APPENDIX J:
Endangered Species Act and stormwater requirements

The effects of transportation systems, both during construction and use, have been evaluated for decades. For federal projects, the enactment of the National Environmental Policy Act (NEPA) ushered in the era of environmental review during the planning and design for transportation projects. In the State of Washington, the enactment of the State Environmental Policy Act (SEPA) required a similar review for all state and local projects. Accompanying each of these determinations are a multitude of permits, granted by numerous federal, state and local agencies, responsible for implementing other pieces of legislation (e.g., Clean Water Act, Shoreline Management Act).

In recent years the listing of Chinook Salmon and Bull Trout as endangered, has occurred under the Endangered Species Act. With these listings came a complete new set of processes to be complied with during the design and permit review for transportation projects. Following are concise reviews of: the permitting process for the ESA and stormwater standards.

Endangered Species Act

The Endangered Species Act (ESA) was enacted to protect the Nation's heritage in fish, wildlife, and plants from extinction. In addition, the habitat upon which endangered and threatened species depend may be conserved. A species is listed under the ESA when declining populations threaten its existence. The National Marine Fisheries Service (NMFS) is responsible for anadromous fish species and marine mammals, while the U.S. Fish and Wildlife Service (USFWS) is responsible for all other animal and plant species. With this responsibility is the issuance of effect determinations for each project.

There are two standards which require a transportation project to be in full compliance with ESA: project is funded in full, or partially, by the federal government; a federal permit is required (e.g., section 404 under Clean Water Act). Further, these transportation projects must obtain concurrence from one or, depending upon the species affected, both of the Services. Prior to reaching the Services, the projects are first reviewed by the state Department of Transportation.

The major step in complying with the ESA is development of a biological assessment (BA). This assessment, prepared by individuals with experience in the field, is required if listed species, or their critical habitat, may be present in the area affected by an action. Upon review of the BAs there are three types of effect determinations:

1. No effect

2. Not likely to adversely affect

3. Likely to adversely affect

Within section 7 of the ESA there is the requirement that every Federal agency provide for consultation with the applicant and appropriate permitting agencies during the review of a project. Informal consultation refers to an optional process that includes all discussion, correspondences, etc., between the Service(s) and the Federal agency, or designated non-federal representative (e.g., WSDOT). This will assist the Federal agency in determining whether formal consultation is necessary.

During informal consultation the Service may suggest modifications to the action to avoid the likelihood of adverse affects and formal

consultation. Informal consultations are necessary assistance in ascertaining whether a project will have a no effect or not likely to adversely affect determination under the ESA.

If a determination is made by the Service that an action may adversely affect listed species or habitat, a formal consultation is required. The Service shall then forward to the Federal agency a written explanation of the basis for the request. Formal consultations will be completed in 90 days, unless the Service and Federal agency agree to a longer period (see 50 CFR 402.14). The Service produces a documented opinion, referred to as a biological opinion. This opinion supports the Federal decision that this action is likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat.

The regulations and rules that implement the ESA are continually changing. As frustrating as another level of environmental can be, the lack of compliance can be costly in time and money. It is for this reason that local, regional entities become well versed in the ESA prior to project design. It is at that stage that necessary changes can be more cost effective.

Stormwater Management

Impervious surfaces have several effects on the natural hydrologic cycle; the main effects include reductions in infiltration and increases in surface runoff. Reductions in the area of pervious surfaces can also have a significantly increase runoff even when pervious surfaces are still present. Increases in runoff effectively amplify the volume and velocity of runoff, improving the likelihood of flash floods and earlier erosion.

The Water Pollution Control Act of 1948 (33 USC 1251, Chapter 26) was enacted to ensure the "restoration and maintenance of chemical, physical, and biological integrity of the Nation's waters'; however, until 1980 the focus of pollution control was directed toward point sources. A 1987 amendment to the law, the National Pollution Discharge Elimination System (NDPES), established a permitting program to control water pollution by regulating sources that discharge contaminants directly into U.S. waters, which includes storm water. The amendment required industrial, municipal, and other facilities attain permits if contaminants go directly into surface waters. Transportation projects and the corresponding impacts on stormwater faced further scrutiny after the ESA listed several freshwater and ocean dwelling species as "threatened", "endangered", or "candidate" species.

In 1991 the State of Washington ratified a highway runoff program (WAC 173-270) intended to:

1. Control highway runoff into waters of the state to the maximum extent possible

2. Establish procedures and criteria for WSDOT's highway runoff program mandated by the Puget Sound water quality management plan pursuant to chapter 90.70 RCW

3. Provide for appropriate consultation and coordination with tribes, local governments, and other interested and affected parties

This program is applicable to state highway right-of-ways within Puget Sound that are owned or controlled by WSDOT or the areas for which WSDOT has maintenance responsibility (subject to availability of funding). Authority of the program is provided in the RCW, chapters 90.48 and 90.70. Additional State regulations relevant to stormwater management may be found in the following WAC and RCW Sections:

Section 303 of the Clean Water Act (implemented the Total Maximum Daily Load), WAC 173-218 (implemented the Underground Injection Control program), sections 401 and 404 of the Clean Water Act, RCW 79.90 in conjunction with WAC 332-30 (aquatic land use authorization conditions), WAC 173-201A (State Surface Water Quality Standards), and th4 RCW 47.01.200(1).

The Washington State Department of Transportation's (WSDOT) Highway Runoff Manual M 31-16, based on evolving best management practices, was "developed to direct the planning and design of stormwater management facilities for existing and new Washington State highways, rest areas, park-and-ride lots, ferry terminals, and highway maintenance facilities throughout the state". These projects include: stormwater planning, construction of stormwater pollution prevention, source control, preservation of natural drainage patters, runoff treatment, flow control, wetland protection, basin/watershed planning, operations, and maintenance (Chapter 3 of HRM). The manual, originally published in February of 1995, has undergone many revisions that reflect the increasing standards of stormwater management.

Information on ESA-listed species and their habitat, as well as stormwater design standards, is changing quickly. This includes the updating of WSDOT's Runoff Manual as well as the Department of Ecology's recently updated Stormwater Management Manual for Western Washington. Most local governments are not in position to have fish biologists and policy analysts to keep track of every change. For this reason, it is important for local governments to be inquiring with WSDOT environmental staff early in the design of a transportation project.