



February 3, 2020

Eric Davidson
University of Maryland Center for Environmental Science
Appalachian Laboratory
301 Braddock Road
Frostburg, MD 21532

Re: Chesapeake Watershed (CHWA) CESU Research Network

Dear Dr. Davidson:

Following this letter is Johns Hopkins University's application for membership in the Chesapeake Watershed (CHWA) CESU Research Network. Please accept this as confirmation that Johns Hopkins University will accept a limited overhead rate of 17.5% and cost items to which the rate is applicable for activities conducted through the CESU, including research, technical assistance, and educational services. We have reviewed the CESU agreement and agree to support the CESU mission and goals and fulfill the roles and responsibilities of a nonfederal partner, as described in the CESU agreement Joint Venture Agreement.

Thank you for your consideration of our application. Should you need any additional information or have any questions, please contact me (jtoscana@jhu.edu) or Mary Louise Healy, Assistant Dean for Research Administration (mhealy11@jhu.edu; 410-516-8617).

Best regards,

John P. Toscano
Vice Dean for Natural Sciences
Professor of Chemistry

National Aeronautics and
Space Administration

Goddard Space Flight Center
Greenbelt, MD 20771



Attn of: Code 616.2

January 31, 2020

Dr. Eric Davidson
University of Maryland Center for Environmental Science
Appalachian Laboratory
301 Braddock Road
Frostburg MD 21532

Dear Dr. Davidson,

I am writing to extend my strongest support to the Johns Hopkins University to become a member of the Cooperative Ecosystem Studies Unit, Chesapeake Watershed. I have been involved with The Johns Hopkins University (JHU) for over 13 years, first as a researcher at The Johns Hopkins University Applied Physics Laboratory (JHUAPL), as an associate research professor at the Department of Earth and Planetary Sciences (EPS), and lately from my current position at NASA. Through all these years, I worked with JHU in several NASA-funded projects. I want to emphasize that the JHUAPL is a trusted agent of the government and that the JHU is a highly regarded teaching and research institution.

My personal experience in collaborations with JHU has to do with a large NASA-NOAA funded research expedition to the Southern Ocean (SOGasEx) and with several research projects in the Chesapeake Bay. In all these projects, my JHU partners delivered on time and on budget, and the quality of the work was exceptional. The SOGasEx collaboration has yielded four research publications, with at least two more to come. I have also one major NASA Earth Venture Sub-orbital proposal planned in collaboration with JHU EPS. More germane to this topic, my group is involved in several projects related to the use of remote sensing, modeling, and genomics to study various aspects of the ecology of the Chesapeake Bay. These projects have resulted in several peer-reviewed publications by JHU EPS students and faculty in collaboration with NASA and other federal agencies. These collaborations are ongoing and are likely to result in more funding to expand technologies to study the Chesapeake Bay. A good testament of the quality of the collaboration between NASA and JHU is that four PhD graduates from JHU who worked on topics related to aquatic ecology, modeling, and remote sensing are still collaborating with us, and two of them are employed in my group. Of course, there are several other high-profile examples of successful work that the JHU does for NASA. The JHU Space Telescope Science Institute, which operates the Hubble and James Webb Space Telescopes on behalf of NASA, is one good example.

I want to reiterate my strong support for the membership of JHU in the Cooperative Ecosystem Studies Unit, Chesapeake Watershed. JHU has a wide variety of expertise and capabilities that would be very helpful for research and management activities in the Chesapeake Bay system

Please, do not hesitate to contact me if you have any questions.

Best regards,

A handwritten signature in black ink, appearing to read 'C. Del Castillo', written in a cursive style.

