

Paul

MEMORANDUM OF UNDERSTANDING
between
**UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE**
and the
**UNITED STATES DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
BUREAU OF LAND MANAGEMENT
NATIONAL PARK SERVICE**
and
**UNITED STATES DEPARTMENT OF COMMERCE
NATIONAL MARINE FISHERIES SERVICE**

94-SMU-058

This Memorandum of Understanding (MOU), is made and entered into by and between the U.S. Department of Agriculture Forest Service, hereinafter referred to as FS; the U.S. Department of the Interior Fish and Wildlife Service, hereinafter referred to as FWS; The U.S. Department of the Interior Bureau of Land Management, hereinafter referred to as BLM; the U.S. Department of the Interior National Park Service, hereinafter referred to as NPS; and the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, hereinafter referred to as NMFS. Collectively, the parties to this MOU will be referred to as the cooperators.

L PURPOSE

The purpose of this MOU is to establish a general framework for cooperation and participation among the cooperators in the conservation of species that are tending toward federal listing as threatened or endangered under the Endangered Species Act (ESA), 16 U.S.C.

The cooperators propose to work together to achieve a common goal of conservation of selected species, agreed upon by the cooperators, that are tending toward federal listing, ((e.g., sensitive, candidate or proposed species)(see Attachment A for definition of terms)) through protection and management of their habitats and ecosystems upon which they depend. Conservation Agreements (See Attachment A for definition of terms) will be developed for species and/or habitats selected by the cooperators using an agreed upon method of priority setting and in full consideration of budgetary feasibility and respective Agency missions. Attachment A is incorporated by reference into this MOU.

ii. STATEMENT OF MUTUAL INTEREST AND MUTUAL BENEFITS

The FS is a land management agency responsible for the management of the national forests and grasslands. The FS manages 191 million acres in 43 states that serve as habitat for many plant and animal species. The FS also has a national policy (Forest Service Manual 2670) to manage habitats for plant and animal species to prevent the need for their federal listing under the Endangered Species Act.

The FWS is a Federal land management and regulatory agency responsible for the implementation of the Endangered Species Act and coordinating with other Federal and State agencies in the national effort to prevent the extinction of species. The FWS is responsible for the publication of the plant and animal candidate lists and has a national candidate conservation program.

The BLM is a land management agency responsible for the management of public lands. The BLM manages 270 million surface acres in 29 states that serve as habitat for many plant and animal species. The BLM also has a national policy (BLM Manual 6840) and strategic plans for implementing BLM's Fish and Wildlife 2000, an initiative to manage habitats for plant and animal species to prevent the need for their federal listing under the Endangered Species Act.

The NPS preserves and manages more than 80 million acres in 367 units of the National Park System for the enjoyment of present and future generations and is responsible for increasing the public knowledge, awareness, and appreciation of natural resources. NPS policies promote the conservation of all federally listed threatened, endangered, or candidate species within park boundaries and their critical habitats.

NMFS is a regulatory agency responsible for stewardship of the Nation's living marine resources. As part of this stewardship role, NMFS implements the Endangered Species Act for most anadromous and marine species.

In 1973, the Endangered Species Act (ESA) was enacted to "provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved" and made it "the policy of Congress that all Federal departments and agencies shall seek to conserve endangered and threatened species and shall use their authorities in furtherance of the purposes of this Act" Data collected by state Natural Heritage Programs across the United States show that some 9,000 U.S. plant and animal species are rare, seriously declining in numbers and/or are likely to be at risk of extinction within the foreseeable future. Addressing the threats to these species, thereby reducing or possibly eliminating the need for their listing as endangered or threatened, is of benefit to the cooperators and the nation.

This agreement will be of particular value for those species that require an inter-forest, inter-regional, and/or ecosystem approach to effectively conserve their habitats.

Habitat ~~conservation~~ assessments (see Attachment A for definition of terms) will provide the technical information and ~~interpretation~~ to develop Conservation Agreements outlining the procedural assurance necessary to reduce, eliminate, or mitigate specific threats to some species. These habitat assessments will ~~also~~ represent an important component for development of an ecosystem management approach on national forests, national parks, national wildlife refuges, public rangelands, and other land managed by the cooperators. Such information will also be useful to private landowners and state and other Federal land managers who may choose to coordinate their land management activities with those of the cooperators.

