ON-SITE WETLAND MITIGATION PROCESS

1. Purpose

This work instruction describes the process for providing on-site mitigation for unavoidable wetland impacts resulting from MDT highway projects (i.e., mitigation on or adjacent to the right-of-way of the project, which resulted in unavoidable wetland impacts).

2. Scope

The process for on-site wetland mitigation is administered by the District Biologists (DB) within the MDT Environmental Services Bureau (ESB), in cooperation with the project Design Team (DT). The process begins with the Preliminary Field Review and is completed when the DB confirms that the on-site mitigation is successful and meets the performance criteria as described in the approved mitigation plan.

3. Process

Figure 1 presents a flowchart that illustrates the MDT process for on-site wetland mitigation. Following the Figure is a description of each process task included within the flowchart.

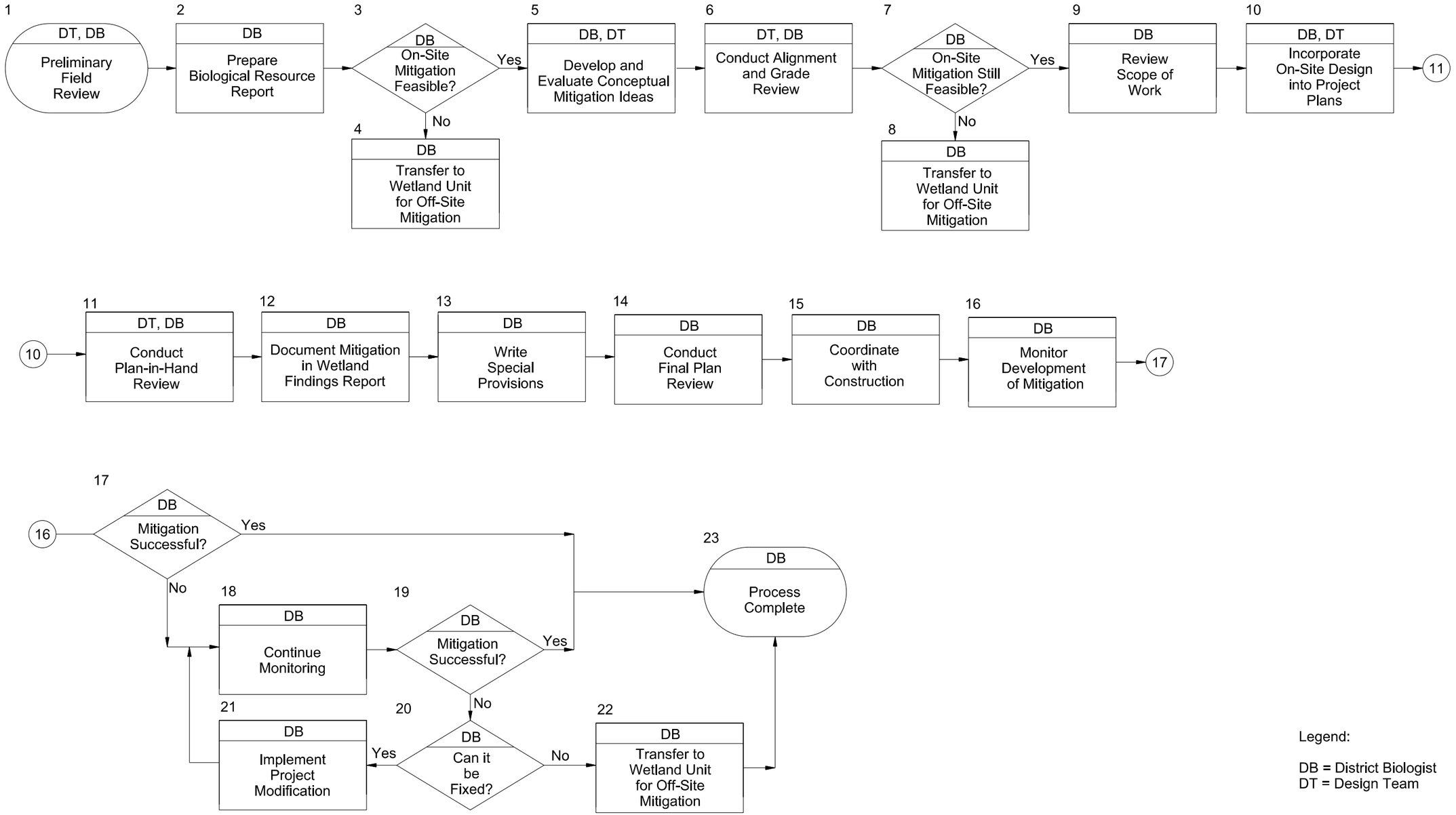

Figure 1 — ON-SITE WETLAND MITIGATION PROCESS

PROCESS TASK

Task Title: Preliminary Field Review

Task No.: 1

Task Description

The Preliminary Field Review (PFR) is the initial step that begins the on-site wetland mitigation process for a proposed project. The PFR includes preliminary evaluation of the scope of work and the potential for social, economic and environmental impacts. The Design Team (DT) ensures that the appropriate MDT personnel are notified of the field review and invited to participate.

The DB participates in the PFR to make a preliminary evaluation of the available information on the project scope, the potential for wetland impacts and the feasibility of providing on-site mitigation for unavoidable wetland impacts.

Following the field review, the DT prepares a PFR Report summarizing the issues discussed during the PFR, including preliminary determination of potential wetland impacts and potential for on-site wetland mitigation. The final PFR Report is distributed for review and comment. Within ESB, the Project Development Engineer (PDE) serves as the document champion to collect and coordinate comments from the other sections. The PDE compiles the comments into a PFR review memorandum for signature by the Environmental Services Bureau Chief (ESBC).

Regulations and Guidance

MDT Road Design Manual, Chapter One, “Road Design Process”

PROCESS TASK

Task Title: Prepare Biological Resource Report

Task No.: 2

