

WSDOT Generic Consultant Scope of Work for Wetland Mitigation

WSDOT Updated 5/1/08

This scope of work is generic and may vary from region to region and project to project. Please verify with the region biologist and project engineer.

Task 1.0 Identify Mitigation Requirements

To initiate the mitigation process, it is necessary to identify the extent of the wetland and wetland buffer impacts, and determine the size and type of mitigation required per agency guidance/ordinance. Based on preliminary project design plan sheets, this step will identify preliminary wetland and buffer impacts per area, wetland rating, functions and values, hydrogeomorphic (HGM) classifications, USFWS Classification system, and watershed location. Mitigation areas will be calculated using both the Joint Guidance and local Critical Areas Ordinance or project specific information for wetland and buffer impacts.

Information Required:

- Wetland and buffer impact areas
- Preliminary wetland and buffer impact plan sheets
- Final wetland biology report
- BE for listed species, if available
- Local Critical Areas Ordinance
- Watershed/basin/subbasin maps

Assumptions:

- WSDOT will provide the required information listed above unless otherwise stated.
- WSDOT will provide the standard template and example for the Mitigation Goals Memo. WSDOT will also provide guidance for wetland and buffer impact assessment and mitigation area calculation.
- Wetland functions will be assessed using the Ecology rating system and BPJ.
- WSDOT will provide review comments of all Consultant produced memos and reports within XX working days of receipt. The Consultant will resolve and revise all memos and reports to WSDOT within XX working days of receipt of WSDOT comments.
- The Consultant will be available for XX meetings with WSDOT.

Subtasks:

1.1 Impact Calculation

Identify wetland impacts per:

- Impacted area
- Wetland rating (local and Department of Ecology)
- HGM
- wetland function

- Cowardin classification
- Location within the watershed/basin/subbasin
- Impacted wetland area vegetative community composition

Identify buffer impacts per:

- Area of impact
- Vegetative community composition
- Buffer functions.

1.2 Mitigation Area Calculation

Calculate required wetland mitigation area per Joint Guidance and local Critical Areas Ordinance. Calculate required buffer mitigation area per local Critical Areas Ordinance.

Verify the mitigation site location requirements per local Critical Areas Ordinance. The Consultant will summarize the mitigation requirements and goals. The summary will become the guidance for the mitigation objectives and should include the wetland and buffer impact summary, impacted functions and values, and mitigation area requirements

The Consultant will provide an electronic copy of the draft summary for WSDOT review. WSDOT will review the draft document and provide review comments to the Consultant. The Consultant will resolve and incorporate comments. Consultant will provide an electronic copy of the final document for WSDOT. The Consultant will not proceed without WSDOT approval of the final document.

Deliverables:

- One electronic file of the draft mitigation requirements and summary document for WSDOT review.
- One electronic file of the final mitigation requirements and summary document for WSDOT review.

Task 2.0 Mitigation Site Selection

Once the preliminary mitigation requirements have been identified and the mitigation goals have been approved following the coordination meeting with the IDT, the site selection process can be initiated. Tasks in this section involve identifying likely properties.

Required Information:

- Watershed/basin/subbasin maps of the impacted areas
- SCS/NRCS soils maps of the impacted watershed/basin/subbasin
- NWI maps of the impacted watershed/basin/subbasin

- County assessor's or parcel maps of the impacted watershed/basin/subbasin
- Air photos of the watershed/basin/subbasin (most recent and historical)
- Early Action Mitigation Site Identification List, if applicable.
- The final mitigation requirements and summary document

Assumptions:

- The WSDOT Design Engineer will contact WSDOT Real Estate Services to identify properties for sale within the project area.
- A minimum of X sites will be identified for IDT review.
- WSDOT will provide the standard template and example of the Preliminary Wetland Mitigation Site Selection Guidance, Wetland Mitigation Site Evaluation Matrix, and the Wetland Mitigation Site Feasibility Memo/Report.
- WSDOT will organize and schedule the IDT site reviews.
- WSDOT will provide direction concerning selection of the preferred mitigation site(s).

Subtasks:

2.1 Preliminary Site Identification

Using the National Wetland Inventory or local wetland inventory, soils, County Assessor's maps, and aerial photographs, identify potential properties located near existing wetlands, streams, or lakes, or sites with listed hydric soils. The Consultant will contact WSDOT for sites identified on the Early Action Mitigation Sites identification List and for partnering opportunities with municipal and county jurisdictions, state agencies, tribes, and environmental non-governmental organizations for partnering opportunities.

The Consultant will visually inspect the preliminary list of properties and evaluate using the Preliminary Wetland Mitigation Selection Guidance, record the parcel numbers of suitable properties, and submit to Design Engineer for right of entry documents.

