

MEMORANDUM OF UNDERSTANDING  
Between the  
UNITED STATES DEPARTMENT OF AGRICULTURE  
FOREST SERVICE, PACIFIC SOUTHWEST RESEARCH STATION  
and the  
STATE OF CALIFORNIA, THE RESOURCES AGENCY  
DEPARTMENT OF FORESTRY AND FIRE PROTECTION

This Memorandum of Understanding is made and entered into between the United States Department of Agriculture, Forest Service, Pacific Southwest Research Station, hereinafter referred to as PSW, and the State of California, The Resources Agency, Department of Forestry and Fire Protection, hereinafter referred to as the State, to establish a long-term research philosophy between the State and the PSW for the Caspar Creek Watershed Study.

#### I. PURPOSE AND STATEMENT OF MUTUAL INTEREST AND MUTUAL BENEFITS

For thirty seven years a comprehensive, cooperative watershed study has been conducted in the Caspar Creek drainage on Jackson Demonstration State Forest near Fort Bragg. The first phase was a paired watershed study that began in 1962 with the objective of documenting hydrologic changes, erosional impacts, and sediment production resulting from road construction in 1967 and selective tractor logging in 1971 through 1973 in the South Fork. The second phase was initiated in the early 1980's with the principal objective to investigate potential cumulative watershed effects resulting from even-age (clear-cut) silvicultural activities using cable yarding techniques in the North Fork. Auxiliary studies were designed to evaluate various flow routing and sediment transport processes, water quality, fisheries and other biological community (algal and benthic macro invertebrates) responses.

The 37-year hydrologic record at the North Fork and South Fork of Caspar Creek is unique in the World. There are only three other locations in the United States with similar long-term continuous streamflow records from forested small (<2000 acres) watersheds: Coweeta in North Carolina (65 years), Hubbard Brook in New Hampshire (50 years), and H.J. Andrews in Oregon (50 years). Of these locations, the Caspar Creek data represent the only long-term hydrologic information from watersheds located in second-growth conifer forests. In addition, Caspar Creek is the only location having a rain-dominated winter and xeric summer climate. Because of its long record and unique conditions, information from Caspar Creek will continue to be valuable to both the research and the land management communities.

#### II. THE PARTIES AGREE:

The CDF (Jackson Demonstration State Forest and Sacramento headquarters) and the PSW (Redwood Sciences Lab and Albany headquarters) agree in principle to a long-term philosophy for cooperation at Caspar Creek. It is understood that any agreement is subject to changing budget and political climates, but these two agencies will endeavor to:

- 1) continue to measure streamflow at the North and South Fork weirs for the next 100 years -- regardless of whatever future land management occurs upstream. Such long term monitoring will be priceless to future generations and can be accomplished with little cost;
- 2) continue to measure rainfall at the S620 and N408 sites and maintain appropriate gauge "exposure";
- 3) maintain the 96-acre subwatershed H and the 51-acre subwatershed I as untreated controls for the next 100 years and continue to measure stormflow at the flumes;
- 4) continue to measure suspended sediment (load or turbidity) at the North and South Fork weirs and at the H and I flumes; and
- 5) maintain the 2.5 acre MI swale as an untreated control to allow for periodic comparisons of pipeflow and subsurface hydrology with treated headwater swales.

## III. IT IS MUTUALLY AGREED AND UNDERSTOOD BY AND BETWEEN THE PARTIES THAT:

- 1) This instrument is neither a fiscal nor a funds obligation document. Any endeavor involving reimbursement or contribution of funds, transfer of property, services or anything of value between the parties to this instrument will be handled in accordance with applicable regulations, and procedures including those for Government procurement and printing. Such endeavors will be outlined in separate agreements that shall be made in writing by representatives of the parties and shall be independently authorized by appropriate statutory authority. This instrument does not provide such authority. Specifically, this instrument does not establish authority for noncompetitive award to the Cooperator of any contract or other agreement. Any contract or agreement for training or other services must fully comply with all applicable requirements for competition.
- 2) Each agency shall be acknowledged in publications and audiovisuals.
- 3) This instrument in no way restricts the PSW or the State from participating in similar activities with other public or private agencies, organizations, and individuals.
- 4) This instrument is executed as of the last date shown below and expires 5 years from the execution date, at which time it will be subject to review, renewal, or expiration.
- 5) Either party, in writing, may terminate the instrument in whole, or in part, at any time before the date of expiration.
- 6) Modifications within the scope of this instrument shall be made by the issuance of a bilaterally executed modification prior to any changes being performed.
- 7) The principal contacts for this instrument are:

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Soil Erosion Studies Project Leader  
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PSW Station, Forest Service, USDA  
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IN WITNESS WHEREOF, the parties hereto have executed this Memorandum as of the last date written below.

STATE OF CALIFORNIA  
THE RESOURCES AGENCY  
DEPARTMENT OF FORESTRY  
AND FIRE PROTECTION

U.S. DEPARTMENT OF AGRICULTURE  
FOREST SERVICE  
PACIFIC SOUTHWEST RESEARCH STATION

By Andrea E. Tuttle  
ANDREA E. TUTTLE  
Director

By Hal Salwasser  
HAL SALWASSER  
Station Director

Date August 17, 1999

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