# **IV. CORE ELEMENTS**

# > HABITAT HABITAT IS KEY

# FORESTS AND FISH

## I. Current Situation: Where are we now?

#### Background

Roughly half of the land area in Washington State, about 21 million acres, is covered by forests. About 12 million of these are non-federal forest lands owned by large and small private landowners and the state of Washington, and are managed primarily for timber production. These forests support many of the ecological functions affecting salmon and other aquatic species. Most salmon-bearing streams in Washington have their headwaters and in many cases a majority of their watersheds in forested areas. The benefits of riparian forest zones have been widely documented. They include shade, supply of logs, or large woody debris (LWD), sediment filtering, and bank stability. Other ecological functions supported by forests include reduction of flood-waters and off-channel habitat.

Forest management activities such as road building and timber harvest near streams or on steep or unstable areas can damage fish habitat and water quality. Increased stream temperatures, diminished opportunities for large woody debris recruitment, alteration of groundwater and surface water flows, and degradation or loss of spawning and rearing habitats are some of the effects that forest practices have on salmon habitat. These forest practices impacts are among those contributing to the listing or proposed listing of some salmon runs. See Chapter I A Sense of Urgency for a more detailed discussion on the benefits of forests and the impacts of their management on salmon and other aquatic species.

Forest management practices have undergone major changes to provide protection and conservation of forest ecosystems and the species that rely on them. Since the listings in 1990 of the spotted owl and marbled murrelet, recovery plans have been developed for federal and state forest lands and are being implemented for protection and restoration of listed species, including anadromous fish. A federal plan, covering federal forest land, was developed by an interdisciplinary scientific group, the Forest Ecosystem Management Assessment Team, commonly known as FEMAT. The "Forest Plan for a sustainable Economy and a Sustainable Environment," also known as the "President's Forest Plan," was approved in 1994.

In 1997 Washington State Department of Natural Resources (DNR) completed a multispecies Habitat Conservation Plan (HCP) to address state trust land management issues relating to compliance with the Endangered Species Act (ESA). The HCP covers all species on state lands including several western Washington salmonids species (note: eastern Washington salmonids are not covered by the HCP). In addition to DNR, three large private timberland owners have negotiated HCPs with federal agencies (NMFS & USFWS)) under ESA to minimize and mitigate impacts to threatened and endangered species while conducting lawful activities such as forest practices.

This chapter focuses on conservation efforts on non-federal lands. Lands under Federally-approved habitat conservation plans providing protection for fish species will be managed according to the provisions in the HCP and Implementation Agreement.

#### **Current Applicable Policies**

Forest practices on state and private lands have been regulated since 1974 under the State Forest Practices Act, administered by the Department of Natural Resources with rules coadopted by the Forest Practices Board and the Department of Ecology. Protection of water quality and fish habitat has always been an objective of these forest practices regulations. The first rules protecting riparian vegetation were adopted in 1976, when a streamside management zone was established to protect stream bank integrity and stream temperatures. In 1986, state, tribal, timber industry and environmental community leaders concerned about forest management on state and private lands and uncertainty created by litigation formed a consensus-based negotiating forum known as Timber Fish and Wildlife (TFW), which developed the first TFW agreement in February, 1987.

With the advent of listings of salmon runs, TFW participants were joined by federal representatives from the US Fish and Wildlife Service, the National Marine Fisheries Service, and the Environmental Protection Agency, and county representatives. They launched a new round of negotiations in 1996; near the end of the process, however, the environmental caucus withdrew from the discussions. The purpose of the negotiation was to create strengthened regulations and other measures necessary to meet fish conservation requirements of the Endangered Species Act and water quality requirements of the Clean Water Act, while maintaining a viable timber industry and providing long term regulatory certainty.

The discussions and their resulting recommendations are commonly referred to as the "Forestry Module," and have been adopted in the Statewide Strategy to Recover Salmon as the forest habitat component. The recommendations for development and implementation of rules, statutes, and programs are contained in the Forest and Fish Report submitted to the Forest Practices Board and the Governor's Salmon Recovery office on February 22, 1999. The report was finalized on April 29, 1999. The forestry module is an integral part of the implementation of the statewide strategy.

