

APPENDIX J

Cultural Resources

Module

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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.

It is important to maximize participation by all those affected by a cultural resource module in order to realize the full potential of the analysis and resulting products. A good faith effort is necessary to ensure that all affected parties have an opportunity to contribute to the assessment and add to the solutions anticipated in the module. Tribal participation is necessary but may vary in degree from providing consultation to being the module leader. Throughout the module process, the initiator of the watershed analysis should facilitate tribal participation by accomplishing at least the following:

- Ongoing neighborly efforts to inform and involve affected parties,
- Timely notification of meetings and other related processes, and
- Adequate notice of final decision-making processes.

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

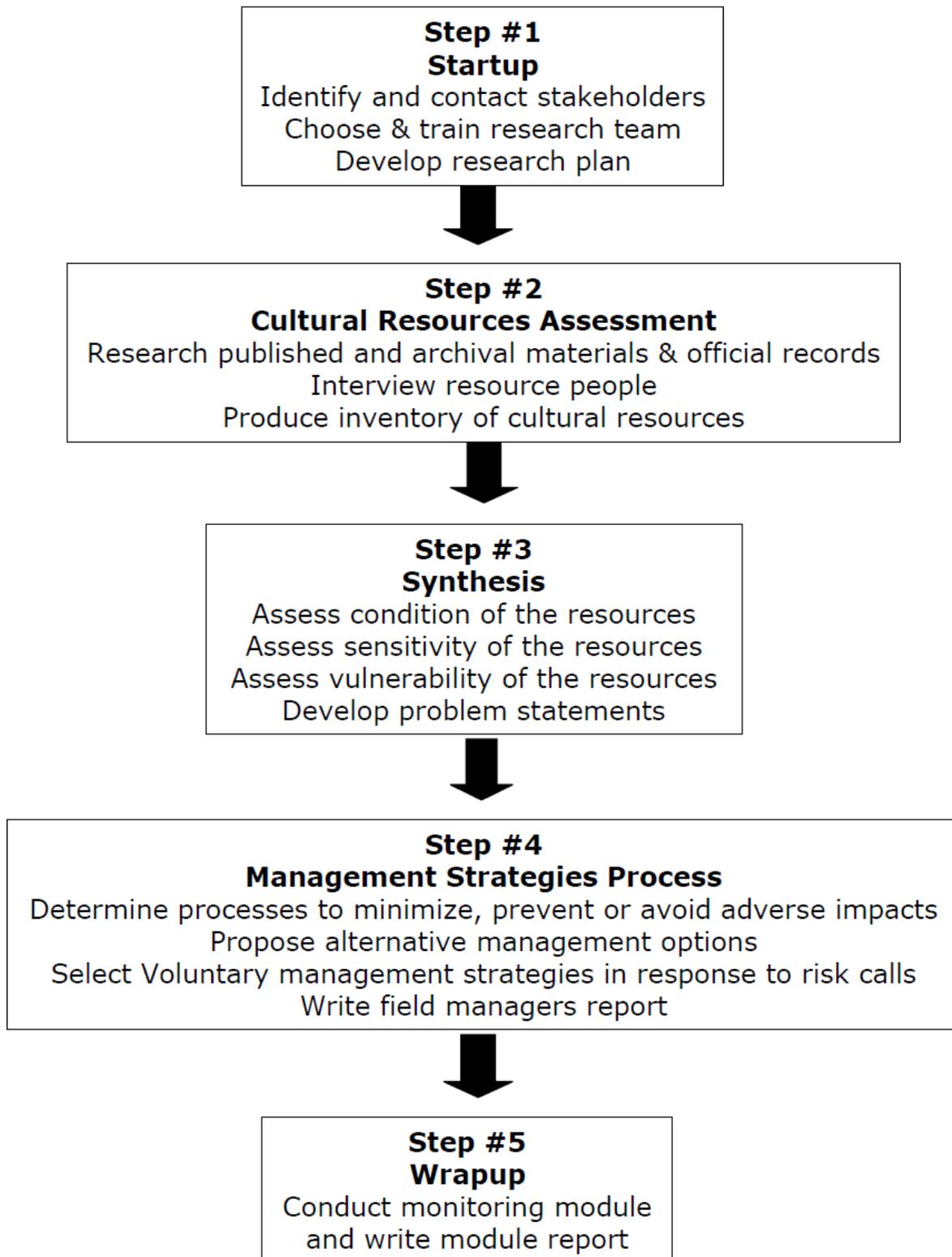


Figure J-1: Methodology of Cultural Resource Assessment

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.

<u>Physical Resource Modules</u>	<u>Cultural Resource Module</u>
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. Furthermore, 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:

1. Are associated with events that have made a significant contribution to the broad patterns of our history; or
2. Are associated with the lives of significant persons in our past; or
3. 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
4. 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 Interview Release Form for Tribal Cultural Resources
WATERSHED ANALYSIS PROJECT**

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 Interview Format Form for Tribal Cultural Resources WATERSHED ANALYSIS PROJECT

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 J-2.