The cooperators seek to improve efficiency by combining their efforts, to foster better working relationships and promote the conservation of species, and thereby encourage conservation of national biological diversity.

In consideration of the above premises, the parties agree as follow:

iii. THE COOPERATORS SHALL:

1. Work together and participate in the conservation of selected plant and animal species and their habitats to reduce, mitigate, and possibly eliminate the need for their listing under ESA by ~~developing~~ habitat conservation assessments leading to Conservation Agreements, where appropriate, for selected species, groups of species, or specific ecosystems.
2. Assemble interagency ~~interdisciplinary~~ teams of specialists and land managers to develop habitat conservation assessments for selected species.
 - a. These ~~assessments~~ will include the best available, comprehensive, state-of-the-art technical information and describe the habitat requirements for a species (or group of species) throughout its occupied range on federal lands.
 - b. Teams will be established for selected species, agreed upon by all cooperators, in Fiscal Year 1994. Timetables and responsible parties to complete these assignments will be identified. Line officers in each agency ~~will~~ be given responsibility to complete assessments, provide interagency cooperation, and accountability in a timely manner. Assessment teams will be established for subsequent fiscal year activities.
 - c. As part of the habitat conservation assessment, the respective line officers from the cooperators will identify, where appropriate, shortcomings of existing agency management direction *and* propose specific options for further consideration.
3. Use ~~appropriate~~ procedures to ensure adherence to all legal requirements in analyzing changes and establishing new management direction for habitat conservation. When appropriate, this will include amendment or revision of land and resource management plans or changes to the cooperators directive systems. These amendments and/or changes, in addition to a signed conservation agreement, will provide a basis for and commitment to the new direction.

4. ~~Develop~~ conservation agreements, as appropriate, to remove, reduce, or mitigate threats to candidate ~~or~~ sensitive species. These agreements ~~will~~ be based on the habitat conservation assessments as described in Section III, 2.

5. Further the purpose of this MOU. Examples may ~~include~~ cooperation in:

- Preparation and dissemination of public information materials for selected species or species groups and their habitat,
- Special technical and policy sessions for agency personnel, and
- Meetings and special sessions to facilitate information exchange ~~regarding~~ the selected species conservation principles.

6. Meet ~~annually~~ at a national level to review the status of the previous years' work, prepare a joint accomplishment report, and establish a program of work for the Fiscal Year.

7. In all agencies, consider successful implementation of the program in evaluating line officer performance. Key leaders who contribute to notable successes will be recognized on a continuing basis.

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

1. Specific work projects or activities that involve the transfer of funds, services, or property among the cooperators to this MOU will require the execution of separate agreements or contracts, contingent upon the availability of funds as appropriated by Congress. Each subsequent agreement or arrangement involving the transfer of funds, services or property among the parties to this MOU must comply with all applicable statutes and regulations, ~~including~~ those statutes and regulations applicable to procurement activities, and must be independently authorized by appropriate statutory authority.

2. This MOU in no way restricts the cooperators from participating in similar activities or arrangements with other public or private agencies, organizations, or individuals.

3. Nothing in this MOU shall obligate the cooperators to expend appropriations or to enter into any contract or other obligations.

4. This MOU may be ~~modified~~ or amended upon written request of any party hereto and the subsequent written concurrence of all the parties. Cooperator participation in this MOU may be terminated with a 60-day written notice of any party to the other cooperators. Unless terminated under the terms of this paragraph, this MOU will remain in full force and in effect until September 30, 1999.

V. PRINCIPAL CONTACTS

The following persons will be the principal contacts for their respective agencies at the time of execution of this MOU. These contacts may be changed at the agencies' discretion upon notice to the other cooperating agencies.

