

**CHESAPEAKE WATERSHED
COOPERATIVE ECOSYSTEM STUDIES UNIT**

**AMENDMENT FOUR TO
COOPERATIVE and JOINT VENTURE AGREEMENT**

between

**U.S. DEPARTMENT OF THE INTERIOR
Bureau of Land Management
U.S. Fish and Wildlife Service
U.S. Geological Survey
National Park Service**

**U.S. DEPARTMENT OF DEFENSE
Office of the Deputy Under Secretary of Defense
(Installations and Environment)
U.S. Army Corps of Engineers – Civil Works**

**U.S. DEPARTMENT OF AGRICULTURE
U.S. Forest Service, Northern Research Station
Natural Resources Conservation Service**

**U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration**

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
American Bird Conservancy
James Madison University
Delaware State University**

**University of Delaware
The Academy of Natural Sciences
Western Pennsylvania Conservancy
American University
Christopher Newport University
Howard University
Indiana University of Pennsylvania
University of Mary Washington
University of Virginia
Anne Arundel Community College
George Washington University
Shippensburg University
University of Richmond
Virginia Institute of Marine Science
Garrett College
Virginia Commonwealth University**

**Adding:
Virginia Department of Conservation and Recreation's
Division of Natural Heritage**

With the exception of the changes below, all terms and conditions of the Chesapeake Watershed CESU Cooperative and Joint Venture Agreement apply to this Amendment, and this Amendment is hereby made part of the Agreement.

ARTICLE I. BACKGROUND AND OBJECTIVES

M.4. Virginia Department of Conservation and Recreation's Division of Natural Heritage (VaDCR-DNH) is hereby included in the Chesapeake Watershed CESU as a Partner Institution.

ARTICLE III. TERM OF AGREEMENT

A.1. The effective date of the Chesapeake Watershed CESU Cooperative and Joint Venture Agreement is 5 August 2011.

A.2. The effective date of this amendment to the Chesapeake Watershed CESU Cooperative and Joint Venture Agreement shall be determined from the date of the last signature.

ARTICLE IV. KEY OFFICIALS

C.28. The technical representative for Virginia Department of Conservation and Recreation's Division of Natural Heritage is:

J. Christopher Ludwig
Chief Biologist
VaDCR-DNH
600 East Main Street, 16th floor
Richmond, VA 23219
Phone: (804) 371-6206
chris.ludwig@dcr.virginia.gov

ARTICLE XIV. AMENDMENT AUTHORIZING SIGNATURES

The following authorizing signatures are attached:

U.S. DEPARTMENT OF THE INTERIOR

- A. Bureau of Land Management
- B. U.S. Fish and Wildlife Service
- C. U.S. Geological Survey
- D. National Park Service

U.S. DEPARTMENT OF DEFENSE

- E. Office of the Deputy Under Secretary of Defense (Installations and Environment)
- F. U.S. Army Corps of Engineers – Civil Works

U.S. DEPARTMENT OF AGRICULTURE

- G. U.S. Forest Service
- H. Natural Resources Conservation Service

U.S. DEPARTMENT OF COMMERCE

- I. National Oceanic and Atmospheric Administration

J. THE UNIVERSITY SYSTEM OF MARYLAND (HOST)

- K. University of Maryland, College Park
- L. University of Maryland, Baltimore County
- M. Frostburg State University
- N. College of William and Mary
- O. George Mason University
- P. Pennsylvania State University
- Q. University of the District of Columbia
- R. National Aquarium
- S. American Bird Conservancy
- T. James Madison University
- U. Delaware State University
- V. University of Delaware

- W. The Academy of Natural Sciences
- X. Western Pennsylvania Conservancy
- Y. American University
- Z. Christopher Newport University
- AA. Howard University
- BB. Indiana University of Pennsylvania
- CC. University of Mary Washington
- DD. University of Virginia
- EE. Anne Arundel Community College
- FF. George Washington University
- GG. Shippensburg University
- HH. University of Richmond
- II. Virginia Institute of Marine Science
- JJ. Garrett College
- KK. Virginia Commonwealth University
- LL. Virginia Department of Conservation and Recreation's Division of Natural Heritage**

ARTICLE XIV. AMENDMENT AUTHORIZING SIGNATURES (cont.)

A. Bureau of Land Management

Per Article III, C: 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.

Elana Fink
Deputy State Director, Eastern States

Date

ARTICLE XIV. AMENDMENT AUTHORIZING SIGNATURES (cont.)