Process	Input or Effect	TCR Impacted by Watershed Processes	Importance & Vulnerability
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: Through-out 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>

Figure J-2: An Example of an Organizer Relating Common Management and Natural Physical Processes to Tribal Cultural Resource Impacts

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

Process	Input or Effect	TCR Impacted by Watershed Processes	TCR Importance & Vulnerability
<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>

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 (NTRC). 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 NTRC assessment will establish and maintain communication between forest landowners and land managers, communities and interested parties. NTRC 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:

1. Are associated with events that have made a significant contribution to the broad patterns of our history; or
2. Are associated with the lives of significant persons in our past; or
3. 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
4. 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.

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

Figure J-3: An Example of an Organizer Relating Common Management and Natural Physical Processes to Non-Tribal Cultural Resource Impacts

**Form J-4 Non-tribal Cultural Resource Assessment Form
WATERSHED ANALYSIS PROJECT (required form)**

Process	Input or Effect	TCR impacted by watershed processes	TCR Importance & Vulnerability
Process:			<i>Importance:</i>
Location:			<i>Vulnerability:</i>
Process:			<i>Importance:</i>
Location:			<i>Vulnerability:</i>
Process:			<i>Importance:</i>
Location:			<i>Vulnerability:</i>
Process:			<i>Importance:</i>
Location:			<i>Vulnerability:</i>
Process:			<i>Importance:</i>
Location:			<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 Attachment 1.

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 Causal Mechanism Report for Cultural Resources
Watershed Analysis Project (required form)

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 OAHN is consulted on these management strategies. Figure 4 shows how the WSA prescription process is used working out CR management strategies.

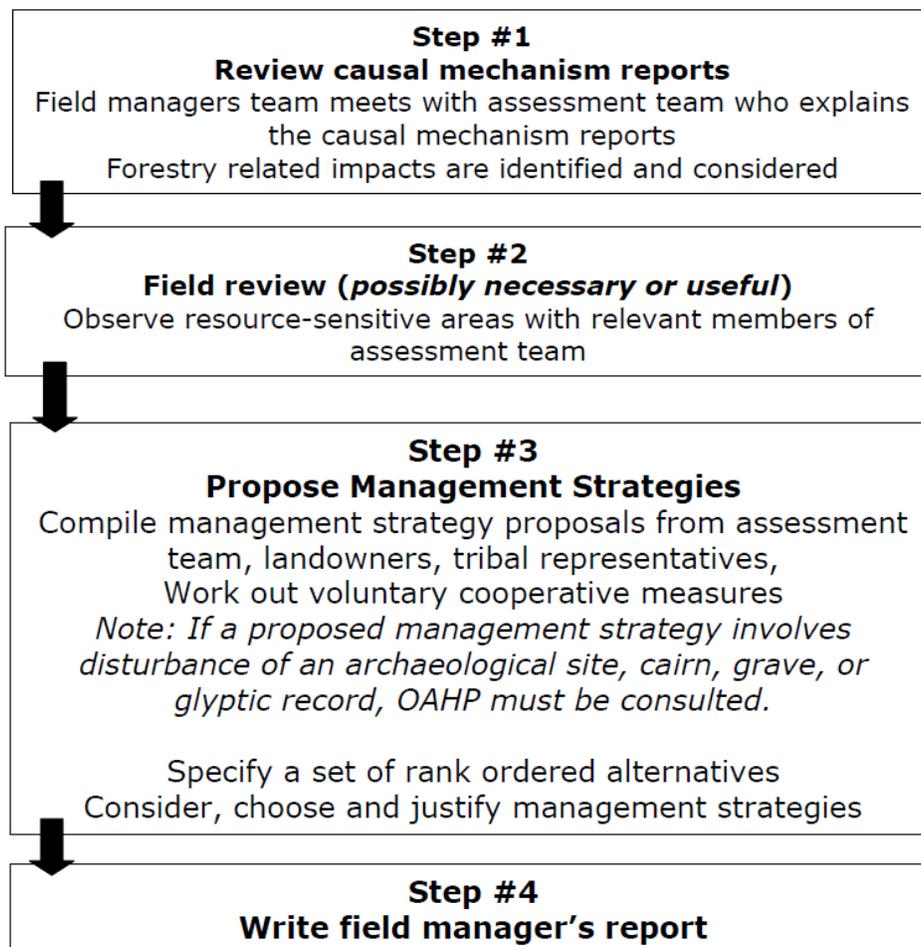


Figure 4: Working out Management Strategies for Cultural Resources

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. OAHF 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. OAHF agrees that the management strategies adequately protect tribal and non-tribal sites registered on the OAHF 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 Field Managers Team Cultural Resources Management Strategy Report

Watershed Analysis Process (required form)

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):

Additional Comments: _____

Voluntary Management Strategy¹: _____

Rationale: _____

¹ 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.

Attachment 1 An alternative method for guiding the development of management strategies

Resource Vulnerability (Likelihood of Adverse Change)

		L	M	H
Resource Importance	L	Low risk, standard practices	Low risk, standard practices	Moderate risk Minimize impacts
	M	Low risk, standard practices	Moderate risk Minimize impacts	High Risk Prevent or avoid impacts
	H	Low risk, standard practices	High Risk Prevent or avoid impacts	High Risk Prevent or avoid impacts

Figure J-5 Matrix Used to Produce Management Response (Risk Call) For a Given Cultural Resources Location Problem Statement

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.

Attachment 2 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.