



UNIVERSITY of MARYLAND
EASTERN SHORE

Office of Sponsored Research and Programs

January 24, 2018

Daniel M Filner, Ed.D
Research Director
Chesapeake Watershed CESU
University of Maryland CES
Appalachian Laboratory
301 Braddock Rd, Room 304
Frostburg, MD 21532

Re: UMES application to Join the Chesapeake Watershed CESU

Dr. Dr. Filner:

Please accept this letter as confirmation that we accept the 17.5% indirect cost imposed on research awards from the Chesapeake Watershed CESU. Should you have any questions regarding this matter, please contact me at 410-651-6714 or at email at csbolek@umes.edu.

Sincerely,

Catherine S. Bolek, M.S.
Director

cc: Dr. Joseph Pitula

www.umes.edu

1120 Early Childhood Center Princess Anne, Maryland 21853 Tel: (410) 651-6107 Fax: (410) 651-7768

National Park Service Cooperative Ecosystems Studies Unit (CESU)

- North Atlantic Coast CESU
- Chesapeake Watershed CESU

Applicant: University of Maryland Eastern Shore

1) (i) a. Organization and Mission Statements

The University of Maryland Eastern Shore (UMES), the state's historically black 1890 land-grant institution, has its purpose and uniqueness grounded in distinctive learning, discovery and engagement opportunities in the arts and sciences, education, technology, engineering, agriculture, business and health professions.

UMES is a student-centered, doctoral research degree-granting university known for its nationally accredited undergraduate and graduate programs, applied research, and highly valued graduates. The University provides individuals, including first generation college students, access to a holistic learning environment that fosters multicultural diversity, academic success, and intellectual and social growth. Further, the University prepares graduates to address challenges in a global knowledge-based economy, while maintaining its commitment to meeting the workforce and economic development needs of the Eastern Shore, the state, the nation and the world.

UMES is the State of Maryland's Historically Black 1890 Land- Grant Institution, is a teaching, research, and doctoral institution that nurtures and launches leaders in a student-centered environment. Committed to providing high quality programs in an ethnically diverse environment, the University prepares students who will serve and shape the global economy. UMES is a growing, primarily residential university with a mission focused on learning, discovery, and engagement. This is consistent with valuing the scholarship of faculty in discovering new knowledge, and disseminating and applying it to the extended community.

UMES engages in numerous collaborative efforts to (a) increase access and opportunity for a broad spectrum of students including the economically and educationally disadvantaged, low- income adult learners, and first-generation college students; and (b) to meet other state needs. Collaborative educational connections with local school systems address the Professional Development Schools, The Redesign of Teacher Education (including the PreK-16 initiative), and other programs. For instance, UMES and Salisbury University collaboratively operate the Master of Arts in Teaching, the dual degree in Sociology/Social Work, and Biology/Environmental Science Programs.

UMES supports the Eastern Regional Higher Education Center (ERHEC) at Wye Mills. Specifically, the Department of Human Ecology and Chesapeake Community College have implemented a 2+2 Child Development Program that is offered via distance education. Further, Allegany Community College of Maryland, Frostburg State University, and UMES collaboratively offer HTM course work to the Western Region. Additionally, UMES' Hospitality and Tourism program and Construction Management Technology program are offered at the USM Universities at Shady Grove.

UMES provides Special Education Programs, a teaching area of great state and national need, on the Eastern Shore at both the undergraduate and graduate levels. The University also has the only Agricultural Education and Technology Education Programs in Maryland. Access to the Salisbury-Ocean City Airport allows the Engineering and Aviation Sciences programs to establish strong links with airport personnel. Physical Therapy majors provide professional service alongside staff of McCreedy Hospital- a 16-bed acute-care rural hospital with a 60-bed nursing home- for home residents and hospital patients of Somerset County. Agricultural and Natural Science students and faculty leaders partner with local agricultural and aqua-cultural business persons, to conduct and apply appropriate research findings that improve their economic base. Career and Technology Education courses are offered outside of Princess Anne, such as in downtown Baltimore at the Maryland Center for Career and Technology Education Studies in the Baltimore Museum of Industry. These courses are targeted for technology education teachers who are seeking degrees and teacher certification. UMES offers the Ph.D. in Marine- Estuarine- Environmental Sciences (MEES) and in Toxicology, in conjunction with other University System of Maryland institutions.

