

**TFW Cultural Resources Committee  
Forest and Fish Report Addendum  
Cultural Resource Protection and Management Plan**

**July 3, 2003**  
**Updated October 2008**

# CULTURAL RESOURCE PROTECTION & MANAGEMENT PLAN

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**Notes:<sup>1</sup>**

**The Cultural Resource Protection and Management Plan (CRPMP) is a “living” document that is open to updates and changes to reflect progress, completion of tasks and changes in priorities and direction of the CRPMP. Updates will be added to the CRPMP occasionally to document changes.**

**The CRPMP was presented to the Forest Practices Board on August 13, 2003, along with recommendations for Board action. On May 11, 2005, the Board adopted the rule changes recommended in Appendix D of the CRPMP with minor edits and approved the Cultural Resources Module recommended in Appendix A for inclusion in the watershed analysis Board Manual.**

**In 2005 DNR modified the forest practices application and notification forms to reflect the changes recommended in Appendix B of the CRPMP.**

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<sup>1</sup> These notes were added to the CRPMP in October 2008

## **Forests and Fish Report Addendum CULTURAL RESOURCE PROTECTION & MANAGEMENT PLAN**

This Cultural Resource Protection and Management Plan (CRPMP) establishes the tribal, forest landowner, and state agency<sup>2</sup> response to the cultural resource planning, protection and management commitments identified in both the 1987 Washington State Timber, Fish & Wildlife Agreement, and the 1999 Forests & Fish Report (Appendices G, N, and O).

The provisions presented in the Plan are organized under the subtitles of CRPMP Purpose, CRPMP Implementation Principles, Cultural Resources Guidance, Confidentiality Provisions, Small Forestland Owner Needs and Approaches, Memorandums of Understanding (MOUs), Educational Program and Commitments, Department of Natural Resources Forest Practices Program, Department of Archaeology and Historic Preservation<sup>3</sup> Support, Biannual Review of CRPMP, and CRPMP Action Recommendations (Appendices A-D).

### **CRPMP Purpose**

The four main purposes of the Cultural Resource Protection & Management Plan are as follows:

1. **Provide for the protection and management of cultural resources** that are significant to the history and cultures of the people of Washington State, and which are located on state, private and non-federal forest lands.
2. **Establish and maintain productive communications** among agencies, forest landowners, land managers, and affected tribes.
3. **Ensure cultural resource protection is accomplished through the development of cooperative processes** - including the development of voluntary measures for credibly protecting and managing cultural resources within the context of commercial forestry, and recommended adjustments to Forest Practices Rules and Board Manuals as necessary to implement the CRPMP and its recommendations.
4. **Improve access to tribal cultural resources** so that the affected tribes have a better opportunity to maintain and perpetuate their traditional values and practices.

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<sup>2</sup> Timber, Fish and Wildlife (TFW) Cultural Resources Committee participating caucuses included tribes, WFPA, WFFA, DNR Forest Practices and State Lands, and DAHP.

<sup>3</sup> In 2005 the Department Community, Trade and Economic Development, Office of Archaeology and Historic Preservation became the Washington State Department of Archaeology and Historic Preservation (DAHP).

### **CRPMP Implementation Principles**

The following key principles are acknowledged in implementing the specific provisions of the CRPMP:

1. **Ongoing mutual respect between landowners and native people** regarding the interests and concerns of the other is the foundation upon which CRPMP implementation is to be based.
2. **Cultural resources are part of the ancient and spiritual, present and future culture of the tribes.** Compromising the existence of these resources limits the way of life for the First People of this country.
3. **Landowners and land managers have forestry management, stewardship and economic objectives** that must be respected.
4. **Cultural resources are specific to the people of each tribe and tribal people have an intimate knowledge** of their local environment that has been developing since time immemorial. Cultural resources are varied in their nature and may include any number of materials, objects or sites that are considered to have significant cultural or historic value to the people. It is not uncommon for cultural resources to have private, ceremonial, sacred and/or spiritual qualities that might require confidentiality for their protection.
5. **Each forest landowner or manager differs** - each has a generally different land base, management objectives and/or legal commitments which it must consider in addressing cultural resource protection and management opportunities.
6. **To the degree possible, resources of significant cultural value should be preserved and protected in their natural state** to optimize the ability of future generations of Indian people to maintain and perpetuate their traditional values and practices.

### **Cultural Resources Guidance**

Cultural resources are typically different among tribes because every tribe has a truly unique socio-cultural foundation and background. To foster common dialogue, enhance the appreciation of cultural resources<sup>4</sup>, and promote the purposes of the CRPMP, the following definitions are offered as general guidance:

1. *HISTORIC SITES* are locations where Native or non-Native events and activities have taken place since contact with Euro-Americans. Historic sites often, but not

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<sup>4</sup> The definitions noted in this section do not replace existing statutory or regulatory definitions for cultural resources and archaeological resources contained in chapter 27.44 RCW, chapter 27.53 RCW, and chapter 222-16 WAC.

always, have written records that document the events and activities that occurred at a particular location. Examples of historic sites include homesteads, forts, lumber mills and cabins.

2. *TRADITIONAL PLACES* are landscapes, sacred sites, legendary areas, indigenous uses and objects which are identified (often with traditional names) by affected Indian tribes in the state of Washington as being important for the maintenance and perpetuation of their traditional values and practices. These landscapes, places and objects provide subsistence and spiritual relationships, as well as stability and meaning to community ceremonies, customs and beliefs. Examples of traditional places include sacred ceremonial sites, groves used for gathering edible/medicinal plants and sources of materials used for traditional tools and arts.
3. *TRADITIONAL MATERIALS* are the resources used by Native peoples to sustain their culture. Traditional materials come from the broad variety of plants, animals and minerals that are indigenous to this region's native landscapes. The individual species recognized as a cultural resource are specific for each tribe. Traditional and current cultural values for plants includes their use as medicines, foods, tools, textiles, building materials, carvings, and sacred objects. Examples of traditional materials (such as some of the plants utilized by tribes) include bear grass, tule, and cedar and birch trees.
4. *ARCHAEOLOGICAL RESOURCES* are only one kind of cultural resource. Archaeological resources provide evidence of the cultural continuum of people occurring across time and space throughout the diverse landscapes of Washington. Archaeological resources demonstrate the variety of activities engaged in by tribal ancestors (such as tribal fishing, hunting, gathering and spiritual practices) which still continue today. Examples of archaeological resources include shell middens, lithic scatters, rock paintings, talus slope gravesites, and culturally modified tree locations.

### **Confidentiality Provisions**

The following principles must be respected to assure confidentiality for both tribal and landowner knowledge and information:

1. *Each tribe is the primary keeper of the cultural resource knowledge specific to their people.* Since some cultural resources are non-renewable and irreplaceable, many locations of sacred and ceremonial places will never be revealed to people outside of the tribe.
2. *Landowners and agencies recognize the need for confidentiality in order to protect tribal knowledge and information.* Any plan to protect cultural resources must include provisions to protect the privacy, security, and confidentiality of cultural resources.

3. *Landowners have safety and security issues* relating to physical access to their land, and confidentiality concerns regarding their management information and plans. Landowners would expect that any plan to protect cultural resources would include provisions to maintain the security of their land, as well as confidentiality regarding certain aspects of their management plans.
4. *Consultation with tribes using cooperation and communication* to develop management plans that effectively avoid revealing confidential information and yet still achieve both landowner forest management and tribal cultural resource protection goals is possible – especially given models of cooperation and participation that were successful in the past.

In order to protect from disclosure sensitive cultural resource information, the TFW Cultural Resources Committee, landowners, tribes, and agencies will support legislation for the 2004 legislative session to amend Public Disclosure Act (RCW 42.17.310) to exempt tribal cultural resources information associated with a Forest Practices Cultural Resources Watershed Analysis Module from public inspection and copying.<sup>5</sup>

#### **Small Forest Landowner Needs and Approaches**

Large forest landowners and land managers have resources to support an organized and consistent approach to cultural issues. Small private landowners, in contrast, ordinarily do not have the financial resources to partake in extensive land management programs which specifically target cultural resource planning, protection and management.

For many small forest landowners, awareness of harvesting regulations and issues occurs only when they apply for a harvesting permit; many of them are not directly affiliated with an organization that deals with forestry issues. The small landowner community also has a wide variety of individuals with independent thoughts and opinions, especially views about individual private property rights that are deeply entrenched. Overall, small forest landowners do typically demonstrate a strong sense of stewardship values, and appreciation of nature at work. If provided with the necessary information and support needed to protect these cultural resources, small forest landowners are likely to be open and sensitive to cultural resource protection and management options.

For small forest landowners and affected tribes, the greatest level of cooperation for all will likely be best achieved through ongoing emphases upon increased communication, educational opportunities and meaningful tribal participation, in addition to providing the necessary economic and technical support.

#### **Memorandums of Understanding (MOUs)**

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<sup>5</sup> On March 17, 2006 the Governor signed SB 6429 into law providing the exemption of cultural resource information gathered during watershed analysis conducted under 76.09 RCW from public disclosure requirements of state law.

MOUs are a preferred pathway for protecting cultural resources on non-federal forest lands. MOUs between landowners, land managers, and tribes are encouraged wherever possible.

Memorandums of Understanding (MOUs):

1. Foster the communications and relationship building that can greatly facilitate solving site-specific problems;
2. Help bridge knowledge gaps;
3. Provide landowners, land managers, and tribes with an opportunity to anticipate and proactively resolve conflicts before they arise; and
4. Allow cultural resources to be addressed over larger geographic areas instead of on an application-by-application basis.

### **Educational Program and Commitments**

Knowledge, and a solid understanding of the needs and values of each party are key to maintaining true trust and everyone's mutual commitment to goals. Effective, ongoing education for all involved cooperators on cultural resource protection and management needs is essential to establish such trust, commitment, and understanding.

Educational and workshop opportunities for all landowners, managers, tribal affiliates and agencies need to exist in order to improve a common understanding of cultural resources issues in the context of forest management. Cultural resource education and workshop opportunities should emphasize:

1. **Information, techniques and personnel recommended by the affected tribes;**
2. **High-level contacts** for large forest landowners and managers and tribal leadership;
3. **Improved landowner, land manager or tribal-initiated contacts** between individual tribes and individual land owners/managers whose land is within the area of tribal interest;
4. **Ongoing dialogue and self-supporting training opportunities** for field managers, forestry consultants, individual landowner/managers, archaeologists, anthropologists, agencies, and tribal cultural representatives;
5. **An educational information exchange program for small landowners** that assists them to make informed decisions regarding cultural resources and assists tribal members to understand the goals and challenges of forest landowners; and

6. **Local or regional cultural resource facilitation to assist small forest landowners** with continuing education opportunities and establishing communication with tribes.

Guidance documents and tools have been recognized as an additional educational element that would further facilitate landowner and tribal communication. A possible outline of these documents has been created and will be further developed by the Timber, Fish and Wildlife Cultural Resources Committee. These documents will be completed by May 2005.

### **Department of Natural Resources Forest Practices Program**

To strengthen implementation of current Forest Practices Rules concerning cultural resources, the Forest Practices Program (Forest Practices) will acquire information from the tribes defining their geographic areas of interest. These boundaries will be digitized and incorporated into the Forest Practices Application Review System (FPARS) so that tribes automatically receive immediate notice of all Forest Practices Applications (FPAs) in their areas of interest; tribes may then review these applications online. Tribes need not declare specific cultural resources to Forest Practices to receive notice of all FPAs in their areas of interest.

Forest Practices will work collaboratively with the Department Archaeology and Historic Preservation (DAHP)<sup>6</sup> to ensure that DAHP's archaeological and historic sites inventory geographic information system database is updated in a timely fashion to reflect new archaeological and historic sites being registered with DAHP. Each incoming FPA will be checked against that DAHP database by Forest Practices regional staff as a part of their process to appropriately classify the application. Forest Practices staff will notify DAHP of all FPAs that involve archaeological or historic sites. DAHP can then view these applications online.

Forest Practices will rely upon tribes to notify Forest Practices when an FPA involves other types of cultural resources not in the DAHP database. In such situations, tribes must affirm that the FPA involves cultural resources but need not provide detailed information on the type or location of the cultural resources. Forest Practices will require an FPA applicant to meet with a tribe (per WAC 222-20-120) whenever a tribe requests a meeting due to the FPA involving cultural resources within the tribe's area of interest.

### **DAHP Support**

The Department of Archaeology and Historic Preservation shall update the archaeological and historic sites GIS data layer quarterly. Other agencies, tribes, and landowners will work with DAHP to ensure that DAHP receives funding to maintain and update the archaeological and historic sites GIS data system.

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<sup>6</sup> In 2005 the Department Community, Trade and Economic Development, Office of Archaeology and Historic Preservation became the Washington State Department of Archaeology and Historic Preservation (DAHP). The agency name was changed throughout the document for the 2008 update.



Tribes may provide cultural resource information to DAHP on the general locations of archaeological, historic, and traditionally sensitive areas. DAHP will only place information on the archaeological or historic sites GIS data layer if that information has been recorded on DAHP forms and was submitted by a qualified professional meeting the Secretary of Interior's standards for an archaeologist, architectural historian, historic preservation specialist, or historian. All other information, including ethnographic data will be kept as separate files and on a separate GIS data layer.

Forest practices applications will be crosschecked with the DAHP archaeological and historic sites database. Should the proposed forest practices coincide with an archaeological or historic site, the Forest Practices program will notify DAHP. Other information, including the ethnographic data layer, may be useful during the development of MOUs and cultural resources management plans, and during watershed analysis.

Tribes may request that DAHP review a plan for protection of cultural resources under WAC 222-20-120.

Separate from the Forest Practices Act, archaeological sites are protected under chapter 27.53 RCW; and Native American graves, cairns, and glyptic records are protected under chapter 27.44 RCW. No person may knowingly remove, alter, dig into, excavate, deface or destroy any historic or prehistoric archaeological resource without a permit from the DAHP. Violation of chapter 27.53 RCW or chapter 27.44 RCW is subject to criminal and civil penalties.

### **Biannual Review of CRPMP**

The Timber, Fish and Wildlife (TFW) Cultural Resources Committee will meet biannually to assess the implementation of the CRPMP and to recommend any necessary adjustments. The committee will present adjustments or updates to the CRPMP to the Forest and Fish Policy Committee and the Forest Practices Board. Proposals for rule changes will be recommended to the Board.<sup>7</sup>

### **CRPMP Action Recommendations (Appendices A-D)**

In addition to the implementation of the CRPMP, the TFW Cultural Resources Committee recommends the following steps as outlined in the attached appendices:

**Appendix A** - Watershed Analysis Cultural Resources Module (Approved 5/11/2005)

**Appendix B** - Consideration of Revisions to Forest Practices Application/Notification Form (Completed in 2005)

**Appendix C** - Consideration of Guidance for WAC 222-20-120

**Appendix D** - Suggested Revisions to chapter 222-08 WAC, chapter 222-12 WAC, chapter 222-16 WAC, and chapter 222-22 WAC (Adopted 5/11/2005)

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<sup>7</sup> These last two sentences were added to the CRPMP in October 2008.



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## INTRODUCTION

### **Using this methodology in a formal watershed analysis or as a stand-alone process -**

This module is designed to provide a methodology for performing cultural resource (CR) assessment as part of a watershed analysis. It discusses the steps, techniques and methods for carrying out such a study. Watershed analysis (WSA) is a formal assessment of an entire Watershed Administrative Unit (WAU). However, this module can also be used as a “standalone” reference guide for research, inventory or assessment of cultural resources outside of a formal WSA. Four uses of the module are outlined below, only the first of which pertains to a formal WSA.

1) *Using this methodology in a formal watershed analysis:* In WSA, this module is an interdisciplinary team-based process for defining CR sensitivities through assessment of existing and potential hazards and their effects on CR vulnerabilities. Voluntary management strategies are then proposed and chosen, based on information generated in the resource assessment. Disturbance of archeological sites, or Native American cairns, graves or glyptic records is regulated under state archeological and historic preservation laws. The Office of Archaeological and Historic Preservation (OAHP) must be consulted prior to the disturbance of these sites.

2) *Using this methodology in a cultural resource assessment of a property larger or smaller than a WAU:* Cultural resources can also be assessed as part of a formal (i.e., following WSA protocols) or stand-alone review of a property that does not confine itself to the boundaries of a single WAU. For example, an assessment of a park, reservation or private landholding could review CRs and some or all of the other resources. Depending upon the project and objective, the methodology presented in this module can be followed without deviation or simply consulted regarding techniques for CR data collection and assessment.

3) *Using aspects of this methodology in consultations relating to a Forest Practices Application (FPA) for a property that may include cultural resources.* There is information in this module that may be useful to landowners and tribes when an FPA proposes activities in an area that contains identified tribal cultural resources. In such a case, the step by step methodology for WSA presented in the body of this CR module is not called for, but the organized approach and methods in the module may be helpful in leading to a cooperative solution.

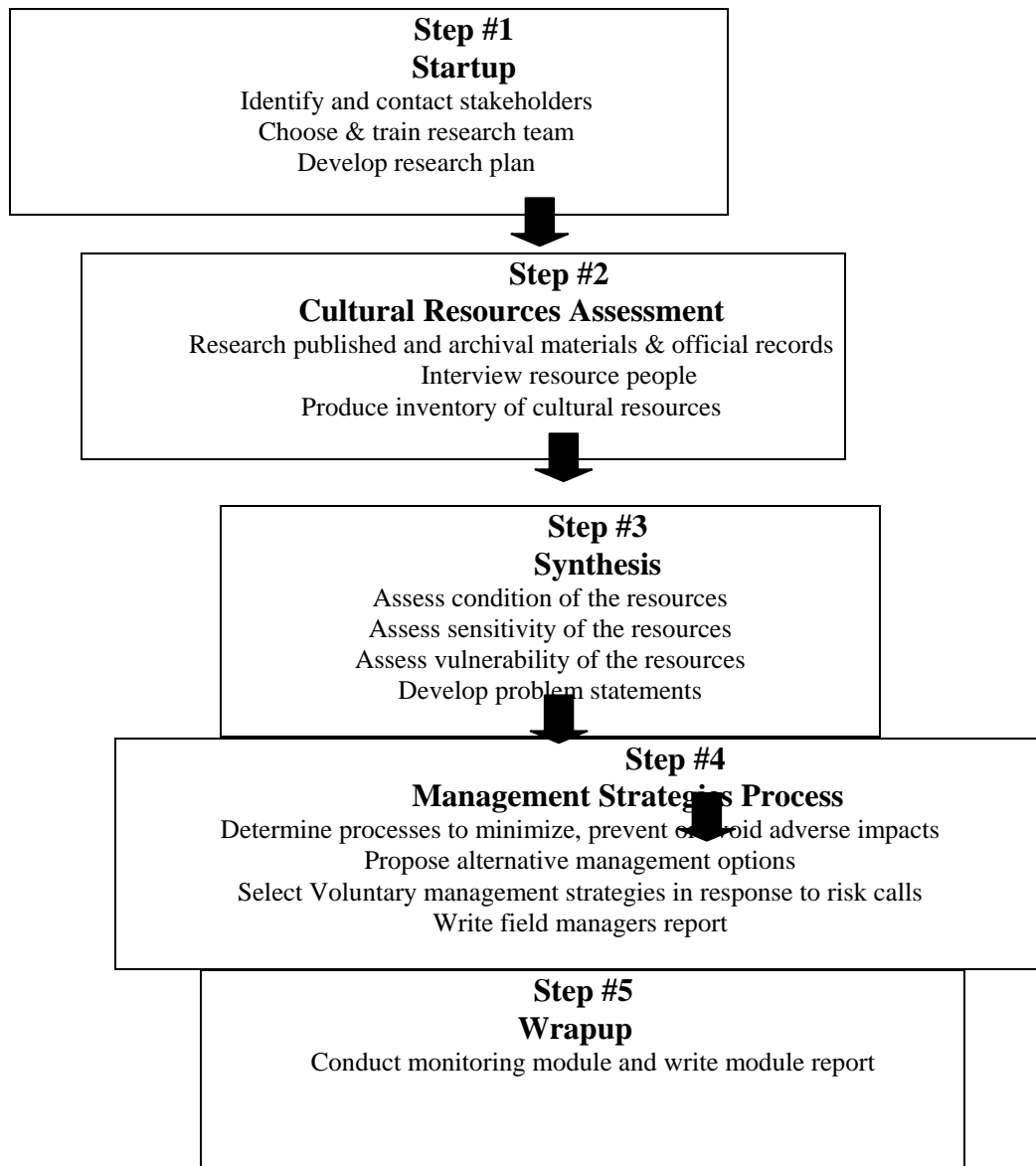
4) *Using aspects of this methodology for research with the objective of producing an inventory of cultural resources in a property, traditional tribal territory or other geographic area.* Tribes, historical societies and other groups recognize the need to compile cultural resource inventories. If the objective of a research project is limited to compiling a complete inventory of CRs, this module contains various sections that present and explain discovery procedures (e.g., interview and archival research), record keeping and collation of data. It is also useful to have data on the current condition of CRs, as well. Thus, the sections on assessment may be useful, as well.