**Robert D. Nelson - WLF
USDA Forest Service
14th & Independence, SW
P.O. Box 96090
Washington, DC 20090-6090
(202) 205-1206**

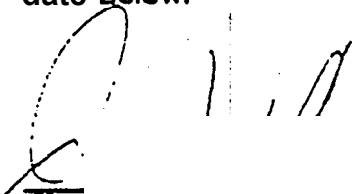
**Jamie Rappaport Clark
USDI Fish and Wildlife Service
18th & C St. NW
(ARLSQ 452)
Washington, DC 20240
(703) 358-2171**

**Joe Kraayenbrink
USDI Bureau of Land Management
1849 C Street NW WO-240
Washington, DC 20240
(202) 452-7770**

**Gary Johnston
USDI National Park Service
Wildlife and Vegetation Div.
P.O. Box 37127 MS-490
Washington, DC 20013
(202) 343-8115**

**Phil Williams
Office of Protected Resources
USDC National Marine Fisheries Service
Silver Spring Metro Center 1
1335 East-West Highway
Silver Spring, MD 20910
(301) 427-2322**

IN WITNESS WHEREOF, the pares hereto have executed this MOU as of the last written date below.



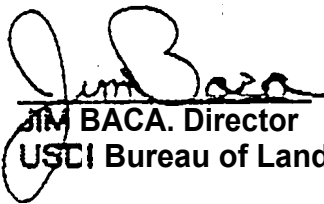
JACK WARD THOMAS, Chief
USDA Forest Service

25 Jan 94
Date



MOLLIE H. B T TIE, Director
USDI Fish and Ic e Service

25 Jan 94
Date



JIM BACA, Director
USDI Bureau of Land Management

1/25/94
Date

ROLLAND SCHMITTE Assistant Administrator Date
USDC National Marine fisheries Service

1/25/94



ROGER G. KENNEDY, Director
USD1 National Park Service

Date

ATTACHMENT A DEFINITION OF TERMS

Candidate Species: Those plant and animal species that, in the ~~opinion~~ of the Fish and Wildlife Service (FWS) or the National ~~Marine~~ Fisheries Service (NMFS), may qualify for listing as endangered or threatened. The ~~FWS~~ recognizes ~~two~~ categories of candidates. Category 1 candidates are taxa for which the FWS has on file sufficient information to support proposals for listing. Category 2 candidates are taxa for which information available to the ~~FWS~~ indicates that proposing to list is possibly appropriate, but for which sufficient data are not currently available to support proposed rules. The NMFS most recent candidate species list is published in 56 FR 28797. Because of the smaller numbers of species on NMFS candidate species list, NMFS does not apply categories to its candidate species list.

Proposed Species: Any plant or animal species that is proposed by the FWS or NMFS in a Federal Register notice to be listed as threatened or endangered.

Sensitive Species: Those plant and animal species identified by a Regional Forester or a ~~BLM~~ State Director for which population viability is a concern, as evidenced by:

- a. ~~Significant~~ current or predicted downward trends in population numbers or density.
- b. Significant current or predicted downward trends in habitat capability that would reduce a ~~species'~~ existing distribution.

Habitat Conservation Assessment: A comprehensive, ~~state-of-knowledge~~ technical document that describes life history, habitat requirements and management considerations for a species or group of species throughout its/their occupied range on the lands managed by the cooperating agencies.

Conservation Agreement: A formal written document agreed to by FWS and/or NMFS and another Federal agency, Tribe, State agency, local government, or the private sector to achieve the conservation of candidate species through voluntary cooperation. ~~It~~ documents the specific actions and responsibilities for ~~which~~ each party agrees to be accountable. The objective of a Conservation Agreement is to reduce threats to a candidate species and/or its habitat. *An* effective Conservation Agreement may lower listing priority or eliminate the need to list a species.

