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USGS-BRD # 06HQAG0131
NPS # H3992060006
DOD# DACA87-01-H-0007
USDA-FS# 03-JV-11242328-001
NRCS# 68-3A75-4-104

**CHESAPEAKE WATERSHED
COOPERATIVE ECOSYSTEM STUDIES UNIT**

COOPERATIVE and JOINT VENTURE AGREEMENT

between

**DEPARTMENT OF THE INTERIOR
Bureau of Land Management
U.S. Geological Survey–Biological Resources Division
National Park Service**

**DEPARTMENT OF DEFENSE
Office of the Deputy Under Secretary of Defense
(Installations and Environment)**

**DEPARTMENT OF AGRICULTURE
U.S. Forest Service
Natural Resources Conservation Service**

and

**THE UNIVERSITY SYSTEM OF MARYLAND (HOST)
(University of Maryland Center for Environmental Science
University of Maryland, College Park
University of Maryland, Baltimore County
Frostburg State University)**

**College of William and Mary
George Mason University
Pennsylvania State University
University of the District of Columbia**

**National Aquarium in Baltimore
American Bird Conservancy
James Madison University**

ARTICLE I - BACKGROUND AND OBJECTIVES

- A. This Cooperative Agreement and Joint Venture Agreement (hereinafter called Agreement) between the Bureau of Land Management, U.S. Geological Survey-Biological Resources Division, National Park Service, Department of Defense - Office of the Deputy Under Secretary of Defense (Installations and Environment), USDA Forest Service and the Natural Resources Conservation Service (hereinafter called Federal Agencies), and the University System of Maryland and its partner institutions is a continuation for a five (5) year term of the existing Agreement for the operation and maintenance of the Chesapeake Watershed Cooperative Ecosystem Studies Unit. This continuation of the Chesapeake Watershed CESU is implemented by mutual consent of the parties and is consistent with the prior Agreement and the express intent of the request for proposals for that Agreement. The Chesapeake Watershed is associated with a national network of CESUs.
- B. The objectives of the Chesapeake Watershed Cooperative Ecosystem Studies Unit (CESU) are to:
- Provide research, technical assistance and education to federal land management, environmental and research agencies and their potential partners;
 - Develop a program of research, technical assistance and education that involves the biological, physical, social, and cultural sciences needed to address resources issues and interdisciplinary problem-solving at multiple scales and in an ecosystem context at the local, regional, and national level; and
 - Place special emphasis on the working collaboration among federal agencies and universities and their related partner institutions.
- C. The Bureau of Land Management (hereinafter called BLM) administers public lands within a framework of numerous laws. The most comprehensive of these is the Federal Land Policy and Management Act of 1976 (FLPMA). All Bureau policies, procedures and management actions must be consistent with FLPMA and the other laws that govern use of the public lands. It is the mission of the Bureau of Land Management to sustain the health, diversity and productivity of the public lands for the use and enjoyment of present and future generations (43

U.S.C. 1701 et seq.). In accordance with 43 U.S.C. 1737(b), the BLM is authorized to enter into a cooperative agreement to establish the Chesapeake Watershed CESU to assist in providing research, technical assistance and education.

- D. The U.S. Geological Survey (hereinafter called USGS) serves the Nation by providing reliable scientific information to describe and understand the Earth, minimize the loss of life and property from natural disasters, manage water, biological, energy, and mineral resources, and enhance and protect our quality of life. In accordance with 43 U.S.C. 36d, 16 U.S.C. 1a-2j, 16 U.S.C. 5933 and Secretarial Order No. 3202, the USGS is authorized to enter into this cooperative agreement to continue the Chesapeake Watershed CESU to assist in providing research, technical assistance and education.
- E. The National Park Service (hereinafter called NPS) is responsible for the management of areas in the National Park System to conserve the scenery, the natural and historic objects, and the wildlife therein and to provide for the enjoyment of the same in such a manner and by such means as will leave them unimpaired for the enjoyment of future generations (16 U.S.C. 1 et seq.). In accordance with 16 U.S.C. 1a-2j, 16 U.S.C. 5933, and 16 U.S.C. 5934, the NPS is authorized to enter into a cooperative agreement to establish the Chesapeake Watershed CESU to assist in providing research, technical assistance and education.
- F. The Department of Defense (hereinafter called DoD) manages nearly 25 million acres of land, and the natural and cultural resources found there, and for this agreement includes the Office of the Secretary of Defense, the Military Services, the Defense Logistics Agency, the National Guard Bureaus, and the Military Reserve Components. DoD's primary mission is national defense. DoD's conservation program supports this mission by ensuring realistic training areas, and managing its resources in ways that maximize available land, air, and water training opportunities. DoD environmental stewardship activities are authorized under the Sikes Act, as amended. In accordance with 16 U.S.C. 670, as amended, the DoD is authorized to enter into a cooperative agreement to establish the Chesapeake Watershed CESU to assist in providing research, technical assistance, and education.
- G. The U.S. Department of Agriculture Forest Service (hereinafter called USDA-FS) mission is to achieve quality land management under the sustainable multiple-use management concept to meet the diverse needs of the people (16 USC 1641-1646). In accordance with 7 USC 3318 (b) the USDA-FS is authorized to enter into a joint venture agreement with the Chesapeake Watershed CESU to assist in providing research, technical