**The methodology of cultural resource assessment** – In WSA, all CR assessments follow a pattern similar to that of the other modules in this manual. Cultural resource assessment involves the following steps and processes, shown in Figure 1 below:

- Startup
- Resource assessment (research and inventory)
- Synthesis: Assessment of condition, hazards and vulnerability
- Management strategies process
- Wrapup

*Figure 1*

**Methodology of Cultural Resource Assessment**





Watershed analysis is a process of inquiry involving interdisciplinary investigations of the potential adverse effects of land management activities on some resources in a basin. In watershed analysis, all of the module teams do resource inventory and initial assessment, identifying areas of resource sensitivity. This is followed by a synthesis stage of inter-team consultation in which the effects of land use activities and ecological processes on vulnerable resources, called causal mechanisms, are catalogued. The condition and vulnerability of those sensitive resources are used to produce rule calls (or “risk calls” in CR assessment) for determining appropriate management actions over space and time. The next stage is the prescription process (or “management strategy process” for CRs), carried out largely by a team of field managers, to determine agreed upon approaches to minimize, prevent or avoid adverse impacts. The final stage is wrap-up, in which monitoring responsibilities are specified and set up and the final report is compiled. Cultural resource assessment, as one of the components in WSA, involves the same steps and activities. However CR assessment differs significantly from the other modules in WSA.

***A short glossary of terms reflecting the non-regulatory nature of cultural resource assessments in watershed analysis*** – The WSA rules and manual use terminology with very specific meanings and connotation. The specific language of the other modules in this manual, which are physical science based and regulatory, differs from that of this cultural resource module, which is social science based and largely non-regulatory (i.e., voluntary). For that reason, we include this short comparative glossary of watershed analysis usage in the physical science modules and the equivalent cultural resource module terms.

<b>Physical Resource Modules</b>	<b>Cultural Resource Module</b>
Physical science based data	Social science based data
Largely quantitative evidence	Largely qualitative evidence
Rule call	Risk call
Regulatory measures	Voluntary measures
Prescriptions	Management strategies

In contrast to the prescriptions resulting from the other modules of a WSA, management strategies intended to be employed by landowners in response to cultural resource sensitivities are generally dependent on voluntary cooperation. This is not to suggest that there are not any laws and regulations that apply to cultural resources. Disturbance of archeological sites, or Native American cairns, graves or glyptic records is regulated under state archeological and historic preservation laws. The Office of Archeology and Historic Preservation (OAHP) must be consulted prior to the disturbance of these sites. Forest practice activities that have the potential to disturb any of these sites or other recorded archaeological or historic sites are subject to detailed scrutiny under the State Environmental Policy Act. Further more, the Forest Practices Rules require that activities on lands which contain cultural resources identified as of interest by an affected tribe require a 30-day review period and a mandatory meeting between the landowner or operator and the tribe with the objective of agreeing on a plan for protecting the cultural values.

**Nature of cultural resource assessment** – For the purpose of this module, cultural resources may be broadly defined as historic sites, traditional places, traditional materials and archaeological resources of cultural value: the sites of historic things and events, places where traditional activities happen, the locations of traditional foods and materials and archaeological remains. The term cultural resource assessment actually refers specifically to the inventory and assessment of the CRs contained within a watershed (or within a

property, when this module is being used as a stand-alone methodology). However, CR assessment is also regularly used with reference to the entire process of identifying, assessing damage or risk and developing management strategies to protect cultural resources. CR assessment provides the basis for discussions that build cooperation and trust among the various parties that produce and use the cultural resources report. While the objective of cultural resource assessment is the protection and management of resources that have value to people of Washington state, the stewardship responsibilities and management objectives of landowners and land managers are of equal importance in successfully completing this module. Thorough and precise assessment can provide the basis for informed, sensitive negotiation and agreements that protect unique and valued cultural resources.

**Qualitative nature of cultural resource data** – Information gathered in a cultural resource module differs significantly from the statistics and test results on which all of the other modules of this manual are based. At the inventory level, cultural resource investigations primarily draw on *qualitative data*, which refers to personal history accounts, observational reports, traditional narratives, ethnic traditions and conclusions based on value judgments. Statistics and test results are called *quantitative data* since they are based on numbers, and they are considered by those with an experimental bias to be “more scientific”. In fact, qualitative data are the basis of much social science research; that is, they are “social-scientific” and are a reliable body of information on which to base decisions derived from cultural resource inventories.

Qualitative data may be supported by other types of research data. For instance, a historic home site that old people remember hearing about and which, although no longer extant, is mentioned in traditional stories, may also be indicated by archaeological evidence and mention of remains at a precise location in an early surveyor’s logbook (two types of “hard data” supporting the qualitative evidence or “soft data”). The fact of this different, qualitative basis of evidence does not mean that cultural resource inventories are less reliable, replicable or respectable than the conclusions of the other watershed analysis teams. They are simply based on different data, often the only evidence available. This difference in data has occasionally resulted in the perception that cultural resource data is not relevant to the rigorously scientific conduct of watershed analysis. Experience has shown that this is not the case. Cultural resource sites are presumed to be actual locations, the existence and value of which is supported by qualitative evidence.

**Qualifications of cultural resource Assessment Team** – Cultural resource inventories and assessments require precise, complete data collection, rigorous and objective assessment, and skillful communications. These requirements are necessary because CR assessments may become the basis for far-reaching decisions. A CR module provides a lasting record of tribal and non-tribal cultural resources sites within the area of concern. CR assessments provide a benchmark for future comparison and can be the basis for management practices that have consequential implications. Finally, cultural resources are valued and emotion laden, often associated with tribal or community identity. For that reason, the assessment phase of the CR module must include expertise in both archaeology and cultural anthropology. Depending on the resources identified in assessment, the

management strategy phase must include expertise in archaeology and/or cultural anthropology. It is also suggested that those performing CR assessments or supervising the CR modules have the following qualifications:

- Expertise in documentary research, interview and transcription.
- Training in the social sciences sufficient to recognize and discuss the social or cultural basis for resource findings.
- Familiarity with the appropriate federal and state laws, regulations and policies relating to forest practices, DNR watershed analyses and the treatment of cultural resources.
- Access to information or input as needed from skilled researchers in the areas of forestry, hydrology, soil science, geology, geomorphology, fisheries, botany, ecology and vertebrate biology.

It saves a great deal of time if the CR investigator is already aware of the community and area history or tribal ethnography before starting the project.

**Principles underlying cultural resource analyses** - This CR methodology module has the following assumptions:

- 1) The purpose of CR assessment is to provide a basis of information to be used in developing voluntary measures for the protection and management of Washington's significant cultural resources, in particular those located on state, private and non-federal forestlands. Note that there are existing laws and regulations that pertain to archaeological sites and tribal cairns, graves and glyptic records.
- 2) The qualities of cultural resources should be preserved for future generations through protection, restoration or recording of physical historic evidence and protecting opportunities to access and benefit from traditional use of forest resources.
- 3) Cultural Resource inventories and assessments, if used cooperatively with sensitivity for the values and objectives of all parties, can be used to develop management strategies and agreements that protect those unique and valued cultural properties and respect the goals and concerns of all.

These principles will be re-articulated below, directed specifically at the particular concerns of tribal and non-tribal communities and their cultural resources.

## **ASSESSMENT OF CULTURAL RESOURCES**

**Assessing tribal and non-tribal cultural resources in the same watershed analysis**

**project** – Many WAUs include both tribal and non-tribal cultural resources. When this is the case, it is usual for the inventory and assessment of all cultural resources, tribal and non-tribal, to be carried out at the same time. Both types of CRs need to be assessed or the WSA is not complete. Although different experts can be used, it is most efficient and effective to have a single CR team and produce a unified module, even though tribal and non-tribal CRs may be treated separately.

**Organizing and conducting a cultural resource assessment-** The beginning phases of a CR module for WSA involve startup, team building, and preliminary gathering of assessment information. Even before startup begins, a face-to-face pre-meeting between tribal representatives and landowners can serve to clarify expectations and set up lines of communication that lead to cooperation and mutually acceptable management strategies. For information on contacting tribes, call the Department of Natural Resources forest practices program in the DNR region where the module is to be used.

***Startup*** - Whether the cultural resource assessment is part of a formal watershed analysis or a stand-alone assessment of CRs in a property, the start-up process is the same. It involves team building and, if necessary, new learning or training. It includes collecting maps, video, audio, imagery and other available data and extant sources of information on the area included in the WSA or stand-alone process. Consultation between landowners and other stakeholders is important at this stage. It is important to identify all stakeholders concerned and to hold one or more meetings in which the process of CR assessment can be clarified and developed for further action (i.e., resource assessments, synthesis, handoff, management strategies) and evaluation. Startup is a time to exchange opinions about the makeup and conduct of the CR team.

Memoranda of understanding have been identified as a preferred pathway by landowners and tribes for managing cultural resources. Landowners, land managers and tribes are encouraged to develop a memorandum of understanding (MOU) either prior to conducting and/or upon completion of the WSA or stand-alone process. A pre-process MOU could document the stakeholders cooperative process and commitments in finding mutually beneficial solutions; while an outcome based MOU could incorporate the CR management strategies and provide for resolution of issues not within the scope of the WSA.

***Level 1 and Level 2 analyses*** - Watershed analysis is usually initiated by landowners or the DNR or both. The initiator can choose either Level 1 Analysis (map based without a high degree of detail) or Level 2 Analysis (field based assessment that may even go beyond methods described in the manual if there are lingering questions). The choice of level is based on various issues such as how long the initiator expects the analysis will actually take, how urgent the need for the finished assessment, or what degree of detail is warranted. There are no time limits when using the CR module as a stand-alone process. It may be practical, however, to establish a time line as part of setting expectations for the assessment and resulting management strategies.

**Team building** – The size and composition of the CR assessment team is an important issue. The resource assessment team could profitably include representation by the various stakeholders. This is a research unit, though, and investigators should be chosen on the basis of objectivity, skill and experience. If there has been no previous review of CRs in the area of concern, a researcher with appropriate credentials should be included in the assessment team. In a WSA, the CR team should be included in the process from the beginning so the members understand the assessment process.

Tribal groups should distinguish between a cultural resource panel of tribal members and the CR assessment team. The elders and other informed tribal members and leaders have an important role in the research process, but they are subject matter experts or consultants. The assessment team is the group that conducts the interviews, transcribes and collates the data provided by those resource people. Team members may also conduct library and archival research. Sometimes the tribe already has a long-term relationship with an anthropologist or archaeologist who has a working relationship with elders based on trust. Such a professional, in addition to having researched the history, language, traditional lifeways, mythology and beliefs of the people, usually has other useful skills such as technical communications (e.g., writing, editing, information design and retrieval). Tribal officials may subsequently serve as representatives on the field managers team at the management strategy stage.

If the CR assessment is conducted as a stand-alone investigation (not part of a WSA project), in which case the CR team is not working with other assessment teams, consider inviting a biologist or forester who is aware of tribal priorities onto the team. By the time the CR assessment is completed, it may be helpful to have stakeholder representatives participate in the synthesis process. Effective resource assessment teams are generally small enough to meet around a table; and they are made up of informed, skilled people who are prepared to discuss and compromise in order to protect both the tribal cultural resources and the landowners' interests within the area being considered.

New learning or special training should not be necessary if the CR assessment team is chosen with care, being careful to include qualified team members.

**Evaluation of cultural resources** - The special expertise of Indian tribes is recognized when assessing properties to which they attach religious and cultural significance. Only the tribe(s) can make that evaluation. Non-tribal cultural resources and most archaeological sites should be assessed using predetermined criteria such as the criteria for eligibility for the National Register of Historic Places. The National Register criteria are based on the quality and significance in American history of architecture, archeology, engineering, and culture as present in districts, sites, buildings, structures, and objects. To qualify, these features must possess integrity of location, design, setting, materials, workmanship, feeling, and association that:

- A. Are associated with events that have made a significant contribution to the broad patterns of our history; or

- B. Are associated with the lives of significant persons in our past; or
- C. Embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. Have yielded or may be likely to yield, information important in history or prehistory.

Further information can be obtained from National Register Bulletin #15, “How to Apply the National Register Criteria for Evaluation, 1991”.

**Record keeping** - All materials should be copied and labeled, and the information abstracted from it kept in organized files, notebooks and computer files. The CR assessment is, in part, a process of organizing data so that generalizations and conclusions become apparent. Therefore, investigators should be organized, using a classified, arranged storage system for data and copies of source materials. Also, a properly organized assessment is replicable. That means that another investigator should be able to review the data and records of a resource assessment or re-do it and come up with the same conclusions. In order for someone to re-examine the project’s database it has to be organized understandably. A by-product of CR assessment is often a tribal archives. Tribal input should be sought to decide whether and to what extent CR data should be treated and stored as confidential.

**Maps, locations and GIS** – Maps are both an important tool and a valuable product of CR assessment. Locations must be drawn onto maps, and exact coordinates are easy to determine with a hand-held GPS (global positioning system) receiver, a satellite based scheme that provides the coordinates of the location (latitude and longitude) in which the person holding the receiver is standing. Since maps of the various resources of the area under study are among the deliverables of a watershed analysis, it is important to determine exact coordinates that will allow the CR sites to be integrated into the geographic information system (GIS). This is a digital system in which site spatial data (site coordinates) and attributes (data collected in the field, interview and all other sources) are captured and databases storing attribute and spatial data are created and manipulated and maps that include the sites and information are drawn by computer and printed on large format printers. Because each of the module teams will produce maps, as a general rule a formal WA will have budgetary allowance and contractual arrangements to do the GIS input, programming (if necessary), database queries, and output (See discussion of GIS, Startup section).

**Confidentiality under the Public Disclosure Act** - State law provides that certain records in the government’s possession are exempt from public inspection and copying. For cultural resources, this applies to “Records, maps, or other information identifying the location of archaeological sites in order to avoid the looting and depredation of such sites” (Chapter 42.17.310 (1)(k)). All other CR’s revealed and documented as part of the WSA

CR module are subject to public disclosure. All module development teams should endeavor to protect tribal CR's by including as little detail as possible regarding the nature and location of individual CR's in documents.

### **Cultural versus community-social based assessment information**

Cultural and community-social based values are not always distinctive from one another, and are often intermixed in the information generated through interview and/or other assessment techniques.

The cultural resources module is intended to distinguish cultural from community-social oriented information, and emphasize only the cultural. Any or all community-social based assessment data or information that is identified as a result of cultural resources module assessment efforts could be acknowledged and summarized. Summaries of a community-social oriented assessment information that are produced may be discussed within the assessment findings as additional information and be available for potential consideration or strategic response.

### **Tribal cultural resources**

***The nature of tribal cultural resources (TCR)*** – Tribal cultural resources symbolize the traditional heritage and modern-day living culture of Native American people. These resources are the sites, food, medicines and materials of traditional tribal lifeways. Many of these resources are non-renewable and are vital to the peoples that depend upon them. Tribal cultural resources, as an example, include archaeological sites and relics, settlements and campsites, spiritual and sacred sites, and traditional subsistence grounds (see detailed discussion of tribal cultural resources under *Data needs* below). This is a general definition of tribal cultural resources that applies to most Native American peoples, but specific cultural resources vary from tribe to tribe, nation to nation, reflecting the individuality of each tribe and nation. It is because of this individuality that consultation with each tribe regarding their specific cultural resource protection requirements is important and necessary if cooperation is to flourish.

***The features of a successful TCR assessment*** - The objective of this module is to provide a guide for successfully producing an inventory, assessment, and set of voluntary management strategies that can serve as the basis for the stakeholders in a landscape area (e.g., watershed, land-use conversion area, or logging unit) to negotiate management decisions that protect tribal cultural resources. Thus, an effective assessment of a watershed that includes tribal cultural resources will, to the extent possible, have the following features:

1. A successful TCR assessment will establish and maintain communication between forest landowners and land managers and Native People. TCR assessment may foster trust, communication and relationship building among stakeholders.

2. Since it is presumably impossible to conduct an effective TCR assessment without input from the tribe or tribes that have cultural interests in the area of concern, the most efficient and productive means of producing the TCR inventory is to have tribal representatives on the assessment team or to put the TCR assessment in the hands of the tribe. Tribal representatives should also be present during synthesis and the development of regulatory WSA prescriptions and TCR management strategies.
3. A complete TCR assessment will include archaeological sites (but does not require an archaeological survey nor replace the potential need for one). It may also include sufficient information to allow the identification of historic properties eligible for listing on the National Register of Historic Places.
4. Once an inventory of TCRs has been prepared and an assessment of their condition, their sensitivity to hazards, and the activities and processes that may affect their condition has been made, participants will negotiate management strategies that reflect mutual respect for tribal cultural resources and the economic objectives and stewardship responsibilities of the landowners.
5. The participating stakeholders in a successful TCR assessment will maintain trust and accord while protecting the privacy, security and confidentiality of TCRs, according to tribal wishes. Recognizing that some TCRs may be considered so sacred and irreplaceable that their existence will never be revealed to non-members, sensitive negotiations will determine tribal wishes and attempt to accommodate them.
6. The successful TCR assessment may foster trust, communication and relationship building between tribes and landowners and land managers that results in memorandum of understanding that document their resolve to cooperate in finding solutions to site-specific problems. Such a programmatic agreement could profitably be concluded between stakeholders as a result of the TCR process, resolving to find cooperative, mutually beneficial outcomes rather than impasses.

***The tribe's decision on confidentiality*** – In some instances, tribes have decided to keep the location of all or some of their TCRs confidential. There are a number of reasons for this. Some feel that by preparing an inventory of their cultural resource sites, they are inviting voyeurs to spy on ritual sites and “pothunters” with their metal detectors and shovels to despoil historic locations looking for trophies. In fact, there have been instances of petroglyphs being defaced, burial caves plundered and vandalism. Other tribal councils and officials have decided that their TCR sites are so closely associated with their tribal heritage and their group identity that it is an issue of membership-privilege to maintain secrecy about the details of their common past and traditions. Whatever the reason for withholding the facts and locations of their TCRs, tribes have a right to do so. However, it does make protection of those sites more difficult to propose and negotiate. For the most part, divulging the location of TCRs is a matter of trust. Tribes that elect to maintain secrecy or invoke total or partial confidentiality (e.g., only maintain confidentiality about their ceremonial, ritual and burial sites) should be prepared to work with landowners to



find alternative solutions to meet the landowner's goals as closely as possible while protecting TCR confidentiality. It is, of course, a responsibility of landowners and other stakeholders to inspire trust that they and their employees will respect the contents and privacy of sensitive TCRs.

**Critical questions** - The first step in cultural resource assessment is to decide a small set of general questions that focus the investigation. These questions are an evaluative metric to use in checking that the project is on course and consistent with the objectives of watershed analysis or a stand-alone investigation. The critical questions are also an explicit statement of topics for readers to use in orienting their expectations at the beginning of the TCR report. Critical questions can differ depending upon the watershed or area of interest. Here is a set similar to those that have been used in several TCR assessments:

1. What resources are of cultural significance (or are "critical resources") in the area of concern and where are they located?
2. What are the historical conditions of the cultural resources?
3. What are the current conditions of the cultural resources and what are the trends?
4. What are the causes of any changes between historical and current conditions?
5. What are the vulnerabilities of each TCR and to what is it vulnerable?

The answers to this set of questions represent a concise statement of the knowledge that is the goal of each stage of the tribal cultural resource assessment. In order to answer these questions and establish what the tribal critical TCR actually are, TCR interviews and investigations should seek answers to these questions. All cultural resources are valued. But some are important, "critical resources". The special expertise of Indian tribes is recognized when assessing the cultural properties to which they attach religious and cultural significance.

**The inventory of tribal cultural resources** - An inventory of cultural resources is the next stage in a TCR assessment and attempts to answer the first of the critical questions. Many stand-alone investigations will have a TCR inventory as their objective. For that reason, this module provides information for the techniques and methods of investigating and inventorying tribal cultural resources. A completed inventory is, in itself, a considerable achievement. It is a notable compilation of tribal heritage. Often it is the first time a tribe has ever compiled a site registry. In some cases, stand-alone TCR inventories limit themselves to a listing of the resources and their locations without emphasizing the condition of those resources or the mechanisms impacting them.