B. U.S. Fish and Wildlife Service

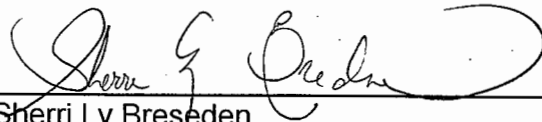
Per Article III, C: If a Partner Institution or Federal Agency has not responded after forty-five (45) days from receipt of the amendment, its signature will not be required to make the amendment effective.

Michael Slattery
Chesapeake Coordinator
Science Applications, Region 5

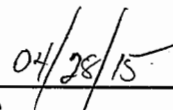
Date

ARTICLE XIV. AMENDMENT AUTHORIZING SIGNATURES (cont.)

C. U.S. Geological Survey



Sherri Ly Breseden
Contracting Officer



Date

ARTICLE XIV. AMENDMENT AUTHORIZING SIGNATURES (cont.)

D. National Park Service

Per Article III, C: 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.

Tracey YM Crockett
Chief, Acquisition Management
National Park Service
National Capital Region

Date

ARTICLE XIV. AMENDMENT AUTHORIZING SIGNATURES (cont.)

E. Office of the Deputy Under Secretary of Defense (Installations and Environment)

**ROBICHEAUX.TRACI.D.1260
353990**

Digitally signed by ROBICHEAUX.TRACI.D.1260353990
DN: c=US, o=U.S. Government, ou=DoD, ou=PKI,
ou=USA, cn=ROBICHEAUX.TRACI.D.1260353990
Date: 2015.04.28 09:33:24 -05'00'

Traci Robicheaux
Grants Officer (Representing ODUSD (I&E))

Date

ARTICLE XIV. AMENDMENT AUTHORIZING SIGNATURES (cont.)

F. U.S. Army Corps of Engineers – Civil Works



SONTAG.DEANNDAS.1230791909
c=US, o=U.S. Government, ou=DoD, ou=PKI,
ou=USA,
cn=SONTAG.DEANNDAS.1230791909
2015.04.24 14:55:08 -05'00'

Deanna Sontag
Grants Officer

24 April 2015


Date

ARTICLE XIV. AMENDMENT AUTHORIZING SIGNATURES (cont.)

G. U.S. Forest Service

A handwritten signature in blue ink that reads "David Garrison". The signature is written in a cursive style and is positioned above a horizontal line.

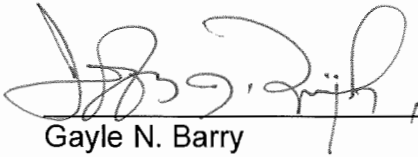
David Garrison
Grants Management Specialist
USDA Forest Service
Northern Research Station

A handwritten date in blue ink that reads "4/28/15". The date is written in a cursive style and is positioned above a horizontal line.

Date

ARTICLE XIV. AMENDMENT AUTHORIZING SIGNATURES (cont.)

H. Natural Resources Conservation Service

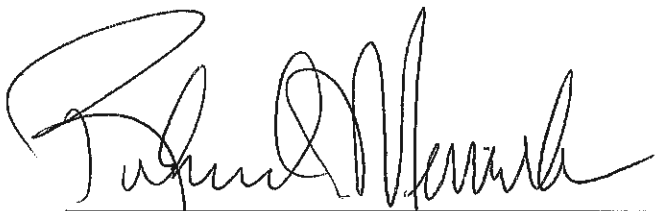

Gayle N. Barry
Deputy Chief for Management

Acting
DCM

5/4/2015
Date

ARTICLE XIV. AMENDMENT AUTHORIZING SIGNATURES (cont.)

I. National Oceanic and Atmospheric Administration



Richard Merrick
Director of Scientific Programs & Chief Science Advisor
National Oceanic and Atmospheric Administration CESU Lead



Date

ARTICLE XIV. AMENDMENT AUTHORIZING SIGNATURES (cont.)

J. The University System of Maryland



William E. Kirwan
Chancellor

May 1, 2015
Date

J.1 University of Maryland Center for Environmental Sciences




Angela B. Richmond
Director, Office of Research Administration & Advancement


May 8, 2015
Date

ARTICLE XIV. AMENDMENT AUTHORIZING SIGNATURES (cont.)

K. University of Maryland, College Park



Monique Anderson
Assistant Director, Research Administration




Date

ARTICLE XIV. AMENDMENT AUTHORIZING SIGNATURES (cont.)