assistance, and education (and the Chesapeake Watershed CESU agreement is a cooperative and joint venture agreement).

- H. The Natural Resource Conservation Service (hereinafter called NRCS) provides technical assistance to farmers, ranchers, and other private landowners in managing soil, water, animal, plant, air and human resources. NRCS scientists and technical specialists identify appropriate technologies in research and development and transfer them to field staff for implementation. Under section 714 Of P.L. 106-387, 7 U.S.C. 6962a, NRCS is authorized to enter into this cooperative agreement establishing the Chesapeake Watershed CESU to assist in providing research, technical assistance and education.
- I. The University System of Maryland (USM) (hereinafter called Host University) participates in the Chesapeake Watershed CESU through USM institutions: the University of Maryland Center for Environmental Science (UMCES), the University of Maryland College Park (UMCP), the University of Maryland, Baltimore County (UMBC) and Frostburg State University (FSU). UMCES serves as the administrative lead for the Host University. UMCES advances knowledge through scientific discovery, integration, application, and teaching, all leading toward a holistic understanding of our environmental and natural resources. UMCP is a public research university, sharing research, educational, and technological strengths with other institutions in the USM throughout the state, and is the original land-grant institution in Maryland. Home to more than 20 research centers and institutes, UMBC is a major center for cutting-edge research in the Baltimore-Washington Corridor. FSU serves as a premiere educational, economic, and cultural center for Western Maryland. Through inter-institutional collaboration, combined with the unique contributions of each constituent institution, the USM strives to contribute substantially to the cultural, economic, environmental, scientific, social and technological advancement of Maryland and the nation.
- J. The partner institutions to the Host University include College of William and Mary, George Mason University, Pennsylvania State University, University of the District of Columbia, National Aquarium in Baltimore, American Bird Conservancy, and James Madison University.

ARTICLE II - STATEMENT OF WORK

A. Each Federal Agency agrees to:

1. Provide administrative assistance, as appropriate, necessary to execute this agreement and subsequent modifications;
2. Conduct, with the Host University and Partner Institutions, a program of research, technical assistance and education related to the

- Chesapeake Watershed CESU objectives to the extent allowed by each Federal Agencies' authorizing legislation;
3. Provide opportunities for research on federal lands or using federal facilities in cooperation with Federal Agencies, as appropriate, and according to all applicable laws, regulations and Federal Agencies' policies;
 4. Provide funds for basic support and salary for participating Host University and Partner Institution faculty, as appropriate;
 5. Provide project funds and/or collaboration to support specific research, technical assistance and education projects, as appropriate;
 6. Make available managers to serve on the Chesapeake Watershed CESU Manager's Committee;
 7. Comply with the Host University's and Partner Institutions' rules, regulations, and policies regarding professional conduct, health, safety, use of services and facilities, use of animals, recombinant DNA, infectious agents or radioactive substances, as well as other policies generally applied to Host University and Partner Institution personnel;
 8. Ensure its employees follow the Code of Ethics for Government Employees;
 9. Allow Federal Agency employees to participate in the activities of the Host University and Partner Institutions, including serving on graduate committees and teaching courses, as appropriate, and as specifically determined in modifications to the Agreement; and
 10. Be individually responsible for their agency's role in administering the Agreement, transferring funds, and supervision of agency employees, as appropriate.

