO, Tribes and invited consulting parties for review. ACHP should also be invited to participate in the agreement; though a signature from the agency is not required. Once all parties have provided input on the agreement, the EPC will prepare an MOA for signature first by SDDOT, then the SHPO/THPO, and finally FHWA prior to approval of the final environmental document. Required signatories are FHWA and SHPO/THPO, and SDDOT acts as a concurring signatory. FHWA forwards a copy of the MOA/Programmatic Agreement to ACHP within two weeks.

> *A **Memorandum of Agreement** is used to resolve adverse effects to historic properties and conclude the Section 106 process when implementing a discrete project with identified adverse effects.*
>
> *A **Programmatic Agreement** is a program alternative that may be used to implement the Section 106 process for a complex project situation. Programmatic Agreements can be developed on a national, statewide, or regional scope for similar or repetitive undertakings, for undertakings with repetitive effects on historic properties, or for situations where the effects to historic properties cannot be fully determined prior to the approval of an undertaking.*
>
> *[CEQ NEPA and NHPA A Handbook for Integrating NEPA and Section 106]*

- ***Step 4B Resolution Comment or Decision by the ACHP—***SDDOT, FHWA, SHPO, THPO, or ACHP may terminate consultation when an agreement cannot be reached to resolve adverse effects and when further consultation would not be productive [36 CFR 800.7(a)]. Possible outcomes are described, as follows:
  - If the SHPO terminates, SDDOT, FHWA, and ACHP may execute the MOA.
  - If SDDOT, FHWA, or ACHP terminate, the Tribes are notified by FHWA and ACHP issues comments to the head of FHWA with copies to the SHPO and the Tribes.
  - If THPO terminates, the ACHP issues comments to the SHPO and FHWA.
  - FHWA will consider ACHP comments and make a final decision.

- SDDOT and FHWA gives notice of its decision to all consulting parties and proceeds.

If any party is not satisfied by the outcome, the ACHP is asked to make a final decision.

Step 5. Documentation in Project File and Applicable NEPA Document

Documenting the consultation process is important in the Section 106 process, as well as for NEPA and Section 4(f). EPC documents the coordination and findings throughout the Section 106 process in the, project file and applicable NEPA document, including the MOA/Programmatic Agreement or termination of consultation (if applicable). CE Checklist information should include the date of MOA/Programmatic Agreement implementation and if cultural resources will be impacted. EPC sends CE Checklist to FHWA for signature. A copy of Section A Plan Notes, Commitment O, M1 and I are provided to Design for incorporation into the Final Plan set.

Step 6. Monitor Implementation Stipulations

Protecting historic, archeological and cultural resources during construction is an important priority for SDDOT. All earth disturbing activities not designated within the plans require a cultural resource review prior to scheduling the pre-construction meeting. This work includes, but is not limited to: Contractor furnished material sources, material processing sites, stockpile sites, storage areas, plant sites, and waste areas. Refer to Section A Plan Notes, Commitment I for details on actions required for SHPO clearances for earth disturbing activities. Even after these required actions have taken place, extra precautions may be taken during construction or as mitigation stipulations including having an inadvertent discovery plan in place, a plan to avoid known sites, and/or an archaeological monitoring plan in areas where survey prior to construction cannot be completed.

Post-review (or Inadvertent) Discoveries—The Project Engineer ensures compliance with the plans and specifications by monitoring and exercising stop-work orders in the event of an inadvertent discovery, as required by Section 106, SDCL 34-27 and other federal laws. If human remains are inadvertently discovered, the Contractor will follow the Procedures for Inadvertent Discovery of Human Remains, as prescribed by state law.

If historic properties are discovered or unanticipated efforts on historic properties are found after the SDDOT has completed the Section 106 process, the project undertaking shall avoid, minimize, or mitigate the adverse effects to such properties and notify the SHPO/THPO, and Tribes that might attach religious and cultural significance to the affected property, within 48 hours of discovery, pursuant to 36 CFR 800.13. If an inadvertent discovery is made of an unevaluated resource, that resource will need to be evaluated with respect to NRHP criteria to determine if it is a historic property.

Cultural Monitoring–Stipulations and/or Avoidance—For projects where stipulations are identified, such as cultural monitoring or where avoidance of historic or archeological sites is needed, EPC will document the name or structure, location or project in project file and appropriate NEPA document. For ECC see Commitment O.

If a sacred site or TCP of spiritual or cultural significance is identified by the cultural monitor prior to project construction activities, then the tribal monitor will notify the Project Engineer. The Project Engineer, in consultation with the EPC and environmental office will work with the THPO and/or cultural monitor, to determine the appropriate course of action.

If a sacred site or TCP of spiritual or cultural significance is identified by the cultural monitor during project construction activities, the cultural monitor will notify the Project Engineer and activities will be immediately halted. The Project Engineer, in consultation with the EPC/EO, ARC, THPO and/or cultural monitor, and SHPO, will determine the appropriate course of action.

Archeologically Sensitive Sites—Locations of archaeological sites are protected by state law (SDCL 1-20-21.2). Materials that contain information on the location of archaeological sites are not for public distribution. For projects where archeologically, sensitive sites that require avoidance during construction activities have been identified, the EPC will document in project file and appropriate NEPA document and provide a map with hatched area to help visualize the sensitive area without revealing the exact location of the site.

All artifacts, features, and other items of archeological or paleontological interest that are uncovered by project construction activities will not be displaced unless THPO and SHPO consent to it.

The Contractor will notify the ARC and THPO one week before installing the safety fence so that an archeologist and tribal monitor can be present to ensure the proper location, quality, and visibility of the safety fence. The locations and boundaries of the site(s) for avoidance are shown in Section B, *Grading Plans*.

The Contractor will notify the ARC and THPO one week before any earth-disturbing activities near the archeological sites so that an archeologist and cultural monitor can be present to monitor the removal of topsoil, ensure avoidance of the fenced sites, and identify any cultural resources that may be uncovered during earth-disturbing activities.

Applicable Laws, Regulations, and Guidance

Laws, regulations, and guidance relevant to historical and archeological resources are presented by agency, with executive orders presented first.

Advisory Council on Historic Preservation

NEPA and NHPA: A Handbook for Integrating NEPA and Section 106— The regulations that implement Section 106 of NHPA encourage Section 106 consultations to be coordinated with other statute requirements, such as NEPA. This handbook provides advice on both coordination of the Section 106 and NEPA reviews and the substitution of the NEPA reviews for the Section 106 process. *[NEPA and NHPA A Handbook for Integrating NEPA and Section 106]*

Protection of Historic Properties (36 CFR 800)—Section 106 of NHPA requires federal agencies to consider the effects of their actions on historic properties and afford ACHP a reasonable opportunity to comment on such undertakings. Procedures in this part define how federal agencies meet these statutory responsibilities.

Effect of Federal Undertakings upon Property Listed in NRHP; Comment by the ACHP (16 USC 470f)—This section of USC outlines requirements for considering the effect of an undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the NRHP. It directs the head of any federal agency that has direct or indirect jurisdiction over a proposed federal or federally assisted undertaking in any state and the head of any federal department of an independent agency that has authority to license any undertaking to afford ACHP a reasonable opportunity to comment before expending funds.

Department of the Interior

Archeological Resources Protection (16 USC Chapter 1B)—The Archaeological Resources Protection Act (16 USC Chapter 1B) of 1979, as amended, establishes uniform definitions, standards, and procedures that federal land managers must follow to provide protection of archeological resources that are located on public and Indian lands of the United States. *Protection of Archaeological Resources: Uniform Regulations* (18 CFR 1312) provide implementing regulations that define permit requirements for actions affecting archeological resources on public and Indian lands. SDDOT would need to follow these procedures for transportation projects on federal lands.

Native American Graves Protection and Repatriation Regulations (43 CFR 10)—The Native American Graves Protection and Repatriation Act of 1990 provides regulations that develop a systematic process for determining the rights of lineal descendants and Indian Tribes and Native Hawaiian organizations to certain Native American human remains, funerary objects, sacred objects, or objects of cultural patrimony with which they are affiliated. SDDOT would need to follow these procedures for transportation projects on federal lands.

Determinations of Eligibility for Inclusion in the NRHP of Historic Places (36 CFR 63)— These regulations assist federal agencies in identifying and evaluating the eligibility of

properties for inclusion in the NRHP. The regulations explain how to request determinations of eligibility under section 2(b) of Executive Order 11593 and the regulations of ACHP (36 CFR part 800) for implementation of sections 1(3) and 2(b) of Executive Order 11593 and NHPA of 1966**.**

Secretary Standards for Archeology and Historic Preservation—The U.S. Department of the Interior-NPS maintains a website that sets forth the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation.

Federal Highway Administration

Interpretation of Title 23, Section 144(o) Reasonable Costs Associated with the Demolition of Historic Bridges—The FHWA website provides a memorandum dated August 26, 2001, that addresses and clarifies conflicts between Sections 144(o) Historic Bridge Program and Section 133(b) Transportation Enhancement Activities and Historic Bridges.

Historic Bridge Program (23 USC 144[o])—National Bridge and Tunnel Inventory and Inspection Standards (23 USC144) set forth provisions requiring states to inventory and maintain all bridges and tunnels that are on and off the federal-aid highway system. The standards include a provision to determine the historical significance and encourage the retention, rehabilitation, adaptive re-use, and future study of historical bridges included on or eligible for inclusion on the NRHP.

FHWA Technical Advisory T 6640.8A—The FHWA Technical Advisory T 6640.8A, dated October 30, 1987, provides the following guidance for addressing historic and archeological preservation:

Historic and archeological resources must be identified and evaluated in accordance with the requirements of 36 CFR 800.4 for each alternative that is under consideration in the environmental document. The information and effort level that is needed to identify and evaluate historic and archeological resources varies from project to project and is determined by FHWA after considering existing information, the views of SHPO, and the Secretary of Interior's "Standards and Guidelines for Archeology and Historic Preservation."

The discussion in the environmental document should briefly summarize the following items:

- The methodologies used in identifying historic and archeological resources
- The impacts of each alternative, proposed mitigation measures for each resource, and documentation of coordination with the SHPO on the significance of newly identified historic and archeological resources
- The eligibility of historic and archeological resources for the NRHP
- The effects of each alternative on both listed and eligible historic resources

The environmental document can allow ACHP an opportunity to comment pursuant to Section 106 requirements if the document contains the information required by 36 CFR

800.8. The letter transmitting the environmental documentation to ACHP should specifically request its comments pursuant to 36 CFR 800.6.

To the fullest extent possible, the final environmental documentation must demonstrate that all the requirements of 36 CFR 800 have been met. If the preferred alternative has no effect on historic or archeological resources sites on, or eligible for, the NRHP, the final environmental documentation should indicate coordination and agreement with SHPO. If the preferred alternative has an effect on resource sites on, or eligible for, the NRHP, the final environmental documentation should contain the following information: (1) a determination of no adverse effect concurred in by ACHP, (2) an executed MOA, (3) in the case of a rare situation where FHWA is unable to conclude the MOA, a copy of comments transmitted from ACHP to FHWA and FHWA's response to those comments.

The proposed use of land from an historic resource on or eligible for the NRHP will normally require an evaluation and approval under Section 4(f) of the DOT Act. Section 4(f) also applies to all archeological sites on or eligible for the NRHP and that warrant preservation in place. See Section 4[f]).

State of South Dakota

South Dakota Administrative Rules (ARSD)

- ARSD 24:52:06 State register of historic places.
- ARSD 24:52:07 Standards for continued listing on the state register
- ARSD 24:52:10 Deadwood historic preservation fund
- ARSD 24:52:13 Project review.
- ARSD 24:52:16 Heritage area designation

South Dakota Codified Laws

SDCL 1-19A ***Preservation of Historic Sites***—outlines the state's historic preservation program. Similar to Section 106 of NHPA, the role of the SHPO in the state preservation law SDCL 1-19A-11.1 is to comment on projects with the potential to damage, destroy, or encroach upon any historic property listed on the state or the NRHP.

SDCL 1-19B ***County and Municipal Historic Preservation Activities***—At the local level, SDCL 1-19B provides the authority for county and municipal historic preservation activities. SDCL 1-19B enables local governments to establish historic preservation commissions, designate historic properties by local ordinance, and protect historic properties through local design review procedures.

SDCL 34-27-25 Reporting discovery of human skeletal remains

SDCL 34-27-28 Notification to landowner and coroner

SDCL 34-27-31 Discovery of human remains or funerary objects by state educational institution or museum

State Historic Preservation Office

Statewide Preservation Plan 2016-2020—In South Dakota, the SHPO, one of five program areas of the State Historical Society, is responsible for implementing the state's preservation program. SDCL 1-19A, entitled *Preservation of Historic Sites*, outlines the state's historic preservation program. The Plan outlines the purposes and policies of the NHPA, but provides a statewide and local perspective on issues relating to South Dakota.

U.S. Department of Transportation

Section 4(f) of the USDOT Act (23 USC 138; 49 USC 303)—Section 4(f) applies to projects or programs that involves funding or approvals from USDOT. It provides that the Secretary of USDOT may approve a transportation program or project that requires use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance, or land of an historic site of national, state, or local significance only if the following applies: (1) there is no feasible and prudent alternative to using that land; and (2) the program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from use. Implementing regulations are provided in 23 CFR 774.

AASHTO Practitioner's Handbook 6 Consulting under Section 106 of the National Historic Preservation Act—AASHTO published the Practitioner's Handbook 11, *Consulting under Section 106 of the National Historic Preservation Act*, in February 2007. This handbook manages all aspects of Section 4(f) compliance and covers the following topics with Section 4(f):

- Preparing for Section 106 consultation
- Defining an APE
- Inviting consulting parties
- Evaluating eligibility for NRHP
- Determining adverse effects
- Developing MOA and programmatic agreements
- Using alternative procedures to satisfy Section 106 requirement

3.4 Section 4(f)

Section 4(f) of the USDOT Act of 1966 provides protection to publicly owned parks, recreation areas (including recreational trails), wildlife or wildfowl refuges, or any publicly or privately-owned historic site listed or eligible for listing on the NRHP. The law only applies to USDOT agencies. Compared to the many procedural environmental laws that apply to federal highway actions, Section 4(f) is a substantive law that precludes project approval if there is a use of a Section 4(f) property when a prudent and feasible avoidance alternative is available. This section defines key terms used in compliance with Section 4(f) regulations, introduces the applicable authority, and describes the environmental commitments for compliance with Section 4(f). The process for projects involving Section 4(f) properties is illustrated in Figure 3.4-1, summarized in Table 3.4-1, and described in further detail throughout the rest of this section. Relevant regulations are cited at the end of the section for further reading.

Common Definitions:

Section 4(f) Property includes publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance, or land of an historic site of national, state, or local significance.

OWJ is official with jurisdiction over that resource for purposes of Section 4(f).

Historic sites includes properties of spiritual and cultural importance to Indian Tribes, prehistoric and historic districts, sites, buildings, structures, or objects listed in, or eligible for, the NRHP.

Use of a property occurs when there is an adverse impact to, or occupancy of, a Section 4(f) property, whether temporary, permanent, or constructive.

De minimis impact for historic sites, de minimis impact means that FHWA has determined, in accordance with 36 CFR part 800 (Section 106 regulations) that no historic property is affected by the project or that the project will have "no adverse effect" on the historic property in question. For parks, recreation areas, and wildlife and waterfowl refuges, a de minimis impact is one that will not adversely affect the features, attributes, or activities qualifying the property for protection under Section 4(f).

Least overall harm means if there is no feasible or prudent avoidance alternative that meets purpose and need, FHWA may only approve the alternative that causes the least overall harm to the Section 4(f) property, when taking into consideration mitigation efforts. A list of all factors to be considered when determining least overall harm is provided in 23 CFR 774.3(c).

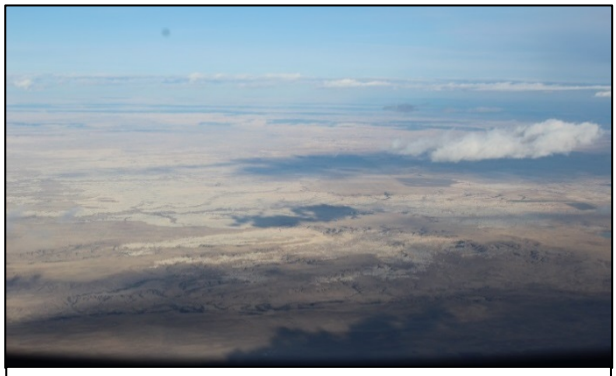
All definitions above are cited at 23 CFR 774.17.

Authorization:

Section 4(f) of the USDOT Act established the requirement for consideration of publicly owned park and recreation land, wildlife and waterfowl refuges, and historic sites during transportation project development. The law, now codified in 49 USC §303 and USC §138, is implemented by FHWA through the regulation 23 CFR §774. Section 4(f) applies to projects that receive funding or require approval by an agency of the USDOT, including FHWA.

Introduction

Many environmental laws, including the National Environmental Policy Act (NEPA), are procedural, complying when one adheres to the procedures regardless of the outcome. In contrast, Section 4(f) is a substantive law. It prohibits certain types of decisions from being made. It focuses on the substance of a USDOT decision and includes an obligation to make a specific finding or determination. As a substantive law, Section 4(f) can block an action, regardless of how thoroughly the action has been studied.



An aerial view of Badlands National Park in western South Dakota. (SDDOT)

Section 4(f) applies to projects that are approved by any USDOT agency. Section 4(f) properties include significant publicly owned public parks, recreation areas, and wildlife or waterfowl refuges, or any publicly or privately-owned historic site listed or eligible for listing in the NRHP. The statute prohibits the use of a Section 4(f) property unless the USDOT agency can demonstrate that:

- There is no feasible and prudent avoidance alternative to the use of land; and
- The action includes all possible planning to minimize harm to the property resulting from such use.
- The Administration determines that the use of the property will have a *de minimis* impact.

Overview of the South Dakota Department of Transportation Section 4(f) Process

The Section 4(f) process involves a sequence of understanding the implications of proposed transportation projects and evaluating the impacts properly. It begins with identifying Section 4(f) properties, determining the use of the properties, considering avoidance and minimization and evaluating the proposed project. The information was derived from the following resources: the 2012 FHWA Section 4(f) Policy Paper, the

AASHTO Center of Excellence Section 4(f) Overview, and the FHWA Section 4(f) Tutorial.

Identifying 4(f) Properties

In addressing Section 4(f), transportation agencies must first determine whether Section 4(f) properties are involved. Properties protected under Section 4(f) are publicly owned public parks, recreation areas and wildlife and waterfowl refuges, as well as historic sites of national, state, or local significance (whether publicly or privately owned).

Parks and Recreational Areas, and Wildlife and Waterfowl Refuges. These 4(f) properties are of national, state, or local significance that are both publicly owned and open to the public. The OWJ is the land manager, such as USFS, Bureau of Land Management, NPS, or SDGFP. To qualify as a park, recreation area, or refuge under the statute, a property must meet all of the following criteria:

- Publicly owned; are owned by a federal, state or local government agency. It may be through fee simple ownership or easement, or through a long-term lease agreement for 4(f) purposes
- Open to the public, being accessible to the general public during its normal operating hours. Does not apply to refuges, when certain restrictions apply to protect species/habitat
- Major purpose must be for park, recreation, or refuge activities
- Significance means that in comparing the availability and function of the property with the park, recreation, or refuge objectives of the managing authority, the property in question plays an important role in fulfilling those objectives (AASHTO Section 4(f) Overview).

Nexus with Section 6(f) of Land and Water Conservation Fund Act—*parks and recreational areas that are subject to Section 4(f) may also require compliance with Section 6(f) and implementing regulations in 36 CFR 59. See Section 3.5.*

Nexus with Section 106 of the National Historic Preservation Act—*historic sites that are subject to Section 4(f) may require compliance with Section 106 and implementing regulations in 36 CFR 800. See Section 3.3.*

Historic Sites. These 4(f) properties are of national, state, or local significance in public or private ownership regardless of whether they are open to the public. Historic sites are also referred to as cultural resources. The OWJ is the SHPO/THPO and the ACHP, when appropriate. Examples of the types of historic sites include: historic transportation facilities, archeological sites, traditional cultural places, historic and archeological districts, and historic trails. To qualify for protection under Section 4(f), a historic site must meet the following criteria:

- Historic sites of national, state, or local significance, regardless of whether the property is publicly owned or privately owned

- Eligible for listing in the NRHP as determined by FHWA in consultation with the SHPO, THPO, and/or tribes during the compliance step of Section 106 of the NHPA.

Determining the Use of Section 4(f) Property

Truss bridge in Hand County that was built in 1913 by the Iowa Bridge company out of Des Moines, Iowa. (SDDOT)

Use of a Section 4(f) property occurs when (1) land is permanently incorporated into a transportation project; (2) there is a temporary occupancy and 4(f) property is required for project construction-related activities; or (3) there is a constructive use, as addressed in 23 CFR 774.15.

The first consideration of a use is whether it is exempt from Section 4(f) regulations, as is or through application of avoidance or minimization.

4(f) Exception. USDOT has identified various exceptions to the requirements of Section 4(f), identified in 23 CFR 774.13. Exceptions do not require public involvement or require analysis of avoidance alternatives.

I*nterstate Highway Exemption.* Section 6007 of SAFETEA-LU exempts most of the Interstate Highway System from being considered as a Section 4(f) property. This exemption applies to the entire Interstate System, except for specific facilities designated by FHWA as having national and/or exceptional significance (AASHTO Interstate).

If the property is not exempt from 4(f) consideration, the use of a property is defined in three possible scenarios (23 CFR 774.15):

- Permanent Incorporation/Permanent Easement
  - Permanent Incorporation involves a ROW acquisition of Section 4(f) land as part of a transportation project.
  - Permanent Easement involves the acquisition of a permanent easement by SDDOT on the Section 4(f) property for transportation or related purposes.
- Temporary Occupancy—During the construction of a highway project, a temporary occupancy of a Section 4(f) property may be necessary for activities such as regrading slopes or to provide staging or access areas. Once the easement is no longer needed, the Section 4(f) property must be restored to the condition in which it was originally found. The Temporary Occupancy Exemption is not automatic and must meet the following criteria, otherwise a *de minimis* programmatic or individual 4(f) is required.

(1) Duration must be temporary, *i.e.*, less than the time needed for construction of the project, and there should be no change in ownership of the land;

(2) Scope of the work must be minor, i.e., both the nature and the magnitude of the changes to the Section 4(f) property are minimal;

(3) There are no anticipated permanent adverse physical impacts, nor will there be interference with the protected activities, features, or attributes of the property, on either a temporary or permanent basis;

(4) The land being used must be fully restored, i.e., the property must be returned to a condition which is at least as good as that which existed prior to the project; and

(5) There must be documented agreement of the official(s) with jurisdiction over the Section 4(f) resource regarding the above conditions.

- Constructive Use—Constructive use involves an indirect impact to the Section 4(f) property of such magnitude as to effectively act as a permanent incorporation. Here the project does not physically incorporate the resource but is close enough to it to severely impact important features, activities or attributes associated with it, and to substantially impair it (such as through severe visual, noise or vibration impacts).

Considering Avoidance and Minimization

Before an alternative involving the use of a Section 4(f) resource can be selected, avoidance alternatives and minimization measures must be considered. For determining *de minimis* impacts, avoidance, minimization and mitigation measures should all be taken into account. Avoidance alternatives are those that totally avoid the use of Section 4(f) properties while meeting the defined project needs; minimization measures are efforts to minimize the impact of a project on a Section 4(f) property. Minimization measures may include mitigation, which is compensation for Section 4(f) impacts that cannot be avoided. Mitigation may entail replacement of Section 4(f) property or facilities.

When selecting an alternative the most important point to remember is ***if an avoidance alternative is determined to be feasible and prudent, it must be selected.***

An alternative is not ***feasible*** *if it cannot be built as a matter of sound engineering judgment. It is not* ***prudent*** *if it compromises a project to a degree that it is unreasonable to proceed with the project in light of its stated purpose and need, is unacceptably unsafe or causes severe impacts 23 CFR 774.17.*

Avoidance. Avoidance alternatives are those that entirely avoid the use of Section 4(f) properties. A key requirement of Section 4(f) compliance is an attempt to show whether a property can be completely avoided while meeting the transportation need. When the alternatives under consideration use land from one or more Section 4(f) properties, alternatives that avoid each of the properties must be evaluated.

Avoidance alternatives should consider minor alignment shifts, reduced cross-sections, retaining structures, modifications to the project and so forth. Avoidance alternatives that

are eliminated from detailed study should be discussed in the Section 4(f) Evaluation with a clear explanation of why they are not feasible and prudent (FHWA 4(f) Avoidance).

Minimization. Once it has been determined that no feasible and prudent avoidance alternative exists, minimization efforts should be pursued. Minimization entails measures to reduce the impact to Section 4(f) properties. If multiple alternatives under consideration result in use of Section 4(f) property and no feasible and prudent avoidance alternatives exist, the alternative that will cause the least overall harm (after factoring in mitigation measures) must be selected.

The least overall harm determination provides SDDOT with a way to compare and select between alternatives that would use different types of Section 4(f) properties when competing assessments of significance and harm are provided by the officials with jurisdiction over the impacted properties (FHWA 4(f) Minimization).

Mitigation. After all minimization efforts have been explored, mitigation measures are typically pursued. Mitigation entails measures to compensate for a Section 4(f) impact that cannot be avoided and should be developed in consultation with the official(s) with jurisdiction. Mitigation may entail replacement of land and facilities of comparable value and function, monetary compensation that can be used to enhance the remaining property around a Section 4(f) property, placement of vegetative buffers and screening of the project area, or documentation for educational or interpretive purposes.

Mitigation of historic sites usually entails measures that have been designed to preserve the historic integrity of the site and that have been agreed upon—in accordance with the regulations implementing Section 106 of the NHPA (36 CFR, Part 800).

The cost of mitigation should be a reasonable public expenditure in light of the severity of the impact on the Section 4(f) resource (FHWA 4(f) Mitigation).

Evaluation the Proposed Project

Once opportunities to avoid, minimize or mitigate impacts to Section 4(f) properties is examined in the planning of the transportation project, an evaluation is made to demonstrate the minimization of harm to the property. The first consideration is whether a *de minimis* impact determination can be made for the transportation project. If a project would have a greater than *de minimis* impact, either a programmatic or individual written evaluation must be made.

De minimis. *De minimis* impacts are those that, after consideration of any measure(s) to minimize harm (such as any avoidance, minimization, mitigation, or enhancement measures), do not adversely affect the activities, features or attributes of the Section 4(f) property. A *de minimis* determination fulfills all Section 4(f) requirements. When a *de minimis* impact is determined, an evaluation of avoidance alternatives and whether they are feasible and prudent is not required. However, it is still necessary to implement

measures to minimize harm (which must be considered when determining whether the impact is *de minimis*). A *de minimis* determination cannot be made when there is a constructive use since such a use, by definition, involves impacts to a Section 4(f) resource such that the protected activities, features, and attributes would be substantially impaired (AASHTO *de minimis impacts*).

According to FHWA, if the use would have a greater than *de minimis* impact on the property, a written evaluation must be prepared and submitted to FHWA for approval. There are two types of evaluations—an individual evaluation (otherwise known simply as an evaluation) and a programmatic evaluation. An individual evaluation may be submitted either as an independent document (for CEs) or as a section of an EIS or an EA/FONSI.

De minimis Impact

For historic sites, de minimis impact means that FHWA has determined, in accordance with 36 CFR part 800 that no historic property is affected by the project or that the project will have "no adverse effect" on the historic site in question. For parks, recreation areas, and wildlife and waterfowl refuges, a de minimis impact is one that will not adversely affect the features, attributes, or activities qualifying the property for protection under Section 4(f).

(23 CFR 774.7(b))

A programmatic evaluation may be used only for projects that meet the application criteria of one of the five nationwide programmatic evaluations that have been approved by FHWA.

Both types of evaluations describe the Section 4(f) property, the proposed use of the property, avoidance and minimization alternatives, other impacts associated with the alternatives, coordination with the official(s) with jurisdiction, and measures to minimize harm.

Programmatic 4(f) Evaluation. Programmatic Section 4(f) evaluations are meant to be a time-saving procedural option to be used in place of individual evaluation for certain types of transportation projects and specific uses.

Despite their differences, programmatic and individual evaluations are similar in their coordination with FHWA and officials with jurisdiction.

Five existing Nationwide Programmatic Section 4(f) evaluations can be used in place of individual evaluations for certain types of highway projects and specific uses:

- Independent bikeway or walkway construction projects
- Use of historic bridges
- Minor involvement with Historic Sites
- Minor involvement with Public Parks, Recreation Lands, and Wildlife and Waterfowl Refuges
- Transportation projects that have a Net Benefit to a Section 4(f) property (FHWA Section 4(f) Programmatic Evaluations)

Individual 4(f) Evaluation. An individual Section 4(f) evaluation is processed in two phases—a draft and a final—both of which must be submitted to the FHWA Division Office or Federal Lands Division Office for review and approval. The final Section 4(f) evaluation is subject to a legal sufficiency review by FHWA's Office of Chief Counsel.

For projects processed with an EIS or EA, the evaluation should typically be submitted as a subsection of the NEPA document where pertinent summaries from various sections are included. When putting an evaluation together as part of the NEPA document, make sure the Section 4(f) information is consistent with other references and information throughout the rest of the NEPA documentation.

For projects eligible as a CE, the Section 4(f) evaluation should be a separate document. Other projects that require the Section 4(f) evaluation to be submitted separately include those with design changes that were made after the CE, FONSI or ROD was processed, and those in which design modifications substantially increase the use of Section 4(f) property after the original Section 4(f) approval.

Regardless of whether the Section 4(f) evaluation is processed independently or as a subsection of a NEPA document, the project sponsor must submit a draft that (1) identifies and evaluates prudent and feasible avoidance alternatives and, if required, (2) identifies and evaluates measures to minimize harm to the Section 4(f) property (FHWA Section 4(f) Individual Evaluations).

Feasible and Prudent Avoidance Alternatives

When selecting an alternative the most important point to remember is **if an** avoidance alternative **is determined to be feasible and prudent, it must be selected.**

A feasible and prudent avoidance alternative avoids using Section 4(f) property and does not cause other severe problems of a magnitude that substantially outweighs the importance of protecting the Section 4(f) property. In assessing the importance of protecting the Section 4(f) property, it is appropriate to consider the relative value of the resource to the preservation purpose of the statute.