The 1999 Legislature passed Engrossed Substitute House Bill 2091 (ESHB 2091), "An Act Relating to Forest Practices as they Affect the Recovery of Salmon and Other Aquatic Resources." Section 101 of the Act states:

"... (This Act) constitutes a comprehensive and coordinated program to provide substantial and sufficient contributions to salmon recovery and water quality

enhancement in areas impacted by forest practices and are intended to fully satisfy the requirements of the endangered species act with respect to incidental take of salmon and other aquatic resources and the clean water act with respect to nonpoint source pollution attributable to forest practices."

The Act establishes legislative direction, to the Forest Practices Board, for the use of the Forest and Fish Report to protect salmon habitat and water quality. Copies of the Forest and Fish Report can be obtained from the Department of Natural Resources (DNR) or can be accessed electronically through either the Governor's Salmon Recovery Office or DNR Web sites (http://www.governor.wa.gov/esa/ or http://www.wa.gov/dnr/).

# **II.** Goals and Objectives: Where do we want to be?

Goals:

- Strengthen regulations to restore and maintain habitat to support healthy, harvestable quantities of fish.
- Strengthen regulations and other measures necessary to meet fish conservation requirements of the Endangered Species Act, as well as water quality requirements of the Clean Water Act.
- Maintain a viable timber industry and provide long-term regulatory certainty. •

#### **Objectives:**

The overall objective is to improve and protect specific riparian ecological functions (i.e. water quality, large woody debris, and shade) through specific implementation measures in order to provide habitat for anadromous and resident fish and to meet water quality standards. Specific objectives for the key strategies are outlined in Section III. Solutions: What is the route to success?

The Forest and Fish Report which includes recommendations for the development and implementation of rules, statutes and programs, and ESHB 2091 are both designed to achieve the goals and to deal with the following topics:

- \$ Riparian protection for fish habitat and non-fish habitat streams.
- \$ Improvements for existing and new roads.
- \$ Protection for unstable slopes.
- \$ Wetlands protection.
- \$ Enforcement of forest practices.
- Application to small forest landowners.
- Use and modifications of watershed analysis.
- \$ \$ \$ Adaptive management and monitoring.
- \$ Overall funding and incentives.
- Assurances and certainty under ESA and CWA associated with the \$ agreement.

# **III.** Solutions: What is the route to success?

Understanding the effects of forest practices on aquatic ecosystems and watersheds is critical to the design of improved management solutions and implementation of conservation measures to protect and restore salmon habitat. Chapter I. A Sense of Urgency, presents briefly the ecological functions affecting aquatic species and the impacts of forest practices on those functions. The forestry module addresses the adverse impacts of forest practices and recommends conservation strategies addressing riparian zones, unstable slopes, roads, wetlands protection, and other needed measures for salmon protection and restoration.

The Forest Practices Board is authorized by the 1999 legislation (ESHB 2091) to take immediate action by promulgating emergency rules to put several of the Forest and Fish recommendations into effect until such time as permanent rules are adopted, on or before June 30, 2000. An environmental impact statement (EIS) will be prepared in support of the permanent rules.

#### 1. Riparian Areas

The objective of riparian management and conservation is to achieve restoration of high levels of riparian function and maintenance of these levels once achieved.

Riparian areas will be protected through buffers and limits on management activities. Significant changes in current riparian forest management policy are recommended in the Report to achieve the objective. The ecological functions to be protected for fish and water quality in riparian areas are large woody debris, shade, streambank stability, sediment control, nutrient and litter fall, fish and some debris passage, water quality, microclimate, and habitat for fish in all life stages and for six stream-associated amphibians. The protection strategy includes statewide requirements, and westside and eastside riparian requirements to reflect the differences in climate, precipitation level, site productivity and threats of fire, disease, and insect infestation.

#### Water Typing

Water typing triggers riparian protection and some local land use decisions. The definition must reflect current knowledge about fish use. The existing water typing (type 1, 2, 3, 4 & 5), which has been in place for more than 20 years, is based on beneficial uses, one of which is fish. Data from several studies indicated that seventy-two percent of the type 4 streams (waters presumed not to include anadromous and resident fish) were actually type 2 or 3 streams (waters with anadromous and resident fish). In addition several waterbodies with limited water quality (included on the Department of Ecology 303(d) list) are located in forested streams.

Streams will be designated, in a rule to be adopted by the Forest Practices Board, according to availability of fish habitat rather than fish presence. The waters of the state will be delineated into three categories: Type S for shorelines of the state, Type F for fish habitat waters (can include seasonal waters), and Type N for non-fish habitat perennial and seasonal waters. A multi-parameter model that is habitat driven and will use

variables such as basin size, gradient, elevation, or other indicators, and statewide maps will be developed to create a predictive map-based system for uniformity in implementation. The modeling and maps will be updated every five years. The water typing will become effective once permanent rules are adopted by the Forest Practices Board, prior to July 1, 2000.