B. The Host University agrees to:

1. Establish, in consultation with the Federal Agencies and Partner Institutions, the Chesapeake Watershed CESU;
2. Conduct, with participating Federal Agencies and Partner Institutions, a program of research, technical assistance and education related to the Chesapeake Watershed CESU objectives;
3. Allow and encourage faculty to engage in participating Federal Agencies' research, technical assistance and education activities related to the Chesapeake Watershed CESU objectives, as appropriate;
4. Provide basic administrative and clerical support as appropriate;
5. Provide access for Chesapeake Watershed CESU staff to campus facilities, including library, laboratories, computer facilities on the same basis or costs as other faculty members of the Host University to the maximum extent allowable under state laws and regulations;
6. Provide suitable office space, furniture and laboratory space, utilities, computer network access and basic telephone service for Federal Agencies personnel to be located at the Host University, as appropriate;

7. Offer educational and training opportunities to participating Federal Agency employees, as appropriate;
8. Encourage its students to participate in the activities of the Chesapeake Watershed CESU;
9. Coordinate activities, as appropriate, with the Partner Institutions and develop administrative policies for such coordination; and
10. Establish a Chesapeake Watershed CESU Manager's Committee and convene a meeting of this committee, at least annually, to provide advice and guidance, review of the annual work and multi-year strategic plans, and assist in evaluating the Chesapeake Watershed CESU.

C. Each Partner Institution agrees to:

1. Conduct, with participating Federal Agencies and the Host University, a program of research, technical assistance, and education related to the Chesapeake Watershed CESU objectives and allow and encourage faculty to participate in the program as appropriate;
2. Offer educational and training opportunities to participating Federal Agency employees, as appropriate; and
3. Encourage students and employees to participate in the activities of the Chesapeake Watershed CESU.

D. All Federal Agencies, the Host University and Partner Institutions agree to:

1. Maintain the Chesapeake Watershed CESU closely following the mission and goals of the CESU Network as described in the *CESU Network Strategic Plan FY2004-2008*, adapting key elements to local and regional needs, as appropriate;
2. Maintain a Chesapeake Watershed CESU role and mission statement;
3. Operate under a multi-year strategic plan;
4. Make modifications, as appropriate, to this Agreement that individually include a specific "scope of work" statement and a brief explanation of the following:
 - (a) the proposed work and what is being modified in the Agreement;
 - (b) the project contribution to the objectives of the CESU;
 - (c) the methodology of the project;
 - (d) the substantial involvement of each party;
 - (e) the project budget and schedule;
 - (f) the specific deliverables;
5. Coordinate in obtaining all necessary state, federal, and tribal permits and/or permissions from private landowners in order to conduct projects occurring under this Agreement;
6. Follow OMB Circulars A-21, A-87, A-102, A-110, A-122, and A-133, as appropriate, and specifically 43 CFR Part 12 (Department of the Interior), 22 CFR Part 518 (Department of Defense) and 7 CFR Parts 3015-3052 (Department of Agriculture).

ARTICLE III – TERMS OF AGREEMENT

- A. This Agreement shall continue for a period of five (5) years from the effective date of execution. The effective date of this Agreement shall be August 6, 2006. Parties will have until August 5, 2006 to sign this Agreement and thereby express their intent to continue participation in the Chesapeake Watershed CESU; parties that do not sign this Agreement by August 5, 2006 will not be participants in the Chesapeake Watershed CESU.
- B. By mutual consent and at the end of this Agreement, a new Agreement, for a separate and distinct five (5) year period, can be entered into to continue the activities of the Chesapeake Watershed CESU.
- C. For the purposes of this Agreement, amendments are changes (edits, deletions, or additions) to the agreement that do not involve the transfer of funds. Amendments may be proposed by any of the Federal Agencies, the Host University or by the Host University on behalf of any of the Partner Institutions. Amendments shall be in writing, signed and agreed to by all signatories to this agreement.
- For amendments whose sole purpose is to add a Partner Institution and/or Federal Agency to this agreement, each Partner Institution and Federal Agency currently participating in this agreement will have forty-five (45) days from receipt of the amendment to either sign the amendment or object in writing to the Host University. If a Partner Institution or Federal Agency has not responded after forty-five (45) days from receipt of the amendment, its signature will not be required to make the amendment effective. The Partner Institution and/or Federal Agency being added to the agreement and the Host University shall sign the amendment.
- D. For the purposes of this Agreement, modifications are specific two-party agreements between one of the Federal Agencies and the Host University and/or a Partner Institution in support of the goals of this broad Agreement. Modifications will be issued by a Federal Agency, will transfer funds to support the statement of work, and will conform to each Federal Agency's respective procedures.
- E. A separate interagency agreement is required to facilitate transfer of funds from one federal agency to another federal agency.