Carlos E. Del Castillo, Ph. D
Chief, Ocean Ecology Laboratory
Code 616.2
Bldg 28 – W35A
NASA Goddard Space Flight Center
Greenbelt, MD 20771
301-286-8787

Program in Museums and Society

Krieger School of Arts and Sciences
3400 North Charles Street / Gilman Hall, Room 301
Baltimore MD 21218
410-516-3188 / Fax 410-516-7502
<http://krieger.jhu.edu/museums>

February 1, 2020

Dr. Eric Davidson
University of Maryland Center for Environmental Science
Appalachian Laboratory
301 Braddock Road
Frostburg, MD 21532

Dear Dr. Davidson,

The Johns Hopkins University (JHU), through its Program in Museums and Society, seeks membership in the Chesapeake Watershed Cooperative Ecosystem Study Unit (CHWA CESU) as a non-federal partner. The administration of JHU has read the CESU agreement and agrees to support the CESU mission and goals and fulfill the roles and responsibilities of a nonfederal partner, as described in the CESU agreement. JHU will accept a limited overhead rate of 17.5% for activities conducted through the CESU, including research, technical assistance and educational services, as attested by the letter provided by John Toscano, Vice Dean for Natural Sciences, Krieger School of Arts and Sciences.

JHU has much to offer the CHWA CESU. A top ten research university, it has competitively ranked departments in all major disciplines including, among those most relevant to this application: history, history of science and technology, earth and planetary sciences, environmental engineering, anthropology, and writing seminars. It supports high level interdisciplinary research and teaching initiatives in archaeology, environmental science, museum studies, Africana studies and gender studies. Several of its faculty dedicate significant research time to developing non-invasive technologies for archaeological and underwater surveying, while others are working to design new ecological futures. Faculty, graduate and undergraduate students are all active researchers. Indeed the university is known for encouraging students at all levels to pursue original research, with over 2/3 of undergraduates doing so and the majority of these sharing their findings in public and/or academic venues.

Shepherding this application is the Program in Museums and Society, whose varied activities bring together a significant number of Hopkins faculty, students and allied initiatives to work with regional cultural resources and, to a limited extent, natural resources. Established in 2006, the Program in Museums and Society (M&S) at the Johns Hopkins University (JHU) introduces students of all backgrounds and majors to the preservation, interpretation, and presentation of natural and cultural heritage. It further provides a forum for faculty and student interactions with local museums, collections and heritage sites. The program offers a broad spectrum of practicum

experiences that bring faculty, students and community partners together to make the work of academic research available and accessible to public audiences. Culminating in exhibitions, museum education programs, publications and other public products, practicum courses are developed in partnership with regional organizations and serve the goals of our community partners, enhancing their research, exhibitions, and educational mission. M&S projects have ranged from interpretive planning for a heritage trail at Catoctin Furnace's African burial ground to developing conservation-focused educational materials for the Maryland Zoo and from research on key sites for the Baltimore National Heritage Area to the interactive exhibit *Why We Work* at the Baltimore Museum of Industry. Our wayside exhibits at JHU, featured in the December 2015 edition of the International Council of Museums and the Winter 2016 *Journal of Museum Education* were the first to draw attention to the work and lives of enslaved individuals on the university's Homewood campus.

JHU has a distinguished history of researching the Chesapeake. In 1878 Professor William Keith Brooks founded the Chesapeake zoological laboratory; his findings established the unique reproductive characteristics of the American oyster. In the 1940s JHU launched the Chesapeake Bay Institute (CBI) to map the bay's waterways; our university archives holds almost forty years' worth of original research data and observations from the pre-1970s bay, offering historical perspectives on ecological change in the Bay. In 2001 JHU historians, paleobiologists and geologists Philip Curtin, Grace Brush, and George Fisher published a significant edited volume on the history of the Chesapeake ecosystem. As the letter of support from Dr. Del Castillo of NASA attests, JHU remains very active on this front, with recent projects related to the use of remote sensing modeling and genomics to study the ecology of the Chesapeake. Cultural and historical research on the Chesapeake is equally strong at JHU, especially as it relates to the topic of slavery. By way of example, Professor of History Philip Morgan is a leading historian on Chesapeake slavery and consulted on Mount Vernon's interpretive plan; Assistant Professor of History Jessica Marie Johnson is an expert on the gendered experience of enslavement and on racialized digital knowledge systems, and Curator and Director of JHU's Homewood Museum Julie Rose has published extensively on interpreting difficult histories for public audiences.