Task Description

The DB proceeds with information gathering for more in-depth evaluation of wetlands and other biological resource issues the project may affect. For wetlands, the information gathering includes further analysis of potential impacts and factors affecting the feasibility of on-site mitigation (e.g., magnitude of the wetland impacts, topography of the project area, right-of-way).

The DB (or term consultant) prepares a Biological Resource Report (BRR) to provide a written assessment of the wetlands and other biological resources located at the project site and/or along the project corridor. For each resource category, the BRR includes a comprehensive analysis and discussion of baseline conditions, anticipated project impacts and recommendations for avoiding and minimizing impacts.

For potential wetland impacts, the BRR includes an assessment of the feasibility of on-site mitigation based on the results of information gathering and consideration of the scope of the proposed project.

PROCESS TASK

Task Title: On-Site Mitigation Feasible?

Task No.: 3

Task Description

The DB determines the feasibility of on-site mitigation based on applicable mitigation ratios, project location, right-of-way availability and constructability. If on-site mitigation is not a practical option for addressing the impacts, the DB proceeds to Task 4 for accomplishing the mitigation required.

If the DB determines that on-site wetland mitigation appears to be a feasible option for all or part of the project's anticipated wetland impacts, the DB proceeds to Task 5.

PROCESS TASK

Task Title: Transfer to Wetland Unit for Off-Site Mitigation

Task No.: 4

Task Description

If on-site mitigation is determined not to be feasible, the DB coordinates with the Wetland Unit to transfer the wetland impact information (i.e., classification and functions of wetlands affected and the nature and magnitude of the project's anticipated impacts on the wetlands) for mitigation off-site.

PROCESS TASK

Task Title: Develop and Evaluate Conceptual Mitigation Ideas

Task No.: 5

Task Description

The DB coordinates with the DT to develop and evaluate the feasibility of various on-site conceptual mitigation ideas as project design proceeds. The DT includes mitigation concepts determined to be potentially feasible on the preliminary project design plans for discussion at the Alignment and Grade Review (AGR) meeting.