CONSERVATION AGREEMENT
FOR THE
COW KNOB SALAMANDER

The signatory parties to this agreement affirm the mutual goal of securing and protecting the Cow Knob (white-spotted) salamander (*Plethodon punctatus*) within its known and potential range in the states of Virginia and West Virginia. To attain this goal, these parties further agree to implement the actions delineated in the Cow Knob Salamander Habitat Conservation Assessment (Assessment) to conserve this species and its occupied and potential habitat on the George Washington National Forest (Forest). A Conservation Team (Team) with representatives from the Virginia Department of Game and Inland Fisheries, Virginia Division of Natural Heritage, West Virginia Department of Natural Resources, U.S. Fish and Wildlife Service, and U.S. Forest Service will advise the Forest on the implementation of the Assessment and management of the Cow Knob salamander's habitat. The Conservation Assessment, the standards delineated in the George Washington National Forest Land and Resource Management Plan, and the advice of the Team have as their goal ensuring the long-term viability of the salamander on the Forest. The U.S. Forest Service has designated nearly the entire area supporting the salamander as the Shenandoah Mountain Crest - Special Interest Area (SMC-SIA) and will develop an Individual Implementation Schedule for this area. Until the Individual Implementation Schedule is developed and implemented for this area, the management of the salamander will be governed by the management measures set forth in the Assessment (see attached Summary) and by the following:

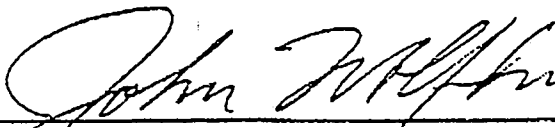
1. In order to evaluate the effectiveness of this program and the stability of the Cow Knob salamander's populations, a long-term monitoring program will be designed with the input of the Team and initiated no later than FY '98.
2. The areas surrounding the SMC-SIA will be subject to activities that may be detrimental to salamanders or their habitat, and where appropriate, surveys will be conducted to determine the presence of salamanders. If salamanders are found in these areas, they will be subject to the same management measures as the SMC-SIA.

The Team will review proposed research and management activities that may affect the Cow Knob salamander or its habitat on the Forest, oversee implementation of actions delineated in the Assessment and otherwise aid in achieving the conservation of this species.

- 4. The U.S. Forest Service will provide **project** data, survey results, and biological **information concerning** proposed **activities** as early in the planning process as possible. In turn, the Team will review and provide recommendations and opinions as **expeditiously** as possible. The Team will evaluate **all** proposed activities that could be detrimental to the salamander or its habitat **and** render **such** opinions that will be considered and made part of the public record by the U.S. Forest **Service** in its decision-making process as to **whether** to proceed with a given **activity**.

- S. Following *the* development of a draft **Individual Implementation Schedule** for the **SAC-SIA** by the *U.S.* Forest Service, it will be **provided** to the Team for review. The Team's recommendations will be utilized by the U.S. **Forest** Service in the development of the final document.

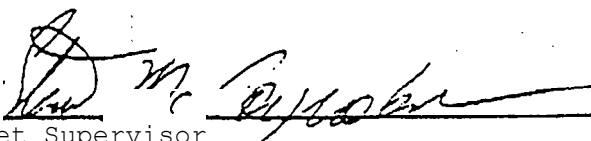
The U.S. Forest Service agrees to carry out these management measures to the best of its **ability** with the assistance of the Team and the U.S. Fish and Wildlife Service. Provided that this *is* done, it is expected that **populations** of this candidate salamander will be stabilized or enhanced so that **listing** this species as threatened or endangered under **the Endangered Species Act will be unnecessary**.



 Supervisor, Chesapeake, Y Field Office
 U.S. Fish and Wildlif Service

1/25/98

 Date



 For et Supervisor
 George Washington ational Forest
 U.S. Forest Serv ce

 Date

Conservation Assessment - Management Measures

1. Habitat Maintenance and Enhancement - Cow Knob salamander **populations** reach their highest population densities in older age hardwood forests above the 3,000 foot **elevation**. Forest stand structure and **composition** in this area should be allowed to develop into a condition of old growth through protection **from timber** management and other **forms** of habitat alteration that would affect the forest **community** by decreasing stand age. Removal of **cover** objects that **retain moisture will not be permitted**. Removal of non-native vegetation and species **limiting** growth of hardwoods may be appropriate management measures.
2. Protection from Take - The Cow Knob salamander must be actively **protected against taking** and killing by humans, except for specified **scientific** purposes. Such purposes include research on its ecology and systematics that will directly benefit the long-term protection **of** this species. Even for these purposes, **specific** permission from the U.S. Forest **Service** will be required. Collection of specimens for educational display and **captive breeding** should be discouraged.
3. Training for U.S. Forest Service and State Personnel - George Washington National Forest biologists and other appropriate personnel, **especially** those in the Dry River Ranger **District**, should be trained on the biology, habitat, threats, and management of the Cow Knob salamander by knowledgeable personnel. Workshops should be conducted as **needed**, especially as a result of changing personnel.
4. Education and Interpretation - The natural history of a secretive animal such as the Cow Knob salamander should be an **important** part of an **educational** package based on all aspects of the Shenandoah Mountain Crest Special Interest Area.
 - Brochures, booklets, media reviews, etc., could provide much needed outlets for general information on management procedures and natural history of **all** the sensitive species in this area.
 - This also offers an opportunity to educate the general public about the importance of conservation efforts on behalf of the **forest's** biodiversity and of the many uses of the forest **itself**. People should also be made aware of the rarity of the salamander, **its** habitat, and the fragility of the community so that they may be more aware of the impact of their activities.

