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Page numbers and corresponding sheet-counts are given in the table below to indicate portions of the *Environmental Procedures Manual* that are to be removed and inserted to accomplish this revision.

Chapter	Remove		Insert	
	Pages	Sheets	Pages	Sheets
Title Page	1-2	1	1-2	1
Chapter 310	310-5 – 310-8	2	310-5 – 310-8	2

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**Washington State
Department of Transportation**

TECHNICAL MANUAL

Environmental Procedures Manual

M 31-11.05

October 2008

Environmental and Engineering
Environmental Services

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For details on the *Local Agency Guidelines* (LAG) Project Summary process and forms, see the WSDOT web site at:

☞ <http://www.wsdot.wa.gov/TA/Operations/LAG/LAGHP.HTM>

(1) **Project Definition**

The Project Definition form includes:

- Deficiencies or needs addressed by the project and whether the deficiencies are included in the 20 year Highway System Plan (or equivalent for other modes) or 10 Year Implementation Plan.
- Statement of purpose.
- Proposed strategy (description of work by road segment).
- Right-of-way or relocation requirements.
- Duration of pre-construction and construction phases.
- Estimated project costs. As stated in **Section 310.03**, these can be derived from historical data in EBASE. However, on large, unique, or high risk projects, or projects with a lot of public attention, it may also be appropriate to conduct a Cost Risk Assessment (CRA) to determine the full range of potential costs or cost savings (including any that might be associated with environmental risks or opportunities). For instance, if there is any uncertainty as to whether any environmental problems will be encountered in environmental review or permitting (such as an EIS or unanticipated permit being required) or in construction (such as some unknown hazardous materials or cultural resources being discovered), or if some cost savings might be realized (such as through partnering on mitigation), these should be conveyed as a range of costs for consideration by decision-makers. For more information on Cost Risk Assessment and WSDOT's Cost Estimating Validation Process, see:

☞ <http://www.wsdot.wa.gov/Projects/ProjectMgmt>

- Benefit/cost ratio. Benefit/cost and performance analyses are prepared for all highway projects so they can be compared and prioritized in Project Programming, and environmental considerations are a factor in the benefit/cost analyses for certain types of projects (e.g., projects that retrofit fish passage barrier culverts). For more information, see the *WSDOT Programming and Operations Manual* at:

☞ <http://www.wsdot.wa.gov/Publications/Manuals/M12-51.htm>

- A summary of the Environmental Review Summary, Design Decisions Summary, public input, project commitments, potential utility impacts, work zone traffic control strategy, potential railroad impacts, specialized workforce expertise required, and other issues (emergency services, school transit, etc.).

(2) **Design Decisions Summary**

The Design Decisions Summary is prepared with the guidance of the Design Matrix (see WSDOT's *Design Manual* (M 22-01)). Design matrices are used to identify the design level(s) for a project and the associated processes and

approval authority for allowing design variances. The matrices address the majority of preservation and improvement project types and focus on those design elements that are of greatest concern for project development.

The Design Decisions Summary includes:

- Geometrics and traffic
- Access control designation
- Roadway geometric data (existing and proposed) compared to standard
- Pavement requirements
- Roadway preservation
- Roadside restoration
- Improvements (safety and hydraulics)
- Deviations from the design matrix
- Design variance inventory

(3) **Environmental Review Summary**

The Environmental Review Summary allows the regional environmental staff to consider, at this early stage, any potential impacts and mitigation, required permits and approvals, and what form the environmental review documentation for the project will take. If the project scope is revised before the project is included in a biennial budget request, the design office consults with the regional environmental staff to verify that the environmental classification and other information is still correct.

310.05 Preparing the Environmental Review Summary

The Environmental Review Summary (ERS) form is found in the Project Summary database. It is generally completed by the region environmental staff at the request of region design staff during project scoping to identify any environmental requirements that apply to the project. In addition to identifying any necessary environmental permits and approvals, it also identifies the type of environmental document that will be required for the project to comply with NEPA and/or SEPA (as explained in **Section 310.07**), and it identifies any other studies that will be required to comply with the ESA, Section 106, Section 4(f), Section 6(f), and any other applicable environmental laws.

If the ERS indicates that the project will require a NEPA EIS or EA, then the ERS is converted to an Environmental Classification Summary (ECS), which gets signed and retained by the region, and the EIS or EA process begins.