ARTICLE IV - KEY OFFICIALS

- A. The technical representatives for the Federal Agencies are as follows:

1. Bureau of Land Management
Geoffrey Walsh
Bureau of Land Management

Eastern States Office
7450 Boston Boulevard
Springfield, VA 22153
Phone: (703) 440-1668
Fax: (703) 440-1551
gwalsh@es.blm.gov

2. U.S. Geological Survey-Biological Resources Division

Dr. John B. French
USGS Patuxent Wildlife Research Center
12100 Beech Forest Road
Laurel, MD 20708
Phone: 301-497-5702
Fax: 301-497-5744
John_B_French@usgs.gov

3. National Park Service

James L. Sherald
Chief of Natural Resources and Science
National Capital Region
National Park Service
4598 MacArthur Boulevard, NW
Washington, DC 20007-4227
Phone: (202) 342-1443 x 208
Fax: (202) 282-1031
jim_sherald@nps.gov

4. Department of Defense

Carolyn Neill
DOD Chesapeake Bay Program Coordinator
Regional Environmental Group
Navy Region Mid-Atlantic (N451)
1510 Gilbert Street
Norfolk, VA 23511
Phone: 757-887-4708
Fax: 757-887-4478
Carolyn.neill@navy.mil

5. USDA Forest Service

Dr. Richard Pouyat
USDA Forest Service
Northeastern Research Station
Room #134, Technology Research Center Building
5200 Westland Boulevard
University of Maryland, Baltimore County
Baltimore, MD 21227
Phone: (410) 455-8014

Fax: (410) 455-6500
rpouyat@fs.fed.us

6. Natural Resources Conservation Service

Sheryl H. Kunickis, Ph.D.

USDA-NRCS

Consortium Office

14th and Independence Avenue, S.W.

5238 South Building (mail); 6126-S (office)

Washington, DC 20250

Phone: (202) 720-8723 or (301) 504-4787

Fax: (202) 720-4839

Sheryl.Kunickis@usda.gov or shk@ars.usda.gov

B. The technical representative for the Host University is:

Dr. Robert H. Gardner, Director

Appalachian Laboratory

University of Maryland Center for Environmental Science

301 Braddock Road

Frostburg, MD 21532

Phone: 301-689-7101

Fax: 301-689-7200

gardner@al.umces.edu

C. The technical representatives for the Partner Institutions are:

1. College of William and Mary

Dr. Kimberly Phillips

Acting Director

American Studies Program

The College of William and Mary

P.O. Box 8795

Williamsburg, VA 23187-8795

757-221-1266 (phone)

757-221-1287 (fax)

klphil@wm.edu

2. George Mason University

Dr. Sheryl Beach

Department of Earth Systems and GeoInformation Sciences

MSN 6A2, Research Building 1

George Mason University

4400 University Drive

Fairfax, VA 22030-4444

Phone: 703-993-1213
Fax: 703-993-1980
slbeach@gmu.edu

3. Pennsylvania State University

Dr. William E. Easterling
Professor of Geography and Agronomy
Director, Penn State Institute of the Environment
The Pennsylvania State University
103 Land and Water Research
University Park, PA 16802
Phone: (814) 363-0291
Fax: (814) 865-3378
BillEasterling@psu.edu

4. University of the District of Columbia

Dr. Jo Anne Favors
Agricultural Experiment Station, Bldg. 52
Room B-08
University of the District of Columbia
4340 Connecticut Ave., N.W.
Washington, DC 20008
Phone: 202-274-7170
Fax: 202-274-7113
jfavors@udc.edu

5. National Aquarium in Baltimore

Glenn G. Page
Director of Conservation
National Aquarium in Baltimore
Pier 3 / 501 East Pratt Street
Baltimore, MD 21202-3194
410-576-3800 (phone)
410-576-8238 (fax)
gpage@aqau.org

6. American Bird Conservancy

David N. Pashley
Vice-President for Conservation Programs
American Bird Conservancy
P.O. Box 249
The Plains, VA 20198
540-253-5780 (phone)
dpashley@abcbirds.org

7. James Madison University
Dr. Steven P. Frysinger
James Madison University
College of Integrated Science & Technology
ISAT/CS Room 309
701 Carrier Drive - MSC 4102
Harrisonburg, VA 22807
540-568-2710 (phone)
frysinsp@jmu.edu

ARTICLE V – AWARD

- A. Payments will be made by the Federal Agencies for work in accordance with OMB Circulars A-21, A-87, A-110, A-102, A-122, A-133 and specifically, 43 CFR Part 12 (Department of the Interior), 22 CFR Part 518. 31-37 (Department of Defense) and 7 CFR Parts 3015-3052 (Department of Agriculture).
- B. A 17.5% indirect cost rate will be paid on work covered by the Agreement and all its modifications. An exception is that the USDA FS cannot reimburse "state cooperative institutions" for indirect costs, pursuant to 7 USC 3103(16) and 7 USC 3319. Indirect costs may be used to satisfy USDA FS cost-sharing requirements of 20% of total project costs. An additional exception is that for NRCS, the indirect cost rate is limited to 10% of total direct costs for colleges, universities, and other nonprofit organizations pursuant to Section 708 of P.L. 107-76.
- C. Award of additional funds or in-kind resources will be made through modifications to and task agreements under the Agreement subject to the rules, regulations, and policies of the individual Federal Agency proposing the modification or task agreements to the Agreement. Copies of all modifications to the agreement shall be kept on file with the Host University.
- D. Nothing herein shall be construed as obligating the Federal Agencies to expend, or as involving the Federal Agencies in any contract or other obligation for the future payment of money, in excess of appropriations authorized by law and administratively allocated for specific work.