The regulations 23 CFR 774.17 set out factors to consider in determining whether an avoidance alternative is feasible and prudent:

An alternative is not feasible if it cannot be built as a matter of sound engineering judgment.

An alternative is not prudent if:

- It compromises the project to a degree that it is unreasonable to proceed with the project in light of its stated purpose and need;
- It results in unacceptable safety or operational problems;
- After reasonable mitigation, it still causes: severe social, economic, or environmental impacts; severe disruption to established communities; severe

disproportionate impacts to minority or low-income populations; or severe impacts to environmental resources protected under other federal statutes;

- It results in additional construction, maintenance, or operational costs of an extraordinary magnitude;
- It causes other unique problems or unusual factors; or
- It involves multiple factors specified above, "that while individually minor, cumulatively cause unique problems or impacts of extraordinary magnitude."

Least Overall Harm Alternative

If there is no feasible and prudent avoidance alternative, FHWA may approve from among the remaining alternatives that use Section 4(f) property, only the alternative that causes the least overall harm. The least overall harm alternative is determined by balancing several factors set forth in 23 CFR §774.3[c](1), as follows:

City park in Lennox, South Dakota. (SDDOT)

(i) The ability to mitigate adverse impacts to each Section 4(f) property (including any measures that result in benefits to the property);

(ii) The relative severity of the remaining harm, after mitigation, to the protected activities, attributes, or features that qualify each Section 4(f) property for protection;

(iii) The relative significance of each Section 4(f) property;

(iv) The views of the official(s) with jurisdiction over each Section 4(f) property;

(v) The degree to which each alternative meets the purpose and need for the project;

(vi) After reasonable mitigation, the magnitude of any adverse impacts to resources not protected by Section 4(f); and

(vii) Substantial differences in costs among the alternatives.

The procedures for SDDOT projects involving Section 4(f) properties are illustrated in Figure 3.4-1, summarized in Table 3.4-1, and are further described in the narrative following the table.

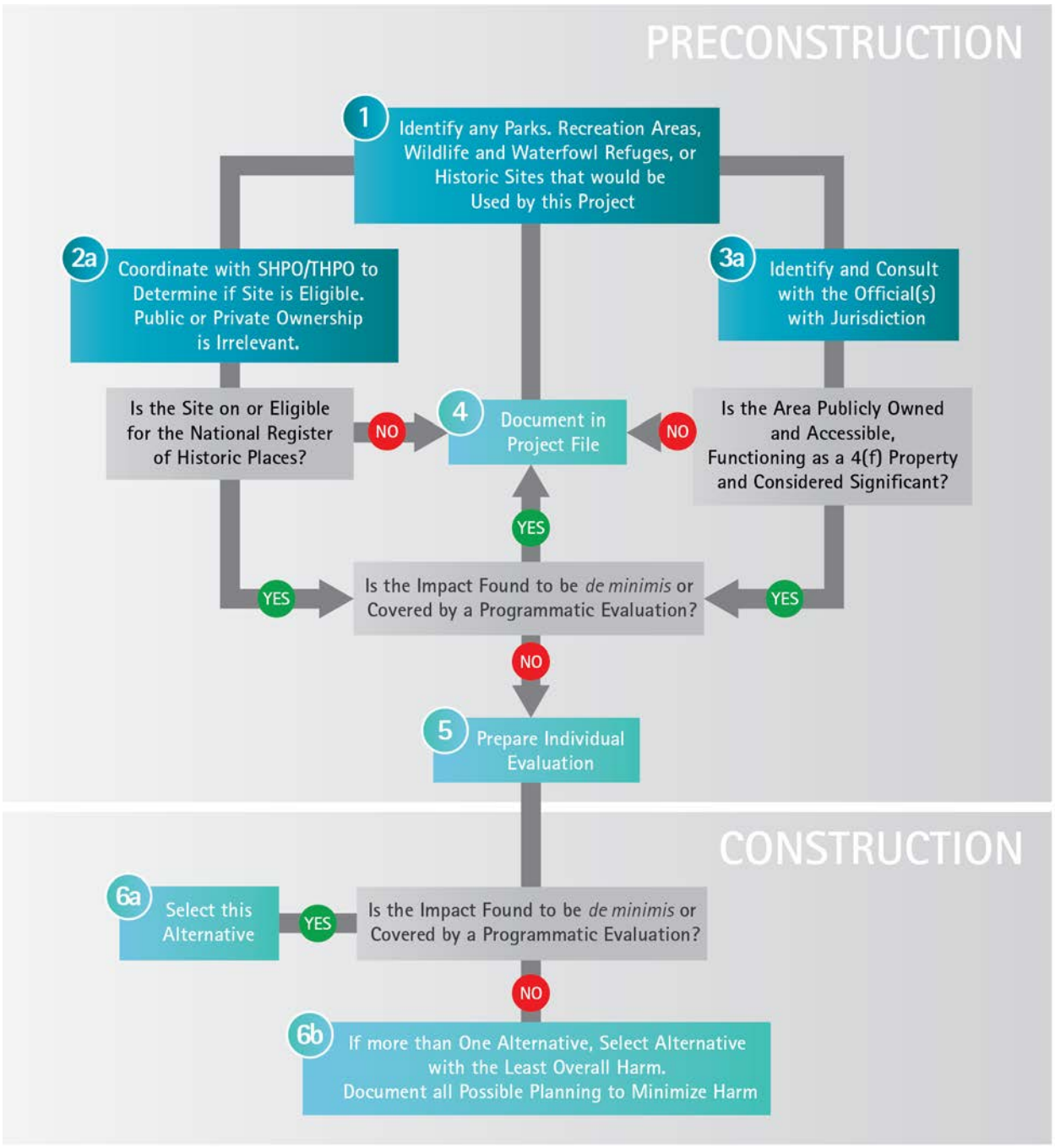


Figure 3.4-1 Section 4(f) Process

Table 3.4-1 Steps in the Section 4(f) Process

Step	Participant(s)	Result(s)
Preconstruction		
1. Identify any parks, recreation areas, wildlife and waterfowl refuges, or historic sites that would be used by the project	EPC, ARC, agencies, Tribes	ARC, Agency and Tribal Letters, Environmental Project Tracking Database
2a. Coordinate with SHPO/THPO to determine if site is eligible. Public or private ownership is irrelevant	EPC, SHPO	Response letters, significance/ eligibility documented in project file, SHPO concurrence letter, Environmental Project Tracking Database Response letters, significance/ eligibility documented in project file, SHPO concurrence letter, Environmental Project Tracking Database
3a. Identify and consult with the official (s) with jurisdiction	EPC, OWJ	Newspaper ad, OWJ concurrence letter, FHWA approval letter (email), Environmental Project Tracking Database
4. Document in project file	Design, FHWA, EPC, Public	Document in project file, CE Checklist and ECC, EA/FONSI, EIS/ROD, copy of Section A Plan Notes (if applicable) to Design to incorporate into Final Plan set
5. Prepare Individual Evaluation	EPC, FHWA, Design/ROW	Draft Evaluation, FHWA approval letter, Public Involvement Plan, Final Evaluation
Construction		
6a. Select this Alternative	EPC, Design/ROW	Document in project file, CE Checklist and ECC, EA/FONSI, EIS/ROD, copy of Section A Plan Notes (if applicable) to Design to incorporate into Final Plan set
6b. If more than one Alternative, Select the Alternative with the Least Overall Harm, Document all Possible Planning to Minimize Harm	EPC, Design/ROW	Document in project file, make necessary changes to Section 4(f) use

Notes: ARC – State Archeological Research Center CE – Categorical Exclusion, EA – Environmental Assessment, ECC – Environmental Commitments Checklist, EIS – Environmental Impact Statement, EPC – Environmental Project Coordinator, FONSI – Finding of No Significant Impact, FHWA – Federal Highway Administration, OWJ – Official with Jurisdiction, ROD – Record of Decision, ROW – Right of Way, SHPO – State Historic Preservation Office

Section 4(f) Process Description

Step 1. Identify Any Parks, Recreation Areas, Wildlife And Waterfowl Refuges, Or Historic Sites That Would Be Used By The Project

Upon receipt of the Approved Scope, the EPC conducts a desktop review to determine if there are potential 4(f) properties in the project area. The desktop review includes but is not limited to accessing GIS layers, aerial photography, and PONTIS software (for historic bridges). This initial review is used to identify publicly owned parks, recreation areas, or wildlife or waterfowl refuges, and the extent of the property within the project area. Historic sites listed in the NRHP or eligible for it and of national, state, or local significance in public or private ownership are eligible for Section 4(f) consideration. A resource that meets the definition of 4(f) consideration is significant unless the OWJ indicates that the entire property is not significant.

The EPC sends letters to the (1) ARC, requesting a cultural resource survey, (2) SDGFP, and (3) Tribes to identify the potential for 4(f) properties in the project area. This review and the response letters provide a preliminary evaluation of the potential for the project to involve 4(f) properties. The letters and responses are documented in the Environmental Project Tracking Database.

Step 2a. Coordinate with SHPO/THPO to determine if site is eligible. Public or private ownership is irrelevant

After identifying potential Section 4(f) historic properties under Step 1, EPC determines whether these properties are subject to Section 4(f) and whether the properties would be used by the project.

For purposes of Section 4(f), a historic site is significant only if it is on or eligible for the NRHP. The eligibility determination is made in accordance with Section 106 (see Section 3.1). In rare cases, FHWA may determine that Section 4(f) may apply to a property that is not historic if the local official formally provides information that supports a local significance. Once the Section 106 effects determination is made and SHPO or THPO concurrence letters have been received, the following will determine the type of 4(f) document to be prepared.

- If the concurrence identifies an archeological resource as important chiefly because of what can be learned by data recovery and has minimal value for preservation in place, the EPC shall document in the Environmental Project Tracking Database Section 4(f) exception 23 CFR 774.13(b)(1) applies.
- With a “No Historic Properties Affected” determination, the EPC shall document in the Environmental Project Tracking Database there is no Section 4(f) use related to historic properties.
- With a “No Adverse Effect” determination, a Section 4(f) *de minimis* impact determination is required. Go to Step 4.

- With a “Adverse Effect” determination, an Individual Section 4(f) document is required. Go to Step 5. Section 106 would continue concurrently with 4(f). See Section 3.1.

The nature of impacts on 4(f) resources in the project area can be estimated on a preliminary basis but impacts cannot be defined until the significance of the sites or eligibility for NRHP listing is determined.

Before a determination is rendered, it is necessary to have current ROW information. Historic properties are defined by their National Registry boundary. Design may need to be contacted to identify grade lines because final design may not to be available at this point.

Step 3a. Determine Use of Section 4(f) Parkland Properties

For the purposes of Section 4(f), a park, recreational area or refuge is assumed to be significant unless the OWJ indicates it does not support significant activities, features, or attributes. The following will determine the type of 4(f) document to be prepared:

- If no park, recreation, or refuge is located within the project area, no Section 4(f) impact would occur, so the EPC documents this in project file.

- If in coordination with the OWJ, the park, recreation, or refuge area is determined to be “not significant,” the EPC will document in the Environmental Project Tracking Database and project file that a Section 4(f) exception applies per 23 CFR 774.13(c). Go to Step 8.

- If the project will only temporarily occupy land of a section 4(f) property such that the duration is temporary, scope of work is minor, there will be no adverse physical impacts, land will be returned to original condition, and the OWJ agrees, then the use meets exception under 23 CFR 774.13(d). Go to Step 8.

- If the project relates to park road, parkways, trails, paths, bikeways or sidewalks, exceptions under 23 CFR 774.13(e, f, or g) may apply. If FHWA concurs with the exception, go to Step 8.

- When a park, recreation, or refuge property is significant, but the use of the property will not impact features, attributes, or activities designated for the area. The use requires a *de minimis* impact determination. Go to Step 4.

- When a park, recreation, or refuge area will require a use after avoiding minimizing AND that use will impact significant features, attributes, or activities central to that property, an individual Section 4(f) document is required. Go to Step 5.

Step 4. Document in Project File

SDDOT Section 4(f) determination recommendations with FHWA concurrence or approval are needed prior to SDDOT certification or FHWA approval of the CE. The EPC documents the 4(f) approvals on the CE Checklist and ECC, noting exceptions under 23 CFR 774.13, the type of 4(f) property, and the type of use (permanent, temporary, or constructive). Section A Plan Notes, Commitment M1 will be sent to Design for inclusion in the Final Plan set.

Step 5. Prepare Individual Evaluation

If the proposed use does not meet the criteria for *de minimis* finding or programmatic evaluation, then an individual project Section 4(f) evaluation is required. The purpose of the individual 4(f) evaluation is to demonstrate:

- There is no feasible or prudent avoidance alternative to the use of land from the property (23 CFR 774.3)
- All steps were taken to minimize harm to the property (23 CFR 774.3[c])

If the project has met these requirements, then the EPC and Project Engineer prepares a draft evaluation, including the evaluation of avoidance alternatives, and submits a preliminary document for comment and for a preliminary FHWA Legal Sufficiency Review. The EPC prepares a newspaper advertisement, and the draft is made available for public comment for a 45-day period. The EPC gathers comments and works with FHWA to address any issues. These reviews may be performed concurrently with the public review and comment period. Prior to making a Section 4(f) approval, the evaluation is to be provided to the OWJ, the Department of Interior, and if appropriate the Department of Agriculture and Department of Housing and Urban Development.

The EPC prepares the final evaluation and submits the evaluation document along with the public involvement plan to FHWA's legal counsel for legal sufficiency review. Following legal review, the Project Engineer signs the document and sends it to FHWA for final approval.

Step 6a. Select This Alternative

Unless a *de minimis* finding or exception applies to a project, the EPC and Project Engineer review design alternatives to avoid or eliminate the use of potential 4(f) properties. Avoidance alternatives can include minor alignment shifts, local alternatives, design changes, or other actions. If there are alternatives that have not been considered or were not considered for 4(f) impacts, these options must be analyzed and documented in an effort to find a feasible and prudent avoidance alternative. If 4(f) properties can be avoided, the EPC and Project Engineer must select the alternative, document the finding and review it with FHWA.

If the determination is that no feasible or prudent avoidance alternatives exist, this should be documented in the project file, before proceeding to Step 7, to find the alternative that will cause the least overall harm from the transportation project.

Step 6b: If more than one Alternative, Select the Alternative with the Least Overall Harm, Document all Possible Planning to Minimize Harm

If there are no feasible and prudent alternatives that avoid the use of Section 4(f) property, the alternative that will cause the least overall harm (after factoring in mitigation measures) must be selected. Per 23 CFR 774.3, the factors involved in the least harm analysis are as follows:

- The ability to mitigate adverse impacts to each Section 4(f) property (including any measures that result in benefits to the property);
- The relative severity of the remaining harm, after mitigation, to the protected activities, attributes, or features that qualify each Section 4(f) property for protection;
- The relative significance of each Section 4(f) property;
- The views of the official(s) with jurisdiction over each Section 4(f) property;
- The degree to which each alternative meets the purpose and need for the project;
- After reasonable mitigation, the magnitude of any adverse impacts to resources not protected by Section 4(f); and
- Substantial differences in costs among the alternatives.

The EPC documents the least overall harm analysis and measures to minimize harm in the project file. If minimization and mitigation alternatives are proposed, the EPC will work with FHWA to determine the level of documentation required.

Section 4(f) Applicable Laws, Regulations, and Guidance

Laws, regulations, and guidance relevant to the Section 4(f) process are presented by agency, with executive orders presented first.

Federal Highway Administration

FHWA Section 4(f) Policy Paper—The Section 4(f) Policy Paper of July 20, 2012, supplements FHWA's regulations governing the use of land from publicly owned parks, recreation areas, wildlife and waterfowl refuges, and public or private historic sites for federal highway projects. Although these requirements are now codified at 23 USC 138 and 49 USC 303, this subject matter remains commonly referred to as Section 4(f) because the requirements originated in Section 4(f) of the USDOT Act. It also replaces FHWA's 2005 edition of the document.

FHWA Technical Advisory T 6640.8A—The FHWA Technical Advisory T 6640.8A, dated October 30, 1987, provides guidance in Section IX on "Section 4(f) Evaluations - Format and Content." A Section 4(f) evaluation must be prepared for each location within a proposed project before the use of Section 4(f) land is approved (23 CFR 771.135[a]). For projects processed with an EIS or an EA/FONSI, the individual Section 4(f) evaluation

should be included as a separate section of the document, and for projects processed as CEs, as a separate Section 4(f) evaluation document.

AASHTO Practitioner's Handbook 11 Complying with Section 4(f) of the USDOT Act— AASHTO published the Practitioner's Handbook 11, *Complying with Section 4(f) of the USDOT Act*, in May 2009. This handbook manages all aspects of Section 4(f) compliance and covers the following topics: with Section 4(f):

- Considering Section 4(f) before the NEPA process begins
- Scoping potential Section 4(f) issues
- Identifying and evaluating Section 4(f) properties
- Making determinations of *de minimis* impact
- Determining whether there is a "use" of Section 4(f) properties
- Developing and evaluating avoidance alternatives under the "feasible and prudent" standard
- Choosing among alternatives that use Section 4(f) properties
- Incorporating all possible planning to minimize harm to Section 4(f) properties
- Using Section 4(f) programmatic evaluations
- Coordinating with other agencies and stakeholders
- Documenting Section 4(f) analysis and conclusions

Programmatic Section 4(f) Evaluation and Approval for FHWA Projects that Necessitate the Use of Historic Bridges—FHWA has issued five nationwide programmatic Section 4(f) evaluations that address bikeways/walkways, historic bridges, minor involvements with historic sites, minor involvements with parks/recreations and lands/refuges, and for projects that no net benefit to a Section 4(f) property. The Historic Bridge Programmatic Section 4(f) evaluation is the most common and may be applied to projects that meet the following criteria:

1. The bridge is to be replaced or rehabilitated with federal funds.
2. The project will require the use of a historic bridge structure that is on or is eligible for listing on the NRHP.
3. The bridge is not a national historic landmark.
4. The FHWA Division Administrator determines that the facts of the project match those set forth in the sections of this document labeled Alternatives, Findings, and Mitigation.
5. FHWA, SHPO, and ACHP have reached agreement through procedures pursuant to Section 106 of NHPA.

The following alternatives avoid any use of the historic bridge:

1. Do nothing.
2. Build a new structure at a different location without affecting the historic integrity of the old bridge, as determined by procedures implementing NHPA.
3. Rehabilitate the historic bridge without affecting the historic integrity of the structure, as determined by procedures implementing NHPA.

The programmatic Section 4(f) evaluation does not apply if a reasonable alternative is identified that is not discussed in the programmatic evaluation document. The project record must clearly demonstrate that each of the above alternatives was fully evaluated and it must further demonstrate that all applicability criteria listed above were met before the FHWA Division Administrator concluded that the programmatic Section 4(f) evaluation applied to the project.

Protection of Historic Properties (36 CFR 800)—Section 106 of NHPA (16 USC 470f) requires federal agencies to take into account the effects of their actions on historic properties and to give ACHP a reasonable opportunity to comment. It defines the procedures of how federal agencies should meet these statutory responsibilities.

Criteria for Evaluation (36 CFR 60.4)—This part of the CFR describes the criteria used for evaluating the eligibility of sites for the NRHP.

U.S. Department of Transportation

Parks, Recreation Areas, Wildlife and Waterfowl Refuges and Historic Sites (23 CFR 774)—The revised regulations in 23 CFR 774 replace the provisions that were contained in 23 CFR 771.135, "Section 4(f) (49 USC 303)." The law, now codified in 49 USC §303 and 23 USC §138, is implemented by FHWA through the regulation 23 CFR 774. Section 6009 of SAFETEA-LU amended Section 4(f) to: (1) clarify the factors considered and the standards applied in determining the prudence and feasibility of alternatives that avoid uses of Section 4(f) properties; and (2) provide a simplified approval process of projects that have *de minimis* impacts on Section 4(f) property.

Policy on Lands, Wildlife and Waterfowl Refuges, and Historic Sites (49 USC 303) and Preservation of Parklands (23 USC 138)—Both of these sections contain policy that a special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites. The policy provides the Secretary of USDOT with means to approve a transportation program or project that requires the use of publicly owned parks, recreation areas, or wildlife and waterfowl refuges if there are no feasible alternatives. This policy also addresses "*De Minimis* Impacts" and clarifies the requirements as they apply to properties under Section 4(f).

23 USC 103(c) Interstate System—Section 6007 of SAFETEA-LU amended 23 USC 103(c) to exempt the Interstate System from consideration as a historic site under Section 4(f). It also directs that the Secretary of USDOT will determine, through an administrative

process established for exempting the Interstate System from Section 106 of NHPA, those individual elements of the Interstate System that possess national or exceptional historical significance**.** These elements are considered to be a historic site under Section 4(f). However, designation of an individual element of the Interstate System does not prohibit the state from carrying out construction, maintenance, restoration, or rehabilitation activities. Individual element exemptions can be found on FHWA's website in the Final List of Nationally and Exceptionally Significant Features of the Federal Interstate Highway System.

3.5 Section 6(f)

Compliance with Section 6(f) of the LWCF Act of 1965 in planning, construction, and maintenance of transportation projects assures the quality and quantity of outdoor parks and recreation areas for present and future generations. The process for identifying recreational properties acquired or improved with funding assistance under the LWCF Act for potential conversion in compliance with Section 6(f) is shown in Figure 3.5-1, summarized in Table 3.5-1, and described in further detail throughout this section. Relevant regulations are cited at the end of the section for further reading.

Common Definitions:

Section 6(f) property refers to lands acquired or improved with LWCF assistance. Parks and projects funded through LWCF have the unique reality of being dedicated to public outdoor recreation in perpetuity. Section 6(f) properties are protected under the law: "No property acquired or developed with the assistance under this section shall, without the approval of the Secretary (Department of the Interior), be converted to other than public outdoor recreation uses" (36 CFR 59.3).

Authorization:

Through the Department of the Interior (NPS), Section 6(f)(3) of the LWCF Act creates parks and open spaces, protects wilderness, wetlands, and refuges, preserve wildlife habitat, and enhances recreational opportunities. In general, land acquisition, development, and renovation projects for public outdoor recreation purposes are eligible LWCF projects.

Responsibility for compliance and enforcement of these provisions rests with SDGFP for both state and locally sponsored projects. The responsibilities cited herein are applicable to the area depicted or otherwise described on the 6(f)(3) boundary map and/or as described in other project documentation approved by the Department of the Interior. In many instances, this mutually agreed to area exceeds that receiving LWCF assistance so as to assure the protection of a viable recreation entity.

In the event that Lessee shall at any time during the term of this agreement cease to utilize said premises for a public park and recreation area, the lease granted hereunder

shall terminate immediately upon such happening. At this time, or if the lease is allowed to expire, the lessor shall own, operate, and maintain the property as a public park and recreation area in perpetuity in compliance with the LWCF Act.

Leases can be developed on land leased from another public agency; they cannot be developed on land leased from a private entity.

Introduction

Section 6(f) of LWCF ensures that a recreational area funded with LWCF assistance is continually maintained in public outdoor recreation use unless NPS approves the conversion in accordance with the Statewide Comprehensive Outdoor Recreation Plan (SCORP) (36 CFR 59.3). When a Section 6(f) land conversion is proposed for a highway project, replacement land will be necessary. NPS must ensure that replacement lands of equal value, location, and usefulness are provided as conditions to approval of land conversions.

Overview of the SDDOT Process

Grant money from the LWCF could have been used to purchase playground equipment and should be checked with SDGFP Grants Coordinator to determine if the property falls under 6(f) regulation. (SDDOT)

Since its inception in 1964, LWCF has made outdoor recreational opportunities possible throughout South Dakota. SDGFP administers the program and has used over 36 million dollars for projects relating to public outdoor recreation, dedicated to the public in perpetuity. If a transportation project involves a Section 6(f) property, the land is converted to another use. Before SDDOT can gain approval for the conversion, the law requires the land to be replaced with that of equal value, location, and usefulness.

Identifying Section 6(f) properties early in the project development process may help avoid these important public outdoor recreational properties. Projects being developed by SDDOT that have the potential to affect lands that have used LWCF grants are considered to be converting the use of that property because the activity proposed is not of an outdoor recreational nature. An exception to Section 6(f) is if the use of the property would be temporary and would not alter the recreational benefits of the property. In accordance with NPS LWCF Manual, a temporary, non-conforming use allows non-recreational activities within a Section 6(f) property as long as they are resolved within 6 months and do not permanently alter the public outdoor recreational use of the property.

Coordination for Section 6(f) projects is done with the SDGFP Grants Coordinator. SDGFP will consult with the NPS Midwest Regional Director or designee to make a

determination on the potential impacts on Section 6(f) properties and replacement properties.

NPS will consider conversion requests if the following prerequisites have been met in accordance with 36 CFR 59 (b):

- All practical alternatives to the proposed conversion have been evaluated.
- The fair market value of the property to be converted has been established and the property proposed for substitution is of at least equal fair market value as established by an approved appraisal (prepared in accordance with the *Uniform Federal Appraisal Standards*) excluding the value of structures or facilities that will not serve a recreation purpose.
- The property proposed for replacement is of reasonably equivalent usefulness and location as that being converted. SDDOT's review must analyze the Section 6(f) area proposed for conversion, as well as the development of the replacement parkland.

The procedures for SDDOT projects involving Section 6(f) properties are illustrated in Figure 3.5-1, summarized in Table 3.5-1, and are further described in the narrative following the table.

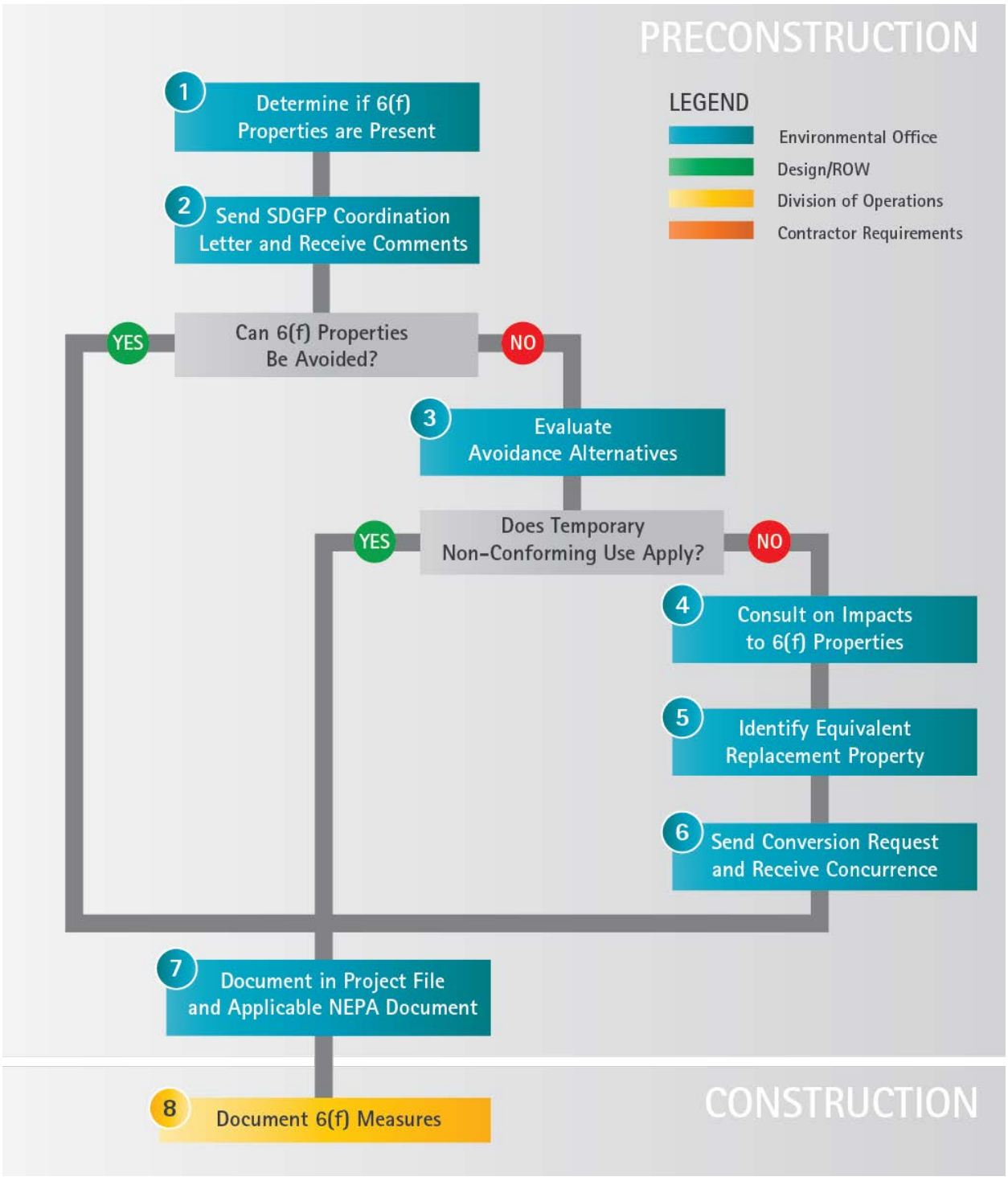


Figure 3.5-1 Section 6(f) Process

Table 3.5-1 Steps in the 6(f) Process

Step	Participant	Result(s)
Preconstruction		
1. Determine if 6(f) properties are present	EPC	Determination documented in project file
2. Send SDGFP coordination letter and receive comments	EPC, SDGFP Grant Coordinator	SDGFP comments, Environmental Project Tracking Database
3. Evaluate avoidance alternatives	EPC, Design/ROW	Avoidance determination document in project file, CE Checklist and ECC (if applicable)
4. Consult on impacts to 6(f) properties	EPC, SDGFP, Property Owner	SDGFP and Property Owner letter on fair market value, document in Environmental Project Tracking Database, CE, and ECC
5. Identify equivalent replacement property	Area Office, Design/ROW, stakeholders	Fair market appraisal
6. Send conversion request and receive concurrence	SDGFP, NPS	6(f) documentation, NPS approval, Environmental Project Tracking Database
7. Document in project file and applicable NEPA document	EPC	Project file, CE Checklist and ECC, EA/FONSI, EIS/ROD; copy of Section A Plan Notes to Design to incorporate into Final Plan set
Construction		
8. Document 6(f) measures	Project Engineer, stakeholders, EPC	Document any changes to 6(f) compliance in construction findings and project file

Notes: CE – Categorical Exclusion, EA – Environmental Assessment, ECC – Environmental Commitments Checklist, EIS – Environmental Impact Statement, EPC – Environmental Project Coordinator, FONSI – Finding of No Significant Impact, NEPA – National Environmental Policy Act, NPS – National Park Service, ROD – Record of Decision, ROW – Right-of-Way, SDGFP – South Dakota Game, Fish and Parks

Section 6(f) Process Description

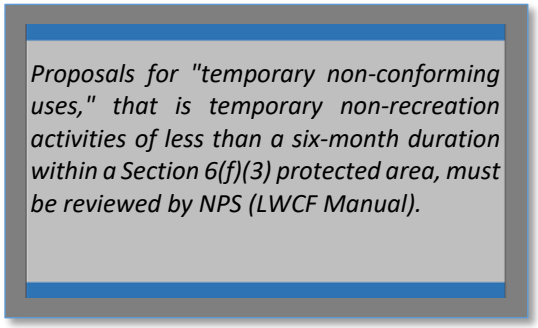
Step 1. Determine if 6(f) Properties are Present

After receipt of the Approved Scope, the EPC conducts a desktop review to identify if publicly owned parks or recreation areas are located within the project area. If it is obvious that no park or recreation area is identified in the project area, Section 6(f) does not apply, proceed to Step 7. If Section 6(f) properties are identified, proceed to Step 2.