In a formal WSA, however, the inventory includes all the data necessary for synthesis. Only the first five of the following seven steps may be necessary for a basic TCR inventory as a stand-alone process, though participants may want to complete the last two steps as well. A TCR assessment for a formal WSA requires all the following steps:

1. Identify references to previous and current traditional artifacts, sites, use areas, resource locations and other sites of tribal interest. These are cultural resources.
  2. List and annotate each TCR with traditional native name, English name, known information and data about use.
  3. If possible, visit (“ground truth”) each of the sites, i.e., visit each TCR location, noting the surroundings, dimensions, landmarks, condition, issues of archaeological interest or evidence of use, plant life, and map coordinates (of the corners if the site is more than 30’ in diameter). Photographs or slides of each site are useful, especially if pictures will make clear that the resource is being impacted by a natural hazard or one resulting from forest practices.
  4. Produce an initial draft map. Number the sites progressively (e.g., headwaters to mouth of the river). Note them on a clean map. Make sure all information is in your database file. For watershed analysis, use an official base map and label it Map J-1 Tribal Cultural Resources. This draft map is the property of the tribe and should not be formally submitted to the DNR making it subject to public disclosure, thereby not protecting the tribe’s confidentiality.
  5. In consultation with tribal representatives, decide whether there are confidentiality concerns regarding any of the sites, and/or what overall significance is assigned to the cultural resource feature by the tribe.
  6. Produce an official, finalized cultural resource base map for use in subsequent required steps.
  7. Identify sensitive tribal cultural resources.
- *Data needs: tribal cultural resources* – In terms of the basic purpose of TCR assessment one of the most important aspects of the undertaking is to determine the existence, location and details of those sites. In order to do this, complete data are a necessity. Some of this information may have been accumulated previously and be available already in Indian agency annals, tribal records, ethnographic publications or archaeological reports, and prior tribal and public surveys of cultural resources. A checklist for data needs within the area of concern includes documentation of tribal knowledge, history, cultural relevance, location, description and condition of the following:
    1. Archaeological resources, which include artifacts and the relics and extant evidence of traditional native lifeways. Many locations may already be registered with OAHP.
    2. Traditional (pre-contact and representing continuing tribal culture and lifeways up to the present) settlement and activity sites: village sites, homesites, campsites and trading sites, pathways, fords, named places, navigational and boundary markers; also, traditional grounds for hunting,

fishing, trapping, food foraging, material gathering; and manufacture, gaming, ritual, ceremonial, burial, mythic, legendary and folkloric sites. Larger areas include battlegrounds, activity landscapes, and maintained prairies.

3. Traditional materials and subsistence foods: materials used in traditional tribal medicines, weaving and basketry, tools and weapons, carvings large and small, sacred objects and building construction; also subsistence foodstuffs: animals, birds, fish, beachlife, and edible plants.
4. Historic (i.e., post-contact and historic tribal sites or locations and structures of non-tribal settlement of interest to Native people: reservations, trading posts, forts, lumber mills, canneries, churches, schoolhouses, inns and hotels, stores, homesteads, settler cabins, barns, corrals, gardens, early roadways and bridges, and shipwreck sites.

No listing of tribal cultural resource types is exhaustive, so investigators should be alert to particular tribe-specific TCRs in the area under consideration. Investigators should bear in mind that the absence of data indicating TCRs in earlier surveys of a watershed or property may only reflect a flawed or inadequate work plan. The traditional TCRs of many tribal groups have been studied various times over the years, including ethnographic descriptions, archaeological surveys and the reports prepared for the US Court of Claims in the 1950s. While these earlier studies contain valuable information regarding tribal use of resources and traditional sites, they may be incomplete and probably do not include present-day information. The sites discussed in each previous study should be collated and checked for completeness with knowledgeable tribal members. Interviewees should represent a cross-section of the community, including people of various ages, interests, activities and experience within the watershed or property being inventoried and assessed.

- *Data needs: physical environment* – In order to assess hazards and vulnerability of the cultural resources, it is important to have the following:
  1. Large scale maps of the watershed or property (see Startup section, p. 14).
  2. Existing basin, forest, or regional natural resource overviews, studies and statistics (available from other teams in a formal WSA).
  3. Input from knowledgeable fieldworkers who are acquainted with the area and have had field experience in it. This would be provided by other teams at synthesis in a formal WSA or available from local resource managers in a stand-alone assessment.
- *Investigative techniques and discovery procedures* – All investigations need to be rigorous, complete and ethical. Any TCR assessment project may be the only or last opportunity to learn what there is to know about the history of a particular area, and the best chance to put a tribe's cultural resources on record. Therefore, TCR

researchers have an obligation to check their sources exhaustively and honestly. Most TCR data come from documentary research and interviews.

*Documentary research* – Research involves a great deal of searching for materials and reading. Often tribes do not have accessible copies of archival documents, books, articles, reports and other publications relating to their history, culture and traditional territory. There are bibliographies that list publications about each tribal group (a good place to start is with the tribal sketch in the Smithsonian Handbook of North American Indians.) This is an important phase of the project. If no one on the team has done archival research, the team may wish to hire a professional researcher or anthropologist. A tribal member can accompany the researcher and, in the process, get on-the-job research training.

*Interviews* – Interviews with knowledgeable elders and tribal members who know and use the territory under review are a valuable source of information.

*Suggestions for interviews:* These sessions should be audio recorded using either tape or digital recorders. Some groups prefer to document interviews by video recording, but it is impractical to transcribe from video, so voice recording should be done as well. If interviewing in a home, turn off the television and move to an area without background noise; sit at a table if possible; check the recorder before arriving and bring an extension cord, extra batteries and tapes; place the microphone within 3' of the consultant's mouth. Make a list of questions before going to the interview but don't feel bound by it. Try, wherever possible, to use open ended questions such as, "How did you learn so much about our traditional territory?" or "What basket materials have you collected and where?" Try not to interrupt your informant unless the answers have become repetitious or wandered from the topic. Don't tire the subject by interviewing continuously without a break. It is important to have the interviewee sign a release at the beginning of the interview, attesting that the person knows why (s) he is being interviewed and is doing so voluntarily. Label the tape or digital record. Transcribe it as soon as possible (a rule of thumb for transcription of time, converting audio files to word processor files is 90 minutes transcription time per 60 minutes of raw audio). It is usual for research projects to pay interviewees.

Forms J-1 and J-2 are WSA forms for obtaining information from interviews. For a standalone process, the forms may be used or another system to accurately and consistently capture and record that information can be used.

**Form J-1**

**WATERSHED ANALYSIS PROJECT  
Interview Release Form for Tribal Cultural Resources**

I, \_\_\_\_\_ give my consent to be interviewed by a member of the cultural resources research team of the watershed analysis project. I understand that my participation is important, but voluntary, and that I can, at any time, ask for the interview to be stopped.

**I give \_\_ , do not give \_\_** my consent to have this interview tape recorded. I understand that I have the right to review the tape recordings or transcripts of those tapes before the content of the interview is finalized.

I understand that the information that I give will be treated with respect and confidentiality based on my own expressed desires and the decision of appointed tribal officials as to what should be made public.

I understand that the information that I give will be used in compiling an inventory of tribal cultural heritage sites and resources. The interview is considered an expression of tribal heritage and will be treated with respect.

Interviewee Name \_\_\_\_\_

Interviewee Signature \_\_\_\_\_

Interview Place \_\_\_\_\_

Date \_\_\_\_\_

Interviewer Signature \_\_\_\_\_

Witness Signature \_\_\_\_\_

**Form J-2**

**WATERSHED ANALYSIS PROJECT**  
**Interview Format Form for Tribal Cultural Resources**

**Start the interview**

After having the release form signed, start the taped interview with:

This is an interview with  (name of interviewee)  on  (date) .

The interview is being conducted by  (name of interviewer) .

This is Tape One, Side One.

**Introductory Questions**

Please tell us how old you are, where you were born and grew up. Who were your parents? Who raised you? Where did you go to school? What type of jobs have you had? Tribal membership?

We are interested in traditional places and tribal heritage things in the watershed of the  (name of the river) . Is there a native name for the river or area? Is this area in the traditional land of your people? According to tribal tradition did your tribe share rights to this land with any other tribe? Are there tribal stories about how the people came to own, inhabit and use this territory? Details?

Could you tell us how you know about this area? Have you traveled in it? Did your elders tell you about it? Who knows more about it than you do?

**Geographic features** – Are there native names for the rivers, creeks, mountains or other geographic features of the area?

**Critical resources**

What would you say are the most important traditional foods and materials that are taken from this area? Do or did you or the people fish anywhere in the area? Hunt? Collect Food? Collect materials? Collect medicines? [*Based on the answers, see specific questions below.*]

**Fish** – What types of fish are caught in the watershed? Is it an important resource? Where exactly are they caught? At what time of year? What type of fishing gear is used? Who else is well informed about past and present fishing in this area?

Was fishing different in earlier times? Were there weirs or other types of fishtraps in use? Were there family ownership rights to particular grounds? How were rights to those sites passed from generation to generation?

Are there fish camps along the watercourse? What preservation activities are practiced at the sites (drying, smoking, canning)? Are there rituals relating to fishing or fish? Are there traditional stories about how fish came to be in this area

or about the origin of any aspect of fishing? Are there stories of especially successful fishermen in the area? What is the reason for their good luck? Is there a “fisherman’s spirit society” in the culture. [And other questions that come up based on things that are said in the conversation]

**Hunting** – What do people hunt for in the watershed (animals, birds/native names)? Is it an important resource? What are the most important types of game? Where do people hunt? At what time of year? How do they hunt? Any trapping? Are the animals used for anything besides food (fur, hides, horns and bones, sinews)? Who else is well informed about hunting in this area?

Was hunting different in earlier times? How about deadfalls, pitfalls, snares, spring snares, traps, bow and arrow, spears, clubs, game drives. Were dogs used in traditional times?

Are there hunting camps in the area? Is the meat dried or smoked in camp? Are there rituals related to hunting? Are there places those rituals are done? Are there traditional stories about the origin of the animals or about hunting in ancient times? Are there stories of especially successful hunters in the area? What is the reason for their luck? Is there a “hunter’s spirit society” in the culture? [And other questions based on things that come up in the conversation].

**Collecting food** – What foods are collected in the area: roots, berries, sprouts, other edibles, mushrooms? eggs? What are the most important of these foods? What are the native names? What are the most important of these foods? Are these native foods still eaten at home/tribal dinners/ritual events? How are they prepared? Where are the places that each is gathered? What are the native names of those places? Are there camps for berry picking or other foraging in the area?

Was collecting different years ago? How has it changed? Were edibles preserved in different ways in the past? Are there traditional stories about the origin of edible plants or about collecting food in the old days? [And other questions based on things that come up in the conversation].

**Collecting materials** - What materials are still gathered in this area: types of wood, weaving materials, household materials, raw materials for dyes and other uses, medicines, ceremonial plants? What are the native names for each? Are any of them considered to be especially important “critical” resources? Where were they collected in the area? What are the native names of those places? Are there CMTs (culturally modified trees) in the area? Are there sites used by non-tribal people to collect materials, either with or without permit? Details?

**Settlement Sites** – Are there campsites, trapper’s cabin or shack sites, traditional house or village sites, historic house sites or old homesteads in the area? Are there traditional trading sites, gaming areas, maintained prairies or other landscape areas. Are there places where canoe logs were roughed out or other traditional

manufacturing done? What is known about them? Native names? Are or were there paths that lead through the area?

**Traditional use sites** – Are there sites that are special for rituals, ceremonies, sweat bath or bathing, spirit quest sites or puberty enclosures, previous burial sites, courting or picnic places? Details? Native names? Are there caves in the area that were used for storage or other purposes?

**Historical ecology** – Have any changes in environmental conditions had critical impacts on tribal cultural resource protection or management needs? Are there any specific environmental conditions that are critical for tribal cultural resource protection and management?

**Artifact locations** - Are there any archaeological locations that have not previously been mentioned in the area? Are there any known or suspected midden areas with shell or bone deposits? Do you know of any petroglyphs, rock drawings? Culturally modified features of any type? Relics (e.g., fish trap posts, house depression sites or house posts, drying rack poles)? Artifact find sites (fireplace remains with heat-cracked rocks, lithic flakes, arrowheads, worked stones for grinding or weights, bone tools, beads)?

**Mythic and supernatural sites** – Are there places where the events of traditional stories took place which have not yet been mentioned? Are there places where mythic beings or creatures, personal guardian spirits or other spirit beings can be contacted or expected to be. Are the traditional homes of the ancestors of animals, the winds, the great natural beings (e.g., Rainbow, Thunderbird) in this area? Is the entrance to the underworld or underground river or other ghost trail traditionally thought to be in this area? Native names for each place?

**Historic locations** – Are there any places in the area which have not been mentioned that are used by non-tribal people for any purpose? Can you think of any places where things happened in the area that we have not yet mentioned: tribal battles or raids, previous logging, fires, famous visitors, notorious incidents, anecdotal occurrences.

**Named sites** – Can you think of any other places that have names in the area, for example names for sections of the river or places along the watercourse, navigational points, halfway points, boundaries or borders, remembered places that have come to be named?

**Other** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



***Identifying sensitive tribal cultural resources, contributing natural or human causes and resource vulnerabilities*** - The TCR team should prepare for synthesis by noting particular examples of cultural resources within the investigation area that have been impacted by terrestrial (hillslope) or fluvial (stream) processes, forest practices and other natural or human causes or that are considered to be at risk of damage or threatened. Each of the WSA module teams will be preparing a similar assessment list for the purpose of creating causal mechanism reports (CMR) during synthesis for hand off to the field managers team. An example organizer for tribal cultural resources follows as Figure 2.

**Figure 2**

**An Example of an Organizer Relating Common Management and Natural Physical Processes to Tribal Cultural Resource Impacts**

<b>Process</b>	<b>Input or Effect</b>	<b>TCR Impacted by Watershed Processes</b>	<b>Importance &amp; Vulnerability</b>
Process: Timber harvest Location: XYZ	Change in native vegetation patterns	Location, quantity and existence of native plants, tribal resources traditionally gathered at point X	<i>Importance:</i>  <i>Vulnerability:</i>
Process: Timber harvest Location: ABC	Disturbs the site of mythic and ritual locations	Traditional site of mythic occurrence (point B), which is traditionally used as a ritual location by tribal members.	<i>Importance:</i> <i>Vulnerability:</i>
Process: Timber harvest Location: DEF	Cuts down cedar trees	Traditional (CMT locations at point D) and contemporary cedar bark collection sites at points D and F.	<i>Importance:</i> <i>Vulnerability:</i>
Process: Road building Location: TUV	Provides access to vehicles and visitors	Ritual site at point V, traditionally used for rites requiring isolation and privacy.	<i>Importance:</i> <i>Vulnerability:</i>
Process: Road building Location: GHI	Disturbs the ground and native vegetation.	Traditional medicine foraging site at points H and I	<i>Importance:</i> <i>Vulnerability:</i>
Process: Foraging by floral gathering teams Location: Throughout watershed	Over-harvest sensitive tribal key resources in limited supply	Bear grass areas traditionally exploited by tribal weavers at points A, C, G, I, P, R, and Y have already been destroyed and plant populations at other confidential sites are endangered	<i>Importance:</i>  <i>Vulnerability:</i>

Note that assessments should include statements of high, mid, or low importance and vulnerability of the TCRs. These are subjective tribal evaluations of the importance they attach to the sensitive resources and the degree to which they feel the TCR is threatened by the causal mechanism (e.g., forest practice). Each tribe may evaluate their resources differently, according to their own perspective and values. The high, mid, low evaluations can be used in calculating a “risk call”.

**Form J-3**

**WATERSHED ANALYSIS PROJECT (Required Form)  
Tribal Cultural Resource Assessment Form**

Process	Input or Effect	TCR Impacted by Watershed Processes	TCR Importance & Vulnerability
<i>Process:</i>  <i>Location:</i>			<i>Importance:</i>  <i>Vulnerability:</i>
<i>Process:</i>  <i>Location:</i>			<i>Importance:</i>  <i>Vulnerability:</i>
<i>Process:</i>  <i>Location:</i>			<i>Importance:</i>  <i>Vulnerability:</i>
<i>Process:</i>  <i>Location:</i>			<i>Importance:</i>  <i>Vulnerability:</i>
<i>Process:</i>  <i>Location:</i>			<i>Importance:</i>  <i>Vulnerability:</i>
<i>Process:</i>  <i>Location:</i>			<i>Importance:</i>  <i>Vulnerability:</i>

## **Non-tribal Cultural Resources**

**Introduction** - This section of the Cultural Resources Module provides a step-by-step guide to protecting Washington's non-tribal cultural resources (NTCR). The DNR Watershed Analysis manual is a handbook for researching, inventorying, evaluating risk and developing management strategies as a process of resource assessment applicable to whole watersheds or as a stand-alone methodology for assessments of sub-watershed sized properties. There is some inevitable overlap and repetition involved in the separate treatment of tribal cultural resources above. However, the issues of non-tribal resources are distinct and profitably discussed separately through the assessment phase of the process. After assessment, non-tribal and tribal cultural resources are merged for synthesis and the development of management strategies.

**The nature of non-tribal cultural resources** – Non-tribal cultural resources include archaeological and historic sites of importance and interest to all people. In many cases, inventories of these resources have not been completed and this assessment process is an opportunity to investigate the history of an area of concern. Some unique and special sites are eligible for listing on the National Register of Historic Places in a process initiated through the state Office of Archaeology and Historic Preservation (OAHP). Other significant archaeological and historic sites can be recorded by OAHP triggering additional environmental review of forest practices on or near these sites. Some features and sites may not carry the significance for protective status but are valuable as part of recorded history. Like tribal cultural resources, the assessment of historic and archeological resources and measures for their protection and management should emphasize the importance of cooperation and mutual understanding.

There is, of course, no clear delineation between tribal and non-tribal CRs, since members of tribal groups use and identify with many post-European settlement historic and archeological values and many non-Native Americans consider Native cultural issues to be part of the community's common heritage. Often the inventories of tribal and non-tribal resources include overlapping locations of interest.

**The features of a successful non-tribal cultural resources assessment** – As part of a WSA, a non-tribal cultural resources assessment will provide the basis for informed and amicable protection and management of Washington's cultural resources. Thus, an effective analysis that includes non-tribal cultural resources will, to the extent possible, have the following features:

- 1) A successful NTCR assessment will establish and maintain communication between forest landowners and land managers, communities and interested parties. NTCR assessment may foster trust, communication and relationship building among stakeholders.
- 2) A complete NTCR assessment will include archaeological sites (but does not require an archaeological survey nor replace the potential need for one). It may also include sufficient information to allow the identification of

historic properties eligible for listing on the National Register of Historic Places.

3) Once an inventory of NTCRs has been prepared and an assessment of their condition, their sensitivity to hazards, and the activities and processes that may affect their condition has been made, participants will negotiate management strategies that reflect mutual respect for cultural resources and the economic objectives and stewardship responsibilities of the landowners.

**Critical questions** - After the organizational activities of Startup, before actual investigation begins it is essential to formulate a small set of general questions that focus the investigation. These questions are an evaluative metric to use in checking that the project is on course and consistent with the objectives of watershed analysis or a stand-alone investigation. These critical questions differ depending upon the watershed or area of interest. Examples of critical questions for non-tribal cultural resources are essentially the same as those for tribal cultural resources:

1. What resources are of cultural significance (or are “critical resources”) in the area of concern and where are they located?
2. What are the historical conditions of the cultural resources?
3. What are the current conditions of the cultural resources and what are the trends?
4. What are the causes of any changes between historical and current conditions?
5. What are the vulnerabilities of each NTCR and to what is it vulnerable?

The answers to that set of questions represent a concise statement of the knowledge that is the goal of each stage of the watershed analysis. The critical questions allow investigations to focus on critical cultural resources, critically sensitive conditions and critical impacts. This allows synthesis and the management strategy phase to focus on appropriate protection plans for valued and at risk NTCRs. Non-tribal cultural resources and most archeological sites should be assessed using predetermined criteria such as the criteria for eligibility for the National Register of Historic Places. The National Register criteria are based on the quality and significance in American history of architecture, archeology, engineering, and culture as present in districts, sites, buildings, structures, and objects. To qualify, these features must possess integrity of location, design, setting, materials, workmanship, feeling, and association that:

- A. Are associated with events that have made a significant contribution to the broad patterns of our history; or
- B. Are associated with the lives of significant persons in our past; or
- C. Embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

D. Have yielded or may be likely to yield, information important in history or prehistory.

Further information can be obtained from National Register Bulletin #15, “How to Apply the National Register Criteria for Evaluation, 1991”.

***Inventory of non-tribal cultural resources*** - An NTCR inventory attempts to answer the first of the critical questions. Many stand-alone investigations will have a CR inventory as their objective.

- In a formal WSA, the inventory includes all the data necessary for synthesis in order to interact with information from the other modules.
- Identify documentary references to sites that qualify as NTCRs. Interview knowledgeable community members regarding historical sites and associated lore and data.
- A site visit to each NTCR location will allow investigation of current condition and details of location, dimensions, landmarks, plant life, and map coordinates and a chance to photograph the site. Photos may help clarify if the resource is being impacted by a natural hazard or has the potential to be impacted by forest practices.
- Organize the listing, number the sites and mark them on the map, including sufficient information for GIS documentation. When part of a WSA, use official base map labeled J-2 non-tribal cultural resources.
- Identify sensitive NTCRs and contributing natural processes or forest practices and resource vulnerabilities.

***Data needs*** - Cultural resources are identified through consultation with OAHP and other research. Existing basin, forest or regional cultural resource plans and assessments are useful starting places. Site-specific NTCR information and assessments may have already been carried out. Tribal CR inventories within and around the area of concern may also be available. Local, county and state historical society records and archives are an important resource that may include previous published and manuscript CR reports. Large scale maps of the watershed or property are crucial (see Startup section). The CR team may also have access to existing basin, forest, or regional natural resource overviews, studies and statistics, available from other teams in a formal WSA. Also provided by other teams at synthesis in a formal WSA (or available from local resource managers in a stand-alone assessment) is input from knowledgeable fieldworkers who are acquainted with the area.