ARTICLE VI - PRIOR APPROVAL

Prior approvals are in accordance with OMB Circulars A-110 or A-102, specifically 43 CFR Part 12 (Department of the Interior), 22 CFR Part 518 (Department of Defense) and 7 CFR Parts 3015-3052 (Department of Agriculture).

ARTICLE VII - REPORTS AND/OR DELIVERABLES

- A. OMB Circulars A-110 or A-102, specifically 43 CFR Part 12 (Department of the Interior); 22 CFR Part 518.50-53 (Department of Defense) and 7 CFR Parts 3015-3052 (Department of Agriculture) establish uniform reporting procedures for financial and technical reporting.
- B. As appropriate, the Host University will convene periodic meetings of Chesapeake Watershed CESU Federal Agencies and Partner Institutions for the purpose of collaboration and coordination of CESU activities.
- C. A role and mission statement for the Chesapeake Watershed CESU will be maintained and agreed to by all CESU Federal Agencies and Partner.
- D. Annual work plans will be developed to guide the specific activities of the Chesapeake Watershed CESU and will:
1. Describe the Chesapeake Watershed CESU's ongoing and proposed research, technical assistance and education activities;
 2. Describe anticipated projects and products; and
 3. Identify faculty, staff and students involved in the Chesapeake Watershed CESU during the year.
- Copies of the annual work plan will be available to all parties to this Agreement.
- E. A multi-year strategic plan will be maintained to guide the Chesapeake Watershed CESU.

ARTICLE VIII - PROPERTY UTILIZATION AND DISPOSITION

Property utilization and disposition is in accordance with OMB Circulars A-110 or A-102, specifically 43 CFR Part 12 (Department of the Interior), 22 CFR 518.31-37 (Department of Defense) and 7 CFR Parts 3015-3052 (Department of Agriculture).

ARTICLE IX - TERMINATION

Termination of this Agreement is in accordance with OMB Circulars A-110 or A-102, specifically 43 CFR Part 12 (Department of the Interior), 22 CFR 518.60-62 (Department of Defense) and 7 CFR Parts 3015-3052 (Department of Agriculture) and requires approval of each of the Federal Agencies and the Host University. Any party to this Agreement may terminate its participation by delivery of thirty (30) days advance written notice to each of the Federal Agencies and the Host University.

ARTICLE X – REQUIRED/SPECIAL PROVISIONS

A. REQUIRED PROVISIONS:

1. **NON-DISCRIMINATION:** All activities pursuant to this Agreement and the provisions of Executive Order 11246; shall be in compliance with

requirements of Title VI of the Civil Rights Act of 1964 (78 Stat. 252 42 U.S.C. § 2000d et seq.); Title V, Section 504 of the Rehabilitation Act of 1973 (87 Stat. 394; 29 U.S.C. § 794); the Age Discrimination Act of 1975 (89 Stat. 728; 42 U.S.C. § 6101 et seq.); and with all other Federal laws and regulations prohibiting discrimination on grounds of race, color, national origin, disability, religious or sex in providing of facilities and service to the public.

2. CONSISTENCY WITH PUBLIC LAWS: Nothing herein contained shall be deemed to be inconsistent with or contrary to the purpose of or intent of any Act of Congress establishing, affecting, or relating to the Agreement.
3. APPROPRIATIONS (Anti-Deficiency Act, 31 U.S.C. 1341): Nothing herein contained in this Agreement shall be construed as binding the Federal Agencies to expend in any one fiscal year any sum in excess of appropriations made by Congress, for the purposes of this Agreement for that fiscal year, or other obligation for the further expenditure of money in excess of such appropriations.
4. OFFICIALS NOT TO BENEFIT: No Member of Congress shall be admitted to any share or part of this Agreement or to any benefit to arise thereupon 41 U.S.C. 21.
5. LOBBYING PROHIBITION: The parties will abide by the provisions of 18 U.S.C. 1913 (Lobbying with Appropriated Moneys), which states:
No part of the money appropriated by any enactment of Congress shall, in the absence of express authorization by Congress, be used directly or indirectly to pay for any personal service, advertisement, telegram, telephone, letter, printed or written matter, or other device, intended or designed to influence in any manner a Member of Congress, a jurisdiction, or an official or any government, to favor, adopt, or oppose, by vote or otherwise, any legislation, law, ratification, policy, or appropriation, whether before or after the introduction of any bill, measure, or resolution proposing such legislation, law, ratification, policy, or appropriation; but this shall not prevent officers or employees of the United States or of its departments or agencies from communicating to any such Member or official, at his request, or to Congress or such official, through the proper official channels, requests for any legislation, law, ratification, policy, or appropriations which they deem necessary for the efficient conduct of the public business, or from making any communication whose prohibition by this section might, in the opinion of the Attorney General, violate the Constitution or interfere with the conduct of foreign policy, counter-intelligence, intelligence, or national security activities. Violations of this section shall constitute violations of Section 1352(a) of title 31.