Museums and Society and its many collaborators welcome the opportunity to contribute to the CHWA CESU and its network of partners. Participating in the CHWA CESU network aligns with the program's mission to develop robust opportunities for students to pursue publicly engaged research, and builds on JHU's long and distinguished history of investigating the natural and cultural resources of the Chesapeake and its watershed.

Sincerely,

A handwritten signature in black ink, appearing to read "Jennifer P. Kingsley". The signature is fluid and cursive, with a large initial "J" and "K".

Jennifer P. Kingsley, PhD
Faculty Director, Program in Museums and Society

CHWA CESU Application
Johns Hopkins University (JHU)

A. *Expression of desire to enroll in the CHWA CESU as a new partner institution/organization*

The [Johns Hopkins University Program in Museums and Society](#) requests consideration of its application for JHU to join the Chesapeake Watershed Cooperative Ecosystem Studies Unit (CHWA CESU) as a new nonfederal partner institution/organization. Embedded in a top-ranked research university where more than 2/3 of undergraduate students pursue some form of original research during their studies, the program has a fifteen-year track record of successful collaborations with regional organizations as diverse as the Maryland Zoo, Baltimore Museum of Art (BMA) and Baltimore National Heritage Area. A public-facing interdisciplinary program, Museums and Society is at its core a locus for students and faculty to engage in the study and interpretation of cultural and natural heritage. Program leaders, affiliated faculty, and students have successfully shepherded more than 70 distinct [public-facing projects](#) ranging from wayside exhibits to interpretive plans, educational booklets and art exhibitions. The program, its distinguished affiliated faculty, and its diverse student body offer both breadth and depth of scholarly expertise and significant experience in collaborative interdisciplinary research, public communication, and community engagement. Beyond the program, [university special collections](#) include important holdings that can enhance our understanding of the ecological and social history of the Chesapeake. Across the program's learning community, experts in archaeology, in local slavery and its narratives, in eco-critical social anthropology, and in queer and trans public history may contribute original research, interpretive planning, visitor evaluation and exhibitions that document and promote the understanding and protection of the Chesapeake's natural and cultural resources.

B. *Description of JHU and JHU's Program in Museums and Society, their mission and the primary focus on collaborative activities to be supported*

[Johns Hopkins University](#), founded in 1876, is America's first research university and home to nine world-class academic divisions. It takes its name from 19th century Maryland philanthropist Johns Hopkins and was inaugurated by Daniel Coit Gilman, who established the university's mission "to educate students and cultivate their capacity for lifelong learning, to foster independent and original research, and to bring the benefits of discovery to the world."

Faculty, students and staff serve the region through discovery, research and outreach. JHU is well situated to meet the mission of the CHWA CESU. Faculty are committed to conducting research in their fields of expertise while training undergraduate and graduate students to future careers and academic work. A coalescence of interdisciplinary initiatives have positioned the university to engage more directly in public scholarship, especially in the humanities and closely aligned social sciences.

Among these, the Program in Museums and Society launched in 2006 to offer an undergraduate curriculum that emphasizes applied learning opportunities and publicly engaged research driven by the collection, preservation, interpretation, and presentation of objects, specimens, artifacts, materials, monuments, and historic sites. Through classroom

teaching, research, and real encounters with museums, broadly defined, the program promotes the study of material culture and its place in a wide range of scholarly disciplines. The role of museums, archives, and heritage sites in societies both past and present, including but not limited to their political, legal, ethical, and economic significance, is central to the program. In addition to curricular and scholarly activities within the University, the program promotes meaningful connections with regional museums and related organizations that specialize in cultural resource management and historic preservation.

Museums and Society and its allies brings together faculty from across the university who have teaching and research programs that would benefit the CHWA CESU. Faculty's record of scholarship and partnerships, combined with a commitment to providing high quality publicly engaged research experiences for undergraduate students, makes JHU an excellent candidate for membership in the CHWA CESU.