L. University of Maryland, Baltimore County



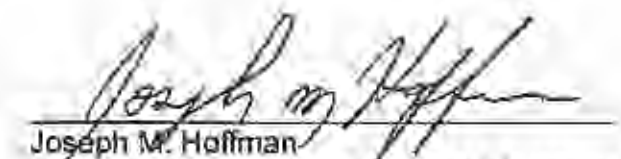
Stan Jackson, CRA
Grants and Contracts Manager



Date

ARTICLE XIV. AMENDMENT AUTHORIZING SIGNATURES (cont.)

M. Frostburg State University



Joseph M. Hoffman
Dean, College of Liberal Arts and Sciences

5/27/15
Date

ARTICLE XIV. AMENDMENT AUTHORIZING SIGNATURES (cont.)

N. College of William and Mary

**Randolph
Chambers**


Digitally signed by Randolph Chambers
DN: cn=Randolph Chambers, o=College
of William and Mary, ou=Keck
Environmental Lab,
email=rmcham@wm.edu, c=US
Date: 2015.05.28 07:51:11 -04'00'

Randolf M. Chambers
Director, Keck Environmental Lab

Date

ARTICLE XIV. AMENDMENT AUTHORIZING SIGNATURES (cont.)

O. George Mason University



Michael Laskofski
Associate Vice President of Research Operations

4/27/15
Date

ARTICLE XIV. AMENDMENT AUTHORIZING SIGNATURES (cont.)

P. Pennsylvania State University



Lisa A. Hipple
Associate Director of Sponsored Programs

5/8/15

Date

ARTICLE XIV. AMENDMENT AUTHORIZING SIGNATURES (cont.)

Q. University of the District of Columbia

Per Article III, C: 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.

Graeme Baxter
Provost and Vice President for Academic Affairs (Interim)

Date

ARTICLE XIV. AMENDMENT AUTHORIZING SIGNATURES (cont.)

R. National Aquarium



John Racanelli
Chief Executive Officer

5/5/15
Date

ARTICLE XIV. AMENDMENT AUTHORIZING SIGNATURES (cont.)

S. American Bird Conservancy

Per Article III, C: 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.

David Pashley
Vice President

Date

ARTICLE XIV. AMENDMENT AUTHORIZING SIGNATURES (cont.)

T. James Madison University

Per Article III, C: 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.

John D. Hulvey
Director, Sponsored Programs
Administration and Accounting

Date

ARTICLE XIV. AMENDMENT AUTHORIZING SIGNATURES (cont.)

U. Delaware State University

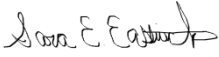


Harry Lee Williams
President

6/3/15
Date

ARTICLE XIV. AMENDMENT AUTHORIZING SIGNATURES (cont.)

V. University of Delaware

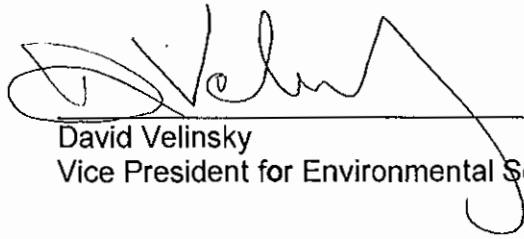


Sara E. Eastwick
Contract and Grant Specialist

Date

ARTICLE XIV. AMENDMENT AUTHORIZING SIGNATURES (cont.)

W. The Academy of Natural Sciences



David Velinsky
Vice President for Environmental Science

5/4/15
Date

ARTICLE XIV. AMENDMENT AUTHORIZING SIGNATURES (cont.)

X. Western Pennsylvania Conservancy


Per Article III, C: 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.

Shaeen Fenlon
Vice President

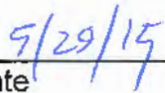
Date

ARTICLE XIV. AMENDMENT AUTHORIZING SIGNATURES (cont.)

Y. American University



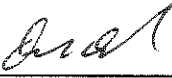
Scott A. Bass
Provost




Date

ARTICLE XIV. AMENDMENT AUTHORIZING SIGNATURES (cont.)

Z. Christopher Newport University



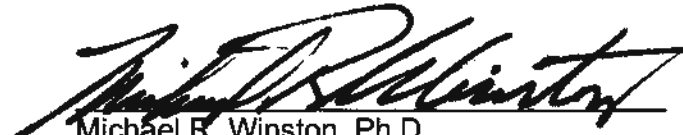
David C. Doughty, Jr.
Provost



Date

ARTICLE XIV. AMENDMENT AUTHORIZING SIGNATURES (cont.)