Revealing exact locations of Cow Knob salamander populations to anyone should be avoided, however, except to those persons who need to know for **valid** conservation or scientific **purposes**.

5. Fire Control and Prescribed Burns - The **role** of fire in **maintaining** some natural communities is recognized, as is the **importance** of fire control. Fire control efforts will use the least impact methods available to control the **fire**. The effect of **fire** on Cow Knob salamander populations is unknown and **needs** to be evaluated. However, it is apparent that fires have occurred across the SMC-SA at **various** times and Cow Knob **salamanders** now occur in areas which have burned in the recent past. Potential **effects** of prescribed **fire** should be evaluated **during** the **development** of the necessary environmental **documentation**. Generally however, fires occur predominately on drier sites where the Cow Knob salamander is absent. Therefore, **controlled** burns on dry sites supporting rare plants and unique natural communities appear to be compatible with salamander conservation.

6. Integrated Pest Management - In general, forest insect and disease outbreaks should not be controlled within the **SMC-SIA** **except** where lack of control might adversely affect Cow Knob salamander populations. If control of pest insects and diseases **in** the **SMC-SIA** is warranted at all, **it** shall consist **of** the least deleterious methods available. Biological control measures are favored over chemical measures. Chemical pesticides are to be avoided. The secondary effects of any control method proposed for use should be evaluated for their **impacts** on the **salamander** and **its** microhabitat **before** its implementation. Caution should be taken when introducing natural enemies of the target pest species. The introduced control species must not affect any aspect of the natural prey base of the Cow Knob salamander or in some way affect other sensitive species. Studies of **gypsy** moth impacts and control measures appear to be one of the most immediate research needs for this salamander.

7. Land Ownership - The **SMC-SIA** is to be retained in **Federal** ownership, and it, or any parts thereof, are unavailable for exchange. Non-Federal inholdings that contain Cow Knob salamander populations should be **identified** and acquired, wherever possible.

8. Minerals - The area encompassing the range of the Cow Knob salamander **is** available for oil and gas leasing with controlled surface use stipulations, and for common variety minerals on a **case-by-case** basis. Availability depends on the nature and degree of disturbance planned. Significant disturbances of the surface are not **compatible** with the long-term survival of the Cow Knob salamander and will not be allowed. **Special stipulations** will be used to protect **Cow Knob** salamander habitat and populations. These **stipulations** are subject to approval by the Cow **Knob** salamander team. The area is not available for other leasable **minerals**, such as iron, coal, and tin.

9. **Range** - Grazing of domestic livestock in the **SMC-SIA** is not consistent with the maintenance of forested habitat appropriate for the Cow Knob salamander and will not be allowed.

10. **Recreation** - Low-impact (dispersed) recreational uses of the **SMC-SIA** are compatible with the long-term protection of the Cow Knob salamander. These include hiking, hunting, backpacking, picnicking, photography, wildlife study, and non-motorized biking. Existing trails and roads **should** be used for access to **specified** areas for these activities. New trails may be constructed if no adverse effect on Cow Knob salamander populations will occur, as determined by the Cow Knob salamander **team**.

Motorized vehicular (**OHV**) access should be limited to existing areas designated for that purpose.

11. **Roads** - Existing roads may be **maintained**, and motorized travel **should** be limited to open road systems. Construction of new roads of any kind is **not** permitted in the **SMC-SIA**. Such new **construction** would directly destroy salamander habitat, create additional habitat fragmentation, and increase forest edge.

