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Vegetation Discipline Report

1 Introduction

Describe the overall purpose of the project, and provide a brief summary of the project objectives. Describe any changes in operations that will occur.

Describe the general location of the project and provide a vicinity map showing its location.

This section can be standardized and repeated in multiple reports.

2 Description of Alternatives

Provide a project description. For each alternative, describe the primary and secondary project features, construction sequencing and equipment, timing of construction, phasing of construction, earthwork, best management practices, stormwater treatment, in-water work, over-water work, and work windows.

The description of alternatives should be the same for all reports, with only minor modifications as needed to address the specific topic of the discipline report.

3 Methodology

Methods of Analysis

Describe the general methods of analysis (in-office research/preliminary analysis and field verification). Include descriptions of background data research, field verification, the use of geographic information system (GIS) data, and the preparation of base maps.

Provide the date(s) of the site visit(s), describe the conditions at the time of the site visit(s), and indicate the protocols and field methods used for surveys. Unless otherwise directed, use the protocol recommended by the Washington State Department of Transportation (WSDOT) for evaluating vegetation on all WSDOT projects. For any surveys completed, specify the area of the survey and clearly state the results. For each species surveyed, the appropriate identification window should be indicated, and the survey should be conducted during this time period. Include simple plan sheets providing an overview of the alignment relative to sensitive areas and habitat (clearly depict the existing conditions and the proposed design). Include resource-specific maps and aerial
photographs as appropriate. Include on-the-ground photographs of the project study area as appropriate.

Studies and Coordination

Consult local critical areas maps, state database resources, U.S. Geological Survey quadrangle maps, and National Wetlands Inventory maps. Download species lists or information for the appropriate area from the National Marine Fisheries Service website and the U.S. Fish and Wildlife Service website and species information and maps from the Washington Department of Fish and Wildlife website or the Washington Department of Natural Resources website. Communicate with local, state, tribal, and federal experts to learn more about the project area and the resources and habitats in the vicinity of the project. Consult other data and resources (reports, studies, and academic research) as appropriate. Coordinate with the authors of other discipline reports and ensure consistency with the data and terminology included in those reports.

4 Affected Environment

General Habitat Characteristics

Describe the project setting, including the physiographic region, general topography, dominant habitat and vegetation types, nearby water resources, wetlands, mapped soils, and land use types. Ensure consistency with the habitat descriptions in other discipline reports. Provide the name and number of the water resource inventory area and the hydrologic unit code. Provide the specific location of areas (section, township, and range) affected by the project alternatives.

This section could be the same for the fisheries resources, vegetation, and wildlife discipline reports, with minor additions to address the resources of interest.

Vegetation Study Area

Define the project study area. Describe the environmental baseline conditions (focusing on vegetation communities) within the project study area. Coordinate with the authors of other discipline reports and ensure consistency with data and terminology included in those reports.

Vegetation Classifications in Study Area
Identify all plant communities and habitat types in the project study area. For each vegetation classification, provide a brief summary and description of the conditions in the study area. Summarize the findings of the wetland discipline report as applicable. Coordinate with the authors of other discipline reports and ensure consistency with the data and terminology included in those reports; more specifically, ensure that the habitat types and descriptions of vegetation communities in the vegetation discipline report are the same as those used in the wildlife and fisheries resources discipline reports.

Special Status Plant Species in Study Area

Based on existing data sources and field observations, identify any state or federally listed species, proposed species, candidate species, species of concern, and designated or proposed critical habitat that is known to occur or has the potential to occur in the project study area. Generally describe the habitat requirements and ecology of these species. Provide enough information to support the impact analysis. Discuss the local status of the species as appropriate.

5 Environmental Consequences

The level of analysis should be commensurate with the level of impact. An analysis should be provided for each project alternative.

Build Alternative(s)

Information regarding the effects during construction and the effects during operation should be provided for each project alternative. Identify the specific build alternative in the section heading, followed by the applicable information. Provide as many build alternative sections as necessary to address all the project alternatives.

Effects during Construction

Direct Effects

Describe and analyze the potential direct effects of construction on vegetation communities and special status species. Quantify both the temporary and permanent impacts if possible. Describe how the environmental baseline will be affected.
how changes in water quality could affect aquatic plant habitat; discuss the quantity and significance of wetland and buffer impacts if applicable.

**Impact Minimization Measures**

*Identify measures that will be implemented to minimize specific anticipated impacts. As appropriate, provide recommendations for reducing or preventing adverse environmental effects. Ensure that measures included in the report have been discussed and approved by the WSDOT project team.*

**Mitigation**

*If impacts are unavoidable, describe in detail how these impacts will be mitigated or offset. Ensure that measures included in the report have been discussed and approved by WSDOT project team. Monitoring requirements should be clearly stated so they can be incorporated into the project designs or contracts as appropriate.*

**Indirect Effects**

*Describe and analyze the potential indirect effects (those that would occur later in time), such as impacts on future habitat or impacts resulting from project-induced growth.*

**Impact Minimization Measures (if applicable)**

**Mitigation (if applicable)**

**Effects during Operation**

*See guidance provided above for construction impacts.*

**Direct Effects**
Impact Minimization Measures

Mitigation

Indirect Effects

Impact Minimization Measures

Mitigation

Cumulative Effects

Identify species or vegetation communities within the study area that are vulnerable to cumulative effects of past, present, and future actions that are reasonably certain to occur, including the proposed project. Analyze the incremental effects on habitat.

The NEPA regulations (40 CFR 1508.7) define cumulative impact as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.” Note that this definition differs from that in the Endangered Species Act.

No-Build Alternative

Summarize impacts associated with the no-build alternative.

6 Significant Unavoidable Adverse Effects

Define what constitutes a significant impact for each unavoidable adverse impact.

Significant Effects of Build Alternative(s)
In a separate section for each build alternative, identify and describe the significant effects of the particular alternative.

7 References

For every reference cited in the text and appendices of the discipline report, provide a complete reference list entry.
Attachment A

U.S. Fish and Wildlife Species Species List
Attachment A: U.S. Fish and Wildlife Service Species List

Include a summary or list of plants identified in the project study area.
Attachment B

Washington Department of Natural Resources
Natural Heritage Program Database
Attachment B: Washington Department of Natural Resources Natural Heritage Program Database

Include a summary or list of plants identified in the project study area. DO NOT include information that would identify the specific location of these sensitive species.
Attachment C

Washington Department of Fish and Wildlife Priority Habitats and Species Database
Attachment C: Washington Department of Fish and Wildlife Priority Habitats and Species Database

Include a summary or list of priority habitats identified in the project study area. DO NOT include information that would identify the location of these sensitive areas.
Exhibits
Exhibits