Step 2. Send SDGFP Coordination Letter and Receive Comments

The EPC sends a letter to the SDGFP Grant Coordinator, including the project description and location. The Grant Coordinator will confirm if the proposed project is subject to Section 6(f) requirements and will send a reply notifying the EPC whether the property has used Section 6(f) grant funding. The EPC will document the letter and response in the Environmental Project Tracking Database. If Section 6(f) does not apply, proceed to step 7. If Section 6(f) properties are identified, proceed to Step 3.

Step 3. Evaluate Avoidance Alternatives



The EPC and Design/ROW will review the preliminary gradeline to evaluate alternatives for avoiding or minimizing conversion of Section 6(f) properties. If 6(f) properties can be avoided, proceed to Step 7. When 6(f) properties cannot be avoided, the EPC, Design/ROW, and property owner will review potential impacts on Section 6(f) properties. Activities qualifying for a temporary non-conforming use can be determined at this step. If the exception applies, the EPC coordinates with SDGFP and provides necessary details so an application can be submitted to NPS, Midwest Region. When the response is received, the SDGFP Grants Coordinator will provide the response to the EPC. The EPC will document in appropriate NEPA document and project file.

Step 4. Consult on Impacts to 6(f) Properties

If the project does not meet the requirements for a temporary non-conforming use, then the EPC will continue to consult with SDGFP Grants Coordinator, Design/ROW, and stakeholders to determine a fair market value of the impacted 6(f) property area and to identify other potential replacement properties that satisfy the requirements of 36 CFR 59.3.

Step 5. Identify Equivalent Replacement Property

The EPC coordinates with the Area Office and Design/ROW to identify equivalent replacement properties based on the criteria in 36 CFR 59.3.

- The property proposed for substitution must be of at least equal fair market value as established by an approved appraisal prepared in accordance with the *Uniform Appraisal Standards for Federal Land Acquisitions*.
- The property proposed for substitution must be of reasonably equivalent usefulness and location as tat to be converted.
- The property proposed for substitution must meet the eligibility requirements for LWCF substitution, i.e., the replacement property must constitute or be part of a viable recreation area.

- A fair market appraisal will be conducted in accordance with the requirements of the *Uniform Appraisal Standards for Federal Land Acquisitions.*

Step 6. Send Conversion Request and Receive Concurrence

The EPC submits documentation to SDGFP Grants Coordinator, including the location of the property to be converted, a description of proposed replacement property; avoidance or minimization alternatives; and the appraisal. SDGFP Grants Coordinator will prepare the NPS Project Description/Environmental Screening Form and submit to NPS for approval. NPS is prohibited from approving Section 6(f) conversions until after SDDOT has completed its planning process. Conversions are federal undertakings and may require Section 106 and NEPA clearance for both the converted property and the replacement property. A SHPO clearance letter and applicable NEPA documentation should accompany the conversion documentation.

Step 7. Document in Project File and Applicable NEPA Document

Once the approval of the conversion is received from NPS, the EPC will document the correspondence in the project file and applicable NEPA Document (CE/EA/EIS and applicable 4(f) document).

The EPC will provide the Section A Plan Notes, Commitments M1 and M2, to Design for incorporation into the Final Plan set.

Step 8. Document 6(f) Measures

During construction of the project, the Contractor shall notify the Project Engineer if additional easement is needed to complete the work adjacent to any Section 6(f) property. The Project Engineer shall obtain an appropriate course of action from the EPC, including notifying stakeholders, before proceeding with construction activities that affect any Section 6(f) property. The EPC documents the construction findings and all other comments received in the project file.

Section 6(f) Applicable Laws, Regulations, and Guidance

Laws, regulations, and guidance relevant to protection of 6(f) resources are presented by agency, with executive orders presented first.

Land and Water Conservation Fund Program of Assistance to States; Post-Completion Compliance Responsibilities (36 CFR 59)—This part of the CFR contains provisions for implementing Section 6(f) requirements. Section 59.1 defines applicability and Section 59.3 details the prerequisites that must occur to get approval for converting the property or facility to a use other than a public outdoor recreation use.

USC 4601-6(f)(3)—This section of the USC codifies Section 6(f)(3) of the LWCF Act, which establishes the requirements applicable to conversion of property acquired or developed with assistance under the Act to a use other than a public outdoor recreation use.

Federal Highway Administration

Technical Advisory T 6640.8a, October 30, 1987, NEPA Implementation Guidance for Preparing and Processing Environmental and Section 4(F) Documents—The use of Section 4(f) land may involve concurrent requirements of other federal agencies, e.g., approval of land conversions under Section 6(f) of the LWCF Act. The mitigation plan developed for the project should include measures that would satisfy the various requirements. For example, Section 6(f) directs the Department of the Interior–NPS to assure that replacement lands of equal value, location, and usefulness are provided as conditions to approval of land conversions.

National Park Service

Land and Water Conservation Fund, State Assistance Program, Federal Financial Assistance Manual, Volume 69—NPS published this manual on October 1, 2008, to set forth the administrative procedures and requirements for LWCF federal assistance. Chapter 8 of this manual contains the requirements for maintaining LWCF-assisted sites and facilities in public outdoor recreation use following project completion and to assure that LWCF-assisted areas remain accessible to the general public, including nonresidents of assisted jurisdictions.

Land and Water Conservation Fund, Compliance Responsibilities and Legal Protection— This NPS webpage provides discussion on post-completion compliance and legal protection. Post-completion compliance responsibilities apply to each area or facility for which LWCF assistance is obtained, regardless of the extent of program participation in the assisted area or facility and consistent with the contractual agreement between NPS and the state. The state is responsible for compliance and enforcement of these provisions for both state and locally sponsored projects.

Land and Water Conservation Fund, Project List by County and Summary Reports—This webpage displays LWCF activity since the first grant was awarded in 1965 summarized by state or by Federal Fiscal Year and Grant Type. Note: Confirm current information with SDGFP.

Uniform Appraisal Standards for Federal Land Acquisitions—The Federal Interagency Land Acquisition Conference in cooperation with the U.S. Department of Justice published standards to meet the requirement of 36 CFR 59.3. This section of the CFR states that the fair market value of a Section 6(f) property to be converted must be established, and the property proposed for substitution must be of at least equal fair market value as established by an approved appraisal prepared in accordance with the *Uniform Federal Appraisal Standards*.

State of South Dakota

2018 Statewide Comprehensive Outdoor Recreation Plan—The 2018–2022 South Dakota SCORP examines how to best meet the needs of South Dakota's citizens to provide quality, accessible outdoor recreational facilities in the state. This SCORP looks at the most recent trends, data, opinions, and collaborations.

3.6 Economic and Social Analysis

3.6.1 Environmental Justice

In compliance with Executive Order 12898, SDDOT is required to reach out to minority and low-income populations with meaningful and expanded processes during transportation projects funded by FHWA. The Executive Order requires federal agencies to achieve environmental justice by identifying and addressing disproportionately high and adverse human health or environmental effects, including the interrelated social and economic effects of their programs, policies, and activities, on minority populations and low-income populations in the United States. This section defines key terms in environmental justice and introduces responsible authorities and environmental commitments. Table 3.6-1 summarizes the process by which SDDOT evaluates impacts on environmental justice populations, described further throughout this section. Relevant regulations are cited at the end of the section for further reading.

Common Definitions:

Low income: A person whose median household income is at or below the Department of Health and Human Services poverty guidelines.

Low income population: Any readily identifiable group of low-income persons who live in geographic proximity, and, if circumstances warrant, geographically dispersed/transient persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed FHWA program, policy, or activity.

Minority means a person who is:

(1) Black: a person having origins in any of the black racial groups of Africa;

(2) Hispanic or Latino: a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race;

(3) Asian American: a person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent;

(4) American Indian and Alaskan Native: a person having origins in any of the original people of North America, South America (including Central America), and who maintains cultural identification through tribal affiliation or community recognition; or

(5) Native Hawaiian and Other Pacific Islander: people having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.

Minority population: Any readily identifiable groups of minority persons who live in geographic proximity, and if circumstances warrant, geographically dispersed/ transient

persons (such as migrant workers or Native Americans) who will be similarly affected by a proposed FHWA policy or activity.

A disproportionately high and adverse effect on a minority or low-income population: The adverse effect is predominantly borne by such population or is appreciably more severe or greater in magnitude on the minority or low-income population than the adverse effect suffered by the non-minority or non-low-income population

Note: All definitions are cited in the FHWA Order 6640.23.

Authorization:

Title VI of the Civil Rights Act of 1964 states "No person in the United States shall, on the ground of race, color, or national origin be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance."

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations, signed by the President on February 11, 1994, directs federal agencies to take the appropriate and necessary steps to identify and address disproportionately high and adverse effects of federal projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law.

USDOT Order 5610.2(a) sets forth the policy for how the objectives of environmental justice will be integrated into planning and programming, rulemaking, and policy formulation.

Introduction

USDOT and FHWA have taken steps to ensure compliance with Executive Order 12898 by developing guidance documents that advise FHWA offices on the process to address environmental justice during the NEPA review, including documentation requirements. FHWA's Guidance on Environmental Justice and NEPA supplements FHWA Technical Advisory 6640.8A. The guidance applies to all NEPA classes of action, as appropriate. The process includes (1) identifying existing minority and low-income populations, (2) involving the public (3) identifying disproportionately high and adverse effects, and (4) evaluating avoidance or mitigation measures.

While a person or persons cannot bring a legal claim under any of the environmental justice orders, such person or persons can bring a claim under Title VI. Title VI of the Civil Rights Act of 1964, requires that no person, because of race, color, or national origin, be excluded from participation in, denied the benefits of, or in any other way be subjected to discrimination under any program or activity receiving federal assistance. Any member of a protected class under Title VI may file a complaint with the FHWA Office of Civil Rights,

Attention HCR-20, alleging that he or she was subjected to discrimination in violation of Title VI.

Overview of the SDDOT Environmental Justice Process

SDDOT follows FHWA recommendations to integrate an environmental justice analysis into its NEPA documentation of construction projects; however, recipients are not required to conduct environmental justice analyses of projects where NEPA documentation is not required. Title VI assurances regarding nondiscrimination are reflected in the policies and procedures set out in SDDOT's Public Involvement Plan.

The procedures for SDDOT projects involving environmental justice are summarized in Table 3.6-1 and are further described in the narrative following the table.

Table 3.6-1 Steps in the Environmental Justice Process

Step	Participant(s)	Result(s)
Preconstruction		
1. Identify existing minority or low-income populations	EPC	Determination of minority/low income populations, document in project file
2. Determine if there is an adverse impact on the population	EPC	Document adverse impacts in project file
3. Evaluate avoidance, minimization and mitigation alternatives	EPC, Design/ROW, FHWA	Document Avoidance, Minimization or Mitigation Measures
4. Document in project file and applicable NEPA document	EPC	Project file, CE Checklist and ECC, EA/FONSI, EIS/ROD; send copy of Section A Plan Notes (if applicable) to Design to incorporate into Final Plan set

Notes: CE – Categorical Exclusion, EA – Environmental Assessment, ECC – Environmental Commitments Checklist, EIS – Environmental Impact Statement, EPC – Environmental Project Coordinator, FONSI – Finding of No Significant Impact, FHWA – Federal Highway Administration, ROD – Record of Decision, ROW – Right-of-Way

Environmental Justice Process Description

Step 1. Identify Existing Minority and Low-Income Populations

The EPC conducts a desktop review to identify minority and low income populations using the Department of Health and Human Services poverty guidelines, census data, and the U.S. Environmental Protection Agency (USEPA) mapping tool, EJView, to identify environmental justice populations within a proposed project or study area. The EJView tool includes demographic, health, environmental, and facility-level data and provides data to assess if there is a disproportionately high minority population affected by a project.

When there are no minority or low-income populations in the study area, no environmental justice analysis is required and the EPC will document the finding in the applicable NEPA document and the project file, proceed to Step 4. If minority or low-income populations are identified, proceed to Step 2.

Step 2. Determine if there is an Adverse Impact on the Population

If minority and/or low-income populations are the identified in the study area, the EPC will determine first if the population may be adversely impacted. The analysis of whether there is an adverse impact should consider proposed mitigation measures. The EPC will compare the impacts on the minority and/or low-income populations with the impacts on the overall population within the project area. If there are no adverse effects on minority and/or low-income populations, environmental justice evaluation is complete and the EPC will document this conclusion in the applicable NEPA document and project file (Step 4).

As per FHWA Order 6640.23A, a disproportionately high and adverse effect on a minority or low-income population means the adverse effect is predominantly borne by such population or is appreciably more severe or greater in magnitude on the minority or low-income population than the adverse effect suffered by the non-minority or non-low-income population.

If the impact is adverse, the EPC will then determine if the minority and/or low-income population is disproportionately impacted. If there is a disproportionately high and adverse effect, proceed to Step 3 to evaluate avoidance, minimization, or mitigation measures.

Step 3. Evaluate Avoidance, Minimization, or Mitigation Measures

If there is a disproportionately high and adverse effect on the environmental justice population, the EPC, with the help of Design/Right-of Way (ROW), must evaluate whether there is a practicable alternative that would avoid or reduce the disproportionately high and adverse effect(s) or practicable mitigation measures. FHWA will approve the proposed action only if it determines no such practicable measures exist. The NEPA document needs to describe how the impacted populations/communities were involved in the decision-making process. See SDDOT's Public Involvement Plan for additional information. The NEPA document also needs to identify what practicable mitigation commitments have been made.

In addition, if the affected population is a minority population protected under Title VI of the Civil Rights Act, FHWA will not approve the proposed action unless it determines:

1. There is a substantial need for the project, based on the overall public interest; and
2. Alternatives that would have less adverse effects on protected populations have either:
    a) Adverse social, economic, environmental, or human health impacts that are more severe; or

b) Would involve increased costs of an extraordinary magnitude.

Step 4. Document in Project File and Applicable NEPA Document

The EPC will document the information collected during the process in the project file incorporate the analysis into the applicable NEPA document (CE)/EA/EIS.

Applicable Laws, Regulations, and Guidance

Laws, regulations, and guidance relevant to environmental justice are presented by agency, with executive orders presented first.

Executive Order 12898 – Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations—Executive Order 12898 requires federal agencies to achieve environmental justice by identifying and addressing disproportionately high and adverse human health or environmental effects, including the interrelated social and economic effects of their programs, policies, and activities on minority populations and low-income populations in the U.S. As indicated in the executive order, the foregoing requirements are to be carried out to the greatest extent that is practicable and permitted by law and consistent with the principles set forth in the report on the National Performance Review. Compliance with the executive order is a key element in the environmental justice strategy adopted by FHWA to implement Executive Order 12898 and can be achieved within the framework of existing laws, regulations, and guidance.

Federal Highway Administration

FHWA Order 6640.23A—This FHWA directive establishes policies and procedures for FHWA to use in complying with Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (Executive Order 12898), dated February 11, 1994. This directive cancels FHWA Order 6640.23.

FHWA Guidance on Environmental Justice and NEPA—This guidance describes the process to address environmental justice during the NEPA review, including documentation requirements. It supplements FHWA Technical Advisory 6640.8A, which provides guidance for documenting the potential social, economic, and environmental impacts considered in the selection and implementation of highway projects.

Guidance for Preparing and Processing Environmental and Section 4(f) Documents—The revised guidance gives expanded coverage to CE determinations, EAs, FONSIs, EISs, supplemental EISs, reevaluations, and Section 4(f) evaluations. This material is not regulatory. It does, however, provide for uniformity and consistency in the documentation of CEs and the development of environmental and Section 4(f) documents.

South Dakota Department of Transportation

SDDOT Title VI Program Plan—SDDOT is a recipient of federal funding assistance and is therefore subject to the Title VI compliance conditions, including USDOT Order 5610.2. The SDDOT Title VI Program Plan states that the policy of SDDOT is to ensure that no

person or group of persons shall, on the grounds of race, color, national origin, religion, sex, age, disability or other statutorily prescribed basis, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity administered by the Department.

U.S. Department of Transportation

USDOT Order 5610.2(a)—DOT Order 5610.2(a) sets forth USDOT policy to consider environmental justice principles in all (USDOT) programs, policies, and activities. It describes how the objectives of environmental justice will be integrated into planning and programming, rulemaking, and policy formulation. The order sets forth steps to prevent disproportionately high and adverse effects on minority or low-income populations through Title VI analyses and environmental justice analyses conducted as part of federal transportation planning and NEPA provisions. It also describes the specific measures to be taken to address instances of disproportionately high and adverse effects and sets forth relevant definitions.

3.6.2 Farmland

Protecting farmland from conversion from agricultural use to build infrastructure during the planning, construction, and maintenance of transportation projects is an important step in complying with the provisions of 7 CFR 658 et seq. Farmland Protection Policy Act (FPPA). This section defines key terms used in the protection of farmland, introduces the applicable authorities, and presents the environmental commitments established for transportation projects. The process by which SDDOT documents compliance with FPPA is summarized in Table 3.6-2 and described in further detail throughout this section. Relevant regulations are cited at the end of the section for further reading.

Common Definition:

Farmland means prime or unique farmlands or farmland that is determined by the appropriate state or unit of a local government agency or agencies with concurrence of the Secretary of Agriculture to be farmland of statewide or local importance. ‘‘Farmland’’ does not include land already in or committed to urban development or water storage (7 CFR 658.2).

Authorization:

Congress created the FPPA to minimize the impact that federal programs have on conversion of farmland to nonagricultural uses and to assure that federal programs are compatible with state, local units of government, and private programs and policies to protect farmland. The FPPA does not authorize the federal government to regulate the use of private or nonfederal land or, in any way, affect the property rights of owners. The Department of Agriculture is the agency primarily responsible for the implementation of federal policy with respect to U.S. farmland (7 USC 4201 [a][7], [b]; 7 CFR Part 658).

Introduction

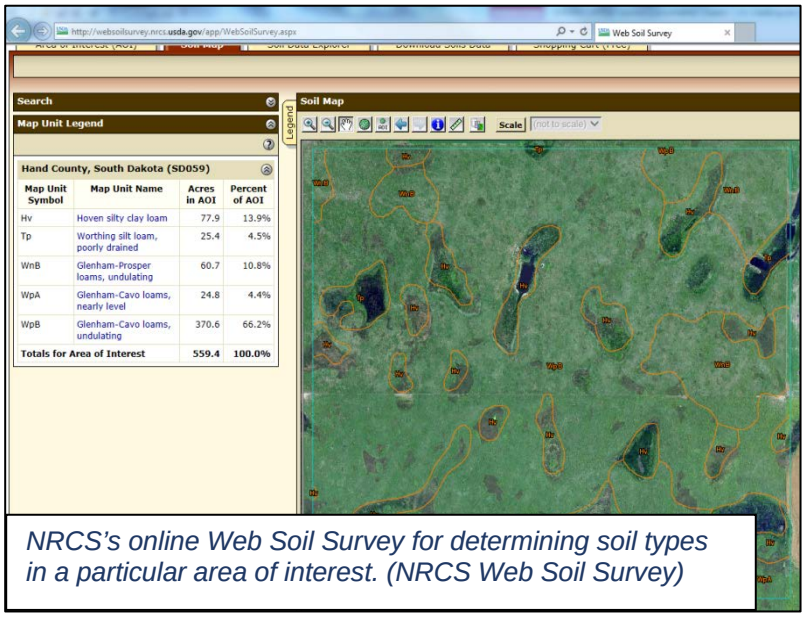
Transportation projects funded through FHWA are subject to the FPPA. NRCS is the agency responsible for ensuring that the FPPA is implemented. It is the responsibility of other federal agencies and entities receiving federal funds to reduce the effects of conversion activities on farmland and to ensure that their programs or activities are compatible, to the extent practicable, with state, local, and private programs to protect farmland.

Overview of the SDDOT Farmland Process

In accordance with the FPPA, important farmland includes all land that is defined as prime, unique, or farmlands of statewide or local importance based on soil types. SDDOT identifies important farmland from currently published or interim soil survey maps and data produced and certified by the NRCS National Cooperative Soil Survey Program.

FPPA (7 USC 4201-4209) defines four types of farmland:

- Prime Farmland—Land that has the best combination of physical and chemical characteristics for producing food, feed, fiber, forage, oilseed, and other agricultural crops with minimum inputs of fuel, fertilizer, pesticides, and labor, and without intolerable soil erosion, as determined by the Secretary of Agriculture. Prime farmland includes land that possesses the above characteristics but



NRCS's online Web Soil Survey for determining soil types in a particular area of interest. (NRCS Web Soil Survey)

is being used currently to produce livestock and timber. It does not include land already in or committed to urban development or water storage.

- Unique Farmland—Land other than prime farmland that is used for production of specific high-value food and fiber crops, as determined by the Secretary of Agriculture. Unique farmland has the special combination of soil quality, location, growing season, and moisture supply needed to economically produce sustained high quality or high yields of specific crops when treated and managed according to acceptable farming methods. Examples of such crops include citrus, tree nuts, olives, cranberries, fruits, and vegetables.
- Statewide Importance—Land for the production of food feed, fiber, forage, or oilseed crops, as determined by the appropriate state or unit of local government agency, and that the Secretary of Agriculture determines should be considered as farmland.
- Local Importance—Land for the production of food feed, fiber, forage, or oilseed crops, as determined by the appropriate state or unit of local government agency, and that the Secretary of Agriculture determines should be considered as farmland.

The NRCS Web Soil Survey is an online tool that provides soil data and information produced by the National Cooperative Soil Survey and can be used to identify types of soil within an area of interest, including prime, unique, and statewide and locally important farmlands. NRCS uses a Farmland Conversion Impact Rating Form AD-1006 for requesting a determination of farmland. The form provides an impact rating score on proposed sites of federally funded and assisted projects. The score is used as an indicator of the project sponsor to consider alternative sites if the potential adverse impacts on farmland exceed the recommended allowable level. Instruction for completing the form are provided on page 2 of Form AD-1006.

This is applicable for EA and EIS environmental analysis. The procedures for SDDOT projects involving important farmlands are summarized in Table 3.6-2 and are further described in the narrative following the table.

Table 3.6-2 Steps in the Farmland Process

Step	Participant(s)	Result(s)
Preconstruction		
1. Determine if the project will involve conversion of farmland to non-agriculture use	EPC	Document determination in project file
2. Request determination from NRCS	EPC, NRCS	Document determination in project file, NRCS AD-1006 Form, Environmental Project Tracking Database

Step	Participant(s)	Result(s)
3. Evaluate avoidance or minimization alternative	EPC, Design/ROW, NRCS	Document alternatives in project file
4. Document in project file and applicable NEPA document	EPC	Project file, CE Checklist and ECC, EA/FONSI, EIS/ROD

Notes: CE – Categorical Exclusion, EA – Environmental Assessment, ECC – Environmental Commitments Checklist, EIS – Environmental Impact Statement, EPC – Environmental Project Coordinator, FONSI – Finding of No Significant Impact, NEPA – National Environmental Policy Act, NRCS – Natural Resources Conservation Service, ROD – Record of Decision

Farmland Process Description

Step 1. Determine if Project will Involve Conversion of Farmland to Non-Agriculture Use

Upon receipt of the Approved Scope, the EPC conducts a desktop review to determine if the project will involve conversion of farmland to non-agriculture use. The desktop review tools include project boundary maps and the NRCS Web Soil Survey. The online soil survey will indicate prime, unique, and farmland of statewide or local importance.

If no farmland (prime, unique, or statewide or local importance) is located within the project area, the EPC documents the determination in the project file. If the desktop review and web soil survey indicate farmland within the project area, proceed to Step 2.

Step 2. Request Determination from National Resources Conservation Service

If there is potential for farmland to be impacted, the EPC completes Form AD-1006 Parts I and III and submit it to NRCS along with maps requesting a determination of farmland.

Farmland designations are determined by NRCS, if the project could convert farmland check with NRCS. Wheat Field. Eastern South Dakota (SDDOT)

NRCS will make a determination as to whether the project contains prime, unique, statewide, or local important farmland and will return the form to SDDOT to complete Parts VI and VII of the form. If the rating is less than 160 points, SDDOT will keep a copy of the form in the project file. The EPC documents the correspondence in the Environmental Project Tracking Database and project file. If the rating is greater than 160 points, SDDOT will need to select an alternative site or evaluate measures to minimize or reduce the impacts (Step 3).

Step 3. Evaluate Avoidance or Minimization Alternatives

The EPC and Design will evaluate alternative sites or measures to minimize impacts and submit this information to the NRCS field office for review. The EPC will document information in the project file and incorporate it into applicable environmental documents (CE, EA, or EIS).

Step 4. Document in Environmental Project Tracking Database, Project File and Applicable NEPA Document

The EPC documents correspondence with NRCS in the Environmental Project Tracking Database, project file and the applicable NEPA documents (CE, EA, or EIS).

Applicable Laws, Regulations, and Guidance

Laws, regulations, and guidance relevant to farmland resources are presented by agency, with executive orders presented first.

Federal Highway Administration

FHWA Technical Advisory T 6640.8A—FHWA Technical Advisory T 6640.8A, dated October 30, 1987, provides guidance for addressing impacts on farmland, which is defined as prime or unique (other than prime or unique land that is of statewide or local importance), and for reporting analysis and results in an environmental document.

Where any of the four farmland types could be directly or indirectly impacted by any alternative under consideration in the environmental document, SDDOT will summarize the results of early consultation with NRCS and, as appropriate, state and local agriculture agencies. Where farmland may be impacted, the draft environmental document must contain a map showing the location of all farmlands in the project impact area, discuss the impacts of various alternatives, and identify the measures to avoid or reduce the impacts. The appropriate Farmland Conversion Impact Rating Form (either AD-1006 or CPA-106) must be completed and included in the environmental document. Land Evaluation and Site Assessment Scores greater than 160 points require that the form be submitted to the local NRCS field office for completion and include a review of alternatives to avoid impacts. If impacts are unavoidable, measures to minimize or reduce the impacts must be presented and included in the proposed action.

U.S. Department of Agriculture

7 CFR Part 658 Farmland Protection Policy Act—This part sets out the criteria developed by the Secretary of Agriculture, in cooperation with other federal agencies, pursuant to section 1541(a) of the FPPA 7 USC 4202(a). As required by section 1541(b) of the FPPA, 7 USC 4202(b), federal agencies are to (a) use the criteria to identify and take into account the adverse effects of their programs on the preservation of farmland; (b) consider alternative actions, as appropriate, that could lessen adverse effects; and (c) ensure that their programs, to the extent practicable, are compatible with state and units of local government and private programs and policies to protect farmland. Guidelines to assist agencies in using the criteria are included in this part. The Department of Agriculture may

make available to states, units of local government, individuals, organizations, and other units of the federal government, information useful in restoring, maintaining, and improving the quantity and quality of farmland.

7 CFR Part 523 Farmland Protection Policy Act Manual—This manual provides information on the FPPA laws and regulations, roles and responsibilities, and describes lands and activities covered by the act, designations, and other policy directives.

3.6.3 Land Use

Incorporating current and future land use and forecasting land use and trends are a key consideration in transportation planning, design, and construction. Although there are no FHWA or SDDOT land use regulations, land use is considered in a NEPA analysis. This section presents an introduction of environmental commitments in land use. The process SDDOT follows to identify and analyze land use impacts is summarized in Table 3.6-3 and described in further detail throughout this section. Relevant guidance documents are cited at the end of the section for further reading.

Introduction

Demand for safe and efficient modes of transportation (motorized and non-motorized) are influenced by current and future land use. Transportation projects must address the potential direct, indirect, and cumulative effects that a proposed action may have on current and planned land use and development. Examples may include:

- Direct impacts—residential or business displacements, property acquisitions
- Indirect impacts—increased traffic in nearby locations, due to improved transportation systems
- Cumulative impacts—increased development with greater accessibility, higher property values and increased

Overview of South Dakota Department of Transportation Land Use Process

SDDOT considers various Tribal, county, and local government land use plans, zoning, future use and growth management areas, and annexation plans, in the review process when available.

Class II CE projects may not require a detailed land use analysis; however, exceptions may include displacements, relocations, or acquisition of ROW or easements that might influence land use and/or development. FHWA guidance materials for conducting social and economic analysis, including land use forecasting in NEPA is provided in the Applicable Laws, Regulations, and Guidance section.

The procedures for SDDOT projects involving land use are summarized in Table 3.6-3 and are further described in the narrative following the table.

