

**MEMORANDUM OF UNDERSTANDING**

**Between the**

**USDI**

**NATIONAL PARK SERVICE, PACIFIC WEST REGION**

**And the**

**U.S. GEOLOGICAL SURVEY, WESTERN REGION**

**And the**

**BUREAU OF LAND MANAGEMENT  
OREGON/WASHINGTON STATE OFFICE**

**And the**

**BUREAU OF RECLAMATION, PACIFIC NORTHWEST REGION**

**And the**

**U.S. FISH AND WILDLIFE SERVICE, REGION 1**

**And the**

**U.S. ARMY CORPS OF ENGINEERS, NORTHWESTERN DIVISION**

**And the**

**USDA FOREST SERVICE,  
NORTHERN AND PACIFIC NORTHWEST REGIONS**

This Memorandum of Understanding (MOU) is made and entered into by and between the: USDI National Park Service, Pacific West Region, the U.S. Geological Survey Western Region, the Bureau of Land Management Oregon/Washington State Office, the Bureau of Reclamation, Pacific Northwest Region, the U.S. Fish and Wildlife Service, Region 1; the U.S. Army Corps of Engineers, Northwestern Division; and the USDA Forest Service, Northern and Pacific Northwest Regions.

Background: During the latter phases of the Pleistocene ice age, 18,000 to 12,000 years ago, a lobe of the Cordilleran ice sheet advanced into the Idaho Panhandle to the area now occupied by Lake Pend Oreille, thus blocking the Clark Fork River drainage and causing Glacial Lake Missoula to form in western Montana. This ice dam, holding back some 500 cubic miles of water when the lake was at its greatest depth and extent, would fail repeatedly. When the dam broke, a towering mass of water and ice was released that swept across parts of Idaho, Washington, and Oregon on its way to the Pacific Ocean. *See the Ice Age Floods Area Map attached as Exhibit A.*

As evidence of their passing, the effect of these repeated cataclysmic floods is recorded on the landscape itself and in geologic character of the region's many valleys and basins; including many features that, today, are located on lands administered by a number of federal agencies.

Since 1993, the above named federal agencies have met on an informal basis to discuss how to promote an awareness and understanding of the Glacial Lake Missoula Floods among general audiences at the local, regional, national, and international levels.

In 2001, the USDI National Park Service completed a special resource study entitled *Ice Age Floods, Study of Alternatives and Environmental Assessment, Following the Pathways of the Glacial Lake Missoula Floods*. This document identifies positive educational and economic outcomes that can best be achieved through the planned and documented efforts of the parties to this MOU.

## **I. PURPOSE:**

The purpose of this MOU is to develop a coordinated and scientifically accepted interpretation of the nationally significant values and features of the Glacial Lake Missoula ice age floods (hereafter referred to as the *Ice Age Floods*) that are found on federal lands in the states of Idaho, Montana, Oregon, and Washington.

## **II. STATEMENT OF MUTUAL BENEFITS AND INTERESTS:**

The parties share a mutual interest in federal land management, scientific research and a responsibility for providing the public with high quality cohesive and educational interpretive programs. All parties will benefit from the coordination and cooperation necessary to comprehensively plan and execute a connected, informative, stimulating, and scientifically accepted Ice Age Floods story.

## **III. EACH PARTY WILL:**

- A. Hereby agree to the formation of a Federal Ice Age Floods Interagency Technical Committee (Technical Committee). The formation of this Technical Committee will be the initial step to coordinate and oversee the activities that will enhance interpretation of the Ice Age Floods story.
- B. Designate a representative to serve on the Technical Committee. A list of Technical Committee Representatives is attached as Exhibit B. Descriptions of Technical Committee Organization and Conduct, and Responsibilities are attached as Exhibits C and D respectively.
- C. Recognize the Technical Committee Chairperson as the principal point of contact for the Technical Committee. *See Exhibit C item C and Exhibit D item B.*
- D. Make best efforts to perform their individual activities associated with this MOU.
- E. At their discretion, provide personnel, equipment, and services to carry out their respective responsibilities of this MOU.
- F. Voluntarily seek Technical Committee review of site development plans and interpretive messages associated with the Ice Age Floods story.

**IV. IT IS MUTUALLY AGREED AND UNDERSTOOD BY AND BETWEEN THE PARTIES THAT:**

- A. PRINCIPAL CONTACTS. The principal contacts for this MOU are listed in Exhibit E.
- B. The principal contacts will make themselves available at mutually agreeable times, for continuing consultation to discuss the conditions covered by this MOU and agree to actions essential to fulfill its purposes. At a minimum, the parties will participate in an annual meeting generally held during the month of October.