D. Description or list of the primary programs, departments, or other institutional divisions of the relevance to federal land management, environmental, and research agencies that will be engaged in CHWA CESU activities.

The majority of the programs and departments whose faculty would engage in CHWA CESU activities are housed in JHU's Krieger School of Arts and Sciences. This college contains several interdisciplinary programs and initiatives that bring together faculty from across university departments, centers, and programs who conduct research relevant to the aims and goals of the CHWA CESU. These programs include:

- 1) Program in Museums and Society: <https://krieger.jhu.edu/museums-society/>. The program includes seven teaching and curatorial faculty with expertise in public history, conservation and preservation, and interpreting difficult histories. Fourteen more affiliated faculty include historians with expertise in African-American history, historians of ecological sciences and environmental anthropologists. The program fosters collaboration between JHU faculty, students, and museological organizations of all genres, including museums, zoos, aquaria, archives, libraries and heritage sites.
- 2) Program in Archaeology: Archaeology is an interdepartmental program that introduces students to archaeological theory, the analysis of archaeological materials, and the results of archaeological research in prehistoric and early historic periods in the Old and New Worlds. Eight faculty contribute actively to its research and teaching.
- 3) Billie Holiday Project for Liberation Arts: <https://sites.krieger.jhu.edu/billie-holiday-project/> The Billie Holiday Project fosters organic links between JHU and the historic African-American communities of Baltimore, including by documenting them, by building the Baltimore Africana Archives, by creating interpretive resources, sponsoring public programs to bridge the intellectual life of JHU with historic Baltimore neighborhoods and cultural institutions and by bringing public arts to historically segregated portions of Baltimore City.

- 4) Ecological Design Initiative: <https://ecodesign.jhu.edu> The Ecological Design Initiative brings together thirteen faculty from the Krieger School of Arts and Sciences and the Whiting School of Engineering to engage in collaborative research, teaching and public exploration of ecological alternatives. It bridges the social sciences, humanities and earth sciences and works in partnership with local organizations, public agencies and professional efforts in ecological design. It uses design as a method and rubric to envision a healthy future ecology.
- 5) The Alexander Grass Humanities Institute: <https://krieger.jhu.edu/humanities-institute/> AGHI is a focal point for the 10 renowned humanities departments at Johns Hopkins, other dynamic departments in the humanistic social sciences, and related centers and programs. The institute sponsors scholarly meetings, public events, visiting scholars, student fellowships and research projects.
- 6) Center for Africana Studies: <https://krieger.jhu.edu/africana/about/> The center promotes rigorous, methodical, and unflinching discussion about the TransAtlantic Slave Trade and its fundamental role in making modern society. The center serves as the intellectual home for students, researchers, and faculty across the university whose interests include historical, political, artistic, scientific, literary, educational, and economic work engaging with Africa and the African Diaspora. Its mission is to serve as a critical corrective to the academy's traditional approach to knowledge creation and dissemination.

These programs, centers, institutes and initiatives bring together faculty with relevant expertise from the Departments of History, History of Science and Technology, Anthropology, Earth and Planetary Sciences, and the Whiting School of Engineering's Department of Geography and Environmental Engineering.

E. A list of and brief description of the staff or faculty with the expertise in disciplines and subject areas of relevance to federal land management, environmental and research agencies.

In the area of museum studies, public humanities/public history:

Kali-Ahset Amen, Assistant Research Professor, Sociology, Associate Director, Billie Holiday Project for Liberation Arts: Amen is an interdisciplinary social scientist, exhibition curator, and organizational strategist. Her scholarship and intellectual activism focus on racism, black subjectivities, and urban inequalities in Central America and the U.S. South. Beyond the academy, Kali-Ahset coordinates grassroots educational initiatives designed to enhance people's capacity to understand, analyze, and transform the systems of inequality that affect their lives. Related to this work, she serves as a program director for Humanity in Action, an international non-profit organization that provides political training to social justice activists from the U.S. and Europe. From 2008 to 2015, Kali-Ahset reached broadcast audiences as an award-winning public affairs journalist on Atlanta's Pacifica network affiliate WRFG 89.3 FM.