2.2 IDT Site Review and Site Evaluation

Following property identification, the Consultant will assemble site information of the identified sites for the IDT inspection. The site information should include the impact and mitigation summary information and individual the site information including aerial photograph, NWI map, soils map, zoning map, and watershed/basin/subbasin maps.

The Consultant will participate in the IDT review of potential sites. The Consultant, with IDT input, will evaluate each site using the Wetland Mitigation Site Evaluation Matrix.

2.3 Wetland Mitigation Site Feasibility Memo/Report

The Consultant will prepare a Mitigation Site Feasibility Memo/Report of the sites evaluated. The memo will include data generated from the Wetland Mitigation Site Evaluation Matrix and will rate the sites and provide a recommendation of the preferred site(s).

The Consultant will provide an electronic file for WSDOT review. WSDOT will provide comments of the memo to the Consultant. The Consultant will resolve and incorporate comments. The Consultant will provide an electronic copy of the final document for WSDOT. The Consultant will not proceed without WSDOT approval of the final document.

Deliverables:

- One electronic file of the site information for each site to be inspected
- One electronic file of the completed Wetland Mitigation Site Evaluation Matrix
- One electronic file of the Wetland Mitigation Site Feasibility Memo/Report for WSDOT review
- One electronic file of the revised Wetland Mitigation Site Feasibility Memo/Report.

Task 3.0 Mitigation Site Data Collection

The intent of this task is to collect on-site data of the preferred mitigation site(s) for the production of the wetland mitigation design and report.

Required Information:

- SCS/NRCS soils maps
- NWI maps
- County assessor's or parcel maps
- Aerial photographs (most current and historical)

Assumptions:

- WSDOT will field locate groundwater monitoring wells (piezometers) and will collect monitoring well data.
- An archeological study of the mitigation site will be completed by WSDOT prior to wetland delineation and piezometer installation.

Subtasks:

3.1 Collect Site Data and Delineate On-site Wetlands

The Consultant will collect on-site vegetation and soils data, and delineate on-site wetlands and identify (mark) the Ordinary High Water Mark of watercourses, if applicable per WSDOT guidance.

3.2 Review Wetland Delineation

The consultant will participate in an on-site review of the wetland delineation and identification of the Ordinary High Water Mark of on-site drainages, if applicable.

3.3 Prepare Mitigation Site Wetland Delineation Memo

Prepare a mitigation site wetland delineation memo with data sheets and wetland rating forms, if applicable.

The Consultant will provide an electronic copy of the draft Mitigation Site Delineation Memo for WSDOT review. WSDOT will review the draft document and provide review comments to the Consultant. The Consultant will resolve and incorporate comments. Consultant will provide an electronic copy of the final document for WSDOT.

Deliverables:

- One electronic file of the draft Mitigation Site Wetland Delineation Memo for WSDOT review.
- One electronic file of the revised Mitigation Site Wetland Delineation Memo.

Task 4.0 Mitigation Site Base Plan Preparation

The intent of this task is to survey the mitigation site and prepare a base map for the mitigation design.

Required Information:

- Wetland site survey data

Assumptions:

- Right-of-entry will be secured prior to initiation of topographic survey
- Base map will be produced in Microstation format. WSDOT will provide base map standards.

Subtasks:

4.1 Mitigation Site Topographic Survey

Following WSDOT direction, the Consultant will perform a topographic survey of the mitigation site. Surveyed data will include:

- Delineated wetland location
- Ordinary High Water Mark of streams, drainages, or other waterbodies
- All structures including buildings, roads, and fences
- Utilities
- Groundwater monitoring wells
- Trees and shrub canopy
- Topography at 1 foot contours

- Property lines, right-of-ways, and easements
- Other items as identified by WSDOT

4.2 Mitigation Site Base Map Preparation

Upon completion of the topographic survey, the Consultant will prepare a base map of the mitigation site. The Consultant will provide an electronic copy of the base map for WSDOT review. WSDOT will review the base map and provide review comments to the Consultant. The Consultant will resolve and incorporate comments. Consultant will provide an electronic copy of the final base map for WSDOT.

Deliverables:

- One electronic file of the draft base map.
- One electronic file of the revised base map.

Task 5.0 Conceptual Wetland Mitigation Report

The Conceptual Wetland Mitigation Report is prepared for agency submittal when sufficient site data is not available to produce the wetland mitigation design.

Required Information:

- Mitigation regulatory requirements
- Final wetland and buffer impact areas
- Wetland biology report
- Project biological assessment
- Mitigation site base plan
- Mitigation site soils and vegetation data
- Mitigation site wetland delineation memo
- Preliminary groundwater data
- Preliminary geotechnical data
- Mitigation Goals Memo

Assumptions:

- WSDOT will provide the standard template and example of the Conceptual Wetland Mitigation Report and Conceptual Mitigation Design Drawing.
- WSODT will provide guidance for wetland and buffer impact assessment and mitigation area calculation.