C. This MOU hereby incorporates the following Exhibits:

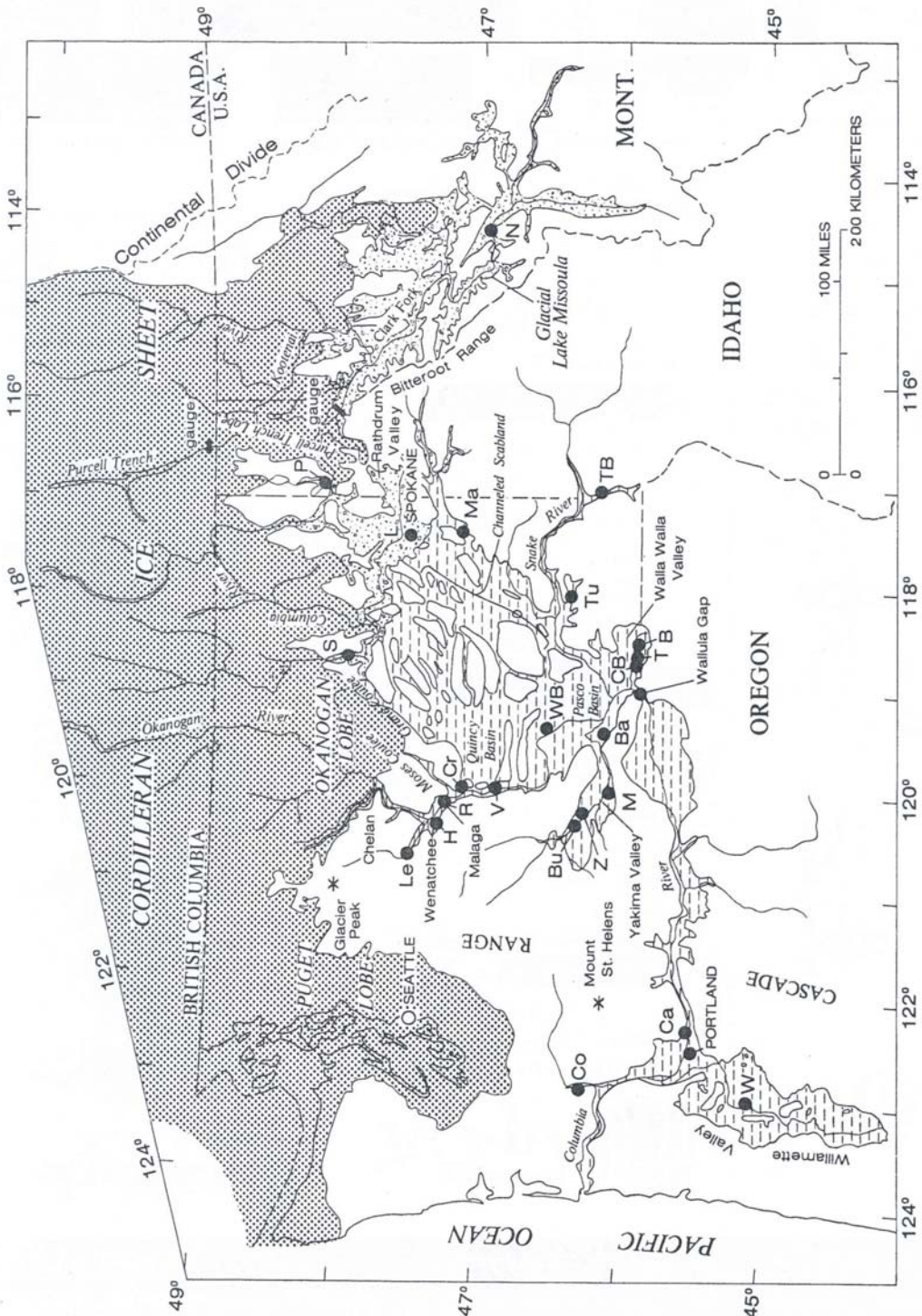
<u>Exhibit</u>	<u>Contents</u>
A	Ice Age Floods Area Map
B	Interagency Technical Committee Representatives
C	Interagency Technical Committee Organization and Conduct
D	Interagency Technical Committee Responsibilities
E	Principal Contacts