Table 3.6-3 Steps in the Land Use Process

Step	Participant(s)	Result(s)
Preconstruction		
1. Conduct desktop review of local planning documents	EPC, local government Tribal governments and Metropolitan Planning Organizations (as applicable)	Coordination letters, document in project file and Environmental Project Tracking Database
2. Identify and analyze potential impacts on land use	EPC	Document potential impacts in project file
3. Evaluate avoidance minimization or mitigation measures	EPC, Design/ROW, local government, Tribal government (as applicable), public	Document avoidance, minimization, or mitigation measures, and public involvement (as necessary) in project file and Environmental Project Tracking Database
4. Document in project file and applicable NEPA document	EPC	Project file, CE Checklist and ECC; EA/FONSI, EIS/ROD

Notes: CE – Categorical Exclusion, EA – Environmental Assessment, ECC – Environmental Commitments Checklist, EIS – Environmental Impact Statement, EPC – Environmental Project Coordinator, FONSI – Finding of No Significant Impact, NEPA – National Environmental Policy Act, ROD – Record of Decision, ROW – Right of Way

Land Use Process Description

Step 1. Conduct Desktop Review of Local Planning Documents

Upon receipt of the Approved Scope, the EPC will conduct a desktop review of existing and proposed land use in the project area and any anticipated changes in land use, including the following information:

- Municipal/county planning documents
- Zoning maps and master plans
- Aerial photographs
- USGS and other maps
- Digital orthographic quadrangle images
- GIS data

The EPC may send coordination letters to the local governments or Tribes to determine any potential land use or social/economic impacts.

Land use is analyzed in Class I EIS and Class III EA projects. Also, consideration must be given if there is a 4(f) impact. The following types of impacts are an indication of potential “unusual circumstances” for which some level of land use analysis may be necessary for a CE project:

- Project or project-related impacts are inconsistent with an adopted municipal or county comprehensive land use plan
- Project involves residential or business displacements
- Public controversy related to land use impacts of the project
- Project purpose and need involves supporting a specific planned land use development or spurring economic development
- Project involves capacity changes that could change accessibility, such as construction of a new alignment roadway, adding travel lanes to an existing roadway, or construction of a new interchange

If a detailed land use analysis is not required, the EPC documents information in the project file. If a detailed land use analysis is required, the EPC or approved consultant will proceed to Step 2.

Step 2. Identify and Analyze Potential Impacts to Land Use

The EPC in cooperation with Design will identify and analyze any potential impacts on land use from information collected in Step 1 in coordination with information gathered for other resources, such as noise, ROW, and relocations. The EPC (CE) or consultant (EA/EIS) determines if the project will affect land use and/or growth management plans in the area. Analysis will be conducted following FHWA and other guidance cited in this section. The information will be incorporated into the applicable NEPA document (CE/EA/EIS).

Step 3. Evaluate Avoidance, Minimization, or Mitigation Measures

If the project has potential to impact existing or future land use or is inconsistent with regional or local planning documents, the EPC and Design will evaluate avoidance, minimization, or mitigation measures. Public involvement will be incorporated as appropriate in accordance with the SDDOT Public Involvement Plan. Potential mitigation measures include rerouting or changing alignments, elevated/depressed roadways, berms, and noise barriers in accordance with SDDOT standard specifications.

If there is a potential 4(f) impact, it must be avoided if there is a feasible or prudent alternative that meets the purpose and need of the proposed transportation project.

Step 4. Document in Project File and Applicable NEPA Document

The EPC will document in project file and provide land use analysis information in the applicable NEPA document (CE/EA/EIS).

Applicable Laws, Regulations and Guidance

Federal Highway Administration

***FHWA Technical Advisory T 6640.8A*—**The FHWA Technical Advisory T 6640.8A, dated October 30, 1987, suggests that the analysis of land use impacts should include the following items:

- Identification of the current development trends and the state and/or government plans and policies on land use and growth in the area that will be impacted by the proposed project.
- Assessment of the consistency of the project's alternatives with the comprehensive development plans adopted for the area and (if applicable) other plans used in the development of the transportation plan required by Section 134.
- Identification of the secondary social, economic, and environmental impacts of any substantial, foreseeable, and induced development for each alternative, including adverse effects on existing communities. Where possible, the distinction between planned and unplanned growth should be identified.

***Interim Guidance on the Application of Travel and Land Use Forecasting in NEPA*—**In March 2010, FHWA released an interim report to encourage improvement in the state-of-the-practice in project-level forecasting as it is applied in the context of the NEPA process. This guidance shares key considerations, collective lessons learned, and best practices regarding how to apply forecasting in NEPA. These can be used to help Departments of Transportation avoid common issues and improve the quality of forecasts, resulting in faster and more effective project delivery. This guidance focuses more on the procedural or process for forecasting land use and less on the technical guidelines for producing forecasts for projects.

***FHWA Community Impact Assessment*—**Community Impact Assessment (CIA) is a process to evaluate the effects of a transportation action on a community and its quality of life. FHWA sponsors a website on CIA, which is administered by the Center for Urban Transportation Research at the University of South Florida. This web site contains a variety of references and resources related to CIA. The Community Impact Assessment: A Quick Reference for Transportation publication (Number FHWA-PD-96-036) relays the CIA process.

Guidebook for Assessing the Social and Economic Effects of Transportation Projects—The National Cooperative Highway Research Program developed report 456. This publication provides useful information to evaluate land use impacts on transportation projects.

***Assessing the Extent and Determinates of Induced Growth – Montana Department of Transportation*—**This research report includes a desk reference for addressing indirect land use impacts, including a step-by-step screening process to determine if further analysis of indirect effects is warranted.

3.6.4 Pedestrian and Bicyclist Access

Promoting development of facilities for use by pedestrians and bicycles is an important consideration during transportation project planning. This section defines key terms used in bicycle and pedestrian programs, introduces the applicable authority, and describes the environmental commitments for ensuring that bicycles and pedestrian facilities are addressed during transportation planning. The process for projects involving existing or proposed pedestrian and bicycling facilities summarized in Table 3.6-4 and described in further detail throughout the rest of this section. Relevant regulations are cited at the end of the section for further reading.

Common Definitions:

The term *bicycle transportation facility* means a new or improved lane, path, or shoulder for use by bicyclists and a traffic control device, shelter, or parking facility for bicycles (23 USC 217 (j).

The term *pedestrian* means any person traveling by foot and any person with a mobility impairment who is using a wheelchair (23 USC 217 (j).

The term *wheelchair* means a mobility aid, usable indoors, and designed for and used by individuals with mobility impairments, whether operated manually or motorized (23 USC 217(j).

The term *pedestrian walkway or walkway* means a continuous way designated for pedestrians and separated from the through lanes for motor vehicles by space or barrier (23 CFR 652).

Authorization:

Federal law (23 USC 217) and associated regulations (23 CFR 450 and 23 CFR 652) recognize the importance of accommodating the needs and safety of pedestrians and bicyclists in the development and implementation of transportation system plans and projects.

23 CFR 450 requires states to carry out an STIP that serves the needs of people and freight (including pedestrian walkways and bicycle transportation facilities).

23 CFR 652 provides policies and procedures relating to pedestrian and bicycle accommodations on federal aid projects and federally funded projects.

Introduction

To help state Departments of Transportation (DOTs) develop or update pedestrian and bicycle plans, FHWA released the Statewide Pedestrian and Bicycle Planning Handbook that covers statewide planning from inception and scoping to implementation, including topics like engaging stakeholders and the general public; developing goals, objectives, and strategies; collecting and analyzing data; and linking to larger planning processes.

SDDOT has a Bicycle and Pedestrian Coordinator who promotes and facilitates the increased use of nonmotorized transportation, including developing facilities for the use of pedestrian and bicyclists. The South Dakota Transportation Alternatives Program provides funding for specific activities that enhance the intermodal transportation system and provide safe alternative transportation options.

Overview of South Dakota Department of Transportation Pedestrian and Bicyclist Access Process

Various activities are eligible for Transportation Alternatives Program funding, including facilities for pedestrians, bicyclists and other non-motorized forms of transportation. SDDOT identifies and evaluates bicycle and pedestrian facilities as part of the environmental documentation for federally funded projects. Table 3.6-4 presents the procedures for SDDOT projects involving pedestrian and bicyclist access.

Table 3.6-4 Steps in the Bicycle/Pedestrian Process

Step	Participant(s)	Result(s)
Preconstruction		
1. Identify existing pedestrian/ bicycle facilities in project area	EPC, applicable local government or municipality	Coordination Letters, Environmental Project Tracking Database, document in project file
2. Identify and evaluate potential impacts on pedestrian and bicycle facilities	EPC	Document potential impacts in project file
3. Evaluate minimization measures	EPC, Design/ROW	Document mitigation measures, in project file
4. Document in project file and applicable NEPA document	EPC	Project file, CE Checklist and ECC; EA/FONSI, EIS/ROD; copy to Section A Plan Notes (if applicable) to Design to incorporate in Final Plan set
Construction		
5. Monitor implementation of avoidance, minimization, and mitigation measures	EPC, Project Engineer	Document construction findings in project file

Notes: CE – Categorical Exclusion, EA – Environmental Assessment, ECC – Environmental Commitments Checklist, EPC – Environmental Project Coordinator, EIS – Environmental Impact Statement, FONSI – Finding of No Significant Impact, NEPA – National Environmental Policy Act, ROD – Record of Decision, ROW – Right of Way

Bicycle and Pedestrian Process Description

Step 1. Identify Existing Pedestrian/Bicycle Facilities in the Project Area

Upon receipt of an Approved Scope, the EPC will conduct a desktop review to identify existing pedestrian/bicycle facilities located within the project area and determine the locations of existing sidewalks, pedestrian bridges, footpaths, bike routes, and designated trails. Tools to identify facilities include maps, aerial photos, field visits, and coordination with the SDDOT bicycle coordinator and other local government planners, and users. Design will provide the EPC with preliminary plans for pedestrian/bicycle facilities to be incorporated into the project to accommodate bicycles or pedestrians.

The EPC will send coordination letters to local government and municipalities to identify any impacts and document in the Environmental Project Tracking Database.

Step 2. Identify and Evaluate Potential Impacts on Pedestrian and Bicycle Facilities

The EPC will identify and evaluate potential impacts that project alternatives will have on existing pedestrian and/or bicycle facilities, including consistency with local and regional plans. If the project alternative will close an existing major route for non-motorized transportation, the EPC and Design will provide a reasonable alternative route or demonstrate that a route exists (in accordance with 23 USC 109[n]). The EPC will document in the project file. If impacts are identified, proceed to Step 3.

Step 3. Identify and Evaluate Avoidance, Minimization, or Mitigation Measures

If the project will impact an existing or planned pedestrian or bicycle facility, the EPC and Design staff will evaluate measures for avoiding or mitigating adverse impacts. Input from municipalities, OWJ, and the public should be incorporated into the measures.

For temporary impacts, mitigation measures may include detours, signage, fencing, or other barriers to protect users from unsafe areas. Long-term and permanent impacts may include alignment changes and underpass/overpass structures.

If an affected pedestrian or bicycle facility is on land that is publicly owned, or the facility itself is publicly owned, or used for public recreational purposes, use of land from the facility is subject to compliance with Section 4(f). Section 4(f) sites and trails and trail crossings are both identified as noise-sensitive receptors under Activity Category C in 23 CFR 772—Noise Abatement Criteria and may require additional analysis.

Include a discussion of bicycle and pedestrian facilities in each applicable NEPA document (CE, EA, or EIS). If the project does not include pedestrian and bicycle facilities, provide discussion of why such facilities were not considered. EPC and Design staff determines whether appropriate consideration and accommodation has been made for bicyclists and pedestrians on state projects and delegated federal projects.

Step 4. Document in Project File and Applicable NEPA Document

The EPC will document information in project file and applicable NEPA document (CE/EA/EIS). The EPC will provide Section A Plan Notes, Commitments M1 and/or M2, to Design to incorporate in the Final Plan set.

Step 5. Monitor Implementation of Avoidance and Minimization Measures

During construction, the Project Engineer and the EPC will conduct monitoring to ensure that avoidance, minimization, or mitigation measures were implanted in accordance with the final design plans. The EPC will document construction findings in the project file.

Applicable Laws, Regulations, and Guidance

Laws, regulations, and guidance relevant to bicycle and pedestrian facilities are presented by agency, with executive orders presented first.

Bicycle Transportation and Pedestrian Walkways (23 CFR 217)—This section of the USC includes the following requirements concerning bicyclists and pedestrians:

- Bicyclists and pedestrians shall be given due consideration in the comprehensive transportation plans developed by each metropolitan planning organization and state.
- Bicycle transportation facilities and pedestrian walkways shall be considered, where appropriate, in conjunction with all new construction and reconstruction of transportation facilities, except where bicycle and pedestrian use are not permitted.
- Transportation plans and projects shall provide due consideration for safety and contiguous routes for bicyclists and pedestrians.

Bicycle Transportation and Pedestrian Walkways; Planning and Design (23 USC 17[g])— this part provides policies and procedures relating to the provision of pedestrian and bicycle accommodations on federal-aid projects, and federal participation in the cost of these accommodations and projects.

Planning Assistance and Standards (23 CFR 450)—This part of the CFR includes requirements for development of transportation plans and improvement programs that facilitate the safe and efficient management and operation of transportation systems that will serve the mobility needs of people, including accessible pedestrian walkways and bicycle transportation facilities.

Pedestrian and Bicycle Accommodations and Projects (23 CFR 652)—This part of the CFR is scheduled for update in the near future. It includes policies and procedures relating to

the provisions of pedestrian and bicycle accommodations on federal-aid projects and federal participation in the cost of these accommodations. In accordance with these regulations, the safe accommodation of pedestrians and bicyclists should be given full consideration during the development and construction of federal-aid projects. Key requirements of the policies in this part include the following:

- The special needs of the elderly and persons with disabilities must be considered in all federal-aid projects that include pedestrian facilities
- Where current or anticipated pedestrian and/or bicycle traffic presents a potential conflict with motor vehicle traffic, every effort must be made to minimize the detrimental effects on all highway users who share the facility
- On highways without full control of access where a bridge deck is being replaced or rehabilitated, and where bicycles are permitted to operate at each end, the bridge must be reconstructed so bicycles can be safely accommodated, when it can be done at a reasonable cost
- Consultation with local groups of organized bicyclists is encouraged in the development of bicycle projects

Federal Highway Administration

FHWA Technical Advisory T6640.8A—The FHWA Technical Advisory T 6640.8A, dated October 30, 1987, provides guidance for considerations relating to pedestrians and bicyclists.

***Safe, Accountable, Flexible, Efficient Transportation Equity Act – A Legacy for Users*, Section 1807**—Includes provisions such as the Nonmotorized Transportation Pilot Program to demonstrate the extent to which bicycling and walking can carry a significant part of the transportation load and represent a major portion of the transportation solution, within selected communities.

3.6.5 Visual Resources/Aesthetics

Preservation of visual resources in the planning, construction, and maintenance of transportation enhances the transportation system and improves the quality of life for South Dakota citizens. This section defines key terms in analyzing visual resources and presents the environmental commitments for analyzing and documenting visual resources. The process by which SDDOT identifies and evaluates visual resources is summarized in Table 3.6-5 and described in further detail throughout this section. Relevant regulations are cited at the end of the section for further reading.

Common Definitions:

Visual Resources: A project's affected environment.

Viewsheds: What people can see in the environment; the result of the intersection between the physical constraints of the environment and the physiological limits of human perception.

- A dynamic viewshed is what travelers on the road see as they move through the landscape.
- A *static viewshed* is what neighbors of the road see from a stationary location

Area of Visual Effect: The area of project visibility, determined by the physical constraints of the environment and the physiological limits of human sight. It is the sum of all viewsheds.

Neighbors: Those people who are adjacent to the highway and have views of the road.

Travelers: Those people who are using the highway and have views from the road.

Viewers: A project's affected population.

Note: All definitions are cited in FHWA Successes in Stewardship Article (December 2014: Glossary).

Introduction

FHWA is in the process of updating its Visual Impact Assessment (VIA) guidelines to help practitioners consider the scope and level of analysis that would best benefit the affected area and population and implement environmentally streamlined, effective solutions. The VIA guidelines are an effective tool for evaluating existing conditions, minimizing project impacts, and planning and implementing aesthetic transportation improvements.

Overview of South Dakota Department of Transportation's Visual Resources Process

SDDOT's process for evaluating impacts to visual resources follows the FHWA VIA guidance. Project visual impacts include both the view from the road and the view of the road. It is important that impacts both positive and negative are adequately assessed and considered when a highway project is developed. VIA is carried out in four phases and is the same regardless of project complexity—the level of effort is tailored to fit each project. Each phase is based on the interaction between people and the environment:

- Establishment—Define the area of visual effect, or the study area of the VIA. The area of visual effect represents the sum of all viewsheds, considering landscape constraints and physiological limits of human sight.

- Inventory—Identify the affected environment and population and examine visual quality, or what people like or dislike seeing.
- Analysis—Evaluate and analyze potential impacts that the project may have on the identified visual resources and viewers, determining the level of impact to be beneficial, adverse, or neutral.
- Mitigation—Define the project design's mitigation and enhancement. Established processes, such as Context Sensitive Solutions or similar state DOT guidance, can be helpful in coordinating with project designers and the public to identify effective and acceptable mitigation measures. The VIA guidelines provide examples of construction- and design-related mitigation measures that aid in identifying options and general effective measures to fit each project.

The procedures for SDDOT projects involving visual resources are summarized in Table 3.6-5 and are further described in the narrative following the table.

Table 3.6-5 Steps in the Visual Resources Process

Step	Participant(s)	Result(s)
Preconstruction		
1. Identify area of visual effect and study area	EPC	Document map and viewsheds in project file
2. Conduct inventory and visual assessment	EPC or Consultant	Document visual assessment in project file
3. Evaluate mitigation measures	EPC, Design/ROW	Document mitigation measures in project file
4. Document in project file and applicable NEPA document	EPC	Project file, CE Checklist and ECC; EA/FONSI, EIS/ROD
Construction		
5. Monitor implementation of mitigation measures	EPC, Project Engineer	Document construction findings in project file

Notes: CE – Categorical Exclusion, EA – Environmental Assessment, ECC – Environmental Commitments Checklist, EIS – Environmental Impact Statement, EPC – Environmental Project Coordinator, FONSI – Finding of No Significant Impact, NEPA – National Environmental Policy Act, ROD – Record of Decision

Visual Resources Process Description

Step. 1 Identify Areas of Visual Effect and Study Area

Upon receipt of the Approved Scope, the EPC will identify and map the study area and AVE to determine if a visual assessment is necessary based on the FHWA VIA guidance document. The EPC will document the information in the project file.

Step 2. Conduct Inventory and Visual Assessment

The EPC or consultant will conduct an inventory and visual assessment using the FHWA VIA guidance. The VIA will include steps to catalogue the views from the project and the views toward the project, landforms and land cover types in the area, and characteristics of the populations who will view the project. These data are used to prioritize the relative importance from each viewpoint in terms of its visual importance, viewer characteristics, and potential visual impact. Visual character and visual quality are defined for current conditions and post-project conditions.

Step 3. Evaluate Mitigation Measures

If visual impacts are identified (i.e., visual quality is reduced), the EPC will evaluate mitigation measures and incorporate them into the project design where it is feasible and practicable. The EPC will incorporate the VIA and mitigation measures in the NEPA document (CE, EA, or EIS) and project file. Any public meeting requests should follow SDDOT's Public Involvement Plan procedures.

Step 4. Document in Project File and Applicable NEPA Document

The EPC documents the visual assessment and mitigation measures in the project file and incorporates the analysis and mitigation measures into the applicable NEPA document (CE/EA/EIS).

Step 5. Monitor Implementation of Mitigation Measures

The Project Engineer and EPC will monitor project construction to ensure that measures to avoid, minimize, or reduce adverse visual impacts are implemented in accordance with the approved project plans. The EPC will document construction findings in the project file.

Applicable Laws, Regulations, and Guidance

Laws, regulations, and guidance relevant to visual resources are presented by agency, with executive orders presented first.

Federal Highway Administration

Guidelines for the Visual Impact Assessment of Highway Projects ***(publication no. FHWA-HEP-15-029)*** The 2015 field guide is intended to help those who prepare or review the coverage of visual impacts in EAs or EISs for highway projects. The guide discusses how to develop such coverage and how to review its adequacy.

FHWA Technical Advisory T 6640.8A—FHWA Technical Advisory T 6640.8A, dated October 30, 1987, provides guidance for addressing visual aesthetics. Where the project alternatives have a potential for visual quality impacts, the draft environmental documentation should accomplish the following:

- Identify the impacts to the existing visual resource and the relationship of the impacts to potential viewers of and from the project.

- Identify measures to avoid, minimize, or reduce the adverse impacts.
- Explain the consideration given to design quality, art, and architecture in the project planning. These values may be particularly important for facilities located in visually sensitive urban or rural settings.

The guidance also states that the draft environmental documentation should be circulated to officially designated state and local arts councils and, as appropriate, other organizations with an interest in design, art, and architecture. The final environmental documentation should identify any proposed mitigation for the preferred alternative.

3.7 Other Resources

3.7.1 Air Quality

Protecting air quality in the planning, construction, and maintenance of transportation projects is an important step in complying with provisions of 42 USC 7401 et seq., the CAA. This section defines key terms used in the protection of air quality, introduces the applicable authorities, and presents the environmental commitments established for construction projects. The process by which SDDOT evaluates impacts on air quality is summarized in Table 3.7-1 and described in further detail throughout this section. Relevant regulations are cited at the end of the section for further reading.

Common Definitions:

Nonattainment area means any geographic region of the United States that has been designated as nonattainment under section 107 of the CAA for any pollutant for which a national ambient air quality standard exists.

Maintenance area means any geographic region of the United States previously designated as nonattainment pursuant to the CAA Amendments of 1990 and subsequently redesignated to attainment subject to the requirement to develop a maintenance plan under section 175A of the CAA, as amended).

National Ambient Air Quality Standards (NAAQS) are those standards established pursuant to Section 109 of the CAA.

Note: All definitions are cited at 40 CFR 93.101.

Authorization:

Under the authority of the CAA, the U.S. Environmental Protection Agency sets NAAQS for six air pollutants, also known as criteria pollutants: carbon monoxide (CO), ozone, nitrogen dioxide, particulate matter ($PM_{2.5}$ and PM_{10}), sulfur dioxide, and lead.

Mobile sources (e.g., autos, trucks, and trains) are a major contributor to emissions of four of these pollutants: CO, ozone, nitrogen dioxide, and particulate matter. If the

concentration of one or more of these pollutants is found to exceed the regulated level or threshold in a particular geographic area, the area may be classified as a nonattainment area. Geographic areas that are below the regulated level for these pollutants are considered attainment or unclassifiable areas (42 USC 7401).

Introduction

The SDDENR Air Quality Program is responsible for maintaining air quality levels in South Dakota. It is responsible for air quality levels that protect human health, safety and welfare, and the NAAQS established through the CAA. SDDENR is responsible for maintaining a network of air-quality monitoring stations and reporting annual air-quality monitoring results for South Dakota.

There are currently no nonattainment or maintenance areas designated by the U.S. Environmental Protection Agency (USEPA) within South Dakota. Therefore, the requirements of the transportation conformity regulations (40 CFR 93 Subpart A) do not apply to transportation projects in South Dakota (e.g., ensuring project is from a conforming long-range plan and Transportation Improvement Plan, hot-spot analysis etc.). However, air quality is an environmental concern within the broad purview of the NEPA and the thresholds/screening criteria included in the transportation conformity regulations and guidance can be helpful in deciding whether an air quality analysis of a proposed transportation project is warranted for NEPA purposes. For example, the list of project types exempt from transportation conformity (40 CFR 93.126) can be used as an indicator of minimal air quality effects and can support a decision not to analyze air quality further as part of the NEPA process.

For non-exempt projects, the transportation conformity regulations can be used to consider whether a CO hot-spot analysis is warranted for NEPA purposes based on whether the project affects signalized intersections that are at level of service (LOS) D, E, or F, or those that will change to LOS D, E, or F because of increased traffic volumes related to the project (40 CFR 93.123). Intersections at LOS C or better do not require any consideration of localized CO hot-spots, because hot-spots are only an issue at very congested intersections with high traffic volumes. If a project increases congestion at an intersection at LOS D, E, or F, the need for a hot-spot analysis can be further screened using FHWA's *Carbon Monoxide Categorical Hot-Spot Finding*. The categorical finding includes a simple web-based tool that can be used to quickly confirm whether further analysis is required.

Transportation conformity also provides guidelines that can be used to consider whether particulate matter ($PM_{2.5}$ and/or PM_{10}) hot-spot analysis is warranted for NEPA purposes. The need for such an analysis for projects that qualify for CEs is unlikely. Projects meeting one or more of the following criteria for "projects of local air quality concern" could warrant consideration of PM hot-spot analysis:

1. New highway projects that have a significant number of diesel vehicles and expanded highway projects that have a significant increase in the number of diesel vehicles (40 CFR 93.123[b][1][i]). For example, a project on a new highway or expressway that serves a significant volume of diesel truck traffic, such as facilities with greater than 125,000 annual average daily traffic and 8 percent or more of such annual average daily traffic is diesel truck traffic.
2. Projects affecting intersections that are at LOS D, E, or F with a significant number of diesel vehicles, or those that will change to LOS D, E, or F because of increased traffic volumes from a significant number of diesel vehicles related to the project (40 CFR 93.123[b][1][ii]).
3. New bus and rail terminals and transfer points that have a significant number of diesel vehicles congregating at a single location (40 CFR 93.123[b][1][iii]). For example, new exit ramps and other highway facility improvements to connect a highway or expressway to a major freight, bus, or intermodal terminal.
4. Expanded bus and rail terminals and transfer points that significantly increase the number of diesel vehicles congregating at a single location (40 CFR 93.123[b][1][iv]).

NEPA also requires consideration of air toxics for which no NAAQS have been established under the CAA. Toxic air pollutants, also known as Hazardous Air Pollutants, are substances known to cause or are suspected of causing cancer or other serious health ailments. FHWA has provided a framework for analyzing air toxics in the 2012 guidance memo entitled *Interim Guidance Update on Mobile Source Air Toxic Analysis in NEPA*. For projects that are categorically excluded under 23 CFR 771.117(c), are exempt from conformity requirements under the CAA pursuant to 40 CFR 93.126, or have no meaningful effect on traffic volumes or vehicle mix, no analysis or discussion of Mobile Source Air Toxics (MSAT) is necessary. Documentation sufficient to demonstrate that the project qualifies as a CE and/or exempt project will suffice. Larger projects not meeting these criteria for exemption from MSAT analysis should conduct a qualitative or quantitative MSAT analysis in accordance with the FHWA guidance (which includes template documentation language).

Overview of the South Dakota Department of Transportation Air Quality Process

When a transportation project is proposed, the potential impacts on air quality in the project area are reviewed by the Environmental Supervisor or Environmental Engineer during the completion of the preliminary Class of Action determination. If there is an indication of a potential impact, an EPC is assigned an Approved Scope to conduct further evaluation. The procedures for SDDOT projects involving air quality are summarized in Table 3.7-1 and are further described in the narrative following the table.

Table 3.7-1 Steps in the Air Quality Process

Step	Participant(s)	Result
Preconstruction		
1. Determine if the project is located in a nonattainment area for transportation-related criteria pollutants	EPC, SDDENR	SDDENR Coordination Letter, Environmental Project Tracking Database, Air Quality Construction Permit (if applicable), document determination in project file
2. Determine if the project is exempt per transportation conformity regulations	EPC	Document exemption in project file
3. Determine if CO, $PM_{2.5}$, PM_{10} analysis is warranted	EPC or Consultant	Document CO screening; PM hot spot analysis (if applicable) in project file
4. Determine if the project is exempt from MSAT analysis	EPC or Consultant	Document Qualitative/Quantitative Analysis (if applicable) in project file
5. Document in project file and applicable NEPA document	EPC	Project file, CE Checklist and ECC; EA/FONSI, EIS/ROD; copy to Section A Plan Notes (if applicable) to Design to incorporate in Final Plan set

Notes: CE – Categorical Exclusion, CO – Carbon Monoxide, EA – Environmental Assessment, ECC – Environmental Commitments Checklist, EIS – Environmental Impact Statement, EPC – Environmental Project Coordinator, FONSI – Finding of No Significant Impact, MSAT – Mobile Source Air Toxics, PM – Particulate Matter, ROD – Record of Decision, SDDENR – South Dakota Department of Environment and Natural Resources

Air Quality Process Description

Step 1. Determine if the Project is Located in a Nonattainment Area for Transportation-related Criteria Pollutants

Upon receipt of the Approved Scope, the EPC conducts a desktop review to determine if the project is located within a nonattainment area using the USEPA Green Book Nonattainment Areas for Criteria Pollutants website. (Note: currently there are no areas designated as nonattainment within South Dakota).

A state facility is defined as any state agency, state-owned or state-leased property, or property subject to a temporary stated easement in the Rapid City Air Quality Control Zone.

To avoid USEPA designating Rapid City a PM_{10} non-attainment area in 1996, a Natural Events Action Plan was developed by the state and approved by USEPA in 1998. The plan requires special fugitive dust control measures for all construction activities in the Rapid City Air Quality Control Zone. As long as PM_{10} concentration remain below the standard, USEPA will take no further action to designate the Rapid City Area nonattainment.

The EPC also determines if the project is located within any of the municipalities that require an air quality permit during construction. Currently in the South Dakota, the only municipality with permitting requirements is Rapid City.

Permitting requirements and applications are set forth in the Rapid City Municipal Code 8.34 and Pennington County Ordinance No. 12. A map of the area of air quality concerns is found at the Rapid City Area Air Quality Control Zone

As required by Administrative Rules South Dakota Chapter 74:36:18:03, a construction activity on a state facility within the Rapid City Air Quality Control Zone must get an air quality permit for fugitive dust emissions from SDDENR. A construction activity is defined as any temporary activity at a state facility which involves the removal or alteration of the natural or pre-existing cover of one acre or more of land. One acre of surface area is based on a cumulative area of anticipated disturbance to be completed for the entire project. Information on this permit can be obtained at the SDDENR Regional Office in Rapid City by calling the Pennington County Air Quality Division at 605-394-4157.

The EPC sends a coordination letter to the SDDENR Air Quality Program to confirm the project's location within a nonattainment area. The letter is documented in the Environmental Project Tracking Database. If the project is not located within a nonattainment area, it is documented in the project file. SDDENR coordination is documented in the CE Checklist.