Subtasks:

5.1 Conceptual Wetland Mitigation Design

The Consultant will prepare the conceptual wetland mitigation design drawings. The drawings will identify locations of proposed wetland creation, re-establishment, rehabilitation, enhancement, preservation, and wetland buffer areas.

5.2 Agency Coordination

The Consultant will participate with a site meeting with WSDOT and the permitting agencies to conduct site review of impacts and proposed wetland mitigation conceptual design.

5.3 Conceptual Wetland Mitigation Report Preparation

The Consultant will prepare a Conceptual Wetland Mitigation Report. The Conceptual Wetland Mitigation Report will contain:

- Project description
- Project purpose and need
- Final wetland and buffer impact areas
- Wetland impacts per rating, HGM classification, and Cowardin classification
- Impacted wetland functions and values
- Impact avoidance and minimization
- Mitigation requirements per Joint Guidance and local Critical Areas Ordinance
- Mitigation site description
- Conceptual wetland mitigation design.
- And other items as identified in the Conceptual Wetland Mitigation Report Template

The agreed upon agency comments will be incorporated into the report.

The Consultant will provide an electronic copy of the draft Conceptual Wetland Mitigation Report for WSDOT review. WSDOT will review the draft document and provide review comments to the Consultant. The Consultant will resolve and incorporate comments. Consultant will provide an electronic copy of the final document for WSDOT.

Deliverables:

- One electronic file of the summary of meeting minutes of the WSDOT and permitting agency site review.
- One electronic file of the draft Conceptual Wetland Mitigation Report. for WSDOT review.
- One electronic file of the final Conceptual Wetland Mitigation Report. for WSDOT review.

Task 6.0 Draft Wetland Mitigation Report

The Draft Wetland Mitigation Report is submitted to the agencies as part of the Joint Aquatic Resources Permit Application submittal.

Required Information:

- Conceptual Wetland Mitigation Report
- Final wetland and buffer impact areas
- Wetland biology report
- Project biological assessment
- Mitigation site base plan
- Mitigation site soils and vegetation data
- Mitigation Site Wetland Delineation Memo
- Groundwater data
- Geotechnical data
- Hydrologic and hydraulic modeling results (if appropriate)
- Mitigation Goals Memo

Assumptions:

- WSDOT will provide the standard template and example of the Draft Wetland Mitigation Report and Mitigation Design Drawing.
- WSDOT will provide guidance for wetland and buffer impact assessment and mitigation area calculation.

Subtasks:

6.1 30% Wetland Mitigation Design Plans

The Consultant will prepare the 30% wetland mitigation design drawings. The design drawings will include:

- A schematic plan of the overall site to meet the requirements outlined in the Mitigation Goals Memo. The plan will identify locations of wetland communities and proposed wetland creation, re-establishment, rehabilitation, enhancement, preservation, and wetland buffer areas ;
- Hydrological data analysis will be done using piezometers data with the monitoring information of ground water and/or water budget calculations and stream flow data, if applicable. Analysis will be shown in a simple graph /cross section format to document the relationship of existing grade and water table and the water table slope, if applicable.
- Grading plan to achieve the appropriate hydrology to establish the communities outlined in the mitigation goals. Grading plan shall be based on the analysis of the hydrological data. Plan will use one foot contour intervals and will show existing and proposed features and necessary spot elevations and slope directions to illustrate intent of hydrology.
- Planting plans showing wetland communities relating to hydrology created in grading. Graphics will show areas of plant communities rather than individual plant locations. If habitat features are to be included on the mitigation site, they will be shown on the planting plan.

- A material plant list will be provided with % of each plant specie within the communities. Within each plant mix, plants will use a consistent triangular spacing.
- Two representative cross-sections per site

The Consultant will provide an electronic copy of the 30% plans for WSDOT review. WSDOT will review the plans and provide review comments to the Consultant. The Consultant will resolve and incorporate comments. Consultant will provide an electronic copy of the revised plans for WSDOT review.

Assumptions:

- Plans will be developed using Microstation format at X foot scale.
- WSDOT will provide examples of plan graphics to be followed. Approval by WSDOT Landscape Architect is required prior to use of individual plant locations.
- Consultant must determine site access for construction and long-term management activities.

Deliverables:

- One electronic file and one hard copy of the 30% Wetland Mitigation Design Plans for WSDOT review
- One electronic file and one hard copy of the revised 30% Wetland Mitigation Design Plans.
- One electronic file of the hydraulic data analysis.