6. LIABILITY PROVISION:

Governmental Parties

The Federal Agencies, Host University and Partner Institutions which are governmental parties, accept responsibility for any property damage, injury, or death caused by the acts or omissions of their respective employees, acting within the scope of their employment, to the fullest extent permitted by law, including laws concerning self-insurance.

To the extent work by governmental parties is to be performed through sub-contract by non-governmental entities or persons, the governmental party sub-contracting work will require that subcontracted entity or person to meet provisions (a),(b), and (c) for non-governmental parties stated below.

Non-governmental Parties

Work provided by non-governmental entities or persons, will require that entity or person to:

- (a) Have public and employee liability insurance from a responsible company or companies with a minimum limitation of one million dollars (\$1,000,000) per person for any one claim, and an aggregate limitation of three million dollars (\$3,000,000) for any number of claims arising from anyone incident. In subsequent modifications, the parties may negotiate different levels of liability coverage, as appropriate. The policies shall name the United States as an additional insured, shall specify that the insured shall have no right of subrogation against the United States for payments of any premiums or deductibles due thereunder, and shall specify that the insurance shall be assumed by, be for the account of, and be at the insured's sole risk; and
- (b) Pay the United States the full value for all damages to the lands or other property of the United States caused by such person or organization, its representatives, or employees; and
- (c) Indemnify, save and hold harmless, and defend the United States against all fines, claims, damages, losses, judgments, and expenses arising out of, or from, any omission or activity of such person organization, its representatives, or employees.

Non-governmental Partner Institutions shall provide the Federal Agencies confirmation of such insurance coverage, prior to beginning specific work authorized herein and specified in subsequent modifications.

B. SPECIAL PROVISIONS:

1. Joint publication of results is encouraged; however, no party will publish any results of joint effort without consulting the other. This is not to be construed as applying to popular publication of previously published technical matter. Publication may be joint or independent as may be agreed upon, always giving due credit to the cooperation of participating Federal Agencies, the Host University, and Partner Institutions, and

recognizing within proper limits the rights of individuals doing the work. In the case of failure to agree as to the manner of publication or interpretation of results, either party may publish data after due notice (not to exceed 60 days) and submission of the proposed manuscripts to the other. In such instances, the party publishing the data will give due credit to the cooperation but assume full responsibility of any statements on which there is a difference of opinion. Federal agencies reserve the right to issue a disclaimer if such a disclaimer is determined to be appropriate.

2. The results of any cooperative studies may be used in developing theses in partial fulfillment of requirements for advanced degrees and nothing herein shall delay publication of theses.
3. Individual modifications shall include specific plans for data management, sharing, and archiving, as appropriate.

ARTICLE XI - AUTHORIZING SIGNATURES

The following authorizing signatures are attached:

U.S. DEPARTMENT OF THE INTERIOR

- A. Bureau of Land Management
- B. U.S. Geological Survey – Biological Resources Division
- C. National Park Service

U.S. DEPARTMENT OF DEFENSE

- D. Office of the Deputy Under Secretary of Defense (Installations and Environment)
U.S. Army Engineer and Support Center, Huntsville (Representing ODUSD)

U.S. DEPARTMENT OF AGRICULTURE

- E. USDA Forest Service
- F. Natural Resources Conservation Service

G. THE UNIVERSITY SYSTEM OF MARYLAND

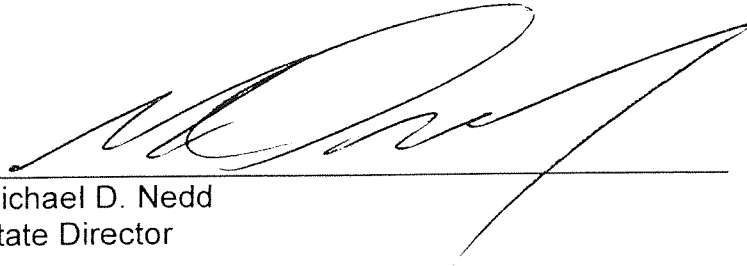
1. University of Maryland Center for Environmental Science
2. University of Maryland, College Park
3. University of Maryland, Baltimore County
4. Frostburg State University

H. College of William and Mary

- I. George Mason University
- J. Pennsylvania State University
- K. University of the District of Columbia
- L. National Aquarium in Baltimore
- M. American Bird Conservancy
- N. James Madison University

ARTICLE XIII - AUTHORIZING SIGNATURES (cont.)