***Identifying sensitive non-tribal cultural resources*** - Assessment establishes the links between processes, human-caused or natural, and the impacts on cultural resources. For example, assessment could identify human-caused processes such as forest practices (timber harvest or road building), or recreation practices (artifact collecting). Examples of natural processes are weathering, vegetation growth, wild fire and stream bank erosion.

The chart below contains examples of issues that may be considered in cultural resource assessment in WSA.

During formal watershed analysis, the “importance and vulnerability” ratings in the far right column are tentatively established by the CR assessment team and become the starting point for the synthesis process. During the WSA synthesis process, the effects and resource impacts on cultural resources are reviewed by the other assessment teams and the vulnerability calls are likely to be improved or refined. In a stand-alone process, the assessment form can be used through an abbreviated synthesis process.

**Figure 3**

**An Example of an Organizer Relating Common Management and Natural Physical Processes to Non-Tribal Cultural Resource Impacts**

<b>Process</b>	<b>Input or Effect</b>	<b>NTCR Impacted by Watershed Processes</b>	<b>Importance &amp; Vulnerability</b>
Process: Timber Harvest Location: XYZ	Physical damage from log yarding	Above ground evidence of a trappers cabin circa 1945	<i>Importance:</i> <i>Vulnerability:</i>
Process: Natural stream bank erosion Location:	Washing out bridge supports	Abandoned county road bridge circa 1923	<i>Importance:</i> <i>Vulnerability:</i>
Process: Road construction Location:	Obliteration of physical evidence	A segment of the Oregon Trail circa 1860	<i>Importance:</i> <i>Vulnerability:</i>
Process: Weathering and vandalism Location:	Physical deterioration	Shay locomotive 1921	<i>Importance:</i> <i>Vulnerability:</i>

**Form J-4**

**WATERSHED ANALYSIS PROJECT (required form)  
Non-tribal Cultural Resource Assessment Form**

<b>Process</b>	<b>Input or Effect</b>	<b>TCR impacted by watershed processes</b>	<b>TCR Importance &amp; Vulnerability</b>
<i>Process:</i>			<i>Importance:</i>
<i>Location:</i>			<i>Vulnerability:</i>
<i>Process:</i>			<i>Importance:</i>
<i>Location:</i>			<i>Vulnerability:</i>
<i>Process:</i>			<i>Importance:</i>
<i>Location:</i>			<i>Vulnerability:</i>
<i>Process:</i>			<i>Importance:</i>
<i>Location:</i>			<i>Vulnerability:</i>
<i>Process:</i>			<i>Importance:</i>
<i>Location:</i>			<i>Vulnerability:</i>
<i>Process:</i>			<i>Importance:</i>
<i>Location:</i>			<i>Vulnerability:</i>

## SYNTHESIS

**Introduction** - After a WSA assessment of resource conditions, the tribal and non-tribal CR assessment team is prepared to join with assessment team members of other modules for an interdisciplinary activity known as synthesis. The synthesis process brings together the understanding and insights from the assessment phase of the project through a lively and collaborative series of discussions of findings, challenges of interpretations, consideration of resource hazards and vulnerabilities, and shared insights from synergies among assessment team members. The two goals of synthesis include: (1) descriptions of resource conditions and sensitivity (vulnerability), and (2) discussions of causal mechanisms (i.e., land use practice and watershed processes affecting resource vulnerability). Synthesis establishes the degree of hazard and level of risk to resources for which prescriptions or management strategies must be considered. At this point in a watershed analysis, it is important to distinguish between the public resources that are addressed in the regulatory context of the rule matrix that establishes a standard of performance for prescriptions, in contrast to cultural resources that are included in a non-regulatory context of risk calls and consensus among the field managers team that establishes voluntary management strategies. While archaeological resources have protection and management standards set in law, the protection of other cultural resources assessed under this module are dependent on the voluntary implementation of the management strategies as well as other cooperative measures developed between landowners, land managers and affected tribes.

For the most part, the teams are looking at the cumulative effects of forest practices on hillslopes, wetlands, and channel corridors, as processors of inputs of sediment, wood, water, and heat. So, with regard to CRs, synthesis considers how tribal CRs such as fish, resource grounds, traditional use site and mythic/spiritual sites might be influenced by road building, use and maintenance, timber harvest, fire suppression/rehabilitation, tree planting, and stand treatments.

The input of the CR assessment team assists the other modules assessment teams in understanding the linkages of hillslope processes to CR vulnerabilities, but the presence of a CR should not necessarily influence rule calls made for the regulated public resources considered under other modules. Some cultural values like harvestable populations of fish may benefit directly from prescriptions later developed to meet the regulatory standards of watershed analysis. Others, like plant resources, may benefit indirectly through protection of riparian or wetland areas. And still others may benefit from timber set asides or public access restrictions.

### **Risk calls based on cultural resource vulnerability**

The use of the rule matrix is required for other WSA modules. However, the rule matrix, as used with the physical science based and regulatory modules is inappropriate to use with cultural resources for the following reasons: (a) the rule matrix establishes regulatory rather than voluntary responses, and (b) the decisions on cultural resource protection and management are based on a subjective judgment of the importance of a cultural resource (the social value of a site) and its vulnerability to physical processes rather than an



empirically testable resources vulnerability rating and measurable adverse change and deliverability of the rule matrix.

The risk call is based on CR vulnerability and CR importance. The risk call, whether attained using a risk matrix or not, is developed in consultation with the watershed analysis assessment teams. Where confidentiality is a concern for a particular CR, risk calls for the CR are derived from consultation and concurrence among the cultural resource assessment team and appropriate tribal representatives. Mutually acceptable voluntary management strategies to protect sensitive tribal and other CRs may be suggested as the issues arise in the assessment phase, including during synthesis. The structured approach of a matrix can be used if it is revised and re-labeled “risk call” (rather than rule call) and is used to provide a sense of the perceived urgency of the risk to the cultural resources. The adapted risk matrix and an example are included in Appendix I.

**The causal mechanism report** – The watershed analysis assessment report is actually a compilation of intermediate reports, most of which were produced during the resource assessment and synthesis. The causal mechanism report form (Form J-5), produced as a result of synthesis and used in writing management strategies, includes a statement of the hazard (“situation statement”) and a causal mechanism summary statement (“Triggering Mechanism statement”) and the risk call. The form also includes a place for notation of supporting information regarding the resource affected and the sources of the information.

**Form J-5**

**Watershed Analysis Project (required form)**

**Causal Mechanism Report for Cultural Resources**

**WAU:** \_\_\_\_\_ **Resource Sensitivity Number** \_\_\_\_\_

**Location:** \_\_\_\_\_

**Situation**

**Sentence:** \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

**Triggering**

**Mechanism:** \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Risk Call for Management Strategy:** \_\_\_\_\_

**Additional**

**Comments:** \_\_\_\_\_

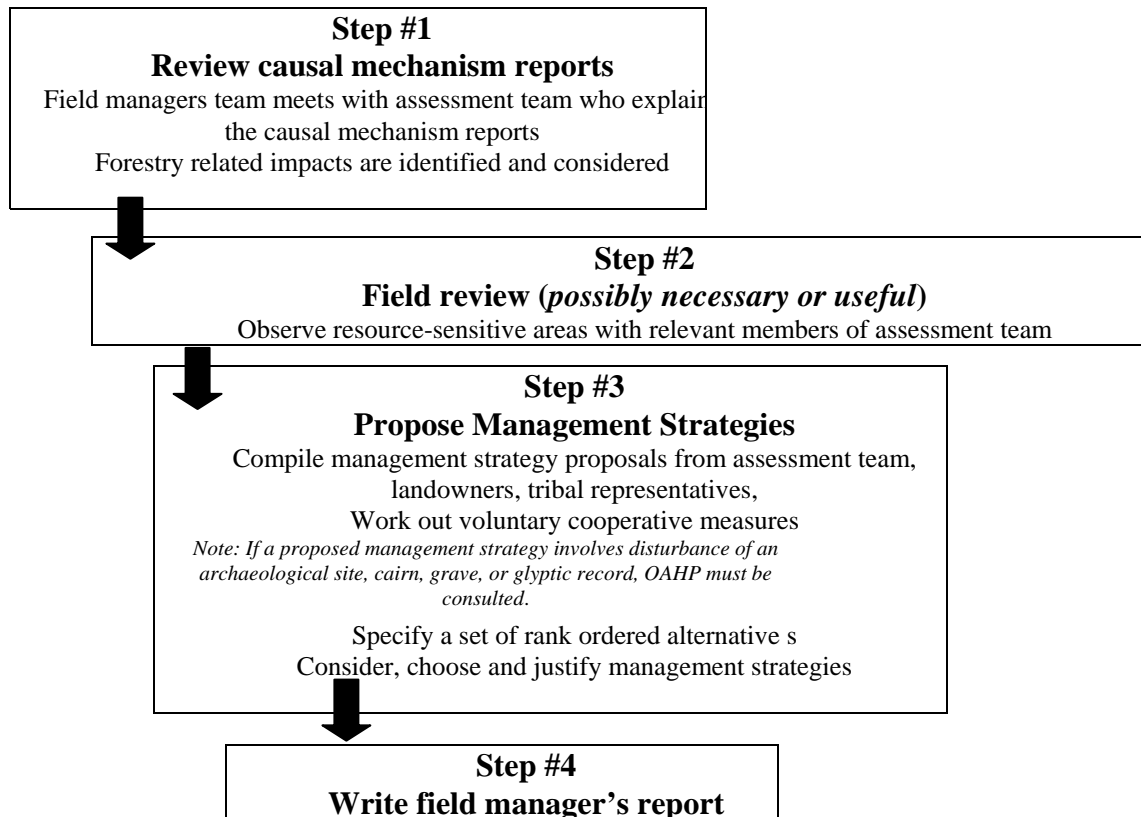
\_\_\_\_\_  
\_\_\_\_\_

## PROCESS FOR DEVELOPING MANAGEMENT STRATEGIES

**The role of management strategies and cooperative agreements** This stage of watershed analysis follows the assessment teams’ synthesis process and is conducted by the field managers team, including the tribe(s) involved, using the causal mechanism reports as the basis for proposing management strategies. The chart below characterizes the process as it applies to cultural resources. Regulatory prescriptions for the other modules are replaced by voluntary management strategies for cultural resources since solutions are by cooperative agreement between affected tribe(s) and landowners. Note that there are existing laws and regulations pertaining to disturbance of archaeological sites and cairns, graves and glyptic records (chapters 27.44 and 27.53 RCW) so OAHP is consulted on these management strategies. Figure 4 shows how the WSA prescription process is used working out CR management strategies.

*Figure 4*

### Working out Management Strategies for Cultural Resources



**The field managers team** - In watershed analyses, the prescription and management strategy writing process is performed by a team of field managers, including landowners and the affected tribes involved in the watershed. Their role is to develop management options to protect or allow the recovery of resources by measures that minimize or prevent

or avoid the risks identified in the assessment. The field managers team may or may not be members of the assessment teams that conducted the research that produced the inventory and assessment. In a watershed analysis or in an investigation not associated with a full WSA, it may be largely the same group that performs all of the CR assessment; or, in tribal CR projects, the tribe can produce the inventory and then tribal representatives can meet with a group that may include specialists, DNR officials and landowners for the assessment and management strategy phase. It is useful for the field managers team to assemble early enough so that they can observe the synthesis sessions to better understand the results of the assessment process.

**Use of the causal mechanism reports** – The field managers team meets with the assessment team to understand the resource sensitive areas identified in the causal mechanism reports. Impacts that are caused by non-forestry related issues should be identified. The assessment team will have identified various causal mechanisms. In these cases and in mixed-use areas, the field managers team will clarify which aspects or impacts are forestry-related and develop prescriptions only for those that are forestry-related. Impacts that are not forestry-related should be referred in the final report to the proper jurisdictional authorities. Impacts to cultural resources that are probably related to previous or anticipated forestry activities are identified for consideration. Thus, this initial review process is to identify the causes of problems, linking resource effects to existing or potential hazards. In cases where the probable cause is forestry, the intent is to identify CRs that have been damaged or should be considered for protection, enhancement, restoration or monitoring.

Clarification, discussion and negotiation characterize the entire management strategy process. There are various alternatives for responding to sensitive cultural resources, and the team is encouraged, wherever possible, to suggest two or more alternative series of actions to address each of the issues identified in the causal mechanism reports. Finding solutions is a process, rather than a judgment handed down. It is important that the field manager's team understand the values and traditions that relate to tribal cultural resources, so tribal representatives on the prescription and management strategy team should be prepared, within the context of confidentiality and trust, to discuss sensitive CRs.

**Field review** – Although information gathered and developed during assessment is generally the basis for the prescription process in WSA, field review by members of the field managers team and appropriate members of the assessment team may be deemed useful for clarification in some cases. On-site inspection may help elucidate and simplify issues. For instance, field visits may help clarify whether CR concerns are site-specific or area-wide. It may also be a venue for productive discussion of voluntary or cooperative actions. Sometimes inspection allows the group to generate various options to address the processes and issues identified in the causal mechanism report, alternatives that may even go beyond prevention to restoration. It also sometimes allows the team to identify those alternatives that may not reasonably be expected to work. The field review is not simply a tour of inspection, but a part of the process of considering mutually acceptable management strategies.

**Writing management strategies** – Management strategies for cultural resources must be reasonably designed to respond to the problematic resource issue. OAHP is consulted whenever an archaeological site, cairn, grave or glyptic record is involved. The assessment team may propose workable alternatives for each of the forestry-related issues or problems identified. Furthermore, each landowner in the watershed is entitled to submit draft management strategies to the team. For tribal cultural resources, the most successful resource management strategies have generally arisen in voluntary agreements, such as MOUs, between tribes, landowners and land managers. Management strategies need to be clearly stated and complete, including time frames for operations and monitoring provisions.

**Types of management strategies** – Management strategies are discussed in the context of the causal mechanism reports and utilizing the expertise of the field managers team. Ideally, a number of alternative strategies will be considered for each area of resource sensitivity. For example:

1. *Relating to timber harvest*: alternative methods of harvest (e.g., even-age or uneven-age or designated skid trails), harvest limitations, timing of harvest activities, wet weather restrictions, buffers, possibility of postponing or modifying harvest.
2. *Relating to road construction*: changing location to avoid CRs or minimize clearing width to reduce impact;
3. *Relating to road use and maintenance*: regulating frequency or timing of use, access or activities, surface treatment to protect cultural resources in place and revegetation of disturbed ground with native plants of cultural significance.
4. *Relating to vegetation management*: plant trees of cultural significance, retaining native vegetation, limit non-Indian gathering.

For each of the forestry issues outlined above, modification of forest practices activity is an alternative strategy. Cooperative and mutual consideration of management strategies that recognize landowner objectives as well as tribal sentiments lead to creative problem solving and is essential for the process of working out mutually satisfying, management strategies.

The discussions and evaluations of alternative management strategies will result in the selection of appropriate management strategies for most of the problems and sensitive CR issues identified by the assessment team in the causal mechanism reports. This may not be the case for every site or resource as the subjective nature of tribal cultural resources creates issues that vary from case to case. For instance, it is impossible to measure supernatural and mythic sites or calculate the degree to which forest practices represent a danger to those resources. The most effective way to handle questions that relate to values, cultural expectations and customary appropriateness is through discussions characterized by trust and the attempt to reach mutually satisfactory outcomes.

Sufficient rationale to explain the choice of management strategy should be appended to the prescription and management strategy report. This evidence should, with regard to both tribal and non-tribal CRs, reasonably demonstrate that the management strategy will adequately address the specific processes and issues identified in the causal mechanism report. Explanations of the logic of the management strategy and examples of successful management strategies from past operations are helpful.

**Reaching consensus** - The goal of the field managers team is consensus on management strategies. The conduct of the CR module has been based on a relationship of trust and mutual respect that has developed through the process. This relationship should assist the field managers team in reaching consensus decisions on CR management strategies.

The management strategies will be considered agreed upon when:

1. The tribes, landowners, and land managers on the field managers team that are affected by a management strategy for a tribal cultural resource identified in the assessment agree upon the management strategy proposed for that tribal cultural resource, and
2. OAHP agrees that the management strategies adequately protect tribal and non-tribal sites registered on the OAHP archaeological and historic sites database and all resources that require mandatory protection under chapters 27.44 and 27.53 RCW.

If the field managers team is having difficulty reaching consensus, the following process, in the order given, is recommended to help resolve the issues.

1. Contact the assessment team for additional information, clarification and input.
2. Assign a small 'subgroup' that includes one representative from the tribe(s), landowner(s) or land manager(s) and DNR to develop options and a recommendation.
3. Contact people previously involved in a successful CR module development.
4. Elevate to higher authority in the respective organizations (policy level and tribal council level).
5. Engage a mediator.

**The field managers team report** – For a formal WSA, the field managers team will compile the management strategies for each causal mechanism report situation and document this on the Management Strategy Report, Form J-6. Maps and drawings may be helpful as appendices. These forms become part of the final report for the watershed analysis so tribal representatives must be consulted to assure that these public documents do not compromise the confidentiality of a tribal cultural resource. At the request of the tribe, OAHP may review the plan. For a stand-alone process, the form can be useful or another format can be used.

**Form J-6**

**Watershed Analysis Process (required form)**

**Field Managers Team Cultural Resources Management Strategy Report**

**WAU:** \_\_\_\_\_ **Resource Sensitivity Number:** \_\_\_\_\_

**Location:** \_\_\_\_\_

**Situation Sentence (from causal mechanism report):**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Triggering Mechanism (from causal mechanism report):**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Risk Call for Management Response (from causal mechanism report):**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Voluntary Management Strategy <sup>1</sup>:** \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

**Rationale:** \_\_\_\_\_

\_\_\_\_\_

<sup>1</sup> Consult with and obtain agreement from the Office of Archaeology and Historic Preservation for management strategies involving tribal and non-tribal sites registered on the OAHP archaeological and historic sites database and all resources that require mandatory protection under chapters 27.44 and 27.53 RCW.

**Alternate Management Options:** \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Rationale:** \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

**Time Frame for Implementation:** \_\_\_\_\_

**Management Strategy Determination:**

The tribes, landowners, and land managers on the field managers team that are affected by a management strategy for a cultural resource – and where applicable, OAHP – agree upon the management strategy proposed for that cultural resource.

Tribe(s):

Agree

Landowner(s) and /or Land Manager(s):

Agree

Office of Archaeology and Historic Preservation (OAHP) *(see footnote 1)*:

Agree



## **WRAP UP**

Once the entire watershed analysis is completed, there is one last task in which the complete watershed analysis team generally participates: developing the monitoring module. Cultural resources should also be considered during development of the monitoring module. The need for monitoring should also be evaluated when the cultural resources module is deployed as a stand-alone.

At this point, tribal representatives, land managers and landowners can establish MOUs or other formal arrangements. MOUs have been identified as a preferred pathway by landowners, land managers and tribes for protecting cultural resources on forestland. Landowners, land managers and tribes are encouraged to develop an MOU upon completion of the WSA or stand-alone process. An outcome based MOU could incorporate the CR management strategies and provides for resolution of issues not within the scope of the WSA and continuing contact regarding issues resolved or left to be discussed and arranged at some future point.

## Appendix I – An alternative method for guiding the development of management strategies

*Figure 5*

**Matrix Used to Produce Management Response (Risk Call) For a Given Cultural Resources Location Problem Statement**

		Resource Vulnerability (Likelihood of Adverse Change)		
		<b>L</b>	<b>M</b>	<b>H</b>
Resource Importance	<b>L</b>	Low risk, standard practices	Low risk, standard practices	Moderate risk Minimize impacts
	<b>M</b>	Low risk, standard practices	Moderate risk Minimize impacts	High Risk Prevent or avoid impacts
	<b>H</b>	Low risk, standard practices	High Risk Prevent or avoid impacts	High Risk Prevent or avoid impacts

As an example, in the case of a CR such as the site of a historic post office, now barren and overgrown, in an area scheduled for forest practices, the synthesis process would consider (a) whether the resource importance would be low, medium or high, and (b) whether the likelihood of adverse change due to logging would be low, medium or high. These are subjective valuations. But, if CR assessment team suggests that public sentiment feels the resource importance is medium and the likelihood of adverse change as a result of forest practice is low, the risk call would be “low risk”, i.e., that standard management practice would probably not adversely affect the site. Again, it must be remembered that this method of calculations is used to assist in the calculation of impacts to subjectively evaluated resources and that management strategies are a voluntary response best worked out in mutual cooperation.

## **Appendix II – Cultural resources module report checklist**

DNR will use the following criteria to determine if the cultural resources module has been completed as part of a forest practices watershed analysis.

### **Assessment**

- Were the CR assessment team leader(s) qualified?
- Were the appropriate tribes involved in both the CR WSA teams and assessment interviews?
- Was the assessment process complete?
  1. Maps
    - Map J-1: Tribal cultural resources (except those intentionally excluded due to tribal confidentiality concerns)
    - Map J-2: Non-tribal cultural resources
  2. Summary Data
    - Form J-3 Tribal Cultural Resources Assessment Form
    - Form J-4 Non-Tribal Cultural Resources Assessment Form
    - Form J-5 Causal Mechanism Reports
- Was a peer review performed on the assessment report?