PROCESS TASK

Task Title: Conduct Alignment and Grade Review

Task No.: 6

Task Description

When the DT completes preparation of preliminary plans for the proposed project, the DT coordinates with appropriate MDT personnel to schedule an AGR.

The AGR involves establishing the horizontal and vertical alignments. The AGR should address key design issues, including wetland impacts and associated on-site mitigation options. The AGR entails extensive coordination among the DT, including the DB.

After incorporating changes resulting from the AGR in the design, the DT prepares the AGR Report documenting the issues discussed during the field review, including potential wetland impacts and on-site mitigation proposals, and incorporates any necessary changes into the design. The DT distributes the final AGR Report for review and comment. Within ESB, the PDE serves as the document champion to collect and coordinate comments from the other sections. The PDE compiles the comments into an AGR review memorandum for signature by the ESBC.

Regulations and Guidance

MDT Road Design Manual, Chapter One, “Road Design Process”

PROCESS TASK

Task Title: On-Site Mitigation Still Feasible?

Task No.: 7

Task Description

Based on the results of the AGR, the DB determines whether or not on-site wetland mitigation is still a feasible option.

If the DB determines that on-site mitigation is not feasible, the DB proceeds to Task 8.

If the DB determines that on-site mitigation is feasible, the DB proceeds to Task 9.

PROCESS TASK

Task Title: Transfer to Wetland Unit for Off-Site Mitigation

Task No.: 8

Task Description

If on-site mitigation is determined not to be feasible, the DB coordinates with the Wetland Unit to transfer the wetland impact information (i.e., classification and functions of wetlands affected and acreage of impacts) for mitigation off-site.

PROCESS TASK

Task Title: Review Scope of Work

Task No.: 9

Task Description

As soon as appropriate data is available, the DT prepares the Scope of Work (SOW) Report, which identifies the major design features of the project and provides an overview of the project improvements. In addition to information on various engineering aspects of the proposed project, the SOW Report includes discussion of environmental considerations, including wetland impacts and associated on-site mitigation. The SOW Report cannot be finalized until the environmental document is approved.

The DT distributes the SOW Report for review and comment by affected MDT bureaus. Within ESB, the PDE serves as the document champion to collect and coordinate comments from the other sections. The DB reviews the SOW Report, provides written comments to the PDE and coordinates with the DT to ensure that wetland impacts and on-site wetland mitigation measures are accurately reflected in the Report. The PDE compiles the comments into an SOW review memorandum for signature by the ESBC.

Regulations and Guidance

MDT Road Design Manual, Chapter One, “Road Design Process”

PROCESS TASK

Task Title: Incorporate On-Site Design into Project Plans

Task No.: 10

Task Description

The DB coordinates with the DT to incorporate the on-site wetland mitigation design in the project plans.

PROCESS TASK

Task Title: Conduct Plan-in-Hand Review

Task No.: 11

Task Description

After all appropriate design changes are incorporated to the extent practicable, the DT prepares the preliminary detailed design plans for the project. The DT distributes the preliminary detailed design plan package and invites participation in a Plan-in-Hand (PIH) review of the project. The DB participates to address wetland impacts and associated on-site mitigation measures.

The DT documents all comments received during the PIH review in the PIH Report and distributes the report to participants for review and comment. The DT uses the recommendations contained in the PIH Report to revise the plans, special provisions and cost estimate.

Regulations and Guidance

MDT Road Design Manual, Chapter One, “Road Design Process”

PROCESS TASK

Task Title: Document Mitigation in Wetland Findings Report

Task No.: 12

Task Description

The DB prepares a Wetland Findings Report to document the final assessment of the project's unavoidable impacts to wetland, river, stream and/or other water resources located at the project site and/or along the project corridor. The Report discusses all avoidance and minimization measures considered for wetlands and other water resources and the measures selected for implementation. The Report also discusses quantified impacts and classification of wetlands and proposed mitigation for unavoidable impacts (i.e., on-site or off-site).