UMES is a Carnegie Classified as a Doctoral/Research University (DRU). Consequently, UMES has developed and implemented freestanding doctoral degree programs in (a) Food Science & Technology, (b) Physical Therapy, (c) Organizational Leadership, (d) Educational Leadership, (e) Toxicology, and (f) Marine Estuarine and Environmental Sciences (System-wide). To respond to widespread regional and national health care needs, especially those in rural areas, a new school of Pharmacy and Health Professions (consisting of Pharmacy, Physical Therapy, Exercise Science, and Rehabilitation Services) has been established at UMES.

University progress depends upon the success of its accountability practices; therefore, strategic planning, assessment and evaluation are key to measuring an institution's success. The University's strategic planning process ensures that we use a systematic process to engage in ongoing, dynamic and comprehensive assessment of the annual UMES Strategic & Operations Plan. Goals are carefully tracked and reports are regularly disseminated to assist faculty, students and administrators in using data-based decision-making to map progress.

1) (i) b. Description of primary programs relevant to CESU research (NOTE: Organization Sheet appears an attachment.

Research and development activities focus on faculty and student development, agricultural and environmental sciences, renewable energy resource development, health sciences, and international development. Through those focus areas, UMES plays a pivotal role in responding to local, state, and international priorities through the unique initiatives as described below.

Marine and Environmental Science - The UMES Coastal Ecology Teaching and Research Center (CETRC), located at Assateague Island (six miles from the Chesapeake Bay and thirty miles from the Atlantic

Ocean), plays a significant national role in the diversification of the work force of the National Oceanic and Atmospheric Administration (NOAA). The Center for Research Excellence in Science and Technology (CREST), which includes UMES (lead institution) and the Institute for Marine and Environmental Technology (IMET), is funded by the National Science Foundation (NSF). The CREST Center's research focuses on the effects of: (1) land use and climate change on water quality; (2) water quality changes on microscopic algae and seaweed, including harmful species; (3) environmental factors on zooplankton populations, which serve as food for commercially and ecologically important fish species; (4) low dissolved oxygen and pollution on fish populations such as Atlantic croaker; and (5) water quality changes on the infection of blue crab by the parasite *Hematodinium* and on blue crab distributions in Maryland's coastal bays.

UMES' NOAA Living Marine Resources Cooperative Science Center (LMRCSC) trains and graduates students from underrepresented communities in marine science for careers in research, management, and public policy that support the sustainable harvest and conservation of our nation's living marine resources. With its partner institutions, the LMRCSC conducts research on marine and estuarine systems congruent with the interests of NOAA Fisheries. The Living Marine Resources Cooperative Science Center is supported by the National Oceanic and Atmospheric Administration (NOAA) Educational Partnership Program with Minority Serving Institutions (EPP/MSI). Partner institutions including: Delaware State University, Hampton University, Savannah State University, University of Maryland Center for Environmental Science Institute of Marine and Environmental Technology, and University of Miami Rosenstiel School of Marine and Atmospheric Science. The LMRCSC's Research Theme areas are designed to fit into the research agenda of NOAA (Fisheries). Projects funded by the LMRCSC fit into one of the four theme areas: 1) Ecosystem change and prediction; 2) stock assessment support; 3) habitat research and protection; and 4) safe seafood and aquaculture.