If the project is located within an attainment area, proceed to Step 2. If the project is located within a municipality that requires an air quality permit, the EPC will prepare and submit an application and document in the CE Checklist under "other unusual circumstances apply."

Step 2. Determine if the Project is Exempt per Transportation Conformity Regulations

The EPC will determine if the project is exempt from transportation conformity regulations. If exempt, the EPC will document in the project file. If transportation conformity regulations apply, the EPC will need to determine if a hot-spot analysis is warranted.

Step 3. Determine if a CO, $PM_{2.5}$ or PM_{10} Hot Spot Analysis is Warranted

If a hot-spot analysis is not warranted, the EPC will document in the project file. If warranted, the EPC or consultant will conduct a CO screening using the FHWA CO Categorical Hot Spot Finding Tool and a hot-spot analysis using the USEPA Guidance.

Step 4. Determine if the Project is Exempt from Mobile Source Air Toxics Analysis

The EPC will determine if the project is exempt from MSAT analysis. If exempt, the EPC will document in the project file.

Step 5. Document in Project File and Applicable NEPA Document

The EPC will document in project file and applicable NEPA document (CE/EA/EIS). The ECC (if applicable) should indicate that SDDENR coordination was completed and provide any comments in the ECC under "other unusual circumstances apply." A copy of Section A Plan Notes, Commitment K, is sent to Design to incorporate in Final Plan set.

Applicable Air Quality Laws, Regulations, and Guidance

Laws, regulations, and guidance relevant to air quality are presented by agency, with executive orders presented first.

U.S. Environmental Protection Agency

42 USC 7401 et seq., "Air Pollution Prevention and Control"—These parts of the USC codify the provisions of the CAA. The fundamental purpose of the CAA is to protect and enhance the quality of the nation's air resources to promote the public health, welfare, and the productive capacity of its population. Under the authority of the CAA, USEPA uses six criteria pollutants (i.e., ozone, CO, nitrogen dioxide, sulphur dioxide, $PM_{2.5}$, PM_{10}, and lead) as indicators of air quality. USEPA has established a maximum concentration above which adverse effects on human health may occur. These threshold concentrations constitute the NAAQS. Current NAAQS are available on the USEPA website. The CAA provides that when an area does not meet the air quality standard for one of the criteria pollutants, it may be subject to the formal rule-making process that designates it as nonattainment for that pollutant. Under the CAA, USEPA further classifies ozone, CO, and some PM nonattainment areas based on the magnitude of an area's problem. Nonattainment classifications may be used to specify air pollution reduction measures that an area must adopt and when the area must reach attainment.

Project-Level Conformity and Hot-Spot Analyses—USEPA provides a webpage containing policy guidance, technical guidance, and other resources issued by USEPA to assist agencies in completing project-level conformity analyses, including $PM_{2.5}$, PM_{10}, and CO hot-spot analyses.

40 CFR 51 and 93 Transportation Conformity Rule Amendments to Implement Provisions Contained in the 2005 Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users—This Final Rule, dated January 24, 2008, implements amendments to the conformity regulations to make them consistent with CAA Section 176(c) as amended by SAFETEA-LU, including changes to reflect that the CAA:

- Provides more time for state and local governments to meet conformity requirements
- Provides a 1-year grace period before the consequences of not meeting certain conformity requirements
- Allows the option of shortening the timeframe of conformity determinations
- Streamlines other provisions

The final rule also includes minor amendments that are not related to SAFETEA-LU (e.g., allowing USDOT to make categorical hot-spot findings for appropriate projects in CO nonattainment and maintenance areas). While the SAFETEA-LU statutory changes apply in all states, these non-statutory amendments only apply in states with up-to-date "conformity SIPs" (another type of SIP that incorporates the federal conformity requirements into state law).

Interim Guidance Update on Mobile Source Air Toxic Analysis in NEPA—The purpose of this memorandum is to update the September 2009 interim guidance that advised FHWA division offices on when and how to analyze MSAT under the NEPA review process for highway projects. This update reflects recent changes in methodology for conducting emissions analysis and updates of research in the MSAT arena.

3.7.2 Contaminated Materials

Identifying contaminated materials that may be present or are known to be present within a project area is an important consideration during transportation planning, construction, and maintenance. From a regulatory perspective, contaminated materials are considered to be hazardous waste or hazardous substances. This section provides key definitions, introduces the applicable authority, and provides the steps to ensure compliance. The process that SDDOT follows to identify and address contaminated materials is summarized in Table 3.7-2 and described in further detail throughout this section. Relevant regulations are cited at the end of the section for further reading.

Common Definitions:

The term *contaminated materials* used in this section is a general phrase not defined in federal or state statutes or regulations, but it includes hazardous wastes under the Resource Conservation and Recovery Act (RCRA); hazardous substances under the Comprehensive Environmental Response, Compensation, and Liability Act; and other regulated materials such as petroleum-contaminated soil that must be handled as nonhazardous, as defined below:

Hazardous substance means any substance designated pursuant to 40 CFR 302.3.

> Hazardous substances include listed and unlisted substances. Listed substances are delineated in 40 CFR 302.4, Table 302.4. Unlisted substance may meet certain definitions and meet or exceed thresholds for ignitability, corrosivity, reactivity, and toxicity.

Hazardous waste shall have the meaning provided in 40 CFR 261.3.

> To be considered a hazardous waste, a material first must be classified as a solid waste (40 CFR §261.2). If a waste is considered solid waste, it must then be determined if it is hazardous waste (§262.11). Wastes are defined as hazardous by the U.S. Environmental Protection Agency if they are specifically named on one of four lists of hazardous wastes located in Subpart D of Part 261 (F, K, P, U) or if they exhibit one of four characteristics located in Subpart C of

Part 261 (characteristic wastes) (USEPA Wastes – Hazardous Waste Webpage, 40 CFR 261).

Authorization:

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (42 USC 9601 et seq.)—This 1980 statute commonly referred to as a "Superfund" established prohibitions and requirements concerning closed and abandoned hazardous waste sites, provided for liability of persons responsible for releases of hazardous waste, and established a trust fund to cleanup when no responsible party could be identified.

The Resource Conservation and Recovery Act (42 USC §6901 et seq.)—This amended statue gives the U.S. Environmental Protection Agency the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled the U.S. Environmental Protection Agency to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances.

Introduction

Contaminated materials encountered during construction can cause issues, delay the project schedule, and involve additional costs. Identifying contaminated materials (potential or known) within a project area or adjacent to a project area should occur early in the planning stage for the project.

Overview of South Dakota Department of Transportation Contaminated Materials Process

SDDOT provides specific guidance when managing contamination due to removing and/or replacing petroleum storage tanks. SDDOT Policy PD-2004-03, Contaminated Soil Site Surveys, Assessments, Mitigation and Cost Reimbursements, addresses the procedures for either known/suspected contaminated soils or non-suspect tank removal and replacements. Depending on extent of contamination, the Petroleum Release Compensation Fund may reimburse expenses for the clean-up.

Known/Suspected Contaminated Soil Site Procedures

- EPC provides information to SDDENR about the project site to determine possible contamination of soils. If suspected, EO issues work order for a consultant to conduct a site assessment or soil screening/sampling.

- If no contamination is found, the report is furnished to the EO, Region Office, SDDENR, and Petroleum Release Compensation Fund
- If contamination is found, the site assessment report, complete with proposed remediation plan, is furnished to EO; EO notifies, or directs consultant to notify, SDDENR. Procedures to remove and dispose of contaminated materials are specified in PD-2004-03.

***Contaminated Soil Site**: as site contaminated by leaking petroleum storage tanks and lines, or by spills of petroleum products caused by accidents, refueling overfills, etc.*
***Suspect Site**: a site suspected of being contaminated because of know tank leakage, spills, longtime use as a petroleum refueling station, etc.*
***Non-suspect tank removal and/or replacement:** a petroleum storage tank removal and/or replacement project where records and site conditions do not indicate a presence of leaks or contaminated soil. (SDDOT Policy PD-2004-03)*

Non-Suspect Tank Removal and/or Replacement Procedures

- Region notifies EO and submits plans to SDDENR and the State Fire Marshal for approval. After approval by SDDENR and the marshal, the Region lets contract for removal/replacement.
- If no contamination is found, the Region completes project.
- If contamination is found, EO will notify SDDENR. Procedures to remove and dispose of contaminated materials are specified in PD-2004-03.

Contaminants such as petroleum products or solvents in the subsurface or groundwater can migrate onto SDDOT ROW from adjacent locations. Other projects that may require review include acquiring new ROW or permanent easement, excavating or other disturbance of the soil, or demolishing or substantially modifying buildings or structures. Even projects that do not involve these activities should be reviewed for contamination to ensure that potential issues are identified as early as possible. The procedures for SDDOT projects involving contaminated materials are summarized in Table 3.7-2 and are further described in the narrative following the table.

Table 3.7-2 Steps in the Contaminated Materials Process

Step	Participants(s)	Result(s)
Preconstruction		
1. Determine if project is located in an area with potential for or known contaminated materials	EPC, SDDENR	SDDENR Coordination Letter, Environmental Project Tracking Database, document in project file
2. Determine if the project will impact contaminated materials or Identified sites	EPC	Decision on further action; if none is required, document in project file and CE Checklist and ECC (if applicable)
3. Evaluate avoidance or remediation alternatives	EPC, Design/ROW	Document avoidance or Remediation Plan (if applicable) in project file

Step	Participants(s)	Result(s)
4. Document in project file and applicable NEPA document	EPC	Project file, CE Checklist and ECC; EA/FONSI, EIS/ROD; copy to Section A Plan Notes (if applicable) to Design to incorporate in Final Plan set
Construction		
5. Monitor implementation of avoidance or remediation plan	Project Engineer, EPC	DOT-272, document construction findings in project file

Notes: CE – Categorical Exclusion, DOT – Department of Transportation, EA – Environmental Assessment, ECC – Environmental Commitments Checklist, EIS – Environmental Impact Statement, EPC – Environmental Project Coordinator, FONSI – Finding of No Significant Impact, NEPA – National Environmental Policy Act, ROD – Record of Decision, ROW – Right of Way, SDDENR – South Dakota Department of Environment and Natural Resources

Contaminated Materials Process Description

Step 1. Determine if Project is Located in an Area with Potential for or Known Contaminated Materials

Upon receipt of the Approved Scope, the EPC will conduct a desktop review to determine if the project area is located within an area with potential for or known contaminated materials and/or known gas stations and underground storage tanks. The EPC must consider surrounding land use when screening for contaminated materials. Desktop review involves review of location map, aerial photography, Sanborn Maps, regulatory databases such as the U.S. Environmental Protection Agency (USEPA) Superfund site list (CERCLIS), USEPA Enforcement History and Compliance Online, and SDDENR Aboveground and Underground Tank database and spill database. The EPC should also review available American Society for Testing and Materials Phase I and Phase II Environmental Site Assessments and contact SDDENR for other relevant information to identify past uses of the property and adjacent properties.

The EPC will send a coordination letter to SDDENR to determine if the project is located in an area where contaminated materials or groundwater quality could potentially impact the project.

If no contaminated materials or significant sites are identified, no further action is necessary. The EPC will document this information in the project file, CE Checklist, and ECC. If contaminated materials or significant sites have been identified and have the potential to impact project, proceed to Step 2.

Step 2. Determine if the Project will Impact Contaminated Materials or Identified Sites

The EPC will determine if the project will impact contaminated materials or identified sites. If no impacts are identified, no further action is necessary. The EPC documents in this

information in the project file, and if applicable in the CE Checklist, and ECC. If impacts on contaminated materials or identified sites are identified, proceed to Step 3.

Step 3. Evaluate Avoidance Measures or Develop Remediation Plan

The EPC and Design Engineer will develop alternatives to avoid the contaminated materials site first, and if avoidance is not possible, they will develop a remediation plan. Further coordination with SDDENR may be necessary. The EPC submits a written notice of work on contaminated materials to SDDENR, SDDOT Area Office, 30 days before work begins. The EPC documents avoidance or remediation measures in the project file.

Step 4. Document in Project File and Applicable NEPA Document

The EPC documents the avoidance measures or remediation plan in the appropriate NEPA document (CE, EA, or EIS). The EPC provides a copy of Section A Plan Notes, Commitment I, (if applicable) to Design to incorporate in Final Plan set, including contaminated material location and possible disposal site.

Step 5. Monitor Implementation of Avoidance or Remediation Plan

During construction, the Project Engineer will monitor the construction site to ensure that the avoidance measures or remediation have been accomplished in accordance with the plans. If contamination is encountered during construction, the Project Engineer will contact the EO, which will contact SDDENR and a qualified consultant to inspect and monitor removal of any contaminated soil. Removal of soil will be completed under a separate bid. The EPC will document DOT-272 and construction findings in project file.

Applicable Laws, Regulations, and Guidance

Laws, regulations, and guidance relevant to contaminated materials are presented by agency, with executive orders presented first.

Environmental Protection Agency

***Toxic Substance Control Act*—**The Toxic Substances Control Act of 1976 provides USEPA with authority to require reporting, record-keeping and testing requirements, and restrictions relating to chemical substances and/or mixtures. Certain substances are generally excluded from the Toxic Substance Control Act, including, among others, food, drugs, cosmetics, and pesticides. The Toxic Substance Control Act addresses the production, importation, use, and disposal of specific chemicals, including polychlorinated biphenyls, asbestos, radon, and lead-based paint.

***Standard Practice for Environmental Site Assessments: Phase 1 Environmental Site Assessment Process (American Society for Testing and Materials Standard E 1527)*—**On December 30, 2013, USEPA approved American Society for Testing and Materials Standard E1527-13 as sufficient to satisfy All Appropriate Inquiry for potential liability protections under CERCLA and stand as the baseline for Phase I Environmental Site Assessments.

Solid Waste Disposal (42 USC 6901 et seq.)—These USC sections codify the provisions of the RCRA, which gives USEPA the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled USEPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances.

The Federal Hazardous and Solid Waste Amendments in 1984 amended RCRA and focus on minimizing waste, phasing out land disposal of hazardous waste, and performing corrective action for releases. Other mandates of this law include increased enforcement authority for USEPA, more stringent hazardous waste management standards, and a comprehensive underground storage tank program. Implementing regulations for RCRA are provided in 40 CFR 260-282.

Comprehensive Environmental Response, Compensation and Liability (42 USC 9601 et seq.)—This 1980 statute is commonly referred to as “Superfund.” The statute created a tax on chemical and petroleum industries and allowed broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. The CERCLA established prohibitions and requirements concerning closed and abandoned hazardous waste sites, provided for liability of persons responsible for releases of hazardous waste, and established a trust fund to cleanup when no responsible party could be identified. The law authorized the following two types of response actions:

- **Short-term Removals:** Actions may be taken to address releases or threatened releases that require a prompt response.
- **Long-term Remedial Response:** Actions that permanently or significantly reduce the dangers associated with releases or threatened releases that are not immediately life threatening. These actions can only occur at sites listed on USEPA’s National Priorities List) (often known as the list of Superfund sites.

The National Contingency Plan provides the guidance and procedures for responding to releases and threatened releases of hazardous substances, pollutants, or contaminants. It established the National Priorities List.

The *Superfund Amendments and Reauthorization Act* (SARA) amended CERCLA in 1986. SARA required USEPA to revise the Hazard Ranking System to more accurately assess the degree of risk posed to human health and/or environment by uncontrolled hazardous waste sites that may be placed on the National Priorities List. Implementing regulations for CERLCA and SARA are provided in 40 CFR 300-374.

Innocent Landowners, Standards for Conducting All Appropriate Inquiries (40 CFR 139)— The purpose of this section is to provide standards and practices for “all appropriate inquiries” into the previous ownership and uses of a property for the purposes of CERCLA sections 101(35)(B)(i)(I) and 101(35)(B)(ii) and (iii).

***National Emission Standard for Asbestos (40 CFR 61, Subpart M)*—**Asbestos is an USEPA-designated hazardous air pollutant and is regulated under Subpart M.

Federal Highway Administration

***FHWA Supplemental Hazardous Waste Guidance*—**This FHWA guidance on hazardous waste contamination, written on January 16, 1997, encourages early identification; assessment; and federal, state, and local coordination regarding contamination and its clean-up.

***FHWA Technical Advisory T 6640.8A*—**The FHWA Technical Advisory T 6640.8A, dated October 30, 1987, provides guidance for providing environmental documentation related to hazardous waste sites, as follows:

- During early planning, the location of permitted and nonregulated hazardous waste sites should be identified. Early coordination with the appropriate regional USEPA office and the appropriate state agency will aid in identifying known or potential hazardous waste sites.
- If known or potential waste sites are identified, the locations should be clearly marked on a map showing their relationship to the alternatives under consideration.
- If a known or potential hazardous waste site is affected by an alternative, information about the site, the potential involvement, impacts, public health concerns, and the proposed mitigation measures to eliminate or minimize impacts or public health concerns should be discussed in the draft EIS.
- If the preferred alternative impacts a known or potential hazardous waste site, the final EIS should address and resolve the issues raised by the public and government agencies.

3.7.3 Noise

Noise from highway traffic and construction is an important environmental consideration in the planning, construction, and maintenance of transportation projects. This section defines key terms in noise analysis and abatement, introduces the authorities, and presents an introduction to the federal and SDDOT procedures for applying 23 CFR 772. The process by which SDDOT implements FHWA noise standards is summarized in Table 3.7-3 and described in further detail throughout this section. Relevant regulations are cited at the end of the section for further reading.

Common Definitions:

Abatement are measures used to reduce traffic noise levels. Abatement measures will not be implemented unless determined to be feasible and reasonable.

Feasibility is the combination of engineering and acoustical factors considered in the evaluation of a noise abatement measure.

Reasonableness is the combination of social, economic, and environmental factors considered in the evaluation of noise abatement measures.

Statement of likelihood is a statement provided in the environmental clearance document based on the feasibility and reasonableness analysis completed at the time the environmental document is being approved.

Note: All definitions are cited at 23 CFR 772.5.

Authorization:

Standards (23 USC 109[i])—This part of the USC codifies a provision enacted by the Federal-Aid Highway Act of 1970 that requires the USDOT to develop and promulgate standards for highway noise levels that are compatible with different land uses. The resulting criteria are contained in Title 23 CFR Part 772, *Procedures of Abatement of Highway Traffic Noise and Construction Noise.*

Noise Control (42 USC 4901–4918)—These parts of the USC codify the provisions of the Noise Control Act of 1972. They authorize the U.S. Environmental Protection Agency to establish noise regulations to control major sources of noise, including transportation vehicles and construction equipment.

Introduction

FHWA developed noise regulations as required by the Federal-Aid Highway Act of 1970 (Public Law 91-605, 84 Stat. 1713). The regulation, 23 CFR 772 Procedures for Abatement of Highway Traffic Noise and Construction Noise, applies to highway projects requiring federal funding or approvals. This regulation applies to all Type I projects unless the regulation specifically indicates that a section only applies to Type II or Type III projects. If a project is determined to be a Type I project under this definition, then the entire project area as defined in the environmental document is a Type I project.

Type I projects are defined as federal-aid highway projects in a new location or the physical alteration of an existing highway that significantly changes either the horizontal or vertical alignment or increases the number of through-traffic lanes. Type I projects can also include new or altered weigh stations, rest stops, ride-share lots, or toll plazas. Noise analysis is not required for the no-build alternative or other eliminated alternatives. SDDOT uses this definition to determine whether or not a project is Type I. SDDOT does not participate in or fund Type II projects along existing highways.

Overview of the SDDOT Noise Analysis Process

The SDDOT Noise Analysis and Abatement Guidance outlines and supplements procedures for applying 23 CFR 772 in an equitable and cost-effective manner in South Dakota. Noise analyses conducted should use the latest approved version of the FHWA

Traffic Noise Model (TNM), (currently version 3 as of March 2017), or any other model determined by the FHWA to be consistent with the methodology of FHWA TNM. (Note: no other models have been approved to date.)

The procedures for SDDOT projects involving noise are summarized in Table 3.7-3 and are further described in the narrative following the table.

Table 3.7-3 Steps in the Noise Analysis Process

Step	Participant(s)	Result(s)
Preconstruction		
1. Determine if the project is a Type I project	EPC	Document in project file
2. Identify noise sensitive areas and conduct existing conditions noise monitoring	EPC	Document need for noise analysis in project file
3. Conduct Noise Analysis	EPC or Consultant	Noise Analysis
4. Evaluate abatement alternatives	EPC, Local Government Agency, Public	Document abatement alternatives, Statement of Likelihood, and Public Involvement Plan in project file
5. Document in project file and applicable NEPA document	EPC	Project file, CE Checklist and ECC; EA/FONSI, EIS/ROD; copy to Section A Plan Notes (if applicable) to Design to incorporate in Final Plan set
Construction		
6. Monitor implementation of abatement measures	EPC, Project Engineer	Document construction findings in project file

Notes: CE – Categorical Exclusion, EA- Environmental Assessment, ECC – Environmental Commitments Checklist, EIS – Environmental Impact Statement, EPC – Environmental Project Coordinator, FONSI – Finding of No Significant Impact, NEPA – National Environmental Policy Act, ROD – Record of Decision

Noise Process Description

Step 1. Determine if Project is a Type I Project

Upon receipt of the Approved Scope and Project, the EPC determines whether the project is a Type I project and documents this finding in the project file. As discussed above, no noise analysis is necessary for non-Type I projects.

Step 2. Identify Noise Sensitive Areas and Conduct Existing Conditions Noise Monitoring

If the project is Type I or involves potential noise issues, the EPC or consultant will identify and map potential noise sensitive areas within the project area. Noise sensitive land uses include residences, parkland, schools, trails, libraries, and places of worship, among others (see complete list in 23 CFR 772). Noise sensitive areas can be preliminarily identified using a desktop review (e.g., aerial photos), but need to be confirmed in the field as well. If there are no noise sensitive areas along the project alignment, no noise analysis will be required to conclude there will not be any noise impacts. If noise sensitive land uses are present in the project area, existing conditions noise monitoring should be conducted following the procedures described in the SDDOT Noise Analysis and Abatement Guidance. The EPC will document the identification of noise sensitive areas and existing conditions noise monitoring in the project file. If a noise analysis is warranted, proceed to Step 3.

> ***Highway traffic noise impacts*** *occur when the predicted traffic noise levels for the design year approach (reach 1 decibel less than) or exceed the noise abatement criteria contained in 23 CFR 772 (Appendix 1), or when the predicted traffic noise levels substantially exceed the existing noise levels by 15 A-weighted decibels, even though the predicted levels may not exceed the noise abatement criteria.*

Step 3. Conduct Traffic Noise Analysis and Identify Noise Impacts

The EPC or an approved Contractor will conduct a traffic noise analysis using FHWA's TNM in accordance with 23 CFR 772 and SDDOT's Noise Analysis and Abatement Guidance. The TNM modeling requires several key inputs, including the proposed alignment/pavement layout, existing and future year traffic volumes, and vehicle classification data (especially important due to the large influence of heavy truck volumes on traffic noise). Based on the TNM modeling, noise impacts can be determined according to the noise abatement criteria. A noise levels "approach" (defined by SDDOT as within 1 decibel [dBA] of the noise abatement criteria) or "substantially exceed" existing noise levels (defined by SDDOT as an increase of 15 dBA over existing conditions).

The noise analysis must include an analysis of each activity category as detailed in 23 CFR 772. A detailed list of land use types within each category can be found in Appendix 1 (23 CFR 772).

Step 4. Evaluate Abatement Measures

For those receptors that are identified as noise impacts, the EPC and Design will consider and evaluate abatement measures (e.g., barriers, earth berms, buffer zones, traffic management measures, and alteration of horizontal and vertical alignments) for feasibility and reasonableness. This includes modeling of abatement measures in TNM to assess their acoustic benefits, considering engineering issues related to potential abatement designs, and estimating costs of abatement measures in accordance with SDDOT's traffic noise policy. The noise abatement measure analysis concludes with a recommendation of whether or not mitigation is feasible and reasonable in each location with noise impacts,

and a preliminary proposed mitigation design. The preliminary mitigation design will be subject to further refinement in final design.

The analysis report should include:

- Noise abatement measures that are feasible or reasonable and are likely to be incorporated into the project
- Noise impacts for which no abatement appears to be feasible and reasonable
- Statement of likelihood (abatement measures that will be included in final design)

The EPC will present the noise analysis to the affected local government agency or municipality along with information on noise-compatible planning techniques.

The EPC will prepare a statement of likelihood and develop a public involvement plan to provide the opportunity for the public to review and comment on existing noise levels (both measured and modeled), future predicted noise levels, and preliminary noise abatement considerations. SDDOT will not be responsible for providing highway traffic noise abatement for undeveloped lands permitted after the approval of the environmental document (CE, FONSI, or ROD).

Step 5. Reasonableness

Subjective criteria that applies common sense and good judgement when noise abatement measures are considered. The following three reasonableness criteria must be collectively achieved for abatement measure to be considered reasonable:

- Viewpoints of the Property Owners and Residents of all Benefited Receptors (Activity Category B Land Uses)

  When it is determined that it would be feasible to provide noise abatement for a site, and preliminary determination has been made, a public informational meeting will be held for a final determination of whether abatement would be reasonable. Benefited property owners and residents will be given an opportunity to vote on noise abatement by ballot.

- Cost Effectiveness

  Noise barriers that are determined to be feasible to design and construct must also be evaluated for reasonable cost. SDDOT defines cost effectiveness as dollars per benefited receiver. Based on 2010 construction cost estimates, SDDOT will use $44 per square foot for barrier costs. If the cost per benefited receptor is more than $21,000, the abatement measure will be considered not reasonable.

  The cost calculations of the noise abatement measure includes all items directly related to the construction of the abatement measure. Cost item examples include design, ROW, drainage modifications, utility relocation, traffic control, retaining walls, landscaping for graffiti abatement and standard aesthetic treatments.

- Noise Reduction Goal: A minimum of 40% of benefited receptors must achieve a 7dB(A) noise reduction for noise abatement to be reasonable. SDDOT Noise Analysis and Abatement Guidance – (July 2011)

Step 5. Document in Project File and Applicable NEPA Document

The EPC will document the noise analysis and abatement measures in the project file and applicable NEPA document (CE, EA, or EIS). A copy of Section A Plan Notes (if applicable) will be sent to Design to incorporate into the Final Plan set.

Step 6. Monitor Implementation of Abatement Measures

During construction of the project, the Project Engineer and the EPC are responsible for monitoring that noise abatement measures were implemented in accordance with SDDOT guidance. The EPC documents construction findings in the project file.

Applicable Laws, Regulations and Guidance

Laws, regulations, and guidance relevant to noise are presented by agency, with executive orders presented first.

Standards (23 USC 109[i])—Codifies a provision enacted by the Federal-Aid Highway Act of 1970 that requires USDOT to develop and promulgate standards for highway noise levels that are compatible with different land uses. The resulting criteria are contained in Title 23 CFR Part 772, *Procedures of Abatement of Highway Traffic Noise and Construction Noise.*

Noise Control (42 USC 4901–4918)—Codifies the provisions of the Noise Control Act of 1972, authorizing the U.S. Environmental Protection Agency (USEPA) to establish noise regulations to control major sources of noise, including transportation vehicles and construction equipment.

Procedures for Abatement of Highway Traffic Noise and Construction Noise (23 CFR 772)—The Procedures of Abatement of Highway Traffic Noise and Construction Noise, dated October 16, 1997, and amended July 13, 2010, provides procedures for noise studies and noise abatement measures to help protect the public health and welfare, supply noise abatement criteria, and establish requirements for information to be given to local officials for use in highway planning and design that are approved pursuant to Title 23 USC.

Federal Highway Administration

FHWA Highway Traffic Noise Analysis and Abatement Policy and Guidance—FHWA updated the Highway Traffic Noise Analysis and Abatement Policy and Guidance document (FHWA-HEP-10-025) in December 2011. This document provides FHWA guidance for applying the 23 CFR 772 in the analysis and abatement of highway traffic noise.

***FHWA Highway Construction Noise Handbook*—**This handbook provides guidance on measuring, predicting, and mitigating highway construction noise and developing noise criteria. The handbook includes the FHWA Roadway Construction Noise Model. The analysis tool enables the prediction of construction noise levels for a variety of construction operations based on a compilation of empirical data and the application of acoustical propagation formulas. The program enables calculation of construction noise levels in more detail than manual methods while avoiding the need to collect extensive amounts of project-specific input data.

***National Cooperative Highway Research Program Guidelines for Selection and Approval of Noise Barrier Products*—**The National Cooperative Highway Research Program published the Guidelines for Selection and Approval of Noise Barrier Products in July 2008. This document provides information on the types of barriers, materials, and surface textures; the costs associated with barriers; the process for designing barriers; and more.

South Dakota Department of Transportation

***Noise Analysis and Abatement Guidance (July 2011)*—**This guidance outlines SDDOT procedures on how highway traffic impacts are defined, how noise abatement is evaluated, and how noise abatement decisions are made. It is intended to supplement 23 CFR 772. The document is reviewed annually and updated, as necessary, when FHWA issues new guidance. This document was developed by SDDOT and was reviewed and approved by FHWA.

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4.0 INTER-DEPARTMENTAL COORDINATION

4.1 Overview

SDDOT's Division of Planning and Engineering and Division of Operations coordinate closely with the EO throughout the planning, construction, and post-construction of transportation projects. These divisions rely on the EO to ensure that all projects comply with applicable local, state, federal, and Tribal laws and regulations.

Throughout the planning and scoping activities, the EO works closely with Project Development (PD) in the early stages of developing a project. As projects are brought forward into the STIP, the PD team works to understand all of the possible implications of improving existing or constructing new transportation systems. On a broad scale, early decisions on location and design features may be considered to avoid and/or minimize environmental impacts.

After the STIP is adopted, projects undergo development through multiple stages, including planning, preliminary design, final design, bid letting, construction, and post-construction of environmental commitments, as required by various permits. An example of the maintenance of an environmental commitment required post-construction is the proper development and protection of mitigated wetlands after the construction project is completed. The environmental design for individual projects in the approved STIP begins when a work authorization for preliminary engineering is issued by the Division of Planning and Engineering.