#### Riparian Habitat

• Fish Habitat Streams- Types S and F Waters

The protection of fish habitat in Type S and F waters will be provided through management restrictions in channel migration zone and limited management in riparian management zones. The riparian area adjacent to fish habitat streams will consist of three different zones extending from the outer edge of the channel migration zone out to a site potential tree height (for 100-year-old tree). The three zones will be managed according to primary functions provided at different distances from the water. As the distance from the stream increases, the level of management allowed will increase.

<u>No Touch Zone</u> - On the west side of the state, this zone is the first 50 feet from the outer edge of the channel migration zone; on the east side, this zone is the first 30 feet from the outer edge of the channel migration zone. There are five types of channel migration zones. Harvest may not occur in any of these, but credit will be given towards trees in the outer zone (see below). The main functions to be provided in the no touch zone are streambank stability, shade, temperature, sediment control, and large woody debris recruitment. No management activities may occur in this zone.

<u>Inner Zone</u> - This zone contributes to the functions of additional large woody debris recruitment, temperature, sediment control, nutrient and litter fall, fish and some debris passage, water quality, and habitat for certain riparian associated wildlife. Management would be permitted only to restore or enhance riparian functions.

On the westside of the state, desired future conditions for stands will be determined by the basal area and tree density at age 140 of reference stands in relatively natural or late seral condition. An average of 20 trees per acre would be required to be left should harvest occur in the area beyond where the basal area and tree density targets have been met. The frequency of achieving the targets in an area narrower than the inner zone will be monitored. Targets by site class and age are under development.

Forested lands on the eastside of the state have been divided into three habitat types: ponderosa pine, mixed conifer, and high elevation. Management in high elevation areas follows the strategy for the inner zone on the westside. In the other two habitat types, specific metrics using zone widths, basal area thresholds and minimums, and leave tree requirements have been agreed to. A 75-foot shade overlay would apply for bull trout.

<u>Outer Zone</u> - This zone extends from the outer edge of the inner zone to a site potential tree height from the water's edge or the channel migration zone, whichever is farther. The functions, which will be provided include windthrow protection and additional large woody debris, as well as special sites such as seeps, springs, and wetlands. On the west

side, the outer zone can be managed to a minimum tree count, which could be lowered in exchange for restoration. The minimum tree count will also be lowered to give credit for trees of a certain size or larger left in the channel migration zone.

• Non-Fish Habitat Streams- Type N Waters

The main functions to be protected along non-fish habitat streams are sediment control, streambank integrity, temperature, water quality, large woody debris, and habitat for stream-associated amphibians. These functions will be protected through an equipment limitation zone, buffering of sensitive sites, and buffering along the length of the stream.

- The use of ground-based equipment will be restricted out to 30 feet along both sides of all non-fish streams (perennial and seasonal). Mitigation will be required for activities that disturb more than 10 percent of the soil within the equipment limitation zone.
- Specified sensitive sites along perennial non-fish habitat streams in west side will be protected through 50-foot no-cut buffers along each side of the stream. Specified sites will include the first 500 feet of non-fish habitat streams above a junction with fish habitat streams (streams shorter than 1000 feet will be protected for at least half the stream length or the first 300 feet, whichever is greater), tributary junctions of non-fish streams, initiation point of stream flow, perennial seeps, perennial springs, headwall seeps, and alluvial fans.
- On the west side of the state, when protection of the sensitive sites does not equal 50 percent of the length of a perennial non-fish habitat stream, an additional increment will be provided through a 50-foot no-cut buffer to total 50 percent. Priority sites to be protected as part of this buffer include low gradient areas (channel disturbance zone deposition), tailed frog habitat (non-sedimentary rock streams at greater than 20 percent gradient), and hyporheic and groundwater influence zones (provided a practical field identification model can be developed).
- On the eastside of the state, a 50-foot-wide continuous buffer along the length of the stream will be managed according to the inner zone basal area target for the appropriate habitat type and a leave tree requirement. A non-continuous option is also available where even-age management is practiced.

#### 2. Unstable Slopes

The objective of the management on unstable slopes will be to prevent or avoid an increase or acceleration of the naturally occurring rate of landslides due to forest practices.