### **Management Strategies**

- Were the cultural resources management strategy team leader(s) qualified?
- Were the appropriate tribes involved in the management strategy process?
- Was the management strategy process complete?

Form J-6 is written for each cultural resources causal mechanism report and the tribes, landowners, and land managers affected by the management strategy, and OAHP if applicable, confirm on Form J-6 that:

1. The tribes, landowners, and land managers on the field managers team that are affected by a management strategy for a tribal cultural resource agree upon the management strategy proposed for that tribal cultural resource, and
2. OAHP agrees that the management strategies adequately protect tribal and non-tribal sites registered on the OAHP archaeological and historic sites database and all resources that require mandatory protection under chapters 27.44 and 27.53 RCW.

## Appendix B

### Consideration of revisions to Forest Practices Application/Notification

(pg 2) of Application

### Forest Practices Application/Notification

1. Is the forest practice activity within city limits?

- Yes      **If Yes, name city:** \_\_\_\_\_  
 No

2. Is the forest practice activity within a public park?

- Yes      **If Yes, name park:** \_\_\_\_\_  
 No

3. Is the forest practice activity within 500 feet of a public park?

- Yes  
 No

4. Read the instructions before answering this question.

Are there any archaeological or historic sites registered with the State of Washington or sites likely to contain evidence of Native American cairns, graves, or glyptic records present on the site?

- Yes  
 No  
 Unknown

5. Was land platted after January 1, 1960?

- Yes      **If Yes, suggest applicant contact the appropriate Department of Natural Resources (DNR) Regional Office. Process varies by proposal and county.**  
 No

6. Within 3 years, does the landowner intend to convert this land to a use that is incompatible with growing timber?

- Yes      **If Yes, suggest applicant contact the appropriate DNR Regional Office. Process varies by proposal and county.**  
 No

7. Does landowner have an approved Conversion Option Harvest Plan (COHP) for the land where the landowner intends to conduct a forest practice?

- Yes      **If Yes, include a copy of the approved COHP.**  
 No

## General Questions

Complete all questions and complete appropriate sections indicated by any of the following questions answered with a “yes”

### **Instructions for Completing Washington’s Forest Practices Application/Notification:**

#### **Question 4:**

DNR will review your application to determine whether it may involve Native American cultural resources. If it does, you are required to meet with the affected tribe or tribes with the objective of agreeing on a plan for protection of the archaeological or cultural value.

If you know or are unsure that your application involves Native American cultural resources, you are encouraged to contact the affected tribe or tribes as soon as possible. If the activity meets any of the criteria below it is recommended that the landowner consult with the affected Indian Tribe(s) as to possible impacts prior to submittal of the FPA/N.

Areas that are most likely to contain Native American cultural resources are:

- Along defined ridge lines and at saddles
- Flat ground near natural water (including terraces)
- Talus slopes
- Cedar tree stands containing older, scarred trees

For information on contacting tribes, visit the Washington State Tribal Directory at [HTTP://www.goia.wa.gov](http://www.goia.wa.gov). Your DNR region office can also identify which tribe(s) to contact

## Appendix C

The Timber Fish and Wildlife Cultural Resources Committee recommends that the Department of Natural Resources take the following recommendations under consideration, to the extent possible, as they develop guidance for WAC 222-20-120.

- Request from tribes the names, phone numbers and e-mail addresses of specific cultural resource contact persons.
- Request that tribes designate a specific geographical area and type of forest practice of “concern involving cultural resources.”
- Make these contacts and designated geographical areas available to landowners on request.
- Notify each tribal cultural resource contact of FPAs submitted within their designated geographical areas of concern.
  - Inform the tribal cultural resource contact regarding the review period for each FPA based on the Department’s classification of the FPA.
- If requested by the landowner or operator, notify them if their FPA is within an area of concern involving a cultural resource.
- Receive from an affected tribe notice of the presence of a specific cultural resource issue within the operation boundaries of an FPA. Notification must occur in a timely manner.
  - Urge the tribes to include whatever information on their concern that they can disclose.
  - Urge the tribes to include dates, times and location that they would be available for meeting with the landowner and a contact phone number and/or e-mail address; alternately,
  - If the tribal cultural resource contact is familiar with the landowner or operator, suggest that they contact that person directly with cultural resource concerns and make arrangements for a meeting.
- Notify the landowner and operator that a meeting with the affected tribe is necessary and that the objective of the meeting is to develop a plan acceptable to both parties for protecting the archaeological or cultural value.
  - Pass on information provided by the tribe on the nature of the concern and proposed arrangements for a meeting.
  - Notify the landowner and operator that they will need to provide DNR documentation that the meeting with the tribe took place and that the objective was addressed in good faith, or
  - If a meeting did not take place, documentation that the landowner was responsive and available.
- The department may condition the application in accordance with a plan as agreed to by both the tribe and landowner.
- Notify the affected tribe of DNR action on the FPA.
- DNR will maintain a record of FPAs that:
  - Involve forest practices that occur within areas of concern as designated by tribes;
  - Trigger a determination by a tribe that a meeting with the landowner is necessary;
  - Resulted in a documented meeting taking place;
  - Resulted in mutually agreed to conditions to the application;
  - Resulted in no meeting or agreement taking place;

## Chapter 222-08 WAC

### PRACTICES AND PROCEDURES

#### WAC

- 222-08-010 Appeals.
- 222-08-020 Orientation and training.
- 222-08-030 Reporting procedures.
- 222-08-035 Continuing review of forest practices rules.
- 222-08-040 Regular meetings.

*Note: Rules marked with an asterisk (\*) are co-adapted by the Department of Ecology because they pertain to water quality. See WAC 222-12-010.*

**WAC 222-08-010 Appeals.** All appeals from actions regarding forest practices shall be in accordance with RCW 76.09.210, 76.09.220 and 76.09.230.

**WAC 222-08-020 Orientation and training.** The department shall be responsible for a continuing program of orientation and training, relating to forest practices and rules thereof, pursuant to RCW 76.09.250. Such program shall include:

- (1) **Investigation of current developments** in and practical applications of forest resources and related technology.
- (2) **Continuing training** of department personnel in the current status of forest resources technology and related disciplines.
- (3) **Dissemination of information** on current forest practice technology to the public, in a manner determined by the department to be effective.

**WAC 222-08-030 Reporting procedures.** The department shall:

- (1) **Survey and identify** all silviculturally related nonpoint sources of pollution and related control programs in the state,
- (2) **Prepare an analysis** of the above activities and programs, and
- (3) **Report and recommend** to the forest practices board and to the governor additional rules, procedures and/or methods necessary for the control of such sources to the extent feasible.

**WAC 222-08-035 Continuing review of forest practices rules.**

- \*(1) Annual evaluations. The department, after consulting with affected state agencies, Indian tribes, forest landowners, fish and wildlife, natural resources, and environmental interest groupsshall report annually to the forest practices board. This reporting will be an assessment of how the rules and voluntary processes, including the Cultural Resources Protection and Management Plan, as committed in the 1999 Forests and Fish Report, Appendix O (O.3), are working.**

- 1 \*(2) **Adaptive management program.** The adaptive management program will be used to determine  
2 the effectiveness of forest practices rules in aiding the state's salmon recovery effort and provide  
3 recommendations to the board on proposed changes to forest practices rules to meet timber industry  
4 viability and salmon recovery. The program provides assurances that rules and guidance not  
5 meeting aquatic resource objectives will be modified in a streamlined and timely manner. The  
6 board may also use this program to adjust other forest practice rules and guidance in order to further  
7 the purposes of chapter 76.09 RCW. The specific components of the adaptive management  
8 program are set forth in WAC 222-12-045.
- 9 (3) **Resource management plans.** The department is directed to develop a method for cooperative  
10 voluntary resource management planning among forest landowners, governmental agencies,  
11 affected Indian tribes, and environmental groups which would result in the development of plans  
12 which might be used as an alternative to the forest practice rules in achieving the purposes and  
13 policies set forth in the act. This should be done through pilot projects, at least one of which should  
14 be located on the east side of the Cascade summit and one on the west side of the Cascade summit.
- 15 (4) **Compliance monitoring.** The department shall conduct compliance monitoring that addresses the  
16 following key question: "Are forest practices being conducted in compliance with the rules?" The  
17 department shall provide statistically sound, biennial compliance audits and monitoring reports to  
18 the board for consideration and support of rule and guidance analysis. Compliance monitoring shall  
19 determine whether forest practices rules are being implemented on the ground. An infrastructure to  
20 support compliance will include adequate compliance monitoring, enforcement, training, education  
21 and budget.

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WAC 222-08-040 Regular meetings. **Regular meetings of the forest practices board shall be held quarterly on the second Wednesday of February, May, August and November, at a location to be designated by the forest practices board. Any person may obtain information as to said location and meeting time by contacting the Department of Natural Resources, Forest Practices Division, Olympia, Washington 98504-7012. A schedule of meetings will be published in the Washington Register in January of each year.**



## Chapter 222-12 WAC

### POLICY AND ORGANIZATION

#### WAC

- 222-12-010 Authority.
- 222-12-020 Rule sections.
- 222-12-030 Classes of forest practices.
- 222-12-040 Alternate plans--Policy.
- 222-12-0401 Alternate plans--Process.
- 222-12-0402 Assistance available for small forest landowners.
- 222-12-0403 Cooperative development of guidelines for alternate plans.
- 222-12-0404 Cooperation for effective alternate planning.
- 222-12-0405 Auditing and monitoring.
- 222-12-041 Use of approved state and federal conservation agreements for aquatic resources.
- 222-12-044 Cooperative opportunities.
- 222-12-045 Adaptive management program.
- 222-12-046 Cumulative effects.
- 222-12-050 Notices to comply--Stop work orders.
- 222-12-060 Supplemental directives.
- 222-12-070 Enforcement policy.
- 222-12-080 Administrative and judicial appeals.
- 222-12-090 Forest practices board manual.

*Note: Rules marked with an asterisk (\*) are co-adopted by the Department of Ecology because they pertain to water quality. See WAC 222-12-010.*

**WAC 222-12-010 Authority.** These forest practices rules are adopted pursuant to chapter 76.09 RCW, RCW 76.13.100 through 76.13.130, and RCW 77.85.180 through 77.85.190. Where necessary to accomplish the purposes and policies stated in the act, the board is authorized to promulgate forest practices rules pursuant to chapter 34.05 RCW and in accordance with the procedures enumerated in the act. These rules establish minimum standards for forest practices, provide procedures for the voluntary development of resource management plans, set forth necessary administrative provisions, establish procedures for the collection and administration of forest practice fees, allow for the development of watershed analyses, [foster cooperative relationships and agreements with affected tribes](#), and establish the riparian open space program. The board also establishes which forest practices will be included within each class and is authorized to adopt rules under RCW 76.09.055, 76.09.370, and 76.13.120(9).

Promulgation of all forest practices rules shall be accomplished so that compliance with such forest practices rules will achieve compliance with the water quality laws.

Those rules marked with an asterisk (.\* ) pertain to water quality protection; pursuant to RCW 76.09.040 they can be amended only by agreement between the board and the department of ecology.

Forest practices rules shall be administered and enforced by the department except as otherwise provided in the act. Such rules shall be administered so as to give consideration to all purposes and policies set forth in RCW 76.09.010.

1  
2 **WAC 222-12-020 Rule sections.** These rules are organized as follows:  
3

Chapter 222-08	Practices and procedures.
WAC	
Chapter 222-10	State Environmental Policy Act
WAC	Guidelines.
Chapter 222-12	Policy and organization.
WAC	
Chapter 222-16	Definitions.
WAC	
Chapter 222-20	Application and notification procedures.
WAC	
Chapter 222-21	Small forest landowner forestry riparian
WAC	easement program.
Chapter 222-22	Watershed analysis.
WAC	
Chapter 222-23	Riparian open space program.
WAC	
Chapter 222-24	Road construction and maintenance.
WAC	
Chapter 222-30	Timber harvesting.
WAC	
Chapter 222-34	Reforestation.
WAC	
Chapter 222-38	Forest chemicals.
WAC	
Chapter 222-42	Supplemental directives.
WAC	
Chapter 222-46	Consultation and enforcement.
WAC	
Chapter 222-50	Relationship to other laws and rules.
WAC	

4  
5 **WAC 222-12-030 Classes of forest practices.** Forest practices are divided into four classes as  
6 specified by RCW 76.09.050. In certain emergencies, as defined in RCW 76.09.060(7), the application  
7 or notification may be submitted within 48 hours after commencement of the practice.

- 8 (1) **Class I forest practices** require no application or notification, but do require compliance with all  
9 other forest practices rules.
- 10 (2) **Class II forest practices** require a notification to the department, and may begin 5 calendar days  
11 (or such lesser time as the department may determine) after receipt of a notification by the  
12 department.
- 13 (3) **Class III forest practices** must be approved or disapproved within 30 or fewer calendar days of  
14 receipt of an application by the department. The department is directed to approve or disapprove  
15 within 14 calendar days Class III applications not requiring additional field review. Multiyear  
16 applications must be approved or disapproved within 45 days of receipt of an application by the  
17 department.

- 1 (4) **Class IV forest practices** are divided into "Class IV - special," and "Class IV - general," and must  
 2 be approved or disapproved within 30 calendar days of receipt of an application by the department,  
 3 except that if a detailed environmental statement is necessary, additional time for approval or  
 4 disapproval as specified in RCW 76.09.050 will be required.

5  
 6 **WAC \*222-12-040 . Alternate plans--Policy.** All forest practice operations must comply with both  
 7 the act and the rules promulgated pursuant to the act, unless an alternate plan has been approved by the  
 8 department.

- 9 (1) The alternate plan process can be used as a tool to deal with a variety of situations, including where  
 10 the cumulative impacts of regulations disproportionately impact a landowner. In some instances an  
 11 alternate plan may be used to make minor on-the-ground modifications, which result in significant  
 12 operation efficiencies. The alternate plan process may be used to address circumstances where a  
 13 landowner has an economically inaccessible unit. The alternate plan process may also be used to  
 14 facilitate voluntary landscape, riparian or stream restoration. In all cases, the alternate planning  
 15 process will result in a plan that provides protection to public resources at least equal in overall  
 16 effectiveness as provided by the act and rules while seeking to minimize constraints to the  
 17 management of the affected lands.
- 18 (2) The legislature has found in RCW 76.13.100(2) that small forest landowners should also have the  
 19 option of alternate management plans or alternate harvest restrictions on smaller harvest units that  
 20 may have a relatively low impact on aquatic resources. These alternate plans are intended to  
 21 provide flexibility to small forest landowners that will still provide protection of riparian functions  
 22 based on specific field conditions or stream conditions on the landowner's property.
- 23 (3) Alternate plans do not replace other rules that recognize different types of landowner plans. See  
 24 e.g., WAC 222-08-035(3), 222-12-041, 222-16-080(6), 222-16-100(1), and 222-16-105.
- 25 (4) Landowners are encouraged to communicate with the departments of ecology, fish and wildlife,  
 26 affected Indian tribes, the National Marine Fisheries Service, the United States Fish and Wildlife  
 27 Service and other interested parties prior to submission of an application accompanied by an  
 28 alternate plan.

29  
 30 **WAC 222-12-0401 . \*Alternate plans--Process.**

- 31 (1) **Application.** A landowner may submit an alternate plan that departs from the specific provisions  
 32 of chapters 222-22 through 222-38 WAC for any or all of the activities described in the application.  
 33 Alternate plans must be submitted with either a two-year or multiyear application. Alternate plans  
 34 may support a single forest practices application or multiple applications if the sites included in the  
 35 plan have sufficient common physical characteristics and elements to justify being considered  
 36 together. See *board manual* section 21.
- 37 (2) **Plan preparation.** The landowner is responsible for preparing and submitting an alternate plan.  
 38 Small forest landowners may wish to seek the assistance of the small forest landowner office. See  
 39 WAC 222-12-0402.
- 40 (3) **Contents of alternate plans.** Alternate plans must contain all of the following:  
 41 (a) A map of the area covered, at a scale acceptable to the department showing the location of any  
 42 affected streams and other waters, wetlands, unstable slopes, and existing roads. The map must  
 43 also show the location of proposed road construction, timber harvest, and other forest practices;  
 44 (b) A description of how the alternate plan provides public resource protection to meet the approval  
 45 standard, including a description of the proposed alternate management strategy, prescriptions,  
 46 and where applicable, aquatic resource enhancements;  
 47 (c) A list of the forest practices rules that the alternate management plan is intended to replace;

- (d) Where applicable, descriptions of monitoring and adaptive management strategies, including landowner plans for annual performance reviews;
- (e) Where applicable, descriptions of an implementation schedule; and
- (f) When multiple forest practices applications are submitted with the same alternate plan or when an alternate plan has been used for previous applications, justification that the sites included in the plan share sufficient common physical characteristics and elements to be considered together.

(4) **Review of proposed plan.** Upon receipt of a forest practices application together with an alternate plan, the department will do all of the following:

- (a) Appoint an interdisciplinary team.
- (b) Establish a deadline for completion of the interdisciplinary team review that is consistent with the requirements of subsection (5) of this rule; and
- (c) Within 5 business days of receipt of an application with an alternate plan, provide copies of the application and alternate plan to the departments of ecology and fish and wildlife, affected Indian tribes, the National Marine Fisheries Service, the United States Fish and Wildlife Service, and other parties that have expressed an interest in alternate plans in the area of the application. If the landowner is a small forest landowner under WAC 222-21-010(11), copies should also be provided to the small forest landowners office.

(5) **Interdisciplinary team.**

- (a) The department will determine the members invited to participate on an interdisciplinary team. Teams will include members with the qualifications necessary to evaluate the alternate plan. A representative of any affected Indian tribe, and departments of ecology and fish and wildlife will be invited to participate. Each team will include a representative of the landowner and a professional forester employed by the department and shall be led by a department employee.
- (b) The interdisciplinary team will conduct a site visit and submit a recommendation to the department at least 3 days prior to the expiration of the application time limit in WAC 222-20-020. The interdisciplinary team may submit a recommendation without a site visit if a small forest landowner under WAC 222-21-010(11) submitted the alternate plan using a template contained in the *board manual* and is a low impact alternate plan and the team determines a visit is not necessary to evaluate the site specific application of a template or a low impact alternate plan.
- (c) The recommendation of the interdisciplinary team shall indicate whether the alternate plan meets the approval standard, or what revisions are necessary to meet the approval standard. The team is intended to work with the landowner in an attempt to reach consensus on the efficacy of the alternate plan. In the absence of consensus, the team will forward reports reflecting the majority and minority opinions, or the landowner may elect to withdraw or revise the proposal.

(6) **Approval standard.** An alternate plan must provide protection for public resources at least equal in overall effectiveness to the protection provided in the act and rules.

(7) **Approval, conditions, or disapproval.** Upon receipt of the interdisciplinary team's recommendation, the department shall determine whether to approve, disapprove, or condition the application based on the approval standard. The department shall give substantial weight to the recommendations of the interdisciplinary team in cases where a consensus recommendation is forwarded. If the department disapproves or conditions a forest practices application with an alternate plan, the department will provide a written statement to the landowner explaining why the application was conditioned or denied.

**WAC \*222-12-0402 . Assistance available for small forest landowners.**

- 1 (1) The small forest landowner office has been established within the department to be a resource and  
 2 focal point for small forest landowner concerns and policies. A small forest landowner is defined in  
 3 WAC 222-21-010(11). The legislature recognized that the further reduction in harvestable timber  
 4 owned by small forest landowners would further erode small forest landowner's economic viability  
 5 and willingness or ability to keep the lands in forestry use, and, therefore, reduced the amount of  
 6 habitat available for salmon recovery and conservation of other aquatic resources. The legislature  
 7 has directed that office to assist small forest landowners in preparing alternate plans appropriate to  
 8 small forest landowners. See RCW 76.13.100 and 76.13.110(3).
- 9 (2) Small forest landowners interested in alternate plans are encouraged to contact the small forest  
 10 landowner office for assistance in preparing an alternate plan. The office may provide technical  
 11 assistance in understanding and using the *board manual* for alternate plans (section 21), assistance  
 12 in developing an individualized alternate plan for the small forest landowner and facilitation of  
 13 small forest landowner interactions with the department, other state agencies, federal agencies,  
 14 affected Indian tribes and the interdisciplinary team that may review the small forest landowner's  
 15 alternate plan.

16  
 17 **WAC \*222-12-0403 . Cooperative development of guidelines for alternate plans.** The department  
 18 will develop the section for alternate plans (WAC 222-12-090(21)) to submit to the board in cooperation  
 19 with representatives of the small forest landowner office and advisory committee, the departments of  
 20 ecology and fish and wildlife, United States Fish and Wildlife Service, National Marine Fisheries  
 21 Service, and affected Indian tribes.

22 The manual should include:

- 23 (1) As required by RCW 76.13.110(3), the small forest landowner office recommendations for alternate  
 24 plans or alternate harvest restrictions that meet riparian functions while generally requiring less  
 25 costly regulatory prescriptions;  
 26 (2) The effectiveness of strategies for meeting resource objectives and protecting public resources;  
 27 (3) Template prescriptions designed to meet resource objectives to address common situations that are  
 28 repeatedly addressed in alternate plans or strategies to simplify the development of future plans or  
 29 strategies, including low impact situations and site-specific physical features;  
 30 (4) Appropriate recognition or credit for improving the condition of public resources; and  
 31 (5) Criteria to assist the department in determining whether a small forest landowner alternate plan  
 32 qualifies as a low impact alternate plan.