A. Bureau of Land Management



Michael D. Nedd
State Director

8/1/06

Date

Vanessa Felder
Assistance Officer

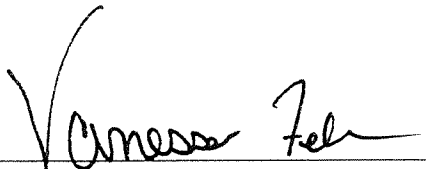
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ARTICLE XIII - AUTHORIZING SIGNATURES (cont.)

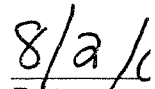
A. Bureau of Land Management

Mike Nedd
State Director

Date



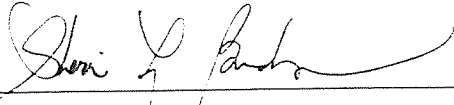
Vanessa Felder
Assistance Officer



Date

ARTICLE XIII - AUTHORIZING SIGNATURES (cont.)

B. U.S. Geological Survey–Biological Resources Division



Sherri Ly Bredesen
Contracting Officer

07/14/06
Date

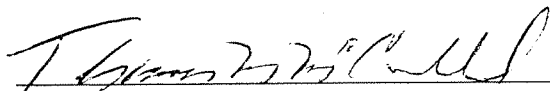
ARTICLE XIII - AUTHORIZING SIGNATURES (cont.)

C. National Park Service



Joseph M. Lawler
Regional Director
National Capital Region

8/9/2006
Date

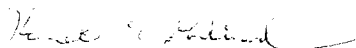


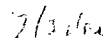
Thomas M. McConnell
Contracting Officer
National Capital Region

8/4/2006
Date

ARTICLE XIII - AUTHORIZING SIGNATURES (cont.)

D. Department of Defense - Office of the Deputy Under Secretary of Defense
(Installations and Environment)





Kenneth E. Goddard (Representing ODUSD (I&E))
Grants Officer
U.S. Army Engineer and Support Center, Huntsville

Date

ARTICLE XIII - AUTHORIZING SIGNATURES (cont.)

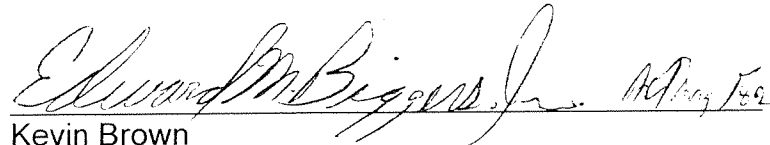
E. USDA Forest Service

for *Roy C. Patten*
Michael T. Rains
Station Director
Northeast Research Station

8/4/06
Date

ARTICLE XIII - AUTHORIZING SIGNATURES (cont.)

F. Natural Resources Conservation Service

Handwritten signature of Kevin Brown in cursive script.

Kevin Brown
Deputy Chief for Management

Handwritten date 7/12/2006.

Date

ARTICLE XIII - AUTHORIZING SIGNATURES (cont.)

G. The University System of Maryland

WE Kirwan

William E. Kirwan
Chancellor

7-12-06
Date

G.1. University of Maryland Center for Environmental Science

Erica Kropp
Director of Research Administration & Advancement

Date

G.2. University of Maryland, College Park

Alexandra McKeown
Director

Date

G.3. Frostburg State University

Jonathon C. Gibraltar
President

Date

G.4. University of Maryland, Baltimore County

Freeman A. Hrabowski
President

Date

ARTICLE XIII - AUTHORIZING SIGNATURES (cont.)

G. The University System of Maryland

William E. Kirwan
Chancellor

Date

G.1. University of Maryland Center for Environmental Science



Erica Kropp

Director of Research Administration & Advancement

7/12/06
Date

G.2. University of Maryland, College Park

Alexandra McKeown
Director

Date

G.3. Frostburg State University

Jonathon C. Gibraltar
President

Date

G.4. University of Maryland, Baltimore County

Freeman A. Hrabowski
President

Date

ARTICLE XIII - AUTHORIZING SIGNATURES (cont.)