6.2 Draft Wetland Mitigation Report

The Consultant will prepare a Draft Wetland Mitigation Report. The DWMR will contain:

- Project description
- Project purpose and need
- Final wetland and buffer impact areas
- Wetland impacts per rating, HGM classification, and Cowardin classification,
- Impacted wetland functions and values
- Impact avoidance and minimization
- Mitigation requirements per Joint Guidance and local Critical Areas Ordinance
- Mitigation site description
- Wetland mitigation design description
- Proposed functional assessment
- Expected wetland mitigation site rating (local and Department of Ecology)
- Performance measures and success standards
- Contingency and monitoring plan
- Mitigation design plan sheets
- Mitigation Site Wetland Delineation Memo

- And other items as identified in the Draft Wetland Mitigation Report Template

The Consultant will provide an electronic copy of the Draft Wetland Mitigation Report for WSDOT review. WSDOT will review the document and provide review comments to the Consultant. The Consultant will resolve and incorporate comments. Consultant will provide an electronic copy of the revised document for WSDOT review.

Deliverables:

- One electronic file of the Draft Wetland Mitigation Report for WSDOT review
- One electronic file of the revised Draft Wetland Mitigation Report.

Task 7.0 Final Wetland Mitigation Report

The Final Wetland Mitigation Report is submitted to the agencies. The Draft Wetland Mitigation Report will be revised to address approved agency comments and submitted by WSDOT as part of the final permit submittal.

Required Information:

- Draft Wetland Mitigation Report
- Approved agency review comments of Draft Wetland Mitigation Report

Assumptions:

- WSDOT will identify all approved agency revisions.
- The Consultant will be available for XX meetings with WSDOT.

Subtasks:

7.1 Respond to Agency Comments

The Consultant will prepare written responses to agency comments of the Draft Wetland Mitigation Report. The Consultant will provide an electronic copy of the responses to agency comments for WSDOT review. WSDOT will review the responses and provide review comments to the Consultant. The Consultant will resolve and incorporate the WSDOT review comments. Consultant will provide an electronic copy of the revised document for WSDOT review.

7.2 Wetland Mitigation Design Revisions

The Consultant will revise the draft mitigation design plan sheets in response to approved agency comments to complete the final wetland mitigation design plan sheets.

7.3 Final Wetland Mitigation Report

The Consultant will revise the Draft Wetland Mitigation Report in response to the approved agency comments to complete the Final Wetland Mitigation Report.

The Consultant will provide an electronic copy of the Final Wetland Mitigation Report for WSDOT review. WSDOT will review the document and provide review comments to the Consultant. The Consultant will resolve and incorporate comments. Consultant will provide an electronic copy of the revised document for WSDOT review.

Deliverables:

- One electronic file of the responses to agency comments of the Draft Wetland Mitigation Report for WSDOT review.
- One electronic file of the revised responses to agency comments of the Draft Wetland Mitigation Report.
- One electronic file of the Final Wetland Mitigation Report for WSDOT review.
- One electronic file Final Wetland Mitigation Report.

Task 8.0 Mitigation Plans, Specifications & Estimate (PS&E)

The Consultant will advance the 30% Wetland Mitigation Design Plans to the 60%, 90%, and 100% PS&E level. These plans will become a part of the project contract document so the CONSULTANT is responsible for coordination with the responsible Project Design Office. If other planting is included in the contract, all planting plans, specifications, items, plant material list and the estimate will be integrated together into one section of the contract document.

Subtask 8.1 60% Wetland Mitigation Design Plans

The 60% plans will include:

- Wetland grading plans
- Wetland planting plans including soil preparation and treatment, and habitat features. Plant quantities will be provided for each plant species.
- Planting and habitat feature details
- Plant material list
- An initial run list and draft of required special provisions
- Estimate of items pertaining to the wetland mitigation.
- Draft site layout plan.
- Temporary watering strategy/plan
- Temporary erosion and sediment control for the mitigation site(s).

Subtask 8.2 90% Wetland Mitigation Design Plans

The 90% plans will complete the 60 % plans, specifications and estimate for the contract document.

Subtask 8.3 100% Wetland Mitigation Design Plans

100% plans will be final plans that incorporate the comments received during the 90% review.

The CONSULTANT will provide an electronic copy of the plans for each project phase. These plans will go through the WSDOT review process at each phase. Comments received during the review processes will be forwarded to the CONSULTANT. The Consultant will resolve, respond (using standard response format) and make changes to the plans, specifications, and estimate to reflect comments. The CONSULTANT will attend the constructability meetings at each phase.

Assumptions:

- Plans will be developed using Microstation format at X foot scale.
- WSDOT will provide examples of plan graphics to be followed, standard details, Plant Material List standard, NW Region Special Provisions (DT1's). Approval by WSDOT Landscape Architect is required prior to use of individual plant locations.

Deliverables:

- One electronic file and one hard copy for each phase of the PS&E development of the Wetland Mitigation Design Plans.
- Temporary watering strategy/plan
- Reference files to the base plans