4.2 Project Scope and Planning

Project Identification Coordinators *lead the early stages of project development to obtain an approved scope for a project.*

Project Identification Coordinators begin scoping activities on individual projects early in the project development process. Depending on the nature of the project, other offices in SDDOT or consultants may be involved in project development. It may be necessary for the Project Identification Coordinator to coordinate with the EO on a project-by-project basis. One or more public information meetings may be scheduled to obtain information that will assist in preparing project scope documents. Draft and/or proposed project scope documents are prepared and distributed within SDDOT.

Using the Approved Scope, the EO coordinates with state, federal, and tribal agencies to identify potential project impacts to the environment and community. The EO prepares the appropriate environmental document based on the project's environmental classification, as discussed previously in the Environmental Procedures Manual (EPM).

Four steps comprise scope development:

1. **Draft Scope** combines background information on the roadway segment and begins to build the purpose of and need for the project. Background information for roadway and other elements of the project will be completed along with recommendations from the appropriate management systems. Once this is complete, potential options are listed with pros and cons associated with each option for each need. Typical needs and appropriate improvement types associated with South Dakota highways are listed in the Proposed Project Information tab of the C2C scoping module for each project.
2. **Proposed Scope** identifies the purpose of and need for the project as identified by the author. The proposed scope will include the background information along with proposed improvements to the roadway facility. The improvements will fit the purpose of and need for the project.
3. **Recommended Scope** is the "final draft" version of the scope document submitted for the approval of required department personnel. By this point in the scoping process, all scope review comments received from department personnel, the public, the FHWA, and other stakeholders will be addressed.
4. **Approved Scope** is the final scope document issued by the department. All comments from previous versions of the scope have been addressed and its purpose is to guide the designer. If modifications are needed to the project after the scope has been approved, a scope amendment will be completed.

Once approved, the scope will be sent to all programs within the Division of Planning and Engineering, the appropriate Area and Region offices, and, on projects with federal oversight, FHWA. The Approved Scope is used during the design of the project.

If an Approved Scope requires revision, an amendment will be issued. Triggers for revision include new information about impacts to the purpose and need, cost, schedule, project limits, or previously unknown environmental considerations. The scope amendment will be approved by all impacted design offices, and the Area, the Region, and PD office.

4.3 Project Coordination

*The **Responsible Manager** is the point of contact within SDDOT design offices who is assigned to manage the successful completion of plans and specifications for bid letting.*

Once the Approved Scope is received, the design office in charge of the transportation project assigns a Responsible Manager to lead the project through bid letting. The EO also assigns an EPC. The Responsible Manager will coordinate as necessary with the EPC to review key environmental commitments known at this stage of the project, review necessary environmental studies required for environmental compliance, and determine a schedule for all reports and reviews required throughout the preparation of bid documents.

After the project is awarded to a construction Contractor, the Project Engineer assigned to the transportation project will coordinate as necessary with the EPC to ensure a full understanding of the environmental commitments for the project. This may occur in preparation for or during the requisite preconstruction meeting with the Contractor. Any notifications to the EO, SHPO, and THPO will be identified, including the schedule and timing of each requirement. Examples of the notifications include fish transfers and installation of safety fences at archaeological sites.

After construction of the transportation project is complete, the EPC will coordinate as necessary with the Area Offices to ensure their understanding of required post-construction maintenance and protection of resources in the project area.

The environmental coordination activities required at each stage of a project are summarized in Table 4.3-1. The table provides a description of key decision points that require coordination for compliance with environmental commitments, while keeping the project on schedule.

Table 4.3-1 Summary of SDDOT Coordination for Environmental Commitments

	Pre-Construction (Design/ROW)	Construction (Project Engineer)	Post-Construction (Area Offices)
General	Coordinate with EPC to identify and avoid environmental resources	Comply with plans and specifications. Notify EPC of any changes	Continue protection of environmental resources
Wetlands	Avoid and/ or minimize impact. If unavoidable, mitigation design	Protect existing wetland, construct mitigation wetlands in accordance with plans and specifications. Notify EO of any changes affecting wetlands	Maintain wetland, according to mitigation plan
Erosion Control and Storm Water Management	Develop SWPPP, NOI	Implement SWPPP provisions, NOT, and Form 298	Maintain permanent erosion control items and remove temporary items once disturbed area is stabilized
Threatened and Endangered Species	Comply with the ESA. Ensure provision for aquatic organism passage for bridge/ culvert design	Monitor T&E requirements, schedule seining, submit turbidity reports	N/A
Section 106	Avoid and/or minimize impact, design mitigation if unavoidable	Inadvertent discovery reporting	Protect resources
Section 4(f)	Avoid, prudent and reasonable avoidance alternatives, overall least harm alternative	Implement mitigation plan	N/A

	Pre-Construction (Design/ROW)	Construction (Project Engineer)	Post-Construction (Area Offices)
Section 6(f)	Avoid, prudent and reasonable avoidance alternatives, overall least harm alternative	Implement mitigation plan	N/A

Notes: BMPs – Best Management Practices, EO – Environmental Office, EPC – Environmental Project Coordinator, ESA – Endangered Species Act, N/A – Not Applicable, NOI – Notice of Intent, NOT – Notice of Termination, SWPPP – Storm Water Pollution Prevention Plan, T&E – Threatened and Endangered

4.3.1 Pre-construction

The preconstruction phase of a transportation project includes planning, preliminary design, final design, and bid letting. Planning occurs throughout the development of the Approved Scope and includes coordination with the Environmental Supervisor or designee. Once the project moves into design, the Responsible Manager assigned to the project coordinates with the EPC throughout the preliminary design and final design stages.

Preliminary Design

During this stage of the design process, the Responsible Manager works with the EPC to find the best approach that protects environmental resources and achieves the project goals. The EPC and Responsible Manager work collaboratively to understand each other's constraints before finalizing the design. Overall, there are three major environmental efforts in the preliminary design phase—identify environmental resources, avoid environmental resources, and minimize and mitigate environmental resources impacts.

Identify Environmental Resources

Through various desktop reviews, the EPC identifies the types of environmental resources in the project area. The EPC coordinates with applicable regulatory agencies to confirm any issues or requirements for a proposed project with regard to identified environmental resources. Chapter 2 outlines the agency notification process.

Environmental resources in the project area are identified by desktop review or site inspection. (SDDOT)

Various agencies and governmental organizations may require longer or shorter review cycles to respond to the EPC's request for review comments. For example, the ARC may need up to a year, while other agencies such as SDGFP, Tribes, and the SDDENR are required to respond within 30 days. Tribes may require additional time to respond during Section 106 coordination. Some agencies, such as USFWS may need more information than the project area to make a determination of potential impact. If the project crosses a stream, a preliminary hydraulic analysis is completed before an initial comment on the proposed project is requested.

Evaluate Options to Avoid Environmental Resources

After the environmental resources have been identified, the EPC will work with the Responsible Manager to determine if impacts to the environmental resources can be avoided. Most of the regulatory agencies responsible for a resource require SDDOT and FHWA to demonstrate whether or not a resource can be avoided to accomplish the goals of a project before approvals are granted. Examples include avoidance of wetlands, critical habitat for threatened and endangered species, Section 4(f), and Section 6(f) properties. Section 4(f) considerations may be the most stringent, requiring an alternative to be selected if a project cannot avoid a 4(f) property.

If environmental resources cannot be avoided, plans to minimize and mitigate the impacts of a transportation project must be developed as part of the project design.

Minimize and Mitigate Environmental Impacts

Once it is determined that an environmental impact cannot be avoided, the Responsible Manager and EPC coordinate to minimize any potential impacts. This work may require additional consultation with agencies, Tribes, or stakeholders.

Work limits that are minimize during final design can reduce the effects on environmental resources and demonstrates good faith efforts in minimizing environmental impacts. (SDDOT Staff)

Final Design

As final plans are developed, any documentation required for approval by FHWA, USFWS, and other regulatory agencies for the mitigation plans must be developed as part of plans and specifications. Examples include the SWPPP for erosion control for the protection of water quality, a Section 404 wetlands permit, protection of archeological and paleontological resources. All environmental requirements are set for in Section A Plan Notes in the plan set. The EO will review Final Plan set prior to inclusion in the plans, specifications, and estimated cost.

4.3.2 Construction

The Project Engineer assigned to oversee the construction of the transportation project will coordinate as necessary with the EPC to fully understand the requirements in the Section A Plan Notes for each environmental resource. The Project Engineer will contact the EPC at any time throughout the construction project to clarify requirements to ensure the proper implementation of all measures designed to protect resources and mitigate impacts to them. The first important step for compliance with the environmental requirements noted in Section A occurs during the Contractor-led preconstruction meeting. Once construction is underway, the Project Engineer continues to monitor field activities to ensure all environmental requirements are met.

Preconstruction Meeting

Preconstruction meetings are the responsibility of the contractor in collaboration with SDDOT. The Contractor must file the following forms, prior to scheduling the preconstruction meeting:

- DOT-270 Authorization Form for the Preconstruction Meeting
- DOT-271 Preconstruction Meeting Outline
- DOT-272 Contractor's Submittal List

DOT-272 details all of the necessary documentation to ensure the environmental commitments are addressed and met by the Contractor. The form and its associated environmental submittals are prepared prior to and submitted at the preconstruction meeting. Examples of information included in DOT-272 are provided below:

- Temporary permit to use public waters for highway construction purposes
- Temporary discharge permit
- Storm water discharge General Permit
- Mining permit
- Construction plan for work in Topeka shiner streams
- Fish transfer at locations designated as Topeka shiner streams
- Asphalt or concrete plant operating permit
- Measures to protect sites identified for avoidance
- Notice of work on known contaminated material
- Notice of protection of archaeological sites
- SWPPP, including an NOI and an NOT
- Air quality construction permits

- Amendment approval under General Permit for storm water discharges
- Archaeological clearances
- Threatened and endangered species review
- Wetland location determination, Section 404 of the CWA

Field Construction Activities

The requirements for SDDOT to ensure environmental commitments are set forth in the plans and specification for the transportation project. However, at any time the Project Engineer may consult with the EPC for the proper implementation of the measures. The Project Engineer must contact the EO for concurrence on any change order that modifies the plans and specifications, including project limits. Additional studies and evaluations may be required if the change order has the potential to further affect environmental resources.

Other construction activities requiring coordination with the EPC include:

- Fish Seining—Wildlife Biologist conducts fish seining, if necessary. A minimum notice of 48 hours must be given to the SDDOT EO.
- Fish Passage—Wildlife Biologist confirms successful fish passage (work plans for diversion channels).
- Turbidity Monitoring—Wildlife Biologist tracks turbidity by receiving Form 283 Stream Turbidity Inspection Form.
- Storm Water—Storm water coordinator receives weekly Form 298 Storm Water, Erosion, site BMPs, and Sediment Control Inspection Reports on rainfall events and results of a half-inch or greater rainfall event.
- Wetlands—Wetlands coordinator confirms construction of wetland mitigation areas.
- The EPC consults with the ARC on inadvertent discoveries of archeological or paleontological resources.

4.3.3 Post-construction

The Area Offices are responsible for the post-construction maintenance of environmental commitments that require monitoring and protection post-construction. Examples include the proper maintenance of mitigated wetlands in accordance with the Section 404 permit, inspection of the efficacy of BMPs, especially immediately after the

SDDOT wetland mitigation site in Milbank, South Dakota. (SDDOT)

construction project is complete, and the perpetual protection of any cultural resources. Area Offices will consult with the EO if there are questions about the condition of an environmental resource and proper maintenance activities for the resource.

5.0 CONTRACTOR PROCEDURES

The construction phase may require continued involvement from the Environmental office or resource agencies to ensure that the project is proceeding in accordance with permit conditions or environmental requirements. Once a construction Contractor is selected through the bidding process, the Contractor is responsible for demonstrating compliance with SDDOT environmental commitments. The Contractor will work with the Project Engineer to comply with all the environmental commitments and other applicable Tribal, local, state, and federal laws regarding the environment and protection of resources. If questions arise at any time during the project, the Project Engineer will contact the EO to ensure compliance with all environmental commitments.

Section 5.0 discusses the major environmental commitments that could be encountered on a project. Each resource is introduced and a summary of the DOT-272 and Section A Plan Notes are provided in the tables that follow.

5.1 Preconstruction Meetings

The Contractor is responsible for organizing a preconstruction meeting, under the guidelines set forth in the Special Provision for Contractor Administered Preconstruction Meeting. The purpose of the meeting is to ensure SDDOT that the Contractor fully understands all the requirements of the transportation project, including the environmental commitments, environmental special provisions, environmental permits, mitigation requirements, environmental sensitive areas, or other environmental considerations. The Contractor must submit a DOT-270, Authorization for the Preconstruction Meeting, to the Area Office. Once scheduled, the Contractor will receive a preconstruction meeting outline, DOT-271, from the Area Office. The Contractor will fill out details related to the meeting and send the DOT-270, DOT-271, DOT-272, with all submittals back to the Area Office prior to scheduling the preconstruction meeting. This includes the required environmental submittals such as detailed construction plans and sequencing that include associated products, materials, and methods of construction and removal. The Contractor's submittal shall include all necessary information to provide assurance that the environmental commitments to this project are adequately addressed.

An environmental commitment is a measure that SDDOT commits to implement in order to avoid, minimize, and/or mitigate a real or potential environmental impact. Environmental commitments to various agencies and the public have been made to secure approval of this project. An agency mentioned within an environmental commitment with permitting authority can influence a project if perceived environmental impacts have not been adequately addressed. Environmental commitments are not subject to change without prior written approval from the SDDOT's EO.

5.2 DOT-272

The Contractor is required to comply with Form DOT-272. In the DOT-272 environmental section, some items are required prior to construction activities and others can be

submitted or requested when appropriate. Prior to scheduling the preconstruction meeting, the Contractor will complete and provide the Area Engineer all items on the list of required environmental submittals that are required before scheduling a preconstruction meeting. This includes the required environmental submittals such as detailed construction plans and sequencing that include associated products, materials, and methods of construction and removal. The Contractor's submittal shall include all necessary information to provide assurance that the environmental commitments to this project are adequately addressed. If the Contractor cannot complete and provide a submittal item required prior to scheduling the preconstruction meeting, the Contractor will contact the Area Engineer to establish a mutually agreed upon date when the required submittal will be completed and provided to the Area office. The Area Engineer can indicate the items on the list that are not applicable to the project prior to sending the form to the Contractor.

Once the construction project is underway, the Contractor is required to continue meeting the environmental commitments set forth in the plans and specifications, including actions to protect resources, especially in the areas of wetlands, erosion, sediment and storm water management, threatened and endangered species, historic and archeological resources, and 4(f) and 6(f) properties.

Table 5.2-1 includes the contractor's required submittals for projects.

Table 5.2-1 DOT-272 Contractor's Required Submittals

No.	Item	Chapter 3 Location	Prior to Scheduling Preconstruction Meetings (Yes/No)	Submittal Before Start of Related Work	Construction Activities for Contractor Furnished Materials Sites, Waste Sites, Plant Sites, or Others outside project plan limits (Yes/Not Applicable)	Submit To
1	Temporary Permit to Use Public Waters for Highway Construction Purposes	3.1	No	Yes	Not Applicable	SDDENR, Water Rights Program *
2	Temporary Discharge Permit	3.1	Yes	*Completed prior to preconstruction*	Not Applicable	SDDENR, Surface Water Quality Program *
3	SWD General Permit - Contractor Certification Form (Attachment C)	3.1	Yes	*Completed prior to preconstruction*	Not Applicable	SDDENR, Surface Water Quality Program *
4	Mining Permit	N/A	Yes	*Completed prior to preconstruction*	Not Applicable	SDDENR, Minerals & Mining Program SDDOT, Area Office
5	Construction Plan for work in Topeka Shiner Streams	3.2	Yes	*Completed prior to preconstruction*	Not Applicable	SDDOT, Environmental Office
6	Fish transfer at locations designated as T.S. Streams	3.2	No	2 Days (minimum)	Not Applicable	SDDOT Biologist
7	Asphalt or Concrete Plant Operating Permit	N/A	Yes	*Completed prior to preconstruction*	Not Applicable	SDDOT, Area Office
8	Timeline for measures to protect sites identified for avoidance	3.3	No	Yes	Not Applicable	SDDOT, Area Office and ARC/Tribal Monitor
9	Written notice of work on known contaminated material	3.7.2	No	30 Days	Not Applicable	SDDOT, Area Office, and SDDENR
10	Written notice of work on known contaminated material	3.7.2	No	7 Days	Not Applicable	SDDOT, Area Office
11	Notice of installation of safety fence at archaeological sites and/or earth disturbing activities near listed sites	3.3	No	7 Days	Not Applicable	ARC and/or Tribal Monitor *
12	SWPPP	3.1.3	Yes	*Completed prior to preconstruction*	Not Applicable	SDDOT, Area Office
13	Air Quality Construction Permits (Rapid City Area only)	3.7.1	No	Yes	Not Applicable	Rapid City, Air Quality Division *
a	Amendment approval to project's coverage under General Permit for Storm Water Discharges Associated with Construction Activities	3.1	Yes	*Completed prior to preconstruction*	Yes	SDDENR, Surface Water Quality Program
b	Archeological Clearances (SHPO/THPO)	3.4	Yes	*Completed prior to preconstruction*	Yes	ARC or other qualified professional in the field of archaeology SDDOT, Environmental Office *
c	Threatened & Endangered Species Review	3.2	Yes	*Completed prior to preconstruction*	Yes	SD Ecological Services Field Office *
d	Wetland Determination and Section 404 of Clean Water Act (CWA)	3.1.2	Yes	*Completed prior to preconstruction*	Yes	U.S. Army Corps of Engineers, Omaha District *

Notes: CWA – Clean Water Act, SDDENR – South Dakota Department of Environment and Natural Resources, ARC – Archeological Research Center, SD – South Dakota, SDDOT – South Dakota Department of Transportation, SHPO – State Historic Preservation Office, SWD – Surface Water Discharge, SWPPP – Storm Water Pollution Prevention Plan, T.S. – Topeka Shiner, THPO – Tribal Historic Preservation Office

* Verbal or written notification must be given to the Area Office

5.2.1 Temporary Permit to Use Public Waters for Highway Construction Purposes

Before work begins that requires water for construction, the Contractor must obtain a water right, through the application of SD EForm – 2052LD Request for Temporary Permit to Use Public Waters.

Section A Plan Notes related to Water Right (refer to Section 5.3.3 for full information)
Commitment C: Water Source

Submittal before Start of Related Construction Work

- Temporary permit to use public waters for highway construction purposes—submit to the Project Engineer and SDDENR Water Rights Program

5.2.2 Temporary Discharge Permit

Effective April 1, 2018, South Dakota's General Permit for Temporary Discharge Activities was reissued.

Section A Plan Notes related to Temporary Water Discharge (refer to Section 5.3.4 and 5.3.5 for full information)
Commitment D: Water Quality Standards
Commitment E: Storm Water

Submittal Prior to Scheduling the Preconstruction Meeting

- Temporary discharge permit—submit to Project Engineer and SDDENR, Surface Water Quality Program

5.2.3 SWD General Permit—Contractor Form

Any construction activity disturbing one or more acres must have coverage under a stormwater permit. Any sites that are part of a larger plan or sale may also need a permit, if the total plan meets the acreage requirement.

Section A Plan Notes related to SWD (refer to Section 5.3.4 and 5.3.5 for full information)
Commitment D: Water Quality Standards
Commitment E: Storm Water

Submittal Prior to Scheduling the Preconstruction Meeting

- The Contractor Authorization form for coverage under the General Permit for Stormwater Discharges Associated with Construction Activities, must be filed by any contractor doing dirt work or responsible for day to day erosion and sediment control measures. Storm water discharge General Permit-contractor certification form—submit to Project Engineer and SDDENR, Surface Water Quality Program

5.2.4 Mining Permit

The Contractor must provide the mining permit obtained for the aggregate materials for the construction project.

Submittal Prior to Scheduling the Preconstruction Meeting

- Mining permit—submit to Project Engineer and SDDENR Minerals and Mining Program

5.2.5 Construction Plan for Work in Topeka Shiner Streams

Submittal Prior to Scheduling the Preconstruction Meeting

- Construction plan for work in Topeka shiner streams—submit to Project Engineer and EO

For construction activities for Contractor-furnished material sites, waste sites, plant sites, or other construction activities located outside project plan limits:

- Threatened and endangered species review—submit to Project Engineer and USFWS, South Dakota Ecological Services Field Office

Section A Plan Notes related to Topeka Shiner (refer to Section 5.3.2.1 and 5.3.5 for full information)
Commitment B1: Construction Practices for Streams Inhabited by the Topeka Shiner
Commitment F: Seasonal Work Restriction

5.2.6 Fish Transfer at Locations Designated as T.S. Streams

A construction plan for work in Topeka shiner streams is required to ensure protection of the species during construction. The plan should include products, materials, and methods of construction and removal for temporary water barriers, cofferdams, and diversion channels, including de-watering, handling, storage, and disposal of excavated material and pumped effluent.

Submittal Prior to Scheduling the Preconstruction Meeting

- Construction plan for work in Topeka shiner streams—submit to Project Engineer and EO

For construction activities for Contractor-furnished material sites, waste sites, plant sites, or other construction activities located outside project plan limits:

- Threatened and endangered species review—submit to Project Engineer and USFWS, South Dakota Ecological Services Field Office

Section A Plan Notes related to T.S. Streams (refer to Section 5.3.2.1 and 5.3.5 for full information)
Commitment B1: Construction Practices for Streams Inhabited by the Topeka Shiner
Commitment F: Seasonal Work Restriction

5.2.7 Asphalt or Concrete Plant Operating Permit

The Contractor must provide the asphalt or concrete plant operating permit for the products for the construction project, as may be required by SDDENR. Also, Union County requires a local permit for air pollutant discharges from an asphalt or concrete plant.

Union County
Union County has an Air Quality permitting program for asphalt and concrete plants. Contractors are required to comply with this requirement and should contact Union County if construction is planned within its boundaries.

Submittal Prior to Scheduling the Preconstruction Meeting

- Asphalt or concrete plant operating permit—submit to Project Engineer and SDDENR Air Quality Program

5.2.8 Timeline for Measures to Protect Sites Identified for Avoidance

Within the project work limits, SDDOT will have secured the necessary permits and clearances required for protecting historic and archeological resources. However, for construction activities for Contractor-furnished material sites, waste sites, plant sites, or other construction activities located outside project plan limits, the Contractor is responsible for protecting the cultural sites in accordance with state and federal laws.

Section A Plan Notes related to historic and archeological resources (refer to Section 5.3.9 and 5.3.16)
Commitment I: Historical Preservation Office Clearances
Commitment P: Tribal Monitoring

Submittal before Start of Related Construction Work

- Timeline for measures to protect sites identified for avoidance—submit to the Project Engineer, ARC, and/or Tribal Monitor

5.2.9 Written Notice of Work on Known Contaminated Material

Any known contaminated materials are identified by the EO during the initial coordination for a project and addressed in the plans and specifications. If other materials are uncovered during the construction, the Contractor must notify the Project Engineer within 24 hours.

Section A Plan Notes related to Contaminated Materials (refer to Section 5.3.12)
Commitment L: Contaminated Material

Submittal before Start of Related Construction Work

- Written notice of work on known contaminated material
  - At 30 days, notify the Project Engineer and SDDENR
  - At 7 days, notify the Project Engineer

5.2.10 Notice of Installation of Safety Fence at Archaeological Sites and/or Earth Disturbing Activities near Listed Sites

All measures must be taken to protect the resources, including the installation of safety fence near earth-disturbing activities. The location of the fence must be coordinated with the ARC and/or Tribal monitor at least 7 days in advance of its placement.

Section A Plan Notes related to archeological sites (refer to Section 5.3.16)
Commitment P: Tribal Monitoring

Submittal before Start of Related Construction Work

- Notice of installation of safety fence at archeological sites and/or earth disturbing activities near listed sites (7 days)—notice to the Project Engineer, ARC, and/or Tribal Monitor

5.2.11 Stormwater Pollution Prevention Plans

Effective April 1, 2018, South Dakota's General Permit for Stormwater Discharges Associated with Construction Activities was reissued. Existing SWPPPs need to be updated by October 1, 2018, as required by Section 5.1.1 of the new permit.

Section A Plan Notes related to SWPPP (refer to Section 5.3.5)
Commitment E: Storm Water

Submittal Prior to Scheduling the Preconstruction Meeting

- SWPPP—submit to Project Engineer and Area Office

5.2.12 Air Quality Construction Permits (Rapid City Area Only)

Any construction conducted within the Rapid City area quality control zone must have an Air Quality Construction Permit. A permit must be amended if there is an increase in the area to be disturbed, if there is a change in site operations, or if the project will not be completed within the one year timeframe for which the original permit was issued.

Section A Plan Notes related to Air Quality (refer to Section 5.3.11)
Commitment K: Rapid City Area Air Quality Control Zone

Submittal before Start of Related Construction Work

- Air quality construction permits (Rapid City area only)—submit to Project Engineer and Rapid City Air Quality Division

5.2.a Amendment Approval to Project's Coverage under General Permit for Storm Water Discharges Associated with Construction Activities

Submittal Prior to Scheduling the Preconstruction Meeting

For Contractor-furnished material sites, waste sites, plant sites, or others outside project plan limits:

- Amendment approval to project's coverage under General Permit for storm water discharges associated with construction activities—submit to Project Engineer and SDDENR, Surface Water Quality Program

Section A Plan Notes related to Storm Water (refer to Section 5.3.5)
Commitment E: Storm Water

5.2.b Archeological Clearances (SHPO/THPO)

The Contractor must obtain clearances from the SHPO or, if working on Tribal lands, the THPO for construction activities for Contractor-furnished material sites, waste sites, plant sites, or other construction activities located outside project plan limits.

Submittal Prior to Scheduling the Preconstruction Meeting

For Contractor-furnished materials sites, waste sites, plant sites, or others outside project plan limits:

- Historic and archeological clearances (SHPO/THPO)—submit to Project Engineer, ARC or qualified archeologist, and EO

Section A Plan Notes related Archeological Clearances (refer to Section 5.3.9)
Commitment I: Historical Preservation Office Clearances
Commitment Q: Coordination with Archeological Research Center

5.1.c Threatened & Endangered Species Review

As stated in Section 5.1.2, SDDOT will have obtained the necessary permits to address threatened and endangered species and their habitats.

Submittal Prior to Scheduling the Preconstruction Meeting

- Construction plan for work in Topeka shiner streams—submit to Project Engineer and EO

For construction activities for Contractor-furnished material sites, waste sites, plant sites, or other construction activities located outside project plan limits:

- Threatened and endangered species review—submit to Project Engineer and USFWS, South Dakota Ecological Services Field Office

Section A Plan Notes related to Threatened and Endangered Species (refer to Section 5.3.2, 5.3.6, 5.3.10)
Commitment B: Federally Threatened, Endangered, and Protected Species
Commitment F: Seasonal Work Restriction
Commitment J: Construction Practices for Temporary Works in Waterways of the U.S.

5.2.d Wetland Determination and Section 404 of the Clean Water Act

If wetlands are to be disturbed in the project area, SDDOT will already have secured the appropriate CWA Section 404 permit, and the approved mitigation plan will have been

incorporated in the plans and specifications. The Contractor must understand the location of the existing wetlands to be protected and the mitigation wetland areas to be constructed. Wetland mitigation is required for all projects that have impacts to jurisdictional and/or non-jurisdictional wetlands.

Section A Plan Notes related to Wetlands and Section 404 (refer to Section 5.3.1, 5.3.14)
Commitment A: Wetlands
Commitment N: Section 404 Permit

Submittal Prior to Scheduling the Preconstruction Meeting

For Contractor-furnished material sites, waste sites, plant sites, or others outside project plan limits:

- Wetland determination and Section 404 CWA—submit to the Project Engineer and USACE, Omaha District

5.3 Section A Plan Note Commitments

The Contractor is required to comply with all Section A Plan Notes (see section 5.2). The Contractor will consult with the Area Engineer to clarify the measures to be taken to meet the environmental commitments required for the project. Unless otherwise designated, the Contractor's primary contact during construction activities regarding matters associated with environmental commitments will be the Project Engineer.

Representatives from resource agencies may periodically visit the project site during construction to inspect the progress of the work. SDDOT's Environmental Specialists also typically inspect construction sites to monitor progress and compliance with special provisions and mitigation requirements. These project site visits will be more prevalent.

This section discusses the major environmental commitments that could be encountered on a project. A summary of the environmental commitments within Section A Plan Notes are found in Tables 5.2-1 and 5.2-2. Refer to Section A Plan Notes for full commitment information as this section contains an overview of possible topics and what could be encountered in the field.

Table 5.2-2 Section A Plan Notes

Commitment	Name	Chapter 3 Location	Description
A	Wetlands	3.1.2	Wetland mitigation is required for all projects that have impacts to jurisdictional and/or non-jurisdictional wetlands**. This also includes impacts to wetlands located within the existing ROW**. Permanent impacts to existing wetlands will be mitigated either through wetland banking, an In-Lieu Fee program, or created on-site and/or off-site of project. Special consideration will need to be implemented during construction activities for wetland topsoil.
B	Federally Threatened, Endangered, and Protected Species	3.2	During project development, SDDOT will have obtained the necessary clearances to address threatened and endangered species and their habitats. As part of the environmental commitments to protect threatened and endangered species, the Contractor must comply with all work restrictions as indicated in Section Plan A Notes. Typical subject species include the Topeka shiner, whooping crane, American burying beetle, bald eagle, and the northern long-eared bat.
B1	Construction Practices for Streams Inhabited by the Topeka Shiner	3.2	Topeka Shiner are found in streams and tributaries of the James River, Big Sioux River, and Vermillion River watersheds. Most stream crossing projects constructed in these watersheds will impact the Topeka Shiner. The Contractor will adhere to the "Special Provision for Construction Practices in Streams Inhabited by the Topeka Shiner". Prior to the pre-construction meeting the Contractor will produce and provide the SDDOT Environmental office a comprehensive Construction Plan that includes all products, materials, and methods of construction installation and removal for temporary water barriers, cofferdams, and diversion channels including de-watering, handling, storage, and disposal of excavated material and pumped effluent throughout all phases of construction, including post-construction stabilization.
B2	Whooping Crane	3.2	This commitment will apply to projects that are within Whooping Crane migratory areas. This commitment does not apply to urban areas. The Whooping Crane migratory areas consist of ALL counties EXCEPT Brookings, Clay, Deuel, Fall River, Grant, Lake, Lincoln, Minnehaha, Moody, Roberts, and Union.
B3	American Burying Beetle	3.2	The American Burying Beetle may be found on projects located in Tripp, Todd, Gregory, and Bennett Counties. The Contractor is responsible for obtaining U.S. Fish and Wildlife Service review for any borrow sites, staging areas, waste sites, additional easement, and other ground disturbing activities outside the project work limits shown in the plans.