G. The University System of Maryland

William E. Kirwan
Chancellor

Date

G.1. University of Maryland Center for Environmental Science

Erica Kropp
Director of Research Administration & Advancement

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Director



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G.3. Frostburg State University

Jonathon C. Gibraltar
President

Date

G.4. University of Maryland, Baltimore County

Freeman A. Hrabowski
President

Date

ARTICLE XIII - AUTHORIZING SIGNATURES (cont.)

G. The University System of Maryland

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Chancellor

Date

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Erica Kropp
Director of Research Administration & Advancement

Date

G.2. University of Maryland, College Park

Alexandra McKeown
Director

Date

G.3. Frostburg State University



~~Jonathan C. Gibraltar~~ ~~President~~ *STEPHEN J. SIMPSON*
INTERIM PRESIDENT

7/12/06

Date

G.4. University of Maryland, Baltimore County

Freeman A. Hrabowski
President

Date

ARTICLE XIII - AUTHORIZING SIGNATURES (cont.)

G. The University System of Maryland

William E. Kirwan
Chancellor

Date

G.1. University of Maryland Center for Environmental Science

Erica Kropp
Director of Research Administration & Advancement

Date

G.2. University of Maryland, College Park

Alexandra McKeown
Director

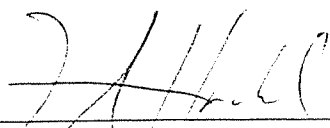
Date

G.3. Frostburg State University

Jonathon C. Gibraltar
President

Date

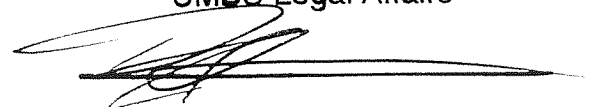
G.4. University of Maryland, Baltimore County



Freeman A. Hrabowski
President

7/12/06
Date

APPROVED
UMBC Legal Affairs

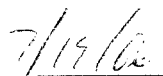


ARTICLE XIII - AUTHORIZING SIGNATURES (cont.)

H. College of William and Mary



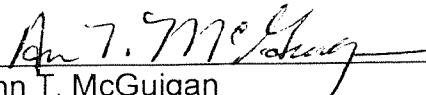
Michael P. Ludwick
Director of Sponsored Programs



Date

ARTICLE XIII - AUTHORIZING SIGNATURES (cont.)

I. George Mason University



Ann T. McGuigan
Director, Office of Sponsored Programs

7/13/06
Date

ARTICLE XIII - AUTHORIZING SIGNATURES (cont.)

J. Pennsylvania State University



David F. Marshall **Assistant Treasurer**
Office of Corporate Controller

JUL 12 2006

Date

ARTICLE XIII - AUTHORIZING SIGNATURES (cont.)

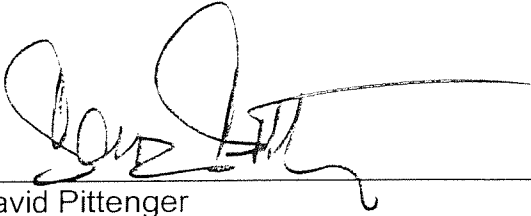
K. University of the District of Columbia

Wilhelmina Reuben-Cooke
Dr. Wilhelmina Reuben-Cooke
Provost and Vice President for Academic Affairs

7/24/06
Date

ARTICLE XIII - AUTHORIZING SIGNATURES (cont.)

L. National Aquarium in Baltimore

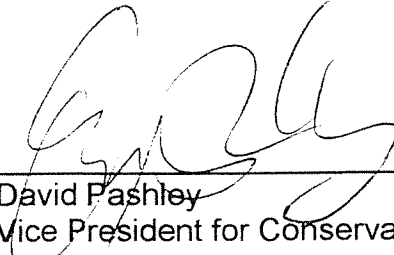
A handwritten signature in black ink, appearing to read 'David Pittenger', written over a horizontal line.

David Pittenger
Executive Director

7.12.06
Date

ARTICLE XIII - AUTHORIZING SIGNATURES (cont.)

M. American Bird Conservancy

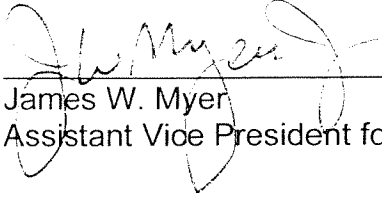


David Pashley
Vice President for Conservation

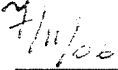
11 July 2006
Date

ARTICLE XIII - AUTHORIZING SIGNATURES (cont.)

N. James Madison University



James W. Myer
Assistant Vice President for Academic Resources



Date