- D. Exhibits A-D to this MOU may be revised or deleted by Technical Committee consensus. The latest revision of these Exhibits will automatically be incorporated into this MOU without necessitating a formal modification as defined in Provision IV-I.
- E. This MOU does not alter management control of any lands. Each agency will retain all responsibility and management discretion on the lands under its jurisdiction.
- F. FREEDOM OF INFORMATION ACT (FOIA). Any information furnished, developed and/or exchanged under this MOU is subject to the Freedom of Information Act (5 U.S.C. 552).
- G. PARTICIPATION IN SIMILAR ACTIVITIES. This MOU in no way restricts the parties from participating in similar activities with other public or private agencies, organizations, and individuals.
- H. NON-FUND OBLIGATING DOCUMENT. This MOU is neither a fiscal nor a funds obligation document. Any endeavor involving reimbursement or contribution of funds between parties to this MOU will be handled in accordance with applicable laws, regulations, and procedures including those for Government procurement and printing. Such endeavors will be outlined in separate agreements that will be made in writing by representatives of the parties and will be independently authorized by appropriate statutory authority. This MOU does not provide such authority. Specifically, this MOU does not establish authority for noncompetitive award to the parties of any contract or other agreement. Any contract or agreement for training or other services must fully comply with all applicable requirements for competition.





# EXHIBIT A



Map of Columbia River valley and tributaries. Small dots show maximum area of glacial Lake Missoula east of Purcell Trench ice lobe and maximum extent of glacial Lake Columbia east of Okanogan lobe. Lined pattern shows area that, besides these lakes, was swept by the Missoula floods. Closed circles indicate sites of bedded flood sediment discussed in text: B = Burlingame canyon; Ba = Badger Coulee; Bu = Buena; Ca = Camas; Co = Cowlitz valley; Cr = Crescent Bar; CB = Cumings Bridge; CR = Castle Rock; H = Horse Lake Canyon; L = Latah Creek; Le = Leavenworth; M = Mabion; Ma = Malden; N = Ninemile Creek; P = Priest valley; R = Rock Island bar; S = Sanpoil valley; T = Touchet; Tu = Tucannon valley; TB = Tammany bar; V = Vantage; W = Willamette valley section; WB = White Bluffs; Z = Zillah.

**Ice Age Floods Area Map  
From  
Waite, 1985.**

## EXHIBIT B

### INTERAGENCY TECHNICAL COMMITTEE REPRESENTATIVES APRIL 2005

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## **EXHIBIT C**

### **INTERAGENCY TECHNICAL COMMITTEE ORGANIZATION AND CONDUCT**

The Technical Committee will:

- A. Initially be chaired by Keith Dunbar, USDI National Park Service, Pacific West Region.
- B. Be comprised of one general representative from each of the parties.
- C. Be comprised of a chairperson, vice-chairperson, and general Technical Committee representatives. *See Exhibit D Interagency Technical Committee Responsibilities item B.*
- D. Operate by “consensus.” Consensus means that 60% or more of the Technical Committee members provide their concurrence.
- E. Share pertinent information.
- F. Promote cooperation across jurisdictional boundaries.
- G. Keep communication open and frequent so all representatives are informed on the status of the issues that may affect working relationships.

## **EXHIBIT D**

### **INTERAGENCY TECHNICAL COMMITTEE RESPONSIBILITIES**

The Technical Committee will:

- A. Convene at least one meeting annually. The meeting will generally be held in October.
- B. Elect from the body of Technical Committee representatives a Technical Committee chairperson and a Vice-chairperson.
- C. Define the term of appointments for the Technical Committee chairperson, Vice-chairperson and the general Technical Committee representatives.
- D. Define the area boundary for the Ice Age Floods story based on MOU objectives.
- E. Establish subcommittees to accomplish the objectives and tasks identified by the Technical Committee.
- F. Establish and maintain a list of individuals with the knowledge, skills, and abilities essential to promoting and enhancing the scientifically accepted interpretation of the impacts that the presence of Glacial Lake Missoula and the flood events have had on the biologic and geologic characteristics of the affected areas.
- G. Establish and maintain a process for reviewing voluntarily submitted site development plans and interpretive messages for a consistent and scientifically accepted interpretation of the Ice Age Floods story.
- H. Develop a linked interpretive plan and provide recommendations to the parties of this MOU for potential modifications to this strategy.
- I. Identify and recommend opportunities for cooperative projects.
- J. Encourage cooperative relationships and active participation with private landowners, scientific organizations, user groups and other parties interested in the Ice Age Floods story.
- K. Maintain a record of accomplishments.
- L. Provide to the parties of this MOU a written report of project accomplishments by December 31 of each year.
- M. With approval of the appropriate agency line officer, add agency members to the Technical Committee from time to time, as needed.

- N. As necessary, review and update Exhibits A-D to this MOU.
- O. Further refine specific Technical Committee Responsibilities and provide those recommendations to the parties of this MOU.

## EXHIBIT E

### PRINCIPAL CONTACTS

April 2005

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