33  
 34 **WAC \*222-12-0404 . Cooperation for effective alternate planning.** The department will work  
 35 cooperatively with associations representing the interests of large and small forest landowners to  
 36 develop more efficient alternate planning guidance and processes. In pursuing greater efficiency and  
 37 technical assistance, the department will consider:

- 38 (1) Successful alternate plans, and small forest landowner alternate management strategies and  
 39 processes that can be used by other small forest landowners as examples of the plan development  
 40 and approval process;  
 41 (2) Auditing and monitoring results;  
 42 (3) Maintaining a list of technical experts available to landowners in preparing such plans; and  
 43 (4) Partnerships between the department and organizations supporting forest land stewardship  
 44 principles.

45  
 46 **WAC \*222-12-0405 . Auditing and monitoring.**

- 47 (1) Audits. The department will conduct audits of landowner's compliance with the terms of alternate

1 plans. The department will specifically review and approve each landowners scheduled  
 2 performance reports, if a performance report is required, by checking the reports themselves or by  
 3 implementing a more extensive audit involving field verification. The department audit program  
 4 for alternate plans will be designed to be consistent with the terms of any agreements with the  
 5 federal government regarding fish and water quality.

- 6 (2) The small landowners office is required by RCW 76.13.110(3) to evaluate the cumulative impact of  
 7 alternate plans for small forest landowners on essential riparian functions at the subbasin or  
 8 watershed level. The department will provide the result of this evaluation to the board.

9  
 10 **WAC 222-12-041 Use of approved state and federal conservation agreements for aquatic**  
 11 **resources.**

- 12 (1) Forest practices consistent with an agreement described in subsection (3) below are exempt from  
 13 the forest practices rules in chapters 222-22 through 222-38 WAC if the following criteria are met:  
 14 (a) The forest practices rule pertains to a species included within aquatic resources and that species  
 15 is covered by an agreement listed in subsection (3) below; and  
 16 (b) The primary risk(s) to public resources addressed by the forest practice rules (e.g., delivery of  
 17 sediment to waters from roads, harvest activities, or mass wasting events; chemical  
 18 contamination of waters; inadequate recruitment of large woody debris; delivery of thermal  
 19 energy to waters) is addressed in the agreement. The agreement may address the risk using  
 20 different prescriptions, approaches, or timing than the forest practice rule.
- 21 (2) (a) When the landowner submits an application or notification, the landowner must include a  
 22 proposed list of specific rules replaced.  
 23 (b) The department will review and confirm whether the rules identified by the landowner meet the  
 24 criteria identified in subsection (1) above.  
 25 (c) At the request of the department, the landowner will confer in good faith with the department  
 26 and provide the department and other interested parties with information necessary to assist the  
 27 department in implementing this section.
- 28 (3) This section applies to landowners who are operating consistent with one of the following  
 29 agreements that covers a species included within aquatic resources provided that the agreement has  
 30 received environmental review with an opportunity for public comment under the National  
 31 Environmental Policy Act, 42 U.S.C. section 4321 et seq., the Endangered Species Act, 16 U.S.C.  
 32 section 1531 et seq., or the State Environmental Policy Act, chapter 43.21C RCW;  
 33 (a) A habitat conservation plan and incidental take permit approved by the Secretary of the Interior  
 34 or Commerce pursuant to 16 U.S.C. section 1539(a);  
 35 (b) An incidental take statement issued by the Secretary of the Interior or Commerce pursuant to 16  
 36 U.S.C. 1536(b);  
 37 (c) An "unlisted species agreement" approved by the U.S. Fish and Wildlife Service or National  
 38 Marine Fisheries Service; or  
 39 (d) A candidate conservation agreement or other cooperative or conservation agreement entered  
 40 into with a federal or state fish and wildlife agency pursuant to its statutory authority for fish  
 41 and wildlife protection.  
 42 For any agreement with a formal application date after July 1, 2001, the landowner must have  
 43 made a good faith effort to involve the department of fish and wildlife, the department of  
 44 ecology, department of natural resources, and affected Indian tribes in the development of the  
 45 related plan or management strategy.

46  
 47 **WAC 222-12-044 Cooperative opportunities.** The forest practices board recognizes and encourages

1 collaborative efforts to build solutions to pressing forest practices issues. The forest practices board  
 2 may at any time use this method to assist in assessing and recommending solutions to issues. The  
 3 benefits of this method lie in the ability of disparate groups to use consensus processes to bring  
 4 recommendations to the forest practices board. The board will continue to utilize collaborative efforts,  
 5 such as the Timber, Fish, and Wildlife (TFW) or similar forum. Participants would ideally consist of  
 6 representation by timber interests, environmental interests, state agencies, local government, federal  
 7 agencies, tribal governments and other interested parties so long as the collaborative effort utilizes a  
 8 consensus approach to resolving or addressing issues.

9  
 10 **WAC \*222-12-045 . Adaptive management program.** In order to further the purposes of chapter  
 11 76.09 RCW, the board has adopted and will manage a formal science-based program, as set forth in  
 12 WAC 222-08-035(2). Refer to board manual section 22 for program guidance and further information.

13 (1) **Purpose:** The purpose of the program is to provide science-based recommendations and technical  
 14 information to assist the board in determining if and when it is necessary or advisable to adjust rules  
 15 and guidance for aquatic resources to achieve resource goals and objectives. The board may also  
 16 use this program to adjust other rules and guidance. The goal of the program is to affect change  
 17 when it is necessary or advisable to adjust rules and guidance to achieve the goals of the forests and  
 18 fish report or other goals identified by the board. There are three desired outcomes: Certainty of  
 19 change as needed to protect targeted resources; predictability and stability of the process of change  
 20 so that landowners, regulators and interested members of the public can anticipate and prepare for  
 21 change; and application of quality controls to study design and execution and to the interpreted  
 22 results.

23 (2) **Program elements:** By this rule, the board establishes an active, ongoing program composed of  
 24 the following initial elements, but not to exclude other program elements as needed:

25 (a) **Key questions and resource objectives:** Upon receiving recommendations from the TFW  
 26 policy committee, or similar collaborative forum, the board will establish key questions and  
 27 resource objectives and prioritize them.

28 (i) Projects designed to address the key questions shall be established in the order and subject  
 29 to the priorities identified by the board.

30 (ii) Resource objectives are intended to ensure that forest practices, either singularly or  
 31 cumulatively, will not significantly impair the capacity of aquatic habitat to:

32 (A) Support harvestable levels of salmonids;

33 (B) Support the long-term viability of other covered species; or

34 (C) Meet or exceed water quality standards (protection of beneficial uses, narrative and  
 35 numeric criteria, and antidegradation).

36 (iii) Resource objectives consist of functional objectives and performance targets. Functional  
 37 objectives are broad statements regarding the major watershed functions potentially affected  
 38 by forest practices. Performance targets are the measurable criteria defining specific,  
 39 attainable target forest conditions and processes.

40 (iv) Resource objectives are intended for use in adaptive management, rather than in the  
 41 regulatory process. Best management practices, as defined in the rules and manual, apply to  
 42 all forest practices regardless of whether or not resource objectives are met at a given site.

43 (b) **Participants:** The board will manage the program and has empowered the following entities to  
 44 participate in the program: The cooperative monitoring evaluation and research committee  
 45 (CMER), the TFW policy committee (or similar collaborative forum), the adaptive management  
 46 program administrator, and other participants as directed to conduct the independent scientific  
 47 peer review process. The program will strive to use a consensus-based approach to make

1 decisions at all stages of the process. Specific consensus-decision stages will be established by  
 2 CMER and approved by the board. Ground rules will follow those established by the TFW  
 3 process as defined in the board manual.

- 4 (i) **CMER.** By this rule, the board establishes a cooperative monitoring evaluation and  
 5 research (CMER) committee to impose accountability and formality of process, and to  
 6 conduct research and validation and effectiveness monitoring to facilitate achieving the  
 7 resource objectives. The purpose of CMER is to advance the science needed to support  
 8 adaptive management. CMER also has ongoing responsibility to continue research and  
 9 education in terrestrial resource issues. CMER will be made up of members that have  
 10 expertise in a scientific discipline that will enable them to be most effective in addressing  
 11 forestry, fish, wildlife, and landscape process issues. Members will represent timber  
 12 landowners, environmental interests, state agencies, county governments, federal agencies  
 13 and tribal governments from a scientific standpoint, not a policy view. CMER members  
 14 will be approved by the board. This will not preclude others from participating in and  
 15 contributing to the CMER process or its subcommittees. CMER shall also develop and  
 16 manage as appropriate:
- 17 (A) Scientific advisory groups and subgroups;
  - 18 (B) Research and monitoring programs;
  - 19 (C) A set of protocols and standards to define and guide execution of the process including,  
 20 but not limited to, research and monitoring data, watershed analysis reports,  
 21 interdisciplinary team evaluations and reports, literature reviews, and quality  
 22 control/quality assurance processes;
  - 23 (D) A baseline data set used to monitor change; and
  - 24 (E) A process for policy approval of research, monitoring, and assessment projects and use  
 25 of external information, including the questions to be answered and the timelines.
- 26 (ii) **TFW policy committee (policy).** TFW, or a similar collaborative forum, is managed by a  
 27 policy committee (hereafter referred to in this section as "policy"). Policy membership is  
 28 self-selecting, and at a minimum should include representatives of the following caucuses:  
 29 Timber landowners (industrial and nonindustrial private landowners); environmental  
 30 community; tribal governments; county governments; state departments (including fish and  
 31 wildlife, ecology, and natural resources); and federal agencies (including National Marine  
 32 Fisheries Service, U.S. Fish and Wildlife Service, U.S. Environmental Protection Agency  
 33 and U.S. Forest Service). Policy members will participate without compensation or per  
 34 diem.
- 35 (iii) **Adaptive management program administrator (program administrator).** The  
 36 department will employ a full-time independent program administrator to oversee the  
 37 program and support CMER. The program administrator will have credentials as a program  
 38 manager, scientist, and researcher. The program administrator will make reports to the  
 39 board and have other responsibilities as defined in the board manual.
- 40 (c) **Independent scientific peer review process.** By this rule, the board establishes an  
 41 independent scientific peer review process to determine if the scientific studies that address  
 42 program issues are scientifically sound and technically reliable; and provide advice on the  
 43 scientific basis or reliability of CMER's reports. Products that must be reviewed include final  
 44 reports of CMER funded studies, certain CMER recommendations, and pertinent studies not  
 45 published in a CMER-approved, peer-reviewed journal. Other products that may require review  
 46 include, but are not limited to, external information, work plans, requests for proposal,  
 47 subsequent study proposals, the final study plan, and progress reports.



- 1 (d) **Process:** The following stages will be used to affect change for managing adaptive  
 2 management proposals and approved projects. If consensus cannot be reached by participants  
 3 at any stage, the issue will be addressed within the dispute resolution process.
- 4 (i) **Proposal initiation:** Adaptive management proposals can be initiated at this stage by any  
 5 of the participants listed in (2)(b) of this subsection to the program administrator, or  
 6 initiation may be proposed by the general public at board meetings. Proposals must provide  
 7 the minimum information as outlined in the board manual and demonstrate how results of  
 8 the proposal will address key questions and resource objectives or other program rule and/or  
 9 guidance issues. The board may initiate proposals or research questions in the course of  
 10 fulfilling their duties according to statute.
- 11 (ii) **Proposal approval and prioritization:** The program administrator will manage the  
 12 proposal approval and prioritization process at this stage and consult with CMER on the  
 13 program workplan. CMER proposals will be forwarded by the program administrator to  
 14 policy and then to the board. The board will make the final determination regarding  
 15 proposal approvals and prioritization. The board will act on proposal approval and  
 16 prioritization in a timely manner.
- 17 (iii) **CMER implementation of proposal:** Board approved proposals are systematically  
 18 implemented through CMER at this stage by the program administrator.
- 19 (iv) **Independent scientific peer review:** An independent scientific peer review process will  
 20 be used at identified points within this stage of implementation depending upon the study  
 21 and will be used on specified final studies or at the direction of the board.
- 22 (v) **CMER committee technical recommendations:** Upon completion, final CMER reports  
 23 and information will be forwarded at this stage by the program administrator to policy in the  
 24 form of a report that includes technical recommendations and a discussion of rule and/or  
 25 guidance implications.
- 26 (vi) **Policy petitions for amendment:** Upon receipt of the CMER report, policy will prepare  
 27 program rule amendments and/or guidance recommendations in the form of petitions for  
 28 amendment. When completed, the petitions and the original CMER report and/or other  
 29 information as applicable will be forwarded by the program administrator to the board for  
 30 review and action. Policy recommendations to the board will be accompanied by formal  
 31 petitions for rule making (RCW 34.05.330). Policy will use the CMER results to make  
 32 specific petitions to the board for amending:
- 33 (A) The regulatory scheme of forest practices management (Title 222 WAC rules and board  
 34 manual);
- 35 (B) Voluntary, incentive-based, and training programs affecting forestry;
- 36 (C) The resource objectives; and
- 37 (D) CMER itself, adaptive management procedures, or other mechanisms implementing the  
 38 recommendations contained in the most current forests and fish report.
- 39 (vii) **Board action to adopt petitions for amendment:** Upon receiving a formal petition for  
 40 amendment to rules and/or guidance, the board will take appropriate and timely action.  
 41 There will be a public review of all petitions as applicable. The board will make the final  
 42 determination.
- 43 (e) **Biennial fiscal and performance audits.** The board shall require biennial fiscal and  
 44 performance audits of the program by the department or other appropriate and accepting  
 45 independent state agency.
- 46 (f) **CMER five-year peer review process.** Every five years the board will establish a peer review  
 47 process to review all work of CMER and other available, relevant data, including

1 recommendations from the CMER staff. There will be a specified, but limited, period for public  
2 review and comment.

- 3 (g) **Funding.** Funding is essential to implement the adaptive management program, which is  
4 dependent on quality and relevant data. The department shall request biennial budgets to  
5 support the program priority projects and basic infrastructure needs including funding to staff  
6 the adaptive management program administrator position. A stable, long-term funding source is  
7 needed for these activities.
- 8 (h) **Dispute resolution process.** If consensus cannot be reached through the adaptive management  
9 program process, participants will have their issues addressed by this dispute resolution process.  
10 Potential failures include, but are not limited to: The inability of policy to agree on research  
11 priorities, program direction, or recommendations to the board for uses of monitoring and/or  
12 research after receiving a report from CMER; the inability of CMER to produce a report and  
13 recommendation on schedule; and the failure of participants to act on policy recommendations  
14 on a specified schedule. Key attributes of the dispute resolution process are:
- 15 (i) Specific substantive and benchmark (schedule) triggers will be established by the board for  
16 each monitoring and research project for invoking dispute resolution;
- 17 (ii) The dispute resolution process will be staged in three parts and may be applied at any level  
18 of the adaptive management process. Any participant, or the board, may invoke each  
19 succeeding stage, if agreement is not reached by the previous stage, within the specified  
20 time (or if agreements are not substantially implemented) as follows:
- 21 (A) Stage one will be an attempt by CMER and policy to reach consensus. On technical  
22 issues, CMER shall have up to six months to reach a consensus unless otherwise agreed  
23 upon by policy. Parties may move the process to stage two after an issue has been  
24 before policy for six months unless otherwise agreed. The time periods commence  
25 from referral of technical issues to CMER, report by CMER to policy, or the raising of  
26 a nontechnical issue (or matter not otherwise referable to CMER) directly at policy.
- 27 (B) Stage two will be either informal mediation or formal arbitration. Within one month,  
28 one or the other will be picked, with the default being formal unless otherwise agreed.  
29 Stage two will be completed within three months (including the one month to select the  
30 process) unless otherwise agreed.
- 31 (C) If stage two does not result in consensus, stage three will be action by the board. The  
32 board will consider policy and CMER reports, and majority and minority thinking  
33 regarding the results and uses of the results can be brought forward to the board. The  
34 board will make the final determination regarding dispute resolution.

35  
36 **WAC 222-12-046 Cumulative effects.** The purpose of this section is to identify how the forest  
37 practices rules address changes to the environment caused by the interaction of natural ecosystem  
38 processes with the effects of two or more forest practices. This interaction is referred to as "cumulative  
39 effects." The following approaches have been taken:

- 40 (1) Title 222 WAC establishes minimum standards for all forest practices, regardless of the class of  
41 forest practice application.
- 42 (2) Forest practices which have a potential for a substantial impact on the environment are classified as  
43 Class IV-Special or Class IV-General by WAC 222-16-050 and receive an evaluation as to whether  
44 or not a detailed statement must be prepared pursuant to chapter 43.21C RCW.
- 45 (3) Certain rules are designed to focus on specific aspects of cumulative effects of forest practices. For  
46 example:
- 47 (a) WAC 222-08-035 requires continuing review of the forest practices rules and voluntary

1 processes and adopts the concept of adaptive management. WAC 222-12-045 also adopts  
2 adaptive management.

3 (b) WAC 222-12-040 allows alternate plans that provide protection to public resources at least  
4 equal in overall effectiveness to the protection provided in the Forest Practices Act and rules.

5 (c) WAC 222-24-051 allows the department to require road maintenance and abandonment plans.

6 (d) WAC 222-30-025 addresses harvest unit size and separation requirements.

7 (e) Chapter 222-22 WAC addresses cumulative effects of forest practices on, at a minimum, the  
8 public resources of fish, water, and capital improvements of the state or its political  
9 subdivisions.

10 (f) Chapter 222-46 WAC establishes the enforcement policy for forest practices.

11 (4) The board shall continue consultation with the departments of ecology, fish and wildlife, and  
12 natural resources, the Office of Archaeology and Historic Preservation, forest landowners, and  
13 federally recognized affected tribes to further protect cultural resources and wildlife resource  
14 issues.

15  
16 **WAC 222-12-050 Notices to comply--Stop work orders.**

17 (1) **Violations.** When a forest practice has been completed, the department may issue a notice to  
18 comply requiring the operator or landowner to correct or compensate for damage to public  
19 resources where there was:

20 (a) A violation of the act, or these rules; or

21 (b) A deviation from the approved application; or

22 (c) A willful or negligent disregard for potential damage to a public resource.

23 (2) **Other required action.** When a forest practice has not yet been completed, the department may  
24 issue either a notice to comply to the operator and/or landowner, or a stop work order to the  
25 operator, requiring him/her to prevent potential or continuing damage to a public resource where:

26 (a) The need for additional actions or restrictions has become evident; and

27 (b) The department determines that a specific course of action is needed to prevent potential or  
28 continuing damage to public resources; and

29 (c) The damage would result or is resulting from the forest practices activities, whether or not the  
30 activities involve any violation, unauthorized deviation or negligence.

31 (3) **No notice to comply** shall be issued to require a person to prevent, correct, or compensate for any  
32 damage to public resources which occurs more than 1 year after the date of completion of the forest  
33 practices operations involved exclusive of reforestation, unless such forest practices were not  
34 conducted in accordance with forest practices rules: Provided, That this provision shall not relieve  
35 the forest landowner from any obligation to comply with forest practices rules pertaining to  
36 providing continuing road maintenance.

37 (4) **No notice to comply** to recover money damages shall be issued more than 2 years after the date the  
38 damage involved occurs.

39 (5) **In emergency action**, where the department requires the operator or landowner to do immediate  
40 work in the bed of the stream the department shall first seek approval from the department of fish  
41 and wildlife.

42  
43 **WAC 222-12-060 Supplemental directives.** Supplemental directives are advisory directives and are  
44 issued to forest landowners, timber owners and operators conducting forest practices, recommending an  
45 alternate preferred course of action or a minor change in the operation, which the department believes  
46 would provide greater assurance that the purposes and policies set forth in RCW 76.09.010 will be met.  
47

1 **WAC 222-12-070 Enforcement policy.** Procedures for enforcement of these rules by the department  
 2 are provided in chapter 222-46 WAC. Where the department of ecology determines that a person has  
 3 failed to comply with the forest practices rules relating to water quality protection, and that the  
 4 department of natural resources has not issued a stop work order or notice to comply, the department of  
 5 ecology shall inform the department thereof in writing. If the department of natural resources fails to  
 6 take authorized enforcement action within 24 hours, under RCW 76.09.080, 76.09.090, 76.09.120 or  
 7 76.09.130, the department of ecology may petition to the chairman of the appeals board, who shall,  
 8 within 48 hours, either deny the petition or direct the department of natural resources to immediately  
 9 issue a stop work order or a notice to comply or impose a penalty. No civil or criminal penalties shall be  
 10 imposed for past actions or omissions if such actions or omissions were conducted pursuant to an  
 11 approval or directive of the department of natural resources.