The Department of Natural Resources (DNR) will screen each forest practices application for risks of unstable slopes according to a list of specified landforms. Tribes may also screen when evaluating and commenting on applications. If any of these high hazard landforms occur, the landowner may choose to submit a geotechnical report regarding potential for failure and threat to public safety or a public resource, as well as proposed mitigation for reducing threats and potential for failure. Following field verification, if DNR determines there is a potentially unstable slope that could impact a public resource or that could pose a threat to public safety, the application will be processed as a Class IV Special that will trigger a SEPA process. A Salmonid Emergency Rule adopted by the Forest Practices Board on March 31, 1999, provides protection to several salmonid species by setting State Environmental Policy Act (SEPA) triggers that would classify certain forest practices activities within the Endangered Species Act (ESA) listed areas as Class IV–Special and by providing guidance to landowners and DNR.

On more moderate slopes, a trained DNR field forester will use field indicators and features to determine whether the hazardous landforms are present, the slope is unstable, and a threat of delivery exists. In addition, using best available data and science, regional Timber, Fish, and Wildlife (TFW) groups will work with DNR to identify region specific high hazard slopes not covered on the statewide list and regional features that would lead to field verification by DNR on moderate hazard slopes. Regional inventory identifying unstable slopes will be conducted, slope stability predictive models will be developed, and maps created.

#### 3. Roads

The objectives for the management of roads will be to maintain or provide passage for fish in all life stages; to provide for the passage of some woody debris, to meet water quality standards; to control sediment delivery; to protect streambank stability; and to divert excess road run-off from the stream channel.

To achieve these objectives, the forest practices rules and manual will be amended to provide for the following elements: inventorying and assessing the condition of existing roads and orphan roads (constructed before 1974 and not used since then); planning and implementing the proper maintenance or abandonment of existing roads; repairing existing roads; minimizing construction of new roads; building new roads to higher standards; and removing artificial barriers to passage of fish at all life stages.

The number of new roads built in riparian areas will be minimized, construction and maintenance standards will be improved for all new and existing roads, and artificial barriers to fish passage will be removed.

For existing roads, enhanced best management practices will be adopted immediately and road maintenance and abandonment plans will become mandatory for all private and state forest road systems. Plans will be prioritized to address fish and stream listings (under the Endangered Species Act and Clean Water Act, respectively) and riparian functions. These plans will be completed within five years of reaching agreement and will be reviewed by Forestry Module participants and approved by DNR; where hydraulics permits are required, the Department of Fish and Wildlife will need to provide approval. Implementation efforts will proceed evenly over 15 year-period from of reaching agreement. Priorities for maintenance and repair will be based on fish passage blockages and sediment delivery, addressing worst problems first.

New roads will be built according to improved sediment and water delivery standards, and new culverts will be required to meet a 100-year flood standard to ensure passage of fish and some woody debris. No new roads will be allowed in bogs or low nutrient fens.

Orphan roads will be inventoried and assessed in five years to determine whether cost share funds are needed.

#### 4. Wetlands Protection

The objective is to achieve a "no-net loss" of forested wetlands functions by avoiding forest practices impacts; minimizing such impacts; or restoring affected wetlands.

Timber harvest in bogs is not allowed. Mapping of wetlands and assessment of the functions of associated wetlands and the potential impacts of harvest activities in forested wetlands may determine what changes in forest practices are required. The required wetlands mitigation sequence will be determined based on loss of wetland function using adequate wetlands expertise, site management plan and map of all forested wetlands (regardless of the size) that are associated with an affected riparian management zone. For the long term, through the adaptive management process, a technical group will be convened to better define the functions of forested wetlands, to evaluate their regeneration and recovery capacity, and to evaluate the effectiveness of current wetlands management zones. Several research items are recommended subject to funding and priorities.

Landowners will map all forested wetlands associated with riparian areas and other forested wetlands 3 acres or larger. In addition, DNR will incorporate wetlands into a GIS layer (depending on availability of funding).

#### 5. Pesticides

The objective is to manage the use of pesticides to meet water quality standards and label requirements and to avoid harm to riparian vegetation.

Best management practices will be implemented to eliminate direct entry of pesticides to water. To keep pesticides out of water and wetlands, a variable buffer width, depending on wind, spray nozzle type and spray release height, will be used. In unfavorable wind conditions, no aerial spraying will be allowed in a wider specified buffer width. No spray will be allowed in the no-touch zone or inner zone of any Type S and F water or to wetland management zones unless prescribed for hardwood conversion or required by other laws such as for noxious weeds control, and then only through ground application. In addition no aerial applications will be allowed within the area of the inner zone used to meet the basal area and tree density targets. Use of BT (Bacillus Thurengensis) is subject to label requirements only.