If the ERS indicates that the project qualifies for a NEPA Categorical Exclusion (CE) in either of the following cases, then the ERS is converted to an ECS, which gets signed and retained by the region:

- The project qualifies for a NEPA CE under 23 CFR 771.117(c); or
- The project qualifies for a NEPA CE per the Categorical Exclusion Memorandum of Understanding between FHWA and WSDOT (May 25, 1999).

If the ERS indicates that the project requires a NEPA Documented CE under 23 CFR 771.117(d), then (after all of the necessary environmental studies are completed) the ERS is converted to an ECS, which gets signed by FHWA, and the signed ECS is retained by FHWA and the region to document compliance with NEPA.

All of the Project Summary forms, including the ERS form, and the ECS form, are available at:

☞ <http://www.wsdot.wa.gov/environment/compliance/complianceguidance.html#scoping>

In completing Part 4 of the ERS, Environmental Considerations, it is advisable to attach a technical memo to explain any assessments leading to a determination that the project should be classified as a Categorical Exemption or Documented Categorical Exemption. For guidance on the level of environmental documentation needed for a particular element of the environment, see **Chapter 420** through **Chapter 470**, in the Technical Guidance section under Discipline Reports.

Instructions for completing the Environmental Review Summary are online at:

☞ <http://www.wsdot.wa.gov/eesc/design/projectdev/projectssummary/PSECS1.pdf>

The WSDOT GIS Workbench, which provides data needed for the “Environmental Considerations” section of the form, is described below in **Section 310.06**. Guidance on project classification for NEPA/ SEPA purposes is found in **Section 310.07**.

For details on required environmental review procedures, see **Chapter 410** through **Chapter 490**. For details on permits and approvals, see **Chapter 510** through **Chapter 550**.

310.06 Environmental Database Resources

(1) WSDOT's GIS Workbench

WSDOT's GIS Workbench is an internal data system developed for use by WSDOT staff in preparing the Project Summary, particularly the “Environmental Considerations” portion of the ERS. The workbench is a user-friendly interface covering a wide range of environmental resources gathered from a variety of public agency and WSDOT sources.

The database has over 500 layers of environmental and natural resource management data, in the following major data categories:

- **General Reference** – Transportation routes, political and administrative boundaries, major public lands, geographic reference.
- **Environmental Data** – Air quality, fish and wildlife, priority species and habitats, geology and soils, groundwater and wells, hazardous materials, hydrography, plants, and water quality.

WSDOT users can access these data sets through the GIS Workbench. For information on how to access the Workbench, see:

☞ <http://www.wsdot.wa.gov/Environment/GIS/workbench.htm>

For a list of current data sets, see the WSDOT web site at:

☞ <http://www.wsdot.wa.gov/mapsdata/geodatacatalog/default.htm>

A six-hour training session has been developed to provide WSDOT staff with starter knowledge of ArcView, the GIS Workbench tool and the environmental data available through the tool.

The data provided to WSDOT staff through the GIS Workbench is sufficient for Project Summary purposes.

(a) **Accessing the GIS Workbench**

WSDOT staff wishing to access this GIS application should contact their Information Technology Manager (or equivalent), and ask for ArcView and the GIS Workbench Extension. Geographic Services provides WSDOT employees with basic training on ArcView, and the ESO provides technical support and information regarding the data available through this interface.

At this time, there are no plans to provide this interface to the general public or to WSDOT consultants.

(b) **Expansion of GIS Workbench**

GIS resources for environmental data are expanding rapidly. WSDOT staff works with federal, state, and local agencies to maintain a collection of the best available data for statewide environmental analysis. New data resources are being incorporated into the WSDOT GIS Workbench. To facilitate getting the best data into the system, please contact the ESO's Environmental Information Program with information about newly identified data resources.

(2) **What is a GIS Data Set?**

A Geographic Information System (GIS) data set is data that describes and locates geographic features and stores an Earth-based delineation of those features. GIS data sets are used to track information about things on the ground, typically organized by geographic features (e.g., stream, watershed, city, county). Using common tabular database technology, GIS links data tables and records with graphical representations (maps) of real-world features. These features are stored using coordinate values correlated with the Earth's surface. This allows tabular information to be stored as a characteristic of a place or geographic feature and then be cross-referenced to other information based on common geographic location.

(3) **Using Online GIS Databases**

The data needed for transportation project environmental impact analysis often can be retrieved from a GIS database. Many public agencies and non-governmental organizations now focus their mapping functions on building