Larry Jackson, Bloomberg Distinguished Professor in English and History, Director, Billie Holiday Project for Liberation Arts: Lawrence Jackson is the author of *My Father's Name: A*

Black Virginia Family after the Civil War (Chicago 2012), *The Indignant Generation: A Narrative History of African American Writers and Critics* (Princeton 2010) and *Ralph Ellison: Emergence of Genius, 1913-1952* (Wiley 2002). Two of his books have been finalists for the Hurston-Wright Prize and *The Indignant Generation* won the 2011 William Sanders Scarborough Prize from the Modern Language Association and the Black Caucus of the American Library Association 2012 award for non-fiction. His graduate seminars on Frederick Douglass have produced interactive maps chronicling the time Frederick Douglass spent in Maryland before making his escape north.

Jessica Marie Johnson, PhD, Assistant Professor of History: Johnson is a historian of Atlantic slavery and the Atlantic African diaspora. She is the author of *Wicked Flesh: Black Women, Intimacy, and Freedom in the Atlantic World* (University of Pennsylvania Press, August 2020). Johnson has published in history, public history, and digital venues on the history of enslaved people, with a special focus on enslaved women, in the United States and the Caribbean, as well as how digital tools and media can be used to share the history of the enslaved and black history more broadly.

Martha S. Jones, PhD, Society of Black Alumni Presidential Professor and Professor of History: Jones is a legal and cultural historian whose work examines how black Americans have shaped the story of American democracy. Jones is the author of the award winning books *All Bound Up Together: The Woman Question in African American Public Culture 1830-1900* and *Birthright Citizens: A History of Race and Rights in Antebellum America*. Jones has curated several exhibitions including “Reframing the Color Line” and “Proclaiming Emancipation” with the William L. Clements Library, and has collaborated with the Smithsonian’s National Portrait Gallery, the Charles Wright Museum of African American History, the American Experience, the Southern Poverty Law Center, PBS, Netflix, and Arte (France.)

Jennifer P. Kingsley, PhD, Senior Lecturer and Faculty Director, Program in Museums and Society. Kingsley directs the program in Museums and Society where she is responsible for curricular and pedagogical initiatives. An expert in curation, museum interpretation and applied, project-driven learning, Kingsley has led more than a dozen major collaborations with museums and historic sites resulting in a variety of exhibitions, museum reinstallations, historic signage, digital exhibits and interpretive plans.

Joseph Plaster, PhD, Curator in Public Humanities, Sheridan Libraries and Museums. Plaster’s research and teaching focuses on collaborative public humanities, performance studies, interdisciplinary oral history, and queer studies. Plaster’s work has appeared in *Radical History Review*, *The Abusable Past*, and a forthcoming issue *The Public Historian*. His work has been supported by grants from the National Endowment for the Humanities and fellowships at The New York Public Library and The Graduate Center of the City University of New York, and was awarded the American Historical Association’s Allan Bérubé Prize for outstanding work in public history.

Julie Rose, PhD, Director and Curator, Homewood Museum, Sheridan Libraries and Museums. Rose’s research focuses on interpreting difficult histories and documenting

historical enslaved plantation communities for museum interpretations. She holds an MA in History and Museum Studies and a PhD in education. Her research, curatorial and educational work is informed by educational psychoanalytic theory.

In the area of environmental and archaeological research:

Grace Brush, PhD, Professor Emeritus of Environmental Health and Engineering: An expert in ecology, paleoecology, and plant geography and the author of a dozen articles and books on the Chesapeake watershed, Professor Emeritus Grace Brush continues to be an active researcher at JHU.

Michael Harrower, PhD, Associate Professor of Archaeology; Director of the Spatial Observation Lab for Archaeological Research (SOLAR): Harrower's research concentrates on spatial, political and ideological dynamics of water. He is a specialist in spatial technologies in archaeology including space-borne, airborne, and terrestrial remote sensing tools that offer powerful, non-invasive means of generating new data and new insights about archaeological sites. His teaching emphasizes survey methods and giving students field experience regionally.