#### 6. Watershed Analysis

The objective of watershed analysis is to provide a tool to address cumulative effects, provide guidance for adaptive management and monitoring programs, test effectiveness

of new baseline rules, set restoration priorities, refine mapping, and provide long term assurances for landowners under the Clean Water Act.

Watershed analysis is a voluntary process. Because protection of riparian areas and construction and management of roads will be enhanced under the Forestry Module proposal, those modules will be limited to the assessment phase. The new protection strategy prescriptions for riparian areas will supersede existing watershed analysis prescriptions; existing road plans will be incorporated into mandatory road maintenance and abandonment plans. Monitoring module is required; cultural resources and restoration modules will be added; hydrology and fish modules will be revised and added for the eastside; and the mass wasting module can be eliminated if the state mapping of geologic hazards has been completed (depends on adequacy of funding).

Watershed analysis and the water quality module will also be revised to address process improvements and technical upgrades necessary to provide compliance with the Clean Water Act. Watershed analysis may also be used to refine requirements for protection of bull trout habitat. DNR may issue 5 year permit for landowners, within a completed watershed analysis unit, that provide harvest and road detail for the five year period.

#### 7. Enforcement

The Department of Natural Resources (DNR) will retain its enforcement authority. DNR exercises authority to condition forest practices applications to prevent damage to public resources which include water, fish and wildlife, and capital improvements of the state or its political subdivision. Appeals of DNR decisions go to the Forest Practices Appeals Board. The Department has the authority to issue a stop work order for violations of forest practices rules, or to immediately prevent continuation or to avoid damage to public resources, or if there is a deviation from approved application.

DNR may deny forest practices permits to repeat violators until civil penalties are paid or until work required under Stop Work Order or Notices to Comply are completed. The civil penalty process will be streamlined to allow appeals to the Supervisor of DNR and to the Forest Practices Appeals Board.

ESHB 2091 authorized DNR to require financial assurances, prior to the conduct of further forest practices, from an operator who has demonstrated an inability to meet the financial obligations under the forest practices act. DNR may deny an application for failure to provide financial assurances. Inability to meet financial obligations is determined if in the preceding three-year period, the operator operated without an approved application; continued to operate in breach of, or fail to comply with a stop work order; or failed to pay any penalty.

The 1999 Legislature also allowed the Department of Natural Resources or Department of Ecology to apply for an administrative inspection warrant. In addition, DNR is allowed to recover interests, costs, and attorney's fees when seeking recovery of a penalty for a violation of the Forest Practices Act.

#### 8. Revisions to Permit Process

Multi-year permits for up to five years may be available to landowners for forest practices conducted in accordance with approved road maintenance and abandonment plans or approved watershed analysis where applications identifies the specific prescriptions to be used. In addition, a proposal will be developed on integrating the forest practices and hydraulics permitting processes. Corresponding five year HPA's may be issued coincident with DNR's five-year permit.

The 1999 legislature, concerned about problems associated with the dual regulatory and permitting processes under the Forest Practices Permits and Hydraulic Project Approval, required the Department of Fish and Wildlife to make recommendations to the Legislature within two years on integrating the laws, rules, and programs governing forest practices and hydraulic projects and exploring the potential for a consolidated permit process.

#### 9. Alternative Plans

Federally approved habitat conservation plans, or other cooperative or conservation agreements providing protection for fish species, will be exempt from riparian-related forest practices rules. The protection will be implemented by a rule adopted by the Forest Practices Board. Landowners with an existing individual HCP can request Clean Water Act assurances from EPA and Ecology. Several conditions must be met in order for the landowners to receive assurances under CWA. (See Forest and Fish report for more details.)

A landowner may also propose, through an alternate plan, a management strategy different from the basic rules that implement the Forest and Fish report. The alternate plan must provide protection for public resources at least equal in overall effectiveness to the protection provided in the basic rules. A process for developing the alternate plan is provided-steps for the process, review team, contents of the plan, approval process, audits, and relationship to other plans.