AA. Howard University

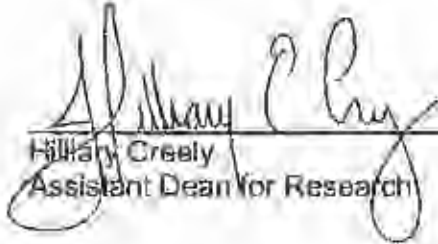
A handwritten signature in black ink, appearing to read "Michael R. Winston", written over a horizontal line.

Michael R. Winston, Ph.D.
Provost and Chief Academic Officer

5/28/15
Date

ARTICLE XIV. AMENDMENT AUTHORIZING SIGNATURES (cont.)

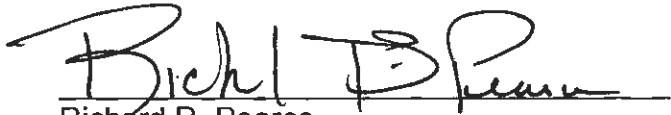
BB. Indiana University of Pennsylvania


Hillary Creely
Assistant Dean for Research

5/29/15
Date

ARTICLE XIV. AMENDMENT AUTHORIZING SIGNATURES (cont.)

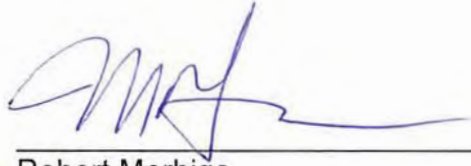
CC. University of Mary Washington


Richard R. Pearce
Vice President for Administration and Finance

6/1/15
Date

ARTICLE XIV. AMENDMENT AUTHORIZING SIGNATURES (cont.)

DD. University of Virginia



for

Robert Merhige
Director of Grants and Contracts, Office of Sponsored Programs

4/29/15
Date

ARTICLE XIV. AMENDMENT AUTHORIZING SIGNATURES (cont.)

EE. Anne Arundel Community College



Dr. Dawn Lindsay
President

April 28, 2015
Date

ARTICLE XIV. AMENDMENT AUTHORIZING SIGNATURES (cont.)

FF. George Washington University

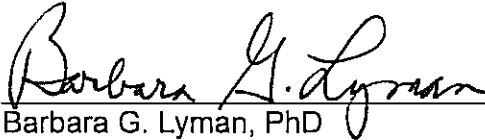
Per Article III, C: If a Partner Institution or Federal Agency has not responded after forty-five (45) days from receipt of the amendment, its signature will not be required to make the amendment effective.

Leo M. Chalupa
Vice President for Research

Date

ARTICLE XIV. AMENDMENT AUTHORIZING SIGNATURES (cont.)

GG. Shippensburg University



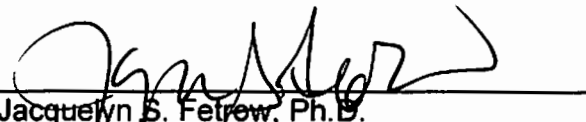
Handwritten signature of Barbara G. Lyman in cursive script, written over a horizontal line.

Barbara G. Lyman, PhD
Provost and Senior Vice President for Academic Affairs

6-1-15
Date

ARTICLE XIV. AMENDMENT AUTHORIZING SIGNATURES (cont.)

HH. University of Richmond



Jacquelyn S. Fetrow, Ph.D.
Provost and Vice President for Academic Affairs

5/7/2015
Date

ARTICLE XIV. AMENDMENT AUTHORIZING SIGNATURES (cont.)

II. Virginia Institute of Marine Science



Digitally signed by Margaret J. Fonner
DN: cn=Margaret J. Fonner, o=Virginia Institute of Marine
Science, ou=Director of Sponsored Programs,
email=mfonner@vims.edu, c=US
Date: 2015.04.27 14:07:16 -0400

Margaret J. Fonner
Director of Sponsored Programs

4/27/2015

Date

ARTICLE XIV. AMENDMENT AUTHORIZING SIGNATURES (cont.)

JJ. Garrett College

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Richard L. MacLennan
President

Date

ARTICLE XIV. AMENDMENT AUTHORIZING SIGNATURES (cont.)

KK. Virginia Commonwealth University



Andrea J. Publow, MFA, CRA
Director of Sponsored Programs
Government/NonProfit Support



Date

ARTICLE XIV. AMENDMENT AUTHORIZING SIGNATURES (cont.)

LL. Virginia Department of Conservation and Recreation's Division of Natural Heritage



Clyde E. Cristman
Director, DCR

4-21-15

Date