12  
 13 **WAC 222-12-080 Administrative and judicial appeals.** Forest landowners, timber owners, operators,  
 14 counties and any aggrieved parties as defined by the Forest Practices Act may appeal to the forest  
 15 practices appeals board certain actions and omissions of the department, including: Approval or  
 16 disapproval of an application; any conditions attached to approval of an application, notices to comply,  
 17 stop work orders, civil penalties assessed or notices of violation: Provided, That no notices to comply  
 18 may be appealed to the appeals board unless first appealed to the department under RCW 76.09.090.  
 19 The decision of the appeals board may be appealed to the superior court in accordance with the  
 20 Administrative Procedure Act, chapter 34.04 RCW.

21  
 22 **WAC 222-12-090 Forest practices board manual.** When approved by the board the manual serves as  
 23 an advisory technical supplement to these forest practices rules. The department, in cooperation with  
 24 the departments of fish and wildlife, agriculture, ecology, and such other agencies, affected Indian  
 25 tribes, or interested parties as may have appropriate expertise, is directed to prepare, and submit to the  
 26 board for approval, revisions to the forest practices board manual. The manual shall include:

- 27 (1) **Method for determination of adequate shade requirements on streams** needed for use with  
 28 WAC 222-30-040.
- 29 (2) Standards for identifying channel migration zones and bankfull channel features.
- 30 (3) **Guidelines** for forest roads.
- 31 (4) **Guidelines** for clearing slash and debris from Type Np and Ns Waters.
- 32 (5) **Guidelines** for landing location and construction.
- 33 (6) **Guidelines** for determining acceptable stocking levels.
- 34 (7) **Guidelines** for riparian management zones.
- 35 (8) **Guidelines** for wetland delineation.
- 36 (9) **Guidelines** for wetland replacement or substitution.
- 37 (10) A list of nonnative wetland plant species.
- 38 (11) The ~~s~~Standard ~~m~~Methodology for Conducting Watershed Analysis shall specify the quantitative  
 39 methods, indices of resource conditions, and definitions for conducting watershed analysis under  
 40 chapter 222-22 WAC. The methodology shall also include a cultural resource module that shall  
 41 specify the quantitative and qualitative methods, indices of resource conditions, and guidelines for  
 42 developing voluntary management strategies for cultural resources. Except for cultural resources,  
 43 ~~T~~the department, in consultation with Timber/Fish/Wildlife's Cooperative Monitoring, Evaluation  
 44 and Research Committee (CMER), may make minor modifications to the version of the standard  
 45 methodology approved by the board. Substantial amendments to the standard methodology  
 46 requires approval by the board.
- 47 (12) **Guidelines** for forest chemicals.

- 1 (a) A list of special concerns related to aerial application of pesticides developed under WAC 222-  
2 16-070(3).
- 3 (b) Guidelines for aerial applications of pesticides and other forest chemicals under chapter 222-38  
4 WAC.
- 5 (13) **Guidelines** for determining fish use for the purpose of typing waters under WAC 222-16-031.
- 6 (14) **Survey protocol for marbled murrelets.** The Pacific seabird survey protocol in effect March 1,  
7 1997, shall be used when surveying for marbled murrelets in a stand. Surveys conducted before the  
8 effective date of this rule are valid if they were conducted in substantial compliance with generally  
9 accepted survey protocols in effect at the beginning of the season in which they were conducted.
- 10 (15) The department shall, in consultation with the department of fish and wildlife, develop **platform**  
11 **protocols** for use by applicants in estimating the number of platforms, and by the department in  
12 reviewing and classifying forest practices under WAC 222-16-050. These protocols shall include:
- 13 (a) A sampling method to determine platforms per acre in the field;
- 14 (b) A method to predict the number of platforms per acre based on information measurable from  
15 typical forest inventories. The method shall be derived from regression models or other  
16 accepted statistical methodology, and incorporate the best available data; and
- 17 (c) Other methods determined to be reliable by the department, in consultation with the department  
18 of fish and wildlife.
- 19 (16) **Guidelines** for evaluating potentially unstable slopes and landforms.
- 20 (17) **Guidelines** for the small forest landowner forestry riparian easement program.
- 21 (18) **Guidelines** for riparian open space program.
- 22 (19) **Guidelines** for hardwood conversion.
- 23 (20) **Guidelines** for financial assurances.
- 24 (21) **Guidelines** for alternate plans.
- 25 (22) **Guidelines** for adaptive management program.
- 26 (23) **Guidelines** for field protocol to locate mapped divisions between stream types and perennial stream  
27 identification.
- 28 (24) **Guidelines** for interim modification of bull trout habitat overlay.
- 29 (25) **Guidelines** for bull trout presence survey protocol.
- 30 (26) **Guidelines** for placement strategy for woody debris in streams.
- 31  
32  
33



## Chapter 222-16 WAC

### DEFINITIONS

the ridgetop and terminating where headwaters converge into a single channel; they are broadly concave both longitudinally and across the slope, but may contain sharp ridges separating the headwater channels. (See board manual section 16 for identification criteria.)

**"Conversion option harvest plan"** means a voluntary plan developed by the landowner and approved by the local government entity indicating the limits of harvest areas, road locations, and open space.

**"Conversion to a use other than commercial timber operation"** shall mean a bona fide conversion to an active use which is incompatible with timber growing.

**"Cooperative habitat enhancement agreement (CHEA)"** see WAC 222-16-105.

**"Critical habitat (federal)"** means the habitat of any threatened or endangered species designated as critical habitat by the United States Secretary of the Interior or Commerce under Sections 3 (5)(A) and 4 (a)(3) of the Federal Endangered Species Act.

**"Critical nesting season"** means for marbled murrelets - April 1 to August 31.

**"Critical habitat (state)"** means those habitats designated by the board in accordance with WAC 222-16-080.

**"Cultural resources"** means archaeological and historic sites and artifacts, and traditional religious, ceremonial and social uses and activities of affected Indian tribes.

**"Cumulative effects"** means the changes to the environment caused by the interaction of natural ecosystem processes with the effects of two or more forest practices.

**"Daily peak activity"** means for marbled murrelets - one hour before official sunrise to two hours after official sunrise and one hour before official sunset to one hour after official sunset.

**"Debris"** means woody vegetative residue less than 3 cubic feet in size resulting from forest practice activities which would reasonably be expected to cause significant damage to a public resource.

**"Deep-seated landslides"** means landslides in which most of the area of the slide plane or zone lies below the maximum rooting depth of forest trees, to depths of tens to hundreds of feet. (See board manual section 16 for identification criteria.)

**"Demographic support"** means providing sufficient suitable spotted owl habitat within the SOSEA to maintain the viability of northern spotted owl sites identified as necessary to meet the SOSEA goals.

**"Department"** means the department of natural resources.

**"Desired future condition (DFC)"** is a reference point on a pathway and not an endpoint for stands. DFC means the stand conditions of a mature riparian forest at 140 years of age, the midpoint between 80 and 200 years. Where basal area is the only stand attribute used to describe 140-year old stands, these are referred to as the "Target Basal Area."

**"Diameter at breast height (dbh)"** means the diameter of a tree at 4 1/2 feet above the ground measured from the uphill side.

**"Dispersal habitat"** see WAC 222-16-085(2).

**"Dispersal support"** means providing sufficient dispersal habitat for the interchange of northern spotted owls within or across the SOSEA, as necessary to meet SOSEA goals. Dispersal support is provided by a landscape consisting of stands of dispersal habitat interspersed with areas of higher quality habitat, such as suitable spotted owl habitat.





**Chapter 222-22 WAC**  
**WATERSHED ANALYSIS**

**WAC**

- 222-22-010 Policy.
- 222-22-020 Watershed administrative units.
- 222-22-030 Qualification of watershed resource analysts, specialists, and field managers.
- 222-22-040 Watershed prioritization.
- 222-22-045 Cultural resources.
- 222-22-050 Level 1 watershed resource assessment.
- 222-22-060 Level 2 watershed resource assessment.
- 222-22-070 Prescription recommendation.
- 222-22-075 Monitoring.
- 222-22-076 Restoration.
- 222-22-080 Approval of watershed analysis.
- 222-22-090 Use and review of watershed analysis.
- 222-22-100 Application review prior to watershed analysis.

*Note: Rules marked with an asterisk (\*) are co-adopted by the Department of Ecology because they pertain to water quality. See WAC 222-12-010.*

**WAC 222-22-010 Policy. .**

- \*(1) Public resources may be adversely affected by the interaction of two or more forest practices. The purpose of this rule is to address these cumulative effects of forest practices on the public resources of fish, water, and capital improvements of the state or its political subdivisions.
- (2) Cultural resources may also be adversely affected by the interaction of two or more forest practices. The purpose of this rule is also to achieve management and protection of these cultural resources by fostering cooperative relationships and agreements between landowners and tribes.
- \*(3) The long-term objective of this rule is to protect and restore these public and cultural resources and the productive capacity of fish habitat adversely affected by forest practices while maintaining a viable forest products industry. For public resources, the board intends that this be accomplished through prescriptions designed to protect and allow the recovery of fish, water, and capital improvements of the state or its political subdivisions, through enforcement against noncompliance of the forest practice rules in this Title 222 WAC, and through voluntary mitigation measures. For cultural resources, with the exception of sites registered on the Office of Archaeology and Historic Preservation's archaeological and historic sites database and all resources that require mandatory protection under chapters 27.44 and 27.53 RCW, the board intends that this be accomplished through voluntary management strategies. This system also allows for monitoring, subsequent watershed analysis, and adaptive management.
- \*(4) Adaptive management in a watershed analysis process requires advances in technology and cooperation among resource managers. The board finds that it is appropriate to promulgate rules to address certain cumulative effects by means of the watershed analysis system, while recognizing the pioneering nature of this system and the need to monitor its success in predicting and preventing adverse change to fish, water, and capital improvements of the state and its political subdivisions. The board supports the use of voluntary, cooperative approaches to address impacts to cultural

resources. If voluntary approaches are shown to be ineffective, the board may find it appropriate to seek additional protection to prevent adverse impacts to cultural resources.

.\*(5) Many factors other than forest practices can have a significant effect on the condition of fish, water, capital improvements of the state or its political subdivisions, and cultural resources. Nonforest practice contributions to cumulative effects should be addressed by the appropriate jurisdictional authorities. When a watershed analysis identifies a potential adverse effect on fish, water, capital improvements of the state or its political subdivisions, or cultural resources from activities that are not regulated under chapter 76.09 RCW, the department should notify any governmental agency or Indian tribe having jurisdiction over those activities.

.\*(6) The rules in this chapter set forth a system for identifying the probability of change and the likelihood of this change adversely affecting specific characteristics of fish, water, and capital improvements of the state or its political subdivisions, and for using forest management prescriptions to avoid or minimize significant adverse effects from forest practices. In addition, the rules in this chapter set forth a system for identifying the likelihood of adverse change affecting cultural resources and for developing voluntary management strategies to avoid or minimize significant adverse impacts to cultural resources. The rules in this chapter are in addition to, and do not take the place of, the other forest practices rules in this Title 222 WAC or laws for the protection of cultural resources including chapters 27.44 and 27.53 RCW.

.\*(7) These rules are intended to be applied and should be construed in such a manner as to minimize the delay associated with the review of individual forest practice applications and notifications by increasing the predictability of the process and the appropriate management response.

#### **WAC 222-22-020 Watershed administrative units.**

.\*(1) For purposes of this chapter, the state is divided into areas known as watershed administrative units (WAUs). The department shall, in cooperation with the departments of ecology, fish and wildlife, affected Indian tribes, local government entities, forest land owners, and the public, define WAUs throughout the state. The department shall identify WAUs on a map.

.\*(2) WAUs should generally be between 10,000 to 50,000 acres in size and should be discrete hydrologic units. The board recognizes, however, that identified watershed processes and potential effects on resource characteristics differ, and require different spatial scales of analysis, and the department's determination of the WAUs should recognize these differences. The board further recognizes that mixed land uses will affect the ability of a watershed analysis to predict probabilities and identify causation as required under this chapter, and the department's conduct and approval of a watershed analysis under this chapter shall take this effect into account.

.\*(3) The department is directed to conduct periodic reviews of the WAUs adopted under this chapter to determine whether revisions are needed to more efficiently assess potential cumulative effects. The department shall consult the departments of ecology, fish and wildlife, affected Indian tribes, forest land owners, local government entities, and the public. From time to time and as appropriate, the department shall make recommendations to the board regarding revision of watershed administrative units.

#### **WAC 222-22-030 Qualification of watershed resource analysts, specialists, and field managers.**

.\*(1) The department shall set the minimum qualifications for analysts participating in level 1 assessments conducted under WAC 222-22-050, for specialists participating in level 2 assessments conducted under WAC 222-22-060, and for field managers participating in recommendation of prescriptions under WAC 222-22-070. The minimum qualifications shall be specific for the disciplines needed to participate in level 1 and level 2 assessments and in the recommendations of

1 prescriptions, and shall include, at a minimum, formal education in the relevant discipline and field  
 2 experience. Minimum qualifications for analysts participating in level 2 assessments should  
 3 typically include a graduate degree in the relevant discipline.

- 4 .\*(2) The department shall coordinate with relevant state and federal agencies, affected Indian tribes,  
 5 forest land owners, local government entities, and the public to seek and utilize available qualified  
 6 expertise to participate in watershed analysis.
- 7 .\*(3) Qualified analysts, specialists, and field managers shall, while and only for the purpose of  
 8 conducting a watershed analysis or monitoring in a WAU, be duly authorized representatives of the  
 9 department for the purposes of RCW 76.09.150.
- 10 .\*(4) An individual may qualify in more than one science or management skill. Qualification under  
 11 subsection (1) of this section shall be effective for 5 years. When a qualification expires, a person  
 12 requesting requalification shall meet the criteria in effect at the time of requalification.
- 13 .\*(5) The department shall provide and coordinate training for, maintain a register of, and monitor the  
 14 performance of qualified analysts, specialists, and field managers by region. The department shall  
 15 disqualify analysts, specialists, and field managers who fail to meet the levels of performance  
 16 required by the qualification standards.

17  
 18 **WAC 222-22-040 Watershed prioritization.**

- 19 (1) The department shall determine, by region, the order in which it will analyze WAUs. The  
 20 department shall cooperate with the departments of ecology, fish and wildlife, affected Indian  
 21 tribes, forest land owners, and the public in setting priorities. In setting priorities or reprioritizing  
 22 WAUs, the department shall consider the availability of participation and assistance that may be  
 23 provided by affected Indian tribes and local government entities.
- 24 .\*(2) Except as set forth in subsection (3) of this section, the department shall undertake a watershed  
 25 analysis on each WAU, in the order established under subsection (1) of this section.
- 26 \*(3) The owner or owners of ten percent or more of the nonfederal forest land acreage in a WAU may  
 27 notify the department in writing that the owner or owners intend to conduct a level 1 assessment,  
 28 level 2 assessment, or both, and the prescription recommendation process on the WAU under this  
 29 chapter at their own expense. The notice shall identify the teams proposed to conduct the  
 30 watershed analysis, which shall be comprised of individuals qualified by the department pursuant to  
 31 WAC 222-22-030. The department shall promptly notify any owner or owners sending notice  
 32 under this subsection if any member of the designated teams is not so qualified. Within 30 days of  
 33 delivering a notice to the department under this subsection, the forest land owner or owners shall  
 34 begin the level 1 assessment under WAC 222-22-050 or, at its option, the level 2 assessment under  
 35 WAC 222-22-060. An approved forest land owner team shall, while and only for the purposes of  
 36 conducting a watershed analysis in a WAU, be a duly authorized representative of the department  
 37 for the purposes of RCW 76.09.150. The board encourages forest land owners conducting  
 38 assessments under this chapter to include available, qualified expertise from state and federal  
 39 agencies, affected Indian tribes, forest land owners, local government entities, and the public.
- 40 .\*(4) Before beginning an analysis in a WAU, the department or the forest land owner conducting the  
 41 analysis shall provide reasonable notice, including notice by regular United States mail where  
 42 names and addresses have been provided to the department, to all forest land owners in the WAU,  
 43 and to affected Indian tribes. The department or the forest land owner shall provide reasonable  
 44 notice to the public and to state, federal, and local government entities, by, among other things,  
 45 posting the notice conspicuously in the office of the departmental region containing the WAU. The  
 46 notice shall be in a form designated by the department and give notice that an analysis is being  
 47 conducted, by whose team, the time period of the analysis, and the dates and locations in which the

1 draft analysis will be available for review and comment.

2  
3 **WAC 222-22-045 Cultural Resources**

- 4 (1) Any watershed analysis initiated after *(insert date the board adopts the module)* is not complete  
5 unless the analysis includes a completed cultural resource module. Cultural resources module  
6 completeness is detailed in Appendix II of the module and includes affected tribe(s) participation,  
7 appropriate team qualification, required maps and forms, assessment of tribal and non-tribal  
8 cultural resources, peer review of assessment, management strategies based on causal mechanism  
9 reports from synthesis, and agreement on the management strategies by affected tribes, landowners  
10 and land managers on the field managers team and, where applicable, the Office of Archaeology  
11 and Historic Preservation.
- 12 (2) When conducting watershed analysis revisions pursuant to WAC 222-22-090(4), the cultural  
13 resources module is not required if the watershed analysis was approved by the department prior to  
14 the date in (1) of this subsection. However, the board encourages use of the cultural resources  
15 module upon such review.
- 16 (3) The department does not review or approve cultural resources management strategies because their  
17 implementation is voluntary. The Office of Archaeology and Historic Preservation must be  
18 consulted and agree on all management strategies involving sites registered on the OAH  
19 archaeological and historic sites database and all resources that require mandatory protection under  
20 chapters 27.44 and 27.53 RCW.
- 21 (4) The cultural resources module may be conducted as a stand-alone method separate from a  
22 watershed analysis to identify, protect, and manage cultural resources. When used as a stand-alone  
23 methodology:
- 24 (a) Selected components of the methodology may be used as the participants deem necessary or  
25 the module may be used in its entirety.
  - 26 (b) The methodology may be used at a variety of geographic scales and may be initiated by  
27 tribes, land managers or landowners. Landowner or land manager initiation is not limited by  
28 the minimum ownership threshold requirements in this chapter. Nothing in this rule grants  
29 any person or organization initiating the cultural resources module as a stand-alone method  
30 any right of entry onto private property.
  - 31 (c) Watershed analysis notice requirements to the department do not apply.
  - 32 (d) Participants are encouraged to engage people that meet the minimum qualifications to  
33 conduct the module as set by this chapter.
  - 34 (e) In order for a stand-alone module to be incorporated into a watershed analysis, the module  
35 must have been conducted in accordance with the requirements of this chapter.

36  
37 **WAC 222-22-050 Level 1 watershed resource assessment.**

- 38 .\*(1) To begin a watershed resource analysis on a WAU, the department shall assemble a level 1  
39 assessment team consisting of analysts qualified under WAC 222-22-030(1). A forest land owner  
40 or owners acting under WAC 222-22-040(3) may assemble a level 1 assessment team consisting of  
41 analysts qualified under WAC 222-22-030(1) or, at its option, may begin the analysis under WAC  
42 222-22-060. Each level 1 team shall include persons qualified in the disciplines indicated as  
43 necessary in the methodology, and should generally include a person or persons qualified in the  
44 following:
- 45 (a) Forestry;
  - 46 (b) Forest hydrology;
  - 47 (c) Forest soil science or geology;

- 1 (d) Fisheries science;
- 2 (e) Geomorphology ;
- 3 (f) Cultural anthropology; and
- 4 (g) Archaeology

5 Any owner, and any cooperating group of owners, of ten percent or more of the nonfederal forest  
6 land acreage in the WAU and any affected Indian tribe shall be entitled to include one qualified  
7 individual to participate on the team at its own expense. The cultural resources module must  
8 include the participation of the affected Indian tribe(s).

- 9 .\*(2) The level 1 team shall perform an inventory of the WAU utilizing the methodology, indices of  
10 resource condition, and checklists set forth in the manual in accordance with the following:
- 11 (a) The team shall survey the WAU for fish, water, and capital improvements of the state or its  
12 political subdivisions, and conduct an assessment for cultural resources.
  - 13 (b) The team shall display the location of these resources on a map of the WAU, except mapping of  
14 tribal cultural resource sites must be approved by the affected tribe. The location of  
15 archaeological sites shall be on a separate map that will be exempt from public disclosure per  
16 RCW 42.17.310(1)(k).
  - 17 (c) For public resources (fish, water, and capital improvements of the state or its political  
18 subdivisions):
    - 19 (i) The team shall determine the current condition of the resource characteristics of these  
20 resources, shall classify their condition as "good," "fair," or "poor," and shall display this  
21 information on the map of the WAU. The criteria used to determine current resource  
22 conditions shall include indices of resource condition, in addition to such other criteria as  
23 may be included in the manual. The indices will include two levels, which will distinguish  
24 between good, fair, and poor conditions.
    - 25 (ii) The team shall assess the likelihood that identified watershed processes in a given physical  
26 location will be adversely changed by one forest practice or by cumulative effects and that,  
27 as a result, a material amount of water, wood, sediment, or energy (e.g., affecting  
28 temperature) will be delivered to fish, water, or capital improvements of the state or its  
29 political subdivisions. (This process is referred to in this chapter as "adverse change and  
30 deliverability.") (For example, the team will address the likelihood that road construction  
31 will result in mass wasting and a slide that will in turn reach a stream.) The team shall rate  
32 this likelihood of adverse change and deliverability as "high," "medium," "low," or  
33 "indeterminate." Those likelihoods rated high, medium, or indeterminate shall be displayed  
34 on the map of the WAU.
    - 35 (iii) For each instance of high, medium, or indeterminate likelihood of adverse change and  
36 deliverability identified under (ii) of this subsection, the team shall assess the vulnerability  
37 of potentially affected resource characteristics. Criteria for resource vulnerability shall  
38 include indices of resource condition as described in (i) of this subsection and quantitative  
39 means to assess the likelihood of material adverse effects to resource characteristics caused  
40 by forest practices. (For example, the team will assess the potential damage that increased  
41 sediment caused by a slide reaching a stream will cause to salmon spawning habitat that is  
42 already in fair or poor condition.) The team shall rate this vulnerability "high," "medium,"  
43 "low," or "indeterminate" and shall display those vulnerabilities on the map of the WAU. If  
44 there are no other criteria in the manual to assess vulnerability at the time of the  
45 assessment, current resource condition shall be used, with good condition equivalent to low  
46 vulnerability, fair condition equivalent to medium vulnerability, and poor condition  
47 equivalent to high vulnerability.