Nicole LaBruto, PhD, Associate Director of Ecological Design Initiative: Her book manuscript in progress, *The Plantation Paradox: Bioenergy Science and Sustainability in the Global South*, provides an historical and ethnographic analysis of climate-change solutions from the global South by investigating how Brazilian bioscientists are leveraging postcolonial ecological legacies into their vision of a global sustainable future.

Thomas Ozden-Schilling, PhD, Assistant Professor of Anthropology: Ozden-Schilling researches Indigenous mapmaking, long-term environmental experiments, government downsizing, and the lives of experts in rural places. He has conducted ethnographic and historical research in British Columbia, Alaska, and Wyoming with the support of the Social Science Research Council and the Wenner Gren Foundation for Anthropological Research, and he is currently writing a book titled *Salvage Cartographies: Mapping Futures in a Northern Forest*.

Anand Pandian, PhD, Professor of Anthropology: Pandian is an environmental anthropologist with research experience on human-environment relations in India, the United States and elsewhere around the world. The author and editor of ten books, including, most recently, the edited volume *Anthropocene Unseen: A Lexicon* (Punctum Book, 2020), he serves as Director of the Hopkins Ecological Design Initiative, a new initiative at Johns Hopkins University for collaborative research, teaching, and public exploration of ecological alternatives. <https://anthropology.jhu.edu/directory/anand-pandian/>

F. For academic institutions, include a description of the student demographics and the institution's status as a minority-serving institution (e.g., as defined by the U.S. Department of Education).

While Johns Hopkins University is not a minority serving institution, it serves a diverse student body. The enrolled student population at Johns Hopkins University is 43% White, 14% Asian, 8.17% Hispanic or Latino, 7.66% Black or African American, 3.48% Two or More Races, 0.119% American Indian or Alaska Native, and 0.103% Native Hawaiian or Other Pacific Islanders. This includes both full-time and part-time students as well as graduate and undergraduates. 20% of students are non-resident aliens. 4 % of students did not report their race. 12% of students in the class of 2022 are first generation college students.

Further, in 2018 the university launched the [JHU Humanities Collaboratory](#), which provides opportunities for high-achieving humanities students from the Community Colleges of Baltimore County and from historically black colleges and universities across the country to participate in an intensive and innovative summer research experience through the Humanities For All Program and the Leadership Alliance First Year Research Experience (FYRE). The program is directed by Dr. Natalie Strobach, director of undergraduate research at the Krieger School of Arts & Sciences, and presently funded by a grant from the Andrew W. Mellon Foundation.

G. Description or a list of facilities, equipment, centers, or institutes that would provide support to research, technical assistance, or educational activities of relevance to federal land management, environmental, and research agencies that will be engaged in CHWA CESU activities.

JHU makes available some of the most cutting-edge tools for cultural heritage research, conservation, and interpretation. To give a general overview, students within the M&S program have made use of the self-service 3D printers at the Digital Media Center, which are available to all students, and have developed ArcGIS story maps using the university's customized cloud-based mapping platform. Its close affiliate, the Johns Hopkins Archaeological Museum (whose director teaches within the program) was purposely designed to facilitate teaching and research, boasting a Bruker Tracer III-SD X-Ray Florescence (XRF) instrument, allowing non-destructive analysis of materials, and a Leica M80 stereomicroscope outfitted with an IC80 camera, which allows digital photography and videography of objects. And Hopkins Medicine includes technologies that have proven useful in scanning cultural artifacts (eg: the Walters Art Museum's Shrine of St. Amandus).

Several labs at JHU work to develop non-invasive surveying technologies (eg: SOLAR – with its collection of Trimble Real-Time Kinematic (RTK) GPS base station and rover equipment). The Maryland Advanced Research Computing Center (MARCC), a shared computing facility for computational research, is available to faculty and researchers at JHU. Further, most faculty whose research requires the processing of large quantities of data have dedicated advanced PCs.