Commitment	Name	Chapter 3 Location	Description
B4	Bald Eagle	3.2	The bald eagle nests in various locations across the state. Nests are typically associated with large rivers or lakes. Contractor will immediately notify the Project Engineer when a bald eagle nest is observed within one mile of project limits.
B5	Northern Long-Eared Bat	3.2	This commitment is required for projects that are within the range of suitable habitat for the Northern Long-eared Bat (NLEB). Contractor will be responsible for ensuring project work will avoid conflicts with NLEB roosting habitat. A NLEB seasonal work restriction will need to be accommodated during construction for areas that SDDOT has designated as suitable habitat for NLEB.
B6	Migratory Birds Work Restrictions	3.2	Migratory birds are known to use the project area for nesting, which primarily occurs from April 1 to July 15. Contractor is responsible for conducting migratory bird surveys in the designated nesting areas that have not been mowed or cleared prior to April 1st.
C	Water Source	3.1	The Contractor will not withdraw water with equipment previously used outside the State of South Dakota or previously used in aquatic invasive species waters within South Dakota without prior approval from the SDDOT Environmental Office. The Contractor will obtain the necessary permits from the regulatory agencies such as the South Dakota Department of Environment and Natural Resources and the U.S. Army Corps of Engineers prior to water extraction activities.
D	Water Quality Standards	3.1	This Commitment includes both surface water quality and surface water discharge.
D1	Surface Water Quality	3.1	This commitment is required for any work in streams. Contractor is responsible for special construction measures that need to be taken during any work in streams to ensure the surface water quality standards are maintained and protected.
D2	Surface Water Discharge	3.1	This Commitment is required for anticipated discharges from dewatering and/or storm water activities. The Contractor shall obtain the General Permit for Temporary Discharge Activities from the SDDENR Surface Water Program for any construction dewatering done with project.
E	Storm Water	3.1.3	The Contractor will adhere to the “Special Provision Regarding Storm Water Discharges to Waters of the State” for project limits that occur outside Indian Land or Contractor will adhere to the “Special Provision Regarding Storm Water Discharge to Waters of the United States within Indian Reservations” for project limits that occur within Indian Lands. The Contractor will be responsible for obtaining separate permit coverage for construction activities regarding Contractor-furnished material sites, waste sites, plant sites, or other construction activities located outside SDDOT vertical and horizontal project plan limits.

Commitment	Name	Chapter 3 Location	Description
F	Seasonal Work Restriction	3.2	When this commitment is required, construction and/or demolition activities should not take place during the Seasonal Work Restrictions designated for a cold and/or warm water fisheries associated with the project.
G	Dewatering and Sediment Collection	3.1.1, 3.1.3	The Contractor is responsible for creating a Pollution Prevention Plan (PPP) for dewatering and sediment collection if the Contractor chooses to discharge water into “Waters of the US” or “Waters of the State”.
H	Waste Disposal Site	3.1.3	The Contractor will furnish a site(s) for the disposal of construction and/or demolition debris generated by project construction activities. The waste disposal site(s) will be managed and reclaimed in accordance with the General Permit for Construction/Demolition Debris Disposal Under the South Dakota Waste Management Program issued by the South Dakota Department of Environment and Natural Resources.
I	Historical Preservation Office Clearances	3.3	The Contractor is responsible for arranging and paying for a cultural resource review prior to scheduling the pre-construction meeting for all earth disturbing activities not designated within the plans. This work includes but is not limited to: Contractor furnished material sources, material processing sites, stockpile sites, storage areas, plant sites, and waste areas.
J	Construction Practices for Temporary Works in Waterways of the U.S.	3.1	Special construction measures must be taken by the Contractor to ensure that the all waterways of the U.S. are not impacted by project activities. Stream channel excavation within “Waters of the US” is subject to U.S. Army Corps of Engineers regulatory jurisdiction. Stream channel excavation cannot exceed the permitted quantities and/or surface area of project’s Section 404 permit with the USACE.
K	Rapid City Area Air Quality Control Zone	3.7.1	To be considered eligible for authorization to conduct a construction activity under the terms and conditions of the Air Quality permit, the Contractor must submit an NOI form at least seven business days prior to the anticipated date of beginning the construction activity.
L	Contaminated Material	3.7.2	This commitment is included when there is known contaminated soil on the project or when there are known gas stations, underground storage tanks; etc. located within the project limits. Contractor will give 30-days written notice to Area Office when known contaminated material is on project or Contractor will give immediate notice to Project Engineer when contaminated soil is encountered.

Commitment	Name	Chapter 3 Location	Description
M	Section 4(f)/6(f) Resources	3.4, 3.5	This commitment should be used when measures are required to minimize harm from project impacts to a historic property, public parks, recreation areas, or wildlife and waterfowl refuges.
M1	Section 4(f) Property	3.4	This commitment should be used when measures are required to minimize harm from project impacts to a historic property, public parks, recreation areas, or wildlife and waterfowl refuges.
M2	Section 6(f) Property	3.5	This commitment should be used when project impacts an area or facility that was acquired/developed with LWCF assistance. Section 6(f) may be integral to a Section 4(f) impact to parks and recreation areas.
N	Section 404 Permit	3.1	This commitment is required for all projects with a 404 permit.
O	Section 401 Water Quality Certification	3.1	This commitment is required with all projects that have a Section 404 permit associated and is within the limits of any Indian reservation. A cop of Section 401 certification must be retained onsite and Contractor will comply with all Section 401 requirements.
P	Tribal Monitoring	3.3	This commitment is required for projects where tribal monitoring has been deemed necessary or where avoidance of historic and/or archaeological sites is needed.
Q	Coordination with Archaeological Research Center	3.3	This commitment should be used on projects where tribal monitoring isn't necessary, but avoidance of historical/archaeological sites is. Include a hatched location within the plans to help visualize site position.
R	Tree Replacement	N/A	The Contractor must mitigate any impacts on trees in the project area, as required in the bid documents.
S	Fire Prevention in the Black Hills Area	N/A	This commitment should be used when the project is located within the Black Hills National Forest (this does not include any area within the limits of any municipality). The following is a hyperlink to the Black Hills Forest Fire Protection Boundary map and to SDCL 34-35-15: http://denr.sd.gov/des/aq/bhfpb.aspx http://legis.sd.gov/statutes/DisplayStatute.aspx?Type=Statute&Statute=34-35-15 This project is located within the confines of the Black Hills Forest Fire Protection Boundary.

Notes: DOT – Department of Transportation, SDDOT – South Dakota Department of Transportation

5.3.1 Commitment A: Wetland

If wetlands are to be disturbed in the project area, SDDOT will already have secured the appropriate CWA Section 404 permit, and the approved mitigation plan will have been incorporated in the plans and specifications. The Contractor must understand the location of the existing wetlands to be protected and the mitigation wetland areas to be constructed.

During construction, the Contractor must protect existing wetlands to prevent unintended and unpermitted impacts that could lead to violations of federal laws. The Contractor may consult with the Project Engineer to identify critical wetland areas, and protect them from impacts.

If the Contractor is constructing a wetland mitigation site(s), the areas must be developed in accordance with the plans and specifications to ensure the soils, vegetation, and hydrology provide the conditions for a functioning wetland area.

DOT-272 Wetlands Submittal Prior to Scheduling the Preconstruction Meeting (refer to Section 5.2.d for full information)

For Contractor-furnished material sites, waste sites, plant sites, or others outside project plan limits:

- *Wetland determination and Section 404 CWA – submit to Project Engineer and U.S. Army Corps of Engineers, Omaha District*

The Contractor must obtain a Section 404 permit for construction activities associated with Contractor-furnished material sites, waste sites, plant sites, or other construction activities located outside project plan limits. The Contractor provides confirmation to the Project Engineer of the wetland determination and Section 404 permit.

Wetland mitigation is required for all projects that have impacts on jurisdictional and/or non-jurisdictional wetlands. This also includes impacts on wetlands located within the existing ROW.

Wetlands are one environmental resource that would be important to locate for project construction. (SDDOT)

Refer to Section B, *Grading Plans*, for location and boundaries of the impacted wetlands. Also included within the plan sheets are any wetland mitigation areas to be constructed onsite or offsite. If the site is in an area with an approved wetland mitigation bank, there may be a reference to the purchase of credits from the specified bank. FHWA requires that wetland mitigation ultimately provide a "net gain" of wetland area. This means that more wetlands should be constructed than will be lost due to construction. It is also important to keep wetland topsoil that is stripped from the designated wetland areas. Wetland soil must be stock-piled separately from other topsoil to be used for mitigation site construction. Salvaged wetland topsoil will be stripped to a depth that sufficiently allows 6 inches of the wetland topsoil to be placed as the upper layer of the wetland mitigation site(s). Wetland stockpiles must be kept a minimum of 50 feet away concentrated flows of storm water, waterways, drainage courses, and inlets.

If the project impacts are identified as 'temporary impacts' within Commitment A then it is not necessary to mitigate because project construction shall re-establish original contours and elevations.

Refer to Section A Plan Notes for full commitment information.

5.3.2 Commitment B: Federally Threatened, Endangered, and Protected Species

During project development, SDDOT will have obtained the necessary permits to address threatened and endangered species and their habitats. As part of the environmental commitments to protect threatened and endangered species, the Contractor must comply with all work restrictions as indicated in Section A Plan Notes. Typical species of concern on SDDOT projects include the Topeka shiner, whooping crane, American burying beetle, bald eagle, and the northern long-eared bat.

For the Topeka shiner, the Contractor will provide an estimated date at the preconstruction meeting when the Wildlife Biologist will be needed on site to monitor any fish transfer. The Contractor will notify the Project Engineer and Wildlife Biologist at least **2 days** before the Wildlife Biologist is needed on site. If the water depth in the area to be dewatered is more than 3.5 feet deep, the Contractor and/or Project Engineer will contact the Wildlife Biologist as needed to determine the appropriate course of action so the site is ready for seining.

A 2-day notice is required for the Wildlife Biologist to schedule a trip out to seine projects that may affect Topeka shiner streams. (SDDOT)

The Contractor shall submit a detailed Construction Plan, prior to the preconstruction meeting, to the Engineer for approval. The plan shall include products, materials and methods of construction and removal for temporary water barriers, cofferdams, and diversion channels including de-watering, handling, storage, and disposal of excavated material and pumped effluent.

The Construction Plan shall include all necessary information to provide assurance that the conditions of this provision are adequately addressed.

The Contractor will conduct construction activities in a manner that does not produce sediment discharges that increase stream turbidity (i.e., water clarity) by more than 50 nephelometric turbidity units over the background turbidity level. Measurement procedures are included in the Special Provision for Construction Practices in Streams Inhabited by the Topeka Shiner. Construction methods that produce sediment discharges exceeding this turbidity standard must cease and may resume only after the Engineer has approved an acceptable plan. The Contractor must immediately notify the Project Engineer if it is suspected that stream turbidity has been increased. Turbidity will be monitored during all stages of the project. An emphasis will be placed on monitoring construction activities causing disturbance to the stream channel.

DOT-272 Threatened & Endangered Species Submittal Prior to Scheduling the Preconstruction Meeting (refer to Section 5.2.d for full information)

For Contractor-furnished material sites, waste sites, plant sites, or others outside project plan limits:

- *Threatened and endangered species review—submit to Project Engineer and the U.S. Fish and Wildlife Service (USFWS), South Dakota Ecological Services Field Office*

Commitment B1: Construction Practices for Streams Inhabited by the Topeka Shiner

The Contractor shall adhere to the "Special Provision for Construction Practices in Streams Inhabited by the Topeka Shiner".

Stream turbidity will be monitored during all stages of the project. Turbidity measurements should be taken in conjunction with normal storm water inspections.

The Contractor shall produce a comprehensive Construction Plan that includes all products, materials, and methods of construction and removal for temporary water barriers, cofferdams, and diversion channels including de-watering, handling, storage, and disposal of excavated material and pumped effluent throughout all phases of construction, including post-construction stabilization. This plan shall be approved by the SDDOT Environmental office prior to any work occurring in the above streams. Upon plan approval the Construction Plan shall be amended to the SWPPP document located in Section D – Erosion and Sediment Control Plans.

DOT-272 Topeka Shiner Species Submittal Prior to Scheduling the Preconstruction Meeting (refer to Section 5.2.d for full information)

Construction plan for work in Topeka shiner streams—submit to Project Engineer and EO

Submittal Before Start of Related Construction Work

Fish transfer at locations designated as Topeka shiner streams—provide at least a 2-day notice to the Project Engineer and SDDOT Wildlife Biologist

If a stream has been designated as a Topeka shiner stream, the "Special Provision for Construction Practices in Streams Inhabited by the Topeka Shiner" will apply, and the streams will be denoted in this commitment. The Construction Work Plan applies to this provision so that the Wildlife Biologist can ensure that the requirements of the 404 permits, effects of flooding, and impacts on the stream are minimized where possible. Turbidity measurements are also required to limit the amount of sediment that is sent downstream that could potentially affect developing eggs or larvae of many species.

Refer to Section A Plan Notes for full commitment information.

Commitment B2: Whooping Crane

At about 5.0-foot-tall, whooping cranes are the tallest bird in North America. Adults are white with black primaries and a bare red face and crown. The bill is an olive-gray, eyes are yellow, and legs and feet are gray-black. While in flight, their long necks are kept straight and their long dark legs trail behind. Adult Whooping Cranes' black wing tips are visible during flight.

Whooping cranes breed and nest along lake margins or among rushes and sedges in marshes and meadows. The water in these wetlands is anywhere from 8 to 10 inches to as much as 18 inches deep. Many of the ponds have border growths of bulrushes and cattails, which occasionally cover entire bays and arms of the larger lakes. Nesting has also been reported on muskrat houses and on damp prairie sites. Whooping cranes prefer sites with minimal human disturbance. Wetlands provide the whooping crane with protection from terrestrial predators.

Whooping cranes can tolerate very little human disturbance, especially during nesting, brood rearing, and during flightless molt (May to mid-August). Slight human disturbance is often sufficient to cause adults to desert nests. Some typical construction activities that disturb Whooping Cranes include: draining wetlands, fencing, and earth disturbing activities with equipment.

Harassment or other measures to cause the whooping crane to leave the site is a violation of the ESA. If a whooping crane is sighted roosting within the vicinity of project, borrow pits, waste areas, or staging areas associated with the project, cease construction activities in the affected area until the Whooping Crane departs. The Project Engineer is to be contacted immediately. The Project Engineer will contact the EO so that the sighting can be reported to USFWS.

Commitment B2 does not apply to urban areas; it is included in all project plans EXCEPT those in Brookings, Clay, Deuel, Fall River, Grant, Lake, Lincoln, Minnehaha, Moody, Roberts, or Union Counties.

Please refer to the species data sheet in the appendix for chapter 5 for additional information.

Commitment B3: American Burying Beetle

This species is the largest carrion feeding insect in North America. The American burying beetle is approximately 1-1.4 inches long with a shiny black body that has four orange-red markings. The most identifiable mark is the orange-red marking on the beetle's pronotum. It also has orange facial markings and orange tips on the antennae. Once widely distributed throughout eastern North America, this species has disappeared from most of its historic range. Historical records are located in 32 states, the District of Columbia, and 3 Canadian provinces. This range covers most of the eastern United States and southeastern Canada. Presently isolated American burying beetle populations are known to exist in Rhode Island, Oklahoma, Kansas, Arkansas, South Dakota, and Nebraska. The current American burying beetle range presently known in South Dakota includes Gregory, Tripp, and Todd counties.

When a project is located in these counties, minimizing ground-disturbing activities within project limits will be required. The Contractor must obtain clearances for any construction-related activities outside of the project limits from USFWS.

Most roadway and stream crossing projects do not impact the American Burying Beetle; however, some projects in Gregory, Tripp, and Todd Counties may affect this species. Impacts to this species are minimized by reducing the project footprint to the minimum practical. Impacts to riparian habitat should be avoided.

Please refer to the species data sheet in the appendix sheet for chapter 5 for additional information.

Commitment B4: Bald Eagle

A white feathered head, neck, and tail are the distinguishing characteristics of the adult bald eagle. The distinguishing adult feathers typically appear at the age of four. The remainder of the eagle plumage is dark brown. The heavy yellow beak and distal one-half to two-thirds of the yellow tarsus are bare of feathers. The bald eagles can be found throughout North America.

Eagles are usually associated with dominant or co-dominant trees in both the nesting and wintering periods. The vast majority of bald eagle nests can be found within one-half mile of water and are rarely located greater than two miles from water. Nests, constructed primarily of sticks with other material added for lining, are almost exclusively found in live trees. Wintering sites consist of very large perch trees that are usually located near open water or in close proximity to other available prey items.

Bald Eagles have nested in Gregory, Brown, Yankton, Bon Homme, Spink, Charles Mix, Union, Robert, Sanborn, Hutchinson, Bennett, Lyman, Marshall, Clay, Minnehaha, Hughes, and Meade Counties in SD. The bald eagle winters regularly in large numbers along the Missouri River from Pierre to Yankton and in scattered locations across the state.

Construction projects located within a half mile of active bald eagle nests may have special provisions to reduce impact or disturbance to the nesting eagles.

During review for environmental clearances, the EPC reviews maps within 1 mile of the project site to determine if there are known nests in the area. If nests are identified, this note is included in the Final Plan set. The Contractor must report any nests to the Project Engineer.

Please refer to the species data sheet in the appendix sheet for chapter 5 for additional information.

Commitment B5: Northern Long-Eared Bat

The Northern long-eared bat note is included on all projects with tree cutting, clearing, or removal as well as projects which will conduct any structure work. Northern Long Eared Bats (NLEB) utilizes trees with cracks or crevices and holes or hollows. They will also roost in cracks and crevices in structures which get them out of the wind and rain. They are found in urban areas. If work limits change and cause impacts to additional trees, the contractor or project engineer must contact the EO prior to conducting tree removals.

Please refer to the species data sheet in the appendix for chapter 5 for habitat, range, description, and species information for the northern long-eared bat.

Commitment B6: Migratory Birds Work Restrictions

This note is included when migratory birds are known to use a portion of the project area for nesting. Nesting occurs between April 1st and July 15th.

Clearing or mowing prior to April 1 helps limit use by nesting birds. If suitable areas are present, a survey must be conducted to determine if there are nests and to determine if offsetting measures need to be applied to protect the nests. Construction activities should not occur in the areas listed in the note without approval from the EO.

Refer to Section A Plan Notes for full commitment information.

5.3.3 Commitment C: Water Source

Before work begins that requires water for construction, the Contractor must obtain a water right, through the application of SD E Form – 2052LD Request for Temporary Permit to Use Public Waters.

The water source note is required for projects that have a potential to withdraw (extract) water from waters within the state. The Contractor must apply for and obtain this permit from SDDENR and USACE prior to any extraction of water.

DOT-272 Water Right Submittal before Start of Related Construction Work

- *Temporary permit to use public waters for highway construction purposes— submit to the Project Engineer and SDDENR Water Rights Program*

If the water is being extracted from streams in the James, Big Sioux, and Vermillion watersheds, the Wildlife Biologist in the EO must be contacted to verify pump size and screen size to ensure fish are not caught in pumps or pipes related to the water

movement. 5-17 Contractors are also responsible for ensuring they do not transfer invasive species into or around the state. This requires that the Contractor wash any equipment coming into the state or before moving between water bodies in the state. It is also helpful to remove any plant debris and allow equipment to dry completely before being used in a new water body.

Refer to Section A Plan Notes for full commitment information.

5.3.4 Commitment D: Water Quality Standards

This Commitment includes both surface water quality and surface water discharge.

Commitment D1: Surface Water Quality

Surface water quality standards are identified through a coordination process between the EPC and SDDENR. Four classifications SDDENR can provides to assist in protecting surface waters in South Dakota include:

- Warm water, marginal fishery—total suspended solids cannot exceed 150 milligrams/liter
- Cold water marginal/warm water permanent/warm water semi-permanent—total suspended solids cannot exceed 90 milligrams/liter.
- Cold water permanent fishery—total suspended solids cannot exceed 30 milligrams/liter
- Fish and wildlife propagation, recreation, irrigation and stock watering waters—special construction measures may have to be taken for these waters.

Refer to Section A Plan Notes for full commitment information.

Commitment D2: Surface Water Discharge

A surface water discharge permit is required when water will be moved by pumping during dewatering activities or from storm water activities. If these activities are anticipated, the Contractor needs to acquire a temporary discharge permit prior to the preconstruction meeting. The related stream classifications are the same as those described above for surface water quality and should match the designations provided by SDDENR.

Refer to Section A Plan Notes for full commitment information.

5.3.5 Commitment E: Storm Water

The Contractor must obtain an approval of coverage under the General Permit for Storm Water Discharges Associated with Construction Activities for construction activities regarding Contractor-furnished material sites, waste sites, plant sites, or other construction activities located outside SDDOT vertical and horizontal project plan limits.

A storm water permit is required for any project disturbing more than 1 acre of ground and all structure replacement projects. However, on every project, appropriate erosion

and sediment control measures must be implemented to control discharge of pollutants (including soil, construction debris, and material or chemicals onsite). Discharge is any natural means that could carry pollutants off the construction site, typically referring to water run-off and wind erosion.

The SWPPP checklist is the major component of the storm water construction permit. The SWPPP checklist is a living document that is reviewed and revised as field conditions require. BMPs are inspected by the Contractor and Project Engineer weekly with the 298 form. The SWPPP checklist can be found in Section D of the Final Plan set.

Refer to Section A Plan Notes for full commitment information.

5.3.6 Commitment F: Seasonal Work Restriction

This commitment is required for any work in fisheries. No instream work can occur from October through the end of March for fish like trout that spawn during those times; the designation of a seasonal work restriction comes from SDGFP. If there are areas known for good spawning in the stream reach the project is affecting, this note is applied. For cold water streams, the blackout is October 1 to April 1. For warm water streams, the blackout is from April 1 to June 30. If the Project Engineer or Contractor can provide photos showing there is no flow or extremely low flow during the blackout, the EO may be able to remove the work restriction.

Any instream work must be approved by the EO.

Refer to Section A Plan Notes for full commitment information.

5.3.7 Commitment G: Dewatering and Sediment Collection

The purpose of a dewatering and sediment collection system is to collect turbid storm water on the project, treat it with flocculants as needed, and capture the sediment that falls out of suspension before the water is discharged into “Waters of the US” or “Waters of the State.”

Please note, If Commitment G is required, then Commitment D1, Surface Water Quality, is also needed.

Refer to Section A Plan Notes for full commitment information.

5.3.8 Commitment H: Waste Disposal Site

When this commitment is on a project, the Contractor is required to locate and obtain permission to dispose of materials from the project at that location (i.e., a Contractor furnished site). The Contractor-furnished waste disposal site cannot be in a wetland; within 200 feet of surface waters (lakes or streams); or in an area that adversely affects wildlife, recreation, aesthetic value of an area, or any threatened or endangered species.

Any waste disposal site that is within view of the ROW must comply with the following:

- All construction debris must be buried in a trench, separate from wood debris, with at least 1 foot of soil capable of supporting vegetation. NRCS provides the appropriate seed mixes for sites outside of the state ROW. Entrances to the site must be controlled by the Contractor with fences and gates, and “No Dumping Signs” must be installed.
- Debris can be stock piled within view of the ROW for a period of time not to exceed the duration of the project. Prior to the completion of the project, the debris must be removed or buried, and the waste disposed of as outlined in the above bullet.

The Contractor is responsible for obtaining historic and archeological clearance from an approved archeologist. The state often uses the ARC for project clearances, but other qualified archeologists are available. The Contractor also must obtain wildlife clearances from USFWS, Ecological Field Office in Pierre, South Dakota (these requirements apply to any Contractor-furnished site). There may be sites available that have previously been cleared under solid waste permits, i.e. landfills. Failure to comply with stated requirements may result in civil penalties under the South Dakota Solid Waste Law.

Please note, when Commitment H is included in the plans, Commitment I, Historical Preservation Office Clearances, must also be included.

Refer to Section A Plan Notes for full commitment information.

5.3.9 Commitment I: Historical Preservation Office Clearances

The project limits and borrow sites, as defined in the Final Plan set released for bid will have received concurrence from the SHPO and/or THPO.

Any earth-disturbing activities not identified in the plans require a review for cultural resources. The Contractor is responsible for this review (and any associated costs). Any state qualified archeologist can be engaged to conduct a records search or cultural resources survey. A qualified archeologist will need to review the following information: a topographical map or aerial view where the site is clearly outlined, site dimensions, project number, and the PCN. If there is documentation that the site was previously disturbed by farming, mining, or construction activities, a landowner may provide a statement that artifacts have not been found on the site. The report generated by the qualified archeologist must be sent to SDDOT Environmental Engineer for submittal to the appropriate SHPO/THPO. SHPO/THPO have 30 days to comment and send comments back to SDDOT.

If cultural resources are uncovered during construction activities, activities must cease, and the Contractor must notify the Project Engineer immediately so that the EO can be contacted to determine the appropriate course of action.

Refer to Section A Plan Notes for full commitment information.

5.3.10 Commitment J: Construction Practices for Temporary Works in the Waterways of the U.S.

This note is included for waterways that do not contain Topeka shiners but are close to a lake, stream, wetland or other water body.

Any disturbance of areas below the ordinary high-water elevation (OHWE) must be identified in plans. No work will be authorized below the OHWE outside of the project limits. Dredged or excavated materials must be placed above the OHWE in a confined area that is not designated as wetland or within 50 feet of flows from storm water, drainage courses, and inlets that could erode dirt or carry it into the waterway.

The only material permitted below the OHWE, with approval, is class B riprap or larger. All temporary caissons, cribs, cofferdams, steel poling, sheeting, work platforms, crossings, and berms must be removed in a manner that limits disturbance to the stream bottom. Proper construction practices must be used to limit the release of soil or debris into water. Temporary water crossings must follow these requirements and support adequate drainage structure size and minimum fill height to reduce the potential for upstream flooding. Work plans for temporary stream crossings or traffic diversions must be provided at the preconstruction meeting.

Refer to Section A Plan Notes for full commitment information.

5.3.11 Commitment K: Rapid City Area Air Quality Control Zone

This note is included when projects fall within the Air Quality Control Zone in Rapid City and some of the surrounding area in Pennington County. Any construction activity that may cause fugitive emissions of particulate to be released into the ambient air must first obtain a permit from the SDDENR Air Quality Program.

The permit requires the Contractor to use technology that is available to control fugitive dust emissions from activities on paved areas, unpaved roads, unpaved parking lots, disturbed areas, and for material handling and storage.

Refer to Section A Plan Notes for full commitment information.

5.3.12 Commitment L: Contaminated Material

This note is included when there is known contaminated soil on the project or gas stations were located along the project limits. Gas stations, underground storage tanks, or any other contaminated material will have been identified by SDDENR in coordination with the EO and will be identified in the Section A Plan Notes for the project.

When the Contractor is 30 days from start of construction activities, a written notification will be sent to the Area Engineer and SDDENR. Another written notice will be sent to the Project Engineer 7 days in advance of the start of work. This commitment will include the estimated cubic yards of contaminated materials that will be removed and list the landfill that accepts such materials.

It is possible that locations of contaminated material exist within the project limits which have not been documented. If the Contractor encounters contaminated soil, the Project Engineer must contact the EO, and contact will then be made with SDDENR, so the site can be inspected and monitored while material is removed.

Refer to Section A Plan Notes for full commitment information.

5.3.13 Commitment M: Section 4(f)/6(f) Resources

Section 4(f) regulations provide protection to publicly owned parks, recreational areas, wildlife or wildfowl refuges, or any publicly or privately-owned historic site listed or eligible for listing in the NRHP. Any requirements under Section 4(f) are met prior to bid-letting.

Section 6(f) regulations provide protection for the quality and quantity of outdoor parks and recreation areas for present and future generations. Any requirements under Section 6(f) are met prior to bid-letting.

Commitment M1: Section 4(f) Property

This note is included when an identified 4(f) property will be used because no feasible and prudent alternative exists that would avoid the property. Property(ies) must be listed in the plan note by station and include required measures for the Contractor to comply with Section 4(f). The Project Engineer will contact the EO if changes to an easement adjacent to the 4(f) property occurs, before proceeding with any plans that may affect Section 4(f) property.

Refer to Section A Plan Notes for full commitment information.

Commitment M2: Section 6(f) Property

This note is included when, in the process of scoping and design, the project limits cannot avoid a 6(f) property. Should this occur, there must be a use of features, attributes, or activities supported by the LWCF. Known properties must be listed by station in the Section A Plan Notes. The Project Engineer will notify the EO if there is a change to easements adjacent to a 6(f) property, so that required approvals or concurrences can be obtained. Measures to protect the Section 6(f) property are included in the note as applicable.

Refer to Section A Plan Notes for full commitment information

5.3.14 Commitment N: Section 404 Permit

This note is included when a dredge and fill permit is required from USACE. SDDOT receives this permit for all activities within the project limits. Dredge, excavation, and fill activities outside the project limits, affecting wetlands or waters of the United States associated with staging areas, borrow sites, waste disposal sites, or material processing sites require that the Contractor obtain a 404 permit from USACE.

Refer to Section A Plan Notes for full commitment information

5.3.15 Commitment O: Section 401 Water Quality Certification

This note is included for all projects with a CWA Section 401 Water Quality Certification. Section 401 of the CWA requires states to review projects and federal permits to ensure they will not impact the stream quality or violate our Surface Water Quality Standards. Projects that have a Section 404 permit and are on Indian lands are subject to Section 401.

Refer to Section A Plan Notes for full commitment information.

5.3.16 Commitment P: Tribal Monitoring

This note is included when Tribal monitoring has been deemed necessary to avoid historic or archeological sites.