#### **10. Small Landowner Incentives**

A program for small forest landowners has been created to achieve both full riparian protection and to provide financial incentives to small landowners who volunteer to participate in the Forestry Riparian Easement Program. The program does not provide an exemption to small landowners, but it is intended to help the viability of non-industrial forest landowners and keep forest land base in forestry. Small landowners are expected to meet the riparian and road requirements of the Forest and Fish module. It is expected that small landowners will provide the no-touch zone along fish habitat streams and the equipment limitation zone along non-fish streams without compensation. Beyond those zones, some financial incentives will be provided subject to availability of funding. The incentives can be through compensation for trees not cut, conservation easements, or other mechanisms. Small landowners will be offered one-half of the value of qualified timber as compensation for 50-year riparian easements. Small landowners are defined

consistent with Chapter 84.33 RCW as landowners averaging less than 2 million board feet per year of harvest.

A small Forest Landowner Office was created by the 1999 legislation to administer the forest riparian easement program, and assist small landowners with development of options such as alternate plans discussed above. The Office is required to evaluate the cumulative impacts of alternate plans on essential functions within the watershed and make adjustment if necessary. An advisory committee is established to assist the office.

Exemptions are provided to landowners with less than 20 acres in a parcel and with less than 80 acres statewide, from the rules adopted in the Forest and Fish report. Landowners are to operate consistent with rules in place as of January 1, 1999, with few exceptions.

#### 11. GIS, Mapping, Data, and Data Maintenance

The implementation of the Forest and Fish recommendations relies heavily on geographic information system (GIS) mapping and data processes to better protect and monitor public resources. Included here are:

- Transportation Layer Upgrade to support the new requirements for tracking information on forest road maintenance plans and the needs for state HCP implementation and reporting.
- Hydrography and Water Type, a multi-organizational effort to provide a more accurate statewide hydrography (mapping water bodies) in the DNR GIS system, provide modeling capability and put in place a map-based water type system that more accurately represents the water resources needing protection (i.e., fish).
- Wetland Update System to augment the hydrography data, focusing on capturing more complete information on wetlands, fully integrating the data with the hydrography, and putting in place a mechanism for wetland assessment.
- Hazard Zonation to map unstable slopes.

## **12. Cultural Resources**

The Forestry Module makes a commitment to provide more effective protection of cultural and archaeological resources.

# IV. Monitoring and Adaptive Management: Are we making progress?

Forest practices are regulated to meet resource objectives and sustain the economic viability of the timber industry. Adaptive management is necessary to monitor and assess the implementation of the rules and to achieve desired objectives. A science-based program will be established to monitor the relationship between forest practices and forest conditions, and evaluate effectiveness toward achieving the target forest conditions and processes. Also, an infrastructure will be established to ensure that compliance/enforcement, training, and education efforts are being implemented effectively.

Four primary relationships will be monitored: correlation between target forest conditions and goal attainment, effect of forest practices on forest conditions, effect of forest practices on other resource objectives, and enforcement and on-the-ground implementation of forest practices. See Forest and Fish Report Appendices - Appendix L. Adaptive Management and Schedule L-1 Key Questions, Resource Objectives, and Performance Targets for Adaptive Management - for details on monitoring and adaptive management.

#### **Default Actions**

National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (USFWS) are anticipated to promulgate one or more 4(d) rules within the next two years. The 4(d) rules would exempt forest practices carried out by state and private landowners, if conducted in accordance with the prescriptions recommended in the Forest and Fish Report, from "take" prohibitions. No additional regulations or restrictions for aquatic resources will be imposed, except as provided in the Report.

#### ESA Compliance Strategy

The Governor's Office is authorized to negotiate terms and conditions for a "programmatic" Habitat Conservation Plan that will form the basis of an incidental take permit under section 10 of ESA. It is anticipated that NMFS and USFWS will issue a "programmatic" incidental take permit by June 30, 2003. Also it is expected that NMFS and USFWS will provide the "no surprises" protection in connection with the programmatic incidental take permit.

In addition to assurances related to ESA, EPA and the Department of Ecology will be providing assurances relating to the Clean Water Act (CWA). Attainment of water quality standards remains the goal for the Report. The assurances spell out the terms and conditions of how section 303(d) of the CWA will be applied to lands subject to the Report and its recommendations. The urgency of developing Total Maximum Daily Load (TMDL) for water bodies impaired by current forest practices will be reduced significantly. The TMDL will be done in ten years, a reasonable time to determine water quality trends from the changes in forest practices.

ESHB 2091 sets out a state process if the federal agencies fail to provide assurances negotiated in the Forest and Fish Report.