Road maintenance actions should be reviewed for their impacts on natural habitat, and efforts coordinated between U.S. Forest Service maintenance crews and U.S. Forest Service biologists. Reconstruction, minor relocation, and parking facilities may be permitted provided these **activities** do not negatively impact Cow Knob salamander populations and habitats.

12. **Timber** - With the limited exception noted in measure **15**, timbering operations in the **SMC-SIA** are inconsistent with the long-term goals of protection of the Cow Knob salamander. The **SMC-SIA** shall be classified as unsuitable for timber **production**. **Cutting** of insect damaged, wind thrown, and fire-killed trees which pose a safety or maintenance concern, may be conducted only within 100 feet of the center of existing open roads. **Non-commercial** firewood **cutting** may be permitted within this same **corridor**, but only following salamander surveys indicating that the area is not of significance to the Cow Knob salamander.

13. **Vegetation** - Management of vegetation in the **SMC-SIA** should be minimal, allowing natural processes to work wherever possible. Exceptions may be allowed when the forest in the **SMC-SIA** is adversely affected by introduced **organisms** (see Integrated Pest Management, above), in habitats maintained by periodic disturbances, such as fire, which no longer occur at natural frequencies, or for **wildlife** management in areas classified as unsuitable habitat for Cow Knob salamanders, based on salamander survey results (**see** below). **Such** exceptions shall be approved **in** writing by the U.S. Fish and Wildlife Service in coordination with the **Conservation** Team. Herbicides **may** be used to control or **eliminate** **exotic** and invasive plant species

whose **presence** is **inconsistent** with the long-term protection of Cow Knob **salamander** habitat. Aerial spraying over broad areas for vegetation control should be avoided **if** possible. Chemicals **toxic to salamanders**, their prey, or their habitat **are** to be avoided.

Where **active** vegetation management can occur, natural plant species are **preferable** to **non-native** species.

14. **Utility and Transportation Corridors** - Because corridors of any size will fragment Cow Knob salamander habitat and isolate populations on either side, new utility corridors must **be** sited around the **SMC-SIA**. When opportunities exist, utility **corridors** should be closed and allowed to revegetate naturally.
15. **Wildlife** - Wildlife management for selected species will be unaffected except for **activities** that **require** the alteration of **Cow Knob** salamander habitat. Removal of hardwood stands, such as in the creation of openings, is inconsistent with long-term management of salamander populations. Such openings directly impact **salamanders** and create additional edge effects. Existing and replacement **wildlife improvements** may be maintained only if their presence does not **adversely** affect Cow Knob salamander habitat.

Hunting is an acceptable practice **in** the SMC-SIA. The creation of new edge habitat for management of game species should be minimized, and is allowed as a wildlife management tool only in areas of habitat unsuitable for the **Cow Knob** salamander.

ADDENDUM 1

94-SMU-058

Addendum 1 of this Memorandum of Understanding (MOU) is made and entered into by and between the U.S. Department of Agriculture Forest Service, the U.S. Department of Interior Fish and Wildlife Service, the U.S. Department of Interior Bureau of Land Management, the U.S. Department of Commerce National Marine Fisheries Service, the U.S. Department of Interior National Park Service, and the International Association of Fish and Wildlife Agencies (IAFWA) on behalf of the 50 State fish and wildlife organizations. This addendum adds State fish and wildlife agency leaders as cooperators in this MOU as represented by the IAFWA.

The IAFWA, founded in 1902, is a quasi-governmental organization of public agencies charged with the protection and management of North America's fish and wildlife resources. The IAFWA's governmental members include the fish and wildlife agencies of States, provinces, and federal governments of the United States, Canada, and Mexico. All 50 States are members. The IAFWA is a key organization in promoting sound resource management and strengthening Federal, State, and private cooperation in protecting and managing fish, wildlife, and their habitats in the public interest.

IN WITNESS WHEREOF, the party hereto has executed this addendum to the MOU as of the written date below.



R. MAXPETERSON, Executive V.P.
International Association of
Fish and Wildlife Agencies

3/20/94
Date