PROCESS TASK

Task Title: Write Special Provisions

Task No.: 13

Task Description

The DB prepares any special provisions necessary to implement wetland impact avoidance, minimization and on-site mitigation measures (e.g., salvaging wetland soils).

The DB coordinates with the DT and MDT Contract Plans Bureau to ensure the special provisions associated with wetland impacts and on-site mitigation impacts are accurately reflected in the final engineering plan documents.

PROCESS TASK

Task Title: Conduct Final Plan Review

Task No.: 14

Task Description

The DB coordinates with the DT to review the final project plans to ensure that measures for impact avoidance and minimization to all biological resources, including wetlands, have been incorporated. The DB ensures that the on-site mitigation design and special provisions are accurately reflected in the plans. The DB coordinates, as necessary, with the DT and the MDT Contract Plans Bureau to implement any needed changes.

PROCESS TASK

Task Title: Coordinate with Construction

Task No.: 15

Task Description

The DB coordinates with Construction personnel and the District Environmental Engineering Specialist (DEES) to ensure the special provisions and design elements concerning the biological resources, including wetland impacts and on-site wetland mitigation, are implemented during project construction.

PROCESS TASK

Task Title: Monitor Development of Mitigation

Task No.: 16

Task Description

After the on-site wetland mitigation measures are constructed, the DB conducts periodic monitoring to evaluate the development of the on-site wetlands (e.g., acreage, wetland classification/type, wetland functions). The DB conducts the monitoring and reports the results in accordance with procedures in the approved agreement between MDT and the Army Corps of Engineers (COE) for on-site mitigation.

PROCESS TASK

Task Title: Mitigation Successful?

Task No.: 17

Task Description

If monitoring results indicate that on-site mitigation is successful in meeting the intended mitigation objectives, the DB proceeds to Task 23.

If monitoring results indicate that on-site mitigation is not successful in meeting the intended mitigation objectives, the DB reports that finding to the COE and proceeds to Task 18.

PROCESS TASK

Task Title: Continue Monitoring

Task No.: 18

Task Description

If monitoring results indicate that on-site mitigation is not successful, the DB continues to monitor the site in accordance with procedures in the approved agreement between the COE and MDT for on-site mitigation.

PROCESS TASK

Task Title: Mitigation Successful?

Task No.: 19

Task Description

If the results of ongoing monitoring indicate that the on-site mitigation is successful in meeting the intended mitigation objectives, the DB proceeds to Task 23.

If ongoing monitoring results indicate that the on-site mitigation is not successful in meeting the intended mitigation objectives, the DB proceeds to Task 20.

PROCESS TASK

Task Title: Can It Be Fixed?

Task No.: 20

Task Description

If project modifications can be implemented to increase the potential success of on-site wetland development, the DB proceeds to Task 21.

If project modifications can not be implemented to increase the potential success of on-site wetland development, the DB proceeds to Task 22.

PROCESS TASK

Task Title: Implement Project Modifications

Task No.: 21

Task Description

The DB coordinates with Construction personnel and the DEES to implement the modifications in the on-site mitigation project needed to increase the potential success of on-site wetland development.

PROCESS TASK

Task Title: Transfer to Wetland Unit for Off-Site Mitigation

Task No.: 22

Task Description

If the DB determines that on-site mitigation will not be successful, the DB coordinates with the Wetland Unit to transfer the wetland impact information for mitigation of any remaining balance off-site.

PROCESS TASK

Task Title: Process Complete

Task No.: 23

Task Description

The on-site wetland mitigation process is complete once the DB determines the on-site measures are successful in meeting the mitigation objectives or the remaining balance is transferred to the Wetland Unit for mitigation off-site. The DB prepares the final monitoring report for the on-site mitigation and transmits it to the COE along with the Certificate of Compliance signed by the Environmental Resources Section Supervisor.