JHU is a partner with MICA on the JHU-MICA Film Centre, which includes a 49 seat screening room, a sound recording studio and a green room soundstage large enough for sets, and facilities for studio shooting, as well as editing technologies. Homewood campus has a smaller green room for shooting interviews. These have been useful for creating site orientation films (eg: Homewood Museum) and video-based interpretation work.

For historical and cultural research, Sheridan Libraries is a leading research library in Maryland. In addition to more than 4.8 million volumes, the libraries provide 24/7 access to a rich collection of electronic resources, including more than 171,000 print and e-journals, and 1.6 million e-books. It further includes specialized facilities and collections in medicine, public health, music, international affairs, earth and space science, and historical and scientific collections related to the Chesapeake (eg: Chesapeake Bay Institute archive).

I. Description or list of past research, technical assistance and educational services supported through federal financial assistance awards that are of relevance to federal land management, environmental, and research agencies that will be engaged in CHWA CESU activities.

Johns Hopkins University has had a great deal of support, through grants, from the National Aeronautics and Space Administration (NASA). Although much of the research and other work supported has been focused on space sciences, NASA has supported research related to the mission of the CHWA CESU. Please see attached a list of all NASA awards made to the University with start dates within the last five years. As the Program in Museums & Society resides in the Krieger School of Arts and Sciences, we have subtotaled awards made on behalf of its faculty.

J. Confirmation of the institution's/organization's willingness to accept a limited overhead rate of 17.5% and cost items to which the rate is applicable for activities conducted through the CESU, including research, technical assistance, and educational services (this overhead rate applies to the entire institution/organization for CHWA CESU activities).

Please see attached confirmation that JHU will accept the limited facilities and administrative cost rate of 17.5% and cost items to which the rate is applicable for all activities conducted through CESU. The attached letter also confirms JHU's agreement to the terms of the CESU Joint Venture Agreement.

K. Designation of a technical and administrative representative (with full contact information –name, title, full address, phone, fax, email) to serve on the CHWA CESU steering committee.

Jennifer P. Kingsley, PhD (technical)
Faculty Director and Senior Lecturer
Program in Museums and Society
3400 North Charles St; 301 Gilman Hall
Baltimore, MD 21218
410-516-3188 / 410-516-7502
jkingsley@jhu.edu

Mary-Louise Healy (administrative)
Assistant Dean for Research Administration
3400 North Charles St; Wyman N600
Baltimore MD 21218
410-516-8617 / 410-516-4100
mhealy11@jhu.edu

L. Participation in the CESU annual/semiannual partner meetings and facilitation of internal and external communication, promotion and response to CESU correspondence and administrative actions (e.g., announcement, new member applications, processing agreements/amendments, five-year reviews).

As the technical representative, Dr. Kingsley agrees to participate in the CESU annual/semiannual partner meetings and to facilitate internal and external communication, promotion and response to CESU correspondence and administrative actions.

M. Agree to relay agency-specific research, technical assistance and educational needs and associated funding opportunities to other institutional/organizational members (e.g., faculty, students)

As the technical representative, Dr. Kingsley agrees to relay agency-specific research, technical assistance, educational needs and associated funding opportunities to other institutional/organizational members at JHU including both faculty and students.

N. Signature (or endorsement) from an appropriate official, with authority to commit institutional resources in a binding multi-year federal cooperative and joint venture agreement (e.g., president, executive director, chief financial officer, vice president for research, director of sponsored programs).

JHU agrees to fulfill the roles and responsibilities of a federal partner, as described in the CESU agreement. Please see attached letter from the Vice-Dean for Natural Sciences in the Krieger School of Arts and Sciences.

O. Letter(s) of support from one or more CESU federal agency partners sponsoring the new partner's application, including a description of successful past collaborative work supported through federal financial assistance awards.

A letter of support has been provided by NASA's Chief of Ocean Ecology Laboratory Dr. Carlos E. Del Castillo. See attached.