(iv) The team shall identify as areas of resource sensitivity, as provided in table 1 of this section, the locations in which a management response is required under WAC 222-22-070(3) because, as a result of one forest practice or of cumulative effects, there is a combination of a high, medium, or indeterminate likelihood of adverse change and deliverability under (ii) of this subsection and a low, medium, high, or indeterminate vulnerability of resource characteristics under (iii) of this subsection:

TABLE 1  
9 **Areas of Resource Sensitivity and Management Response**

*Likelihood of Adverse Change and Deliverability*

		Low	Medium	High
<i>Vulnerability</i>	<b>Low</b>	Standard rules	Standard rules	Response : Prevent or avoid
	<b>Medium</b>	Standard rules	Response : Minimize	Response : Prevent or avoid
	<b>High</b>	Standard rules	Response : Prevent or avoid	Response : Prevent or avoid

The team shall display the areas of resource sensitivity on the map of the WAU.

(\*) The decision criteria used to determine low, medium, and high likelihood of adverse change and deliverability shall be as set forth in the manual. A low designation generally means there is minimal likelihood that there will be adverse change and deliverability. A medium designation generally means there is a significant likelihood that there will be adverse change and deliverability. A high designation generally means that adverse change and deliverability is more likely than not with a reasonable degree of confidence. Any areas identified as indeterminate in the level 1 assessment shall be classified for the purposes of the level 1 assessment as medium until a level 2 assessment is done on the WAU under WAC 222-22-060, during which the uncertainties shall be resolved. (d) For cultural resources, the team shall follow the methodology outlined in the cultural resources module to determine the risk call for cultural resources based upon resource vulnerability and resource importance.

(e) The team shall prepare a causal mechanism report regarding the relationships of each process

1 identified in (c) and (d) of this subsection. The report shall demonstrate that the team's  
 2 determinations were made in accordance with the manual. If, in the course of conducting a  
 3 level 1 assessment, the team identifies areas in which voluntary corrective action will  
 4 significantly reduce the likelihood of material, adverse effects to the condition of a resource  
 5 characteristic, the team shall include this information in the report, and the department shall  
 6 convey this information to the applicable land owner.

- 7 .
- 8 \*(3) Within 21 days of mailing notice under WAC 222-22-040(4), the level 1 team shall submit to the  
 9 department its draft level 1 assessment, which shall consist of the map of the WAU marked as set  
 10 forth in this section and the causal mechanism report proposed under subsection (2)(e) of this  
 11 section. If the level 1 team is unable to agree as to one or more resource sensitivities or potential  
 12 resource sensitivities, or the causal mechanism report, alternative designations and an explanation  
 13 therefor shall be included in the draft assessment. Where the draft level 1 assessment delivered to  
 14 the department contains alternative designations, the department shall within 21 days of the receipt  
 15 of the draft level 1 assessment make its best determination and approve that option which it  
 16 concludes most accurately reflects the proper application of the methodologies, indices of resource  
 17 condition, and checklists set forth in the manual.
- 18 \*(4) If the level 1 assessment contains any areas in which the likelihood of adverse change and  
 19 deliverability or resource vulnerability are identified as indeterminate under this section or if the  
 20 level 1 methodology recommends it, the department shall assemble a level 2 assessment team under  
 21 WAC 222-22-060 to resolve the uncertainties in the assessment, unless a forest land owner acting  
 22 under WAC 222-22-040(3) has conducted a level 2 assessment on the WAU.
- 23 \*(5) Pending the completion of the level 2 assessment, if any, on the WAU, the department shall select  
 24 interim prescriptions using the process and standards described in WAC 222-22-070 (1), (2), and  
 25 (3) and 222-22-080(3) and shall apply them to applications and notifications as provided in WAC  
 26 222-22-090 (1) and (2). Before submitting recommended interim prescriptions to the department,  
 27 the field managers team under WAC 222-22-070(1) shall review the recommended prescriptions  
 28 with available representatives of the jurisdictional management authorities of the fish, water, capital  
 29 improvements of the state or its political subdivisions, and cultural resources in the WAU,  
 30 including, but not limited to, the departments of fish and wildlife, ecology, and affected Indian  
 31 tribes.

32

33 **WAC 222-22-060 Level 2 watershed resource assessment.**

- 34 \*(1) The department, or forest land owner acting under WAC 222-22-040(3), may assemble a level 2  
 35 assessment team either, in the case of a forest land owner, to begin a watershed analysis or to  
 36 review the level 1 assessment on a WAU. The level 2 team shall consist of specialists qualified  
 37 under WAC 222-22-030(1). Each level 2 team shall include persons qualified in the disciplines  
 38 indicated as necessary in the methodology, and should generally include a person or persons  
 39 qualified in the following:
- 40 (a) Forestry;
- 41 (b) Forest hydrology;
- 42 (c) Forest soil science or geology;
- 43 (d) Fisheries science;
- 44 (e) Geomorphology ;
- 45 (f) Cultural anthropology; and
- 46 (g) Archaeology.
- 47

1 Any owner, and any cooperating group of owners, of ten percent or more of the nonfederal forest  
 2 land acreage in the WAU and any affected Indian tribe shall be entitled to designate one qualified  
 3 member of the team at its own expense. The cultural resources module must include the  
 4 participation of the affected Indian tribe(s).

- 5 .\*(2) The level 2 team shall perform an assessment of the WAU utilizing the methodology, indices of  
 6 resource condition, and checklist set forth in the manual in accordance with the following:  
 7 (a) If a level 1 assessment has not been conducted under WAC 222-22-050, the assessment team  
 8 shall complete the tasks required under WAC 222-22-050(2), except that the level 2 team shall  
 9 not rate any likelihood of adverse change and deliverability or resource vulnerability as  
 10 indeterminate.  
 11 (b) If the level 2 team has been assembled to review a level 1 assessment, the level 2 team shall,  
 12 notwithstanding its optional review of all or part of the level 1 assessment, review each  
 13 likelihood of adverse change and deliverability and resource vulnerability rated as  
 14 indeterminate and shall revise each indeterminate rating to low, medium, or high and shall  
 15 revise the map of the WAU accordingly.
- 16 .\*(3) Within 60 days of mailing notice under WAC 222-22-040(4) where a watershed analysis begins  
 17 with a level 2 assessment or within 60 days of beginning a level 2 assessment after completion of a  
 18 level 1 assessment, the level 2 team shall submit to the department its draft level 2 assessment,  
 19 which shall consist of the map of the WAU and the causal mechanism report.
- 20 .\*(4) The level 2 team shall endeavor to produce a consensus report. If the level 2 team is unable to  
 21 agree as to one or more areas of resource sensitivity or the casual mechanism report, alternative  
 22 designations and an explanation therefor shall be included in the draft assessment. Where the draft  
 23 level 2 assessment delivered to the department contains alternative designations or reports, the  
 24 department shall within 30 days of the receipt of the draft level 2 assessment make its best  
 25 determination and approve that option which it concludes most accurately reflects the proper  
 26 application of the methodologies, indices of resource condition, and checklists set forth in the  
 27 manual.

28  
 29 **WAC 222-22-070 Prescriptions and management strategies .**

- 30 \*(1) For each WAU for which a watershed analysis is undertaken, the department, or forest land owner  
 31 acting under WAC 222-22-040(3), shall assemble a team of field managers qualified under WAC  
 32 222-22-030(1). The team shall include persons qualified in the disciplines indicated as necessary in  
 33 watershed analysis methods, and shall generally include a person or persons qualified in the  
 34 following:  
 35 (a) Forest resource management;  
 36 (b) Forest harvest and road systems engineering;  
 37 (c) Forest hydrology;  
 38 (d) Fisheries science or management ;  
 39 (e) Cultural anthropology and/or archaeology, depending on the cultural resources identified in the  
 40 assessment. Any owner, and any cooperating group of owners, of ten percent or more of the  
 41 nonfederal forest land acreage in the WAU and any affected Indian tribe shall be entitled to include  
 42 one qualified individual to participate on the team at its own expense. The cultural resources  
 43 module must include the participation of the affected Indian tribe(s).
- 44 .\*(2) Each forest land owner in a WAU shall have the right to submit to the department or the forest land  
 45 owner conducting the watershed analysis prescriptions for areas of resource sensitivity on its land.  
 46 If these prescriptions are received within the time period described in subsection (4) of this section,  
 47 they shall be considered for inclusion in the watershed analysis.



- 1 .\*(3) For each identified area of resource sensitivity, the field managers team shall, in consultation with  
 2 the level 1 and level 2 teams, if any, select and recommend to the department prescriptions. These  
 3 prescriptions shall be reasonably designed to minimize, or to prevent or avoid, as set forth in table 1  
 4 in WAC 222-22-050 (2)(c)(iv), the likelihood of adverse change and deliverability that has the  
 5 potential to cause a material, adverse effect to resource characteristics in accordance with the  
 6 following:
- 7 (a) The prescriptions shall be designed to provide forest land owners and operators with as much  
 8 flexibility as is reasonably possible while addressing the area of resource sensitivity. The  
 9 prescriptions should, where appropriate, include, but not be limited to, plans for road  
 10 abandonment, orphaned roads, and road maintenance and plans for applying prescriptions to  
 11 recognized land features identified in the WAU as areas of resource sensitivity but not fully  
 12 mapped;
  - 13 (b) Restoration opportunities may be included as voluntary prescriptions where appropriate;
  - 14 (c) Each set of prescriptions shall provide for an option for an alternate plan under WAC 222-12-  
 15 040, which the applicant shows meets or exceeds the protection provided by the other  
 16 prescriptions approved for a given area of resource sensitivity; and
  - 17 (d) The rules of forest practices and cumulative effects under this chapter shall not require  
 18 mitigation for activities or events not regulated under chapter 76.09 RCW. Any hazardous  
 19 condition subject to forest practices identified in a watershed analysis requiring corrective  
 20 action shall be referred to the department for consideration under RCW 76.09.300 et seq.
  - 21 (e) The forests and fish riparian permanent rules, when effective, supersede all existing watershed  
 22 analysis riparian prescriptions with the exception of riparian management zones for exempt 20-  
 23 acre parcels, when watershed analysis prescriptions were in effect before January 1, 1999. (See  
 24 WAC 222-30-021, 222-30-022, and 222-30-023.) No new riparian prescriptions will be written  
 25 after completion of the riparian management zone assessment report during a watershed  
 26 analysis.
- 27 (4) For each identified cultural resource area of resource sensitivity, the field managers team shall  
 28 develop cultural resources management strategies in consultation with the assessment team and affected  
 29 tribe(s).
- 30 (a) If a management strategy involves a site registered on the Office of Archaeology and Historic  
 31 Preservation's archaeological and historic sites database, data recovery at an archaeological site,  
 32 or any resource that requires mandatory protection under chapters 27.44 and 27.53 RCW, the  
 33 field managers team shall submit the management strategy to the Office of Archaeology and  
 34 Historic Preservation for agreement.
  - 35 (b) The management strategies should be reasonably designed to protect or allow the recovery of  
 36 resources by measures that minimize or prevent or avoid risks identified in the assessment.
  - 37 (c) Management strategies resulting from conducting a cultural resources module are voluntary,  
 38 not mandatory prescriptions, whether the module is conducted as part of a watershed analysis or  
 39 as a stand-alone method separate from watershed analysis. However, the mandatory protections  
 40 of resources under chapters 27.44 and 27.53 RCW still apply.
- 41
- 42 \*(5) The field managers team shall submit the recommended prescriptions, monitoring  
 43 recommendations and cultural resources management strategies to the department within 30 days  
 44 of the submission to the department of the level 2 assessment under WAC 222-22-060 or within  
 45 21 days of the submission to the department of the level 1 assessment under WAC 222-22-050.

46

47 **WAC 222-22-075 Monitoring.** .\*In connection with any watershed analysis that is not a revision

(WAC 222-22-090(4)), the monitoring module will be required to be completed but implementation of monitoring recommendations would be voluntary unless otherwise required by existing laws and rules, or required by an HCP implementation agreement. Implementation of the monitoring recommendations will be encouraged when needed as part of the statewide effectiveness monitoring program.

**WAC 222-22-076 .\*****Restoration.** Restoration opportunities will also be identified based on the watershed resource assessment. Implementation of restoration opportunities will be voluntary.

**WAC 222-22-080 .\*****Approval of watershed analysis.**

(1) Upon receipt of the recommended prescriptions and management strategies resulting from a level 2 assessment under WAC 222-22-060 or a level 1 assessment under WAC 222-22-050 where a level 2 assessment will not be conducted, the department shall select prescriptions. The department shall circulate the draft watershed analysis to the departments of ecology, fish and wildlife, affected Indian tribes, local government entities, forest land owners in the WAU, and the public for review and comment. The prescriptions recommended by the field managers team shall be given substantial weight. Within thirty days of receipt of the prescriptions and management strategies, the department shall review comments, revise the watershed analysis as appropriate, and approve or disapprove the watershed analysis for the WAU.

\*(2) The department should notify any governmental agency or Indian tribe having jurisdiction over activities which are not regulated under chapter 76.09 RCW but which are identified in the draft analysis as having a potential for an adverse impact on identified fish, water, capital improvements of the state or its political subdivisions, and cultural resources.

\*(3) The department shall approve the draft watershed analysis unless it finds:

(a) For any level 1 assessment or level 2 assessment, that:

(i) The team failed in a material respect to apply the methodology, indices of resource condition, or checklists set forth in the manual; or

(ii) A team meeting the criteria promulgated by the department and using the defined methodologies, indices of resource conditions, and checklists set forth in the manual could not reasonably have come to the conclusions identified in the draft level 1 or level 2 assessment; and

(b) For the prescriptions, that they will not accomplish the purposes and policies of this chapter and of the Forest Practices Act, chapter 76.09 RCW.

(c) In making its findings under this subsection, the department shall take into account its ability to revise assessments under WAC 222-22-090(3).

\*(4) If the department does not approve the draft watershed analysis, it shall set forth in writing a detailed explanation of the reasons for its disapproval.

(5) All watershed analyses must be reviewed under SEPA on a nonproject basis. SEPA review may take place concurrently with the public review in subsection (1) of this section. (See WAC 222-10-035.)

(6) The department will not review or approve cultural resource management strategies because their implementation is voluntary.

**WAC 222-22-090 Use and review of watershed analysis.**

\*(1) Where a watershed analysis has been completed for a WAU under this chapter:

(a) Any land owner within the WAU may apply for a multiyear permit to conduct forest practices according to the watershed analysis prescriptions. This permit is not renewable if a five-year review is found necessary by the department and has not been completed.

- 1 (b) Nonmultiyear forest practices applications and notifications submitted to the department shall  
 2 indicate whether an area of resource sensitivity will be affected and, if so, which prescription  
 3 the operator, timber owner, or forest land owner shall use in conducting the forest practice in  
 4 the area of resource sensitivity;
- 5 (c) The department shall assist operators, timber owners, and forest land owners in obtaining  
 6 governmental permits required for the prescription (see WAC 222-50-020 and 222-50-030);
- 7 (d) The department shall confirm that the prescription selected under (a) of this subsection was one  
 8 of the prescriptions approved for the area of resource sensitivity under WAC 222-22-080 and  
 9 shall require the use of the prescription; and
- 10 (e) The department shall not further condition forest practice applications and notifications in an  
 11 area of resource sensitivity in a WAU where the applicant will use a prescription contained in  
 12 the watershed analysis nor shall the department further condition forest practice applications  
 13 and notifications outside an area of resource sensitivity in a WAU, except for reasons other than  
 14 the watershed processes and fish, water, and capital improvements of the state or its political  
 15 subdivisions analyzed in the watershed analysis in the WAU, and except to correct mapping  
 16 errors, misidentification of soils, landforms, vegetation, or stream features, or other similar  
 17 factual errors.

18 .\*(2) Pending completion of a watershed analysis for a WAU, the department shall process forest  
 19 practices notifications and applications in accordance with the other chapters of this title, except  
 20 that applications and notifications received for forest practices on a WAU after the date notice is  
 21 mailed under WAC 222-22-040(4) commencing a watershed analysis on the WAU shall be  
 22 conditioned to require compliance with interim, draft, and final prescriptions, as available.  
 23 Processing and approval of applications and notifications shall not be delayed by reason of review,  
 24 approval, or appeal of a watershed analysis.

25 .\*(3) The board encourages cooperative and voluntary monitoring. Evaluation of resource conditions  
 26 may be conducted by qualified specialists, analysts, and field managers as determined under WAC  
 27 222-22-030. Subsequent watershed analysis and monitoring recommendations in response to areas  
 28 where recovery is not occurring shall be conducted in accordance with this chapter.

29 \*(4) Where the condition of resource characteristics in a WAU are fair or poor, the department shall  
 30 evaluate the effectiveness of the prescriptions applied under this chapter to the WAU in providing  
 31 for the protection and recovery of the resource characteristic. If the department finds that the  
 32 prescriptions are not providing for such protection and recovery over a period of 3 years, the  
 33 department shall repeat the watershed analysis in the WAU. Aside from the foregoing, once a  
 34 watershed analysis is completed on a WAU, it shall be revised in whole or in part upon the earliest  
 35 of the following to occur:

- 36 (a) Five years after the date the watershed analysis is final, if necessary;
- 37 (b) The occurrence of a natural disaster having a material adverse effect on the resource  
 38 characteristics of the WAU;
- 39 (c) Deterioration in the condition of a resource characteristic in the WAU measured over a 12-  
 40 month period or no improvement in a resource characteristic in fair or poor condition in the  
 41 WAU measured over a 12-month period unless the department determines, in cooperation with  
 42 the departments of ecology, fish and wildlife, affected Indian tribes, forest land owners, and the  
 43 public, that a longer period is reasonably necessary to allow the prescriptions selected to  
 44 produce improvement; or
- 45 (d) The request of an owner of forest land in the WAU, which wishes to conduct a watershed  
 46 analysis at its own expense.
- 47 Revision of an approved watershed analysis shall be conducted in accordance with the

1 processes, methods, and standards set forth in this chapter, except that the revised watershed  
 2 analysis shall be conducted only on the areas affected in the case of revisions under (b) or (c) of  
 3 this subsection, and may be conducted on areas smaller than the entire WAU in the case of  
 4 revisions under (a) and (d) of this subsection. The areas on which the watershed analysis  
 5 revision is to be conducted shall be determined by the department and clearly delineated on a  
 6 map before beginning the assessment revision. Forest practices shall be conditioned under the  
 7 current watershed analysis pending the completion of any revisions.

8  
 9 **WAC 222-22-100 Application review prior to watershed analysis.** . \*The watershed analysis system  
 10 established in this chapter is a principal methodology for assessing the effects on fish, water, and capital  
 11 improvements of the state or its political subdivisions of two or more forest practices. Recognizing that  
 12 it will not be possible to achieve state-wide implementation of the analysis process for all WAUs for  
 13 some time, the board hereby establishes certain interim regulatory measures pending watershed analysis  
 14 on a given WAU. These measures are designed to ensure use of the best available analysis techniques  
 15 and existing authorities to protect fish, water, and capital improvements of the state or its political  
 16 subdivisions.

17 .\*(1) The department shall continue to use its implementation and enforcement authority to prevent  
 18 damage to fish, water, and capital improvements of the state or its political subdivisions. See  
 19 chapter 222-46 WAC.

20 .\*(2) The department shall condition the size of clearcut harvest applications in the significant rain-on-  
 21 snow zone where the department determines, using local evidence, that peak flows have resulted in  
 22 material damages to public resources. The department may prepare conditioning guidelines to  
 23 assess and condition applications located in a significant rain-on-snow zone.

24 (a) Each year not later than August 31, the department shall provide a summary report of actions  
 25 taken under rain-on-snow conditioning or conditioning guidelines to the appropriate board  
 26 committee.

27 (b) Such conditioning authority shall expire upon completion of watershed analysis in a WAU.

28 (c) Nothing in this section shall require a watershed analysis to develop harvest size  
 29 recommendations.  
 30