If a Sacred Site or TCP of spiritual or cultural significance is found by the Tribal Monitor prior to construction, the Project Engineer will be notified. The Project Engineer will then work with the Tribe(s) and EO to determine the best course of action. If the site is identified during construction, activities must cease, and the Project Engineer will contact the ARC, the Tribe(s) THPO, SHPO, and EO to determine the appropriate course of action. Any artifacts, features, or other items of archaeological or paleontological significance will be left in place until THPO/SHPO consent to movement.

All known historic or archaeological sites must have orange safety fence installed around them. The Contractor must notify the ARC and the appropriate THPO(s) 7 days prior to safety fence installation so that the proper locations are fenced. The Contractor must contact the ARC and the appropriate THPO(s) again, 7 days prior to any earth disturbing activities near the fenced sites take place so that tribal monitors and ARC staff can be onsite during activities that may uncover other items of cultural or spiritual significance.

Refer to Section A Plan Notes for full commitment information.

5.3.17 Commitment Q: Coordination with Archaeological Research Center

This note is included in plans when tribal monitoring is not required by the project, but there are historical sites that need to be avoided.

The Contractor must contact the ARC to coordinate the placement and installation of orange safety fence around identified sites. Work, equipment, or material storage within the safety fence is not allowed.

Refer to Section A Plan Notes for full commitment information.

5.3.18 Commitment R: Tree Replacement

The Contractor must mitigate any impacts on trees in the project area, as required in the bid documents.

This note is included when impacts on trees require mitigation. When included, the number of acres impacted must be replaced at a ratio of 2:1. For every 1 acre affected, 2 acres must be replanted.

Refer to Section A Plan Notes for full commitment information.

5.3.19 Commitment S: Fire Prevention in the Black Hills Area

The Contractor must adhere to rules provided by USFS when working within the boundaries of the Black Hills National Forest.

This note is included when the project will impact property within the boundary of Black Hills National Forest Fire Protection Boundary. The Contractor must adhere to the "Special Provision for Fire Plan."

Refer to Section A Plan Notes for full commitment information.

5.3.20 Commitment T: Other

Other environmental commitments that are required to be met by the Contractor, if needed, include an air quality construction permit, asphalt/concrete plant operating permit, contaminated material notice, fire prevention, mining permit, tree replacement, waste disposal, waters of the U.S., and water rights.

Topeka Shiner

(Notropis topeka)

The Topeka shiner, an endangered species, is a small minnow that lives in small to mid-size prairie streams in the central United States where it is usually found in pool and run areas. Suitable streams tend to have good water quality and cool to moderate temperatures. In Iowa, Minnesota, and portions of South Dakota, Topeka shiners also live in oxbows and off-channel pools.

Status

Endangered (listed Dec. 15, 1998)

Range

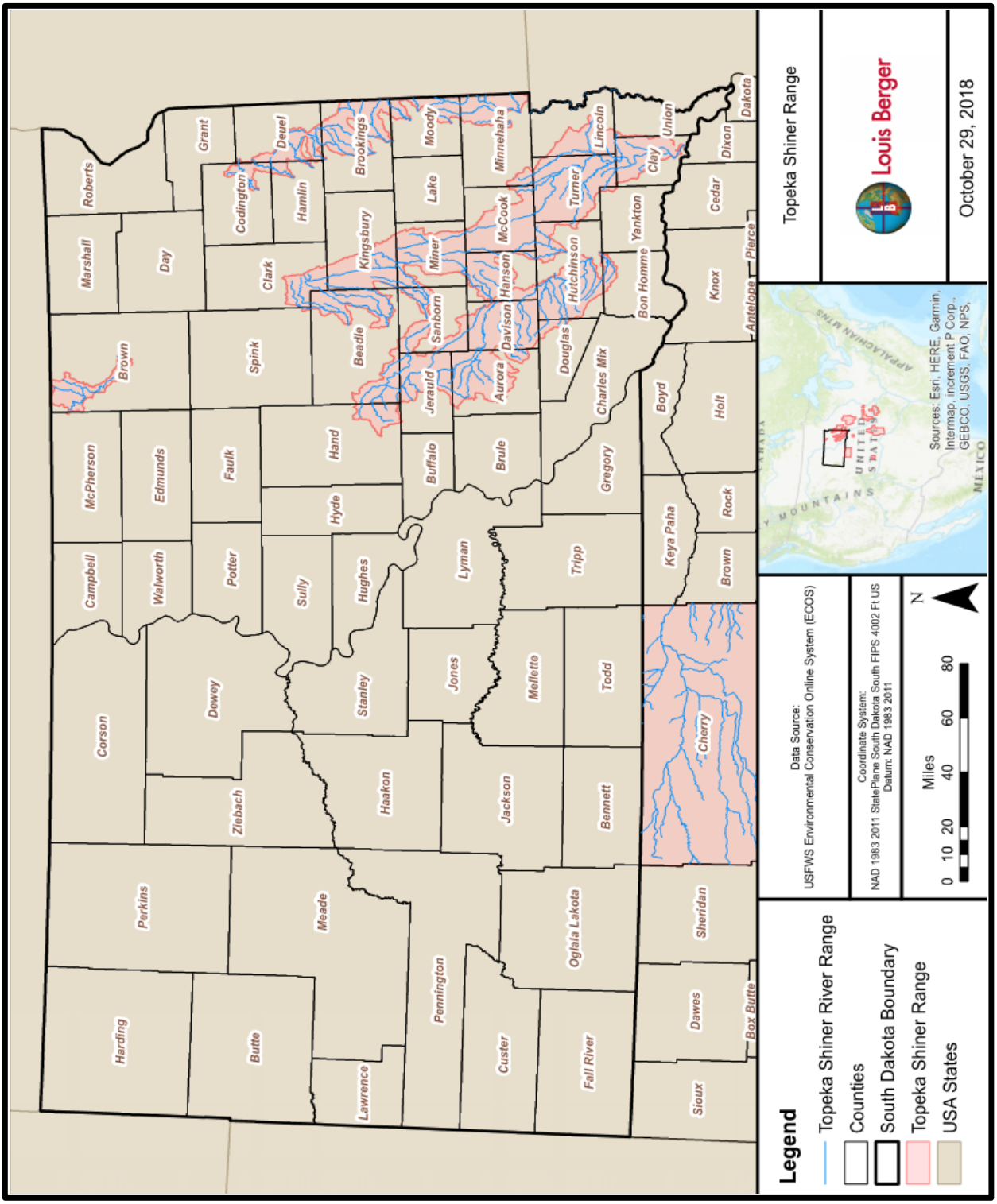
South Dakota, Iowa, Kansas, Minnesota, Missouri, Montana, and Nebraska

Critical Habitat

Designated July 27, 2004

The Topeka shiner is a small minnow, normally less than 3 inches long. It is silvery-green with a distinct dark stripe preceding the dorsal fin, a dusky stripe along the entire length of the fish. Scales above this line are outlined with dark pigment, appearing cross-hatched. Scales below this line have no pigment and are silvery-white in color.

Current Topeka Shiner Range from USFWS



Source:
USFWS. https://www.fws.gov/midwest/endangered/fishes/TopekaShiner/
SD DOT. http://www.sddot.com/business/environmental/endangered

Whooping Crane

(Grus americana)

Habitat

Whooping Cranes breed and nest along lake margins or among rushes and sedges in marshes and meadows. The water in these wetlands is anywhere from 8 to 10 inches to as much as 18 inches deep. Many of the ponds have border growths of bulrushes and cattails, which occasionally cover entire bays and arms of the larger lakes. Nesting has also been reported on muskrat houses and on damp prairie sites. Whooping Cranes prefer sites with minimal human disturbance. Wetlands provide the Whooping Crane with protection from terrestrial predators.

Interaction with Humans

Whooping Cranes tolerate very little human disturbance, especially during nesting, brood rearing, and during flightless molt (May to mid-August). Slight human disturbance is often sufficient to cause adults to desert nests. On wintering grounds, Whooping Cranes will tolerate human disturbance if it is not associated with obvious threats.

Status

Endangered (listed March 11, 1967)

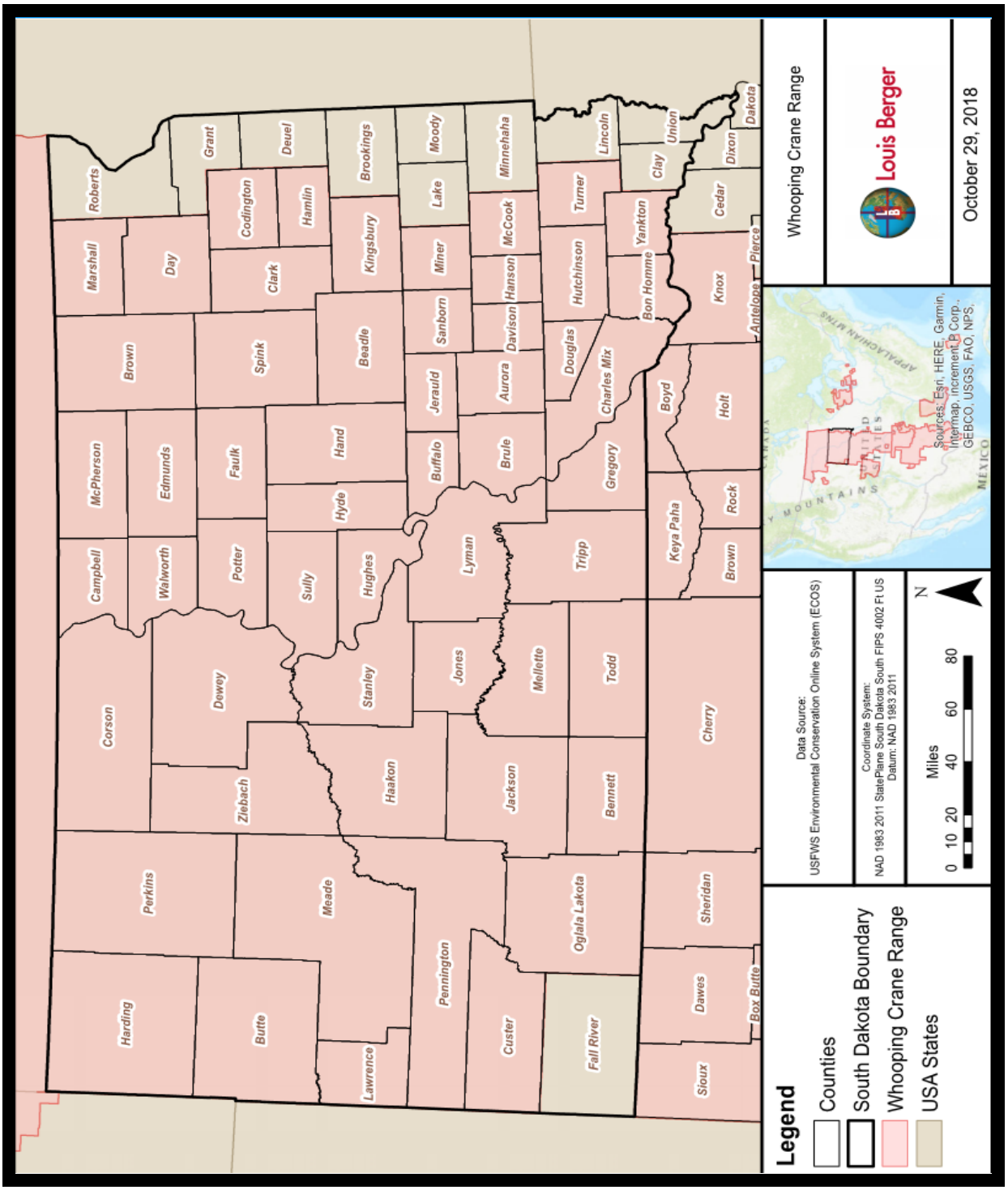
Range

Kansas, Montana, Nebraska, North Dakota, Oklahoma, South Dakota, Texas, Wisconsin

Description

At about 5 ft. (1.5 m) tall, Whooping Crane is the tallest bird in North America. Adults are white with black primaries and a bare red face and crown. The bill is olive-gray, eyes are yellow, and legs and feet are gray-black. Immature Whooping Cranes are cinnamon-toned, with some white, and without red on head and face. They are often confused with the Sandhill Crane, the Snow Goose, and the American White Pelican.

Current Whooping Crane Range from USFWS



Source:
USFWS. https://www.fws.gov/northflorida/whoopingcrane/whoopingcrane-fact-2001.htm
SD DOT. http://www.sddot.com/business/environmental/endangered/Default.aspx

Image provided by the U.S. Fish and Wildlife Service

Image provided by U.S. Forest Service

American Burying Beetle

(Nicrophorus americanus)

Habitat

Historical records offer little insight into what type of habitat was preferred by the American burying beetle. Current information suggests that this species is a habitat generalist, or one that lives in many types of habitat, with a slight preference for grasslands and open understory oak hickory forests. However, the beetles are carrion specialists in that they need carrion the size of a dove or a chipmunk reproduce. Carrion availability may be the greatest factor determining where the species can survive.

Life History

Burying beetles are unusual in that both the male and female take part in raising the young. Male burying beetles often locate carcasses first and then attract a mate. Beetles often fight over the carcass with usually the largest male and female individuals winning. The victors bury the carcass, the pair mates, and the female lays her eggs in an adjacent tunnel. Within a few days, the larvae develop and both parents feed and tend their young, an unusual activity among insects. Brood size usually ranges from one to 30 young, but 12 to 15 is the average size. The larvae spend about a week feeding off the carcass then crawl into the soil to pupate or develop. Mature American burying beetles emerge from the soil 45 to 60 days after their parents initially bury the carcass. Adult burying beetles live for only 12 months.

Why Are They So Rare?

Biologists have not unlocked the mystery why the American burying beetle has disappeared from so many areas. Widespread pesticide use may have caused local populations to disappear. The dramatic disappearance of this insect from many areas, however, took place before widespread use of DDT. Lack of small carcasses to bury prevents reproduction, and land use changes have reduced the quantity of small- to medium-sized birds and mammals preferred by the species.

Status

Endangered
(listed July 31, 1989)

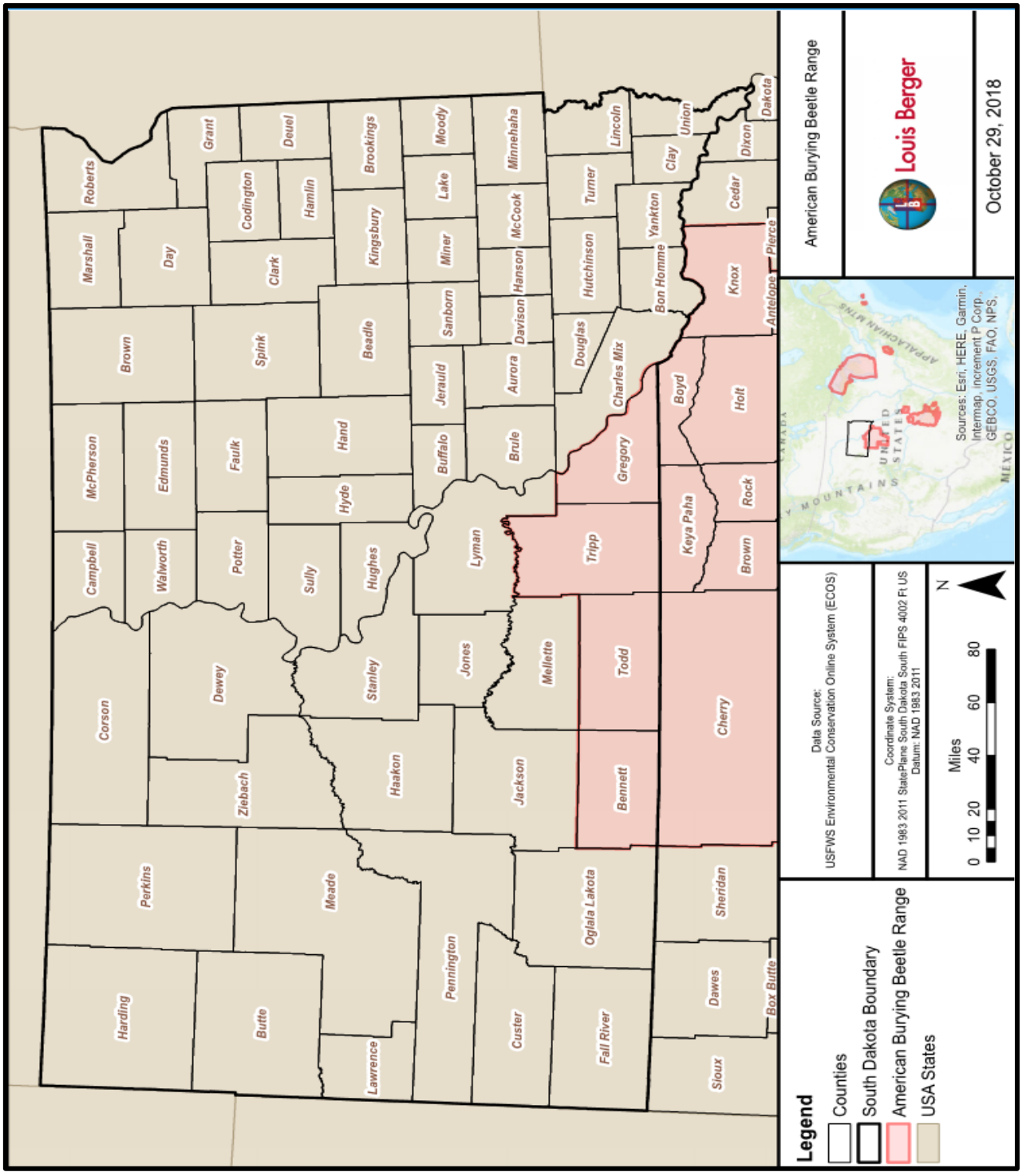
Range

Arkansas, Kansas, Massachusetts, Missouri, Nebraska, Ohio, Oklahoma, Rhode Island, South Dakota, and Texas

Description

About an inch and a half long, the American burying beetle can be identified by its striking, distinctive coloring. The body is shiny black, and on its wing covers are four scalloped, orange-red markings. Most distinctively, there is an orange-red marking on the beetle's pronotum, a large shield-like area just behind the head. The American burying beetle has orange facial markings and orange tips on the antennae. The beetles are strong fliers, moving as far as a kilometer in one night.

Current American Burying Beetle Range from USFWS



Source:
USFWS.
https://ecos.fws.gov/ecp0/profile/speciesProfile?spcode=I028,https://www.fws.gov/southwest/es/oklahoma/ABBICP.htm
USFS: https://www.fws.gov/midwest/endangered/insects/ambb/abb_fact.html
SD DOT. http://www.sddot.com/business/environmental/endangered/Default.aspx

Images provides by the U.S. Fish and Wildlife

Bald Eagle

(Haliaeetus leucocephalus)

Habitat

Bald Eagles live near rivers, lakes, and marshes where they can find fish, their staple food. Bald Eagles will also feed on waterfowl, turtles, rabbits, snakes, and other small animals and carrion. Bald Eagles require a good food base, perching areas, and nesting sites. Their habitat includes estuaries, large lakes, reservoirs, rivers, and some seacoasts. In winter, the birds congregate near open water in tall trees for spotting prey and night roosts for sheltering.

Life History

Eagles mate for life, choosing the tops of large trees to build nests, which they typically use and enlarge each year. Nests may reach 10 feet across and weigh a half ton. The birds travel great distances, but usually return to breeding grounds within 100 miles of the place where they were raised. Bald Eagles may live 15 to 25 years in the wild.

Recovery

On August 9, 2007, the bald eagle was removed from the federal list of threatened and endangered species. After nearly disappearing from most of the United States decades ago, the bald eagle is now flourishing across the nation and no longer needs the protection of the Endangered Species Act. Although they are delisted, bald eagles are still protected by the Bald and Golden Eagle Protection Act, the Migratory Bird Treaty Act, and the Lacey Act.

Status

Delisted Due to Recovery
August 9, 2007

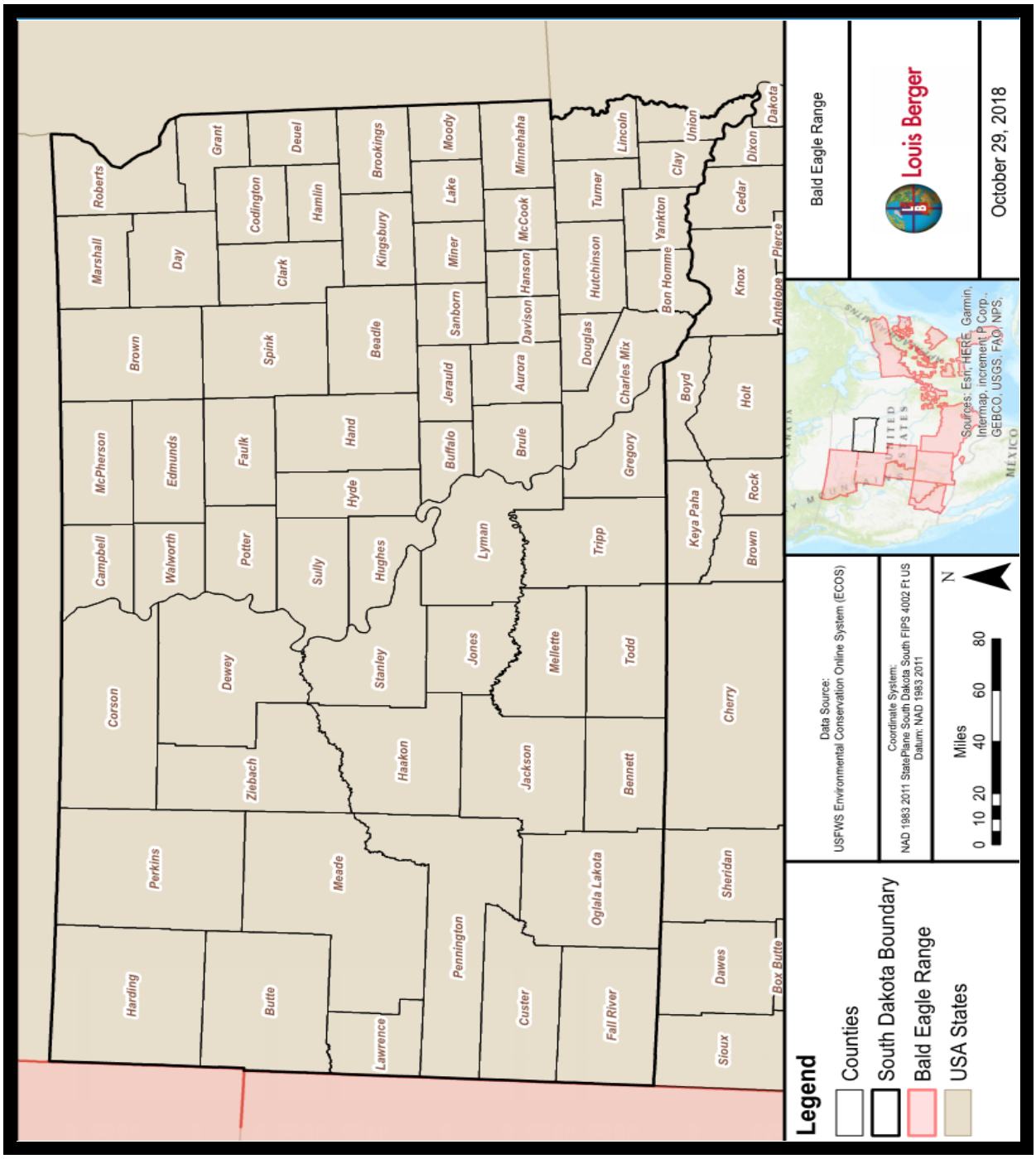
Historical Range

Lower 48 States

Description

A large raptor, the bald eagle has a wingspread of about 7 feet. Adults have a dark brown body and wings, white head and tail, and a yellow beak. Juveniles are mostly brown with white mottling on the body, tail, and undersides of wings. Adult plumage usually is obtained by the 6th year. In flight, the Bald Eagle often soars or glides with the wings held at a right angle to the body. As in most other raptors, females are larger than males; otherwise similar in appearance.

Current Bald Eagle Range from USFWS



Source:
USFWS. https://ecos.fws.gov/ecp0/profile/speciesProfile?spcode=B008,
https://www.fws.gov/birds/management/managed-species/bald-and-golden-eagle-information.php,
https://www.fws.gov/midwest/eagle/
SD DOT. http://www.sddot.com/business/environmental/endangered/Default.aspx

Images provides by the U.S. Fish and Wildlife Service
Photo on right shows bat with White-nose syndrome

Northern Long-Eared Bat

(Myotis septentrionalis)

Winter Habitat

Northern long-eared bats spend winter hibernating in caves and mines, called hibernacula. They use areas in various sized caves or mines with constant temperatures, high humidity, and no air currents. Within hibernacula, surveyors find them hibernating most often in small crevices or cracks, often with only the nose and ears visible.

Summer Habitat

During the summer, northern long-eared bats roost singly or in colonies underneath bark, in cavities or in crevices of both live trees and snags (dead trees). Males and non-reproductive females may also roost in cooler places, like caves and mines. Northern long-eared bats seem to be flexible in selecting roosts, choosing roost trees based on suitability to retain bark or provide cavities or crevices.

White Nose Syndrome

White Nose Syndrome, a fungal infection of hibernating bats, is currently the predominant threat to this bat. Although the disease has not yet spread throughout the Northern Long-eared Bats entire range, it is currently found in at least 25 of 37 states where the species occurs.

Status

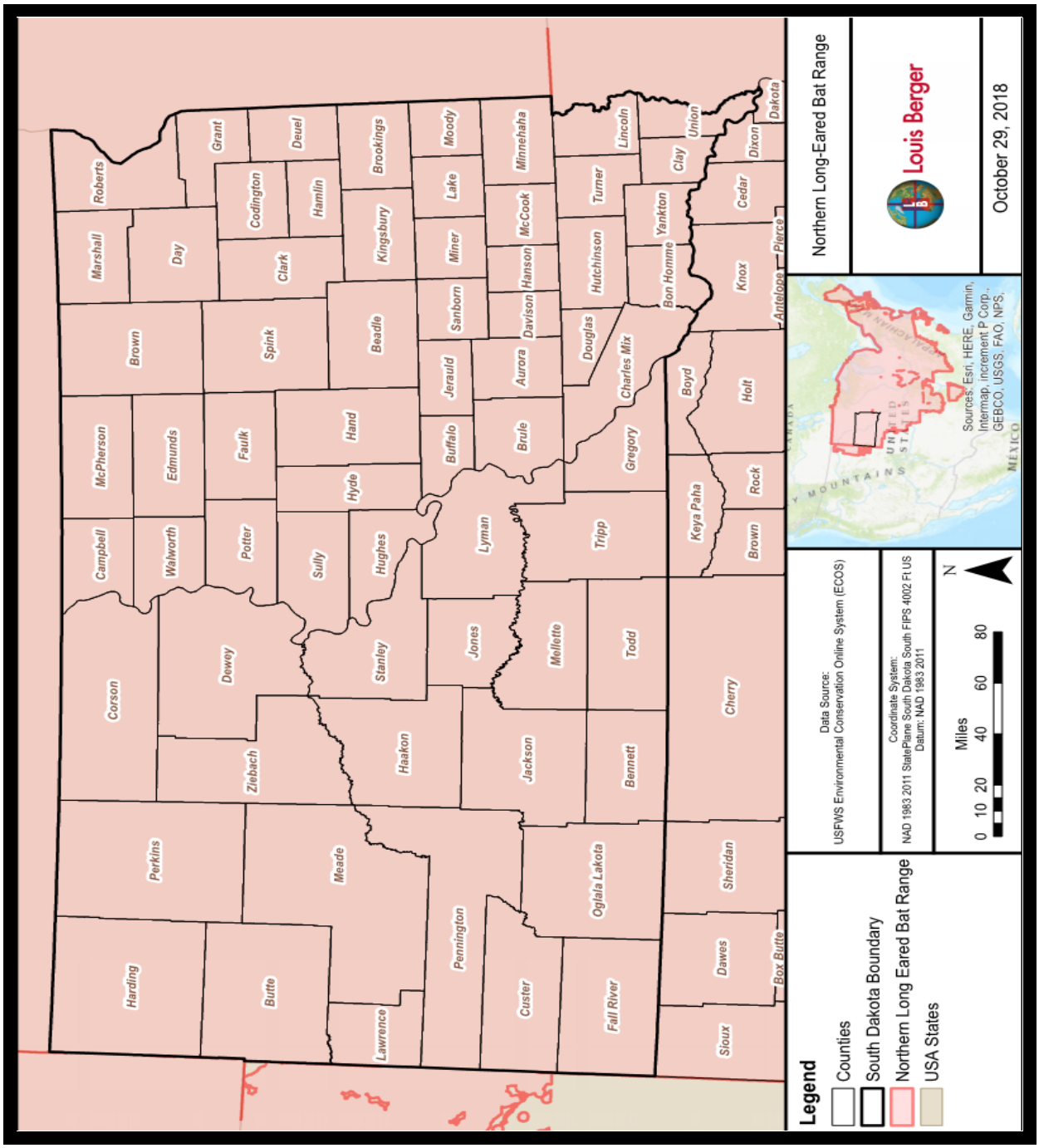
Threatened
May 4, 2015

Historical Range

The Northern Long-Eared Bat is found across much of the eastern and north central United States and all Canadian provinces from the Atlantic coast west to the southern Northwest Territories and eastern British Columbia. The species range includes 37 states.

The Northern Long-Eared Bat is a medium-sized bat with a body length of 3 to 3.7 inches but a wing-span of 9 to 10 inches. Their fur color can be medium to dark brown on the back and tawny to pale-brown on the underside. This bat is distinguished by its long ears, particularly as compared to other bats in its genus, Myotis.

Current Northern Long-Eared Bat Range from USFWS



Source:
USFWS. https://www.fws.gov/midwest/endangered/mammals/nleb/nlebRangeMap.html, https://www.fws.gov/midwest/endangered/mammals/nleb/nlebFactSheet.html, https://www.fws.gov/mountain-prairie/pressrel/2017/03152017_White-nose-Syndrome-Confirmed-in-Nebraska.php
SD DOT. http://www.sddot.com/business/environmental/endangered/Default.aspx

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