Recent projects include: 1) discard mortality of sub-legal black sea bass in the commercial trap fishery: impacts of air exposure and acute temperature change; 2) biological baseline data for Jonah crab managements; 3) reproductive biology of red deep sea crabs, *Chaceon quinque-dens*; 4) refining stock structure of common bottlenose dolphins through photo-identification and genetic analysis; 5) the impact of increasing sea surface temperatures on piscivore and planktivore species dynamics: an ecosystem-based modeling approach; 6) ecosystem impact of a harmful algal bloom special on aquaculture shellfish; 7) migration and foraging ecology of at-risk special: Columbia river Chinook salmon and Atlantic weakfish; 8) comparing the diet and microbiome of Atlantic menhaden and Eastern oyster DNA barcoding.

The Paul S. Sarbanes Coastal Ecology Center (PSSCEC), under the administrative authority of UMES, is a teaching, research and public outreach facility that houses initiatives related to the restoration, conservation and understanding of the water quality, surrounding natural environments, and living resources that characterize the coastal bays. Located on Sinepuxent Bay across from Assateague Island in Berlin, Maryland, the Center was established with strong goals for partnerships among University System of Maryland institutions, the National and State Park Service, the Maryland Department of Natural Resources, the National Oceanic and Atmospheric Administration, the U.S. Department of Agriculture (USDA), the MD Coastal Bays Foundation and other local and non-governmental organizations. The center serves as an undergraduate and graduate research and teaching facility in addition to an educational and interpretive center for public outreach which includes programs for teachers and students at the K-12 levels.

Agriculture UMES' **Agricultural Experimental Station** has specific high priority research areas such as increasing economic opportunities in agriculture and natural resources, improving human nutrition and health, supporting rural and urban community development, protecting America's natural resource base and environment, enhancing safety and security of U.S. agriculture and food supply, ensuring family, youth and community success and contributing to the goals of USDA. The overall aim of UMES' Agricultural Experiment Stations is to provide enhanced knowledge and technology to improve the viability and sustainability of agriculture and food systems; enhance the quality of natural resources and the environment; and serve communities, families, and consumers.

UMES coordinates research initiatives among member institutions in cooperation with federal, state and private partners. We also cooperate with other appropriate regional and national committees and organizations in developing legislation affecting the food and agricultural research and educational needs of the nation." This federal-state partnership in agricultural research has proven to be an invaluable coalition and the 1890 institutions have created a shared vision and values that empower each to become an essential part of the greater whole.

Renewable Energy Resource Development and Implementation Strategies - UMES is currently leveraging the 17-acre, 2.2 MW solar farm located on its campus. The facility currently supplies approximately 15% of the university's electricity needs. The university is committed to utilizing the engineering, agricultural and natural science faculty for the development of renewable energy resources and implementation strategies. This includes the investigation and use of solar, wind and biological resource development. By deploying state-of-the-art wind measurement equipment, UMES engineering and engineering technology department faculty are developing wind resource evaluation standards for Maryland's Eastern Shore. The biological energy recovery is focused on implementation of biodiesel and chicken-litter digestion technologies. There are also plans to develop smart grid technology that will efficiently combine all three energy utilization technologies.

Health Sciences - After the establishment of a novel, 3-year accelerated Pharmacy program at UMES, the faculty in the areas of Pharmacy, and Physical Therapy are investigating new ways of treating patients. In the area of physical therapy, research is being conducted on capturing patient motion through the utilization of computer monitoring and simulation. The University also offers a hub to blend the experiences of students who major in health professions, coupled with research opportunities that motivate them to pursue graduate degrees in the health sciences.

International Partnerships - UMES has linkage agreements with 18 Universities and research institutions in Africa, the Caribbean, and Central America. These linkages enhance the university's international education focus through: (1) student study and research abroad, (2) faculty and student exchanges, (3) international scholar-in-residence, and (4) international development programs. The University also has several cooperative agreements with the United States Department of Agriculture to provide technical assistance to the United States Agency for International Development.

Website: www.umes.edu.

Key Personnel –Dr. Joseph Pitula will be responsible for the supervision of the faculty and students and the management of any grants, cooperative agreements and/or contracts arising from this application. He will work with the OSRP staff to ensure that all awards are administered in adherence to OMB circulars and the FARs and any terms and conditions of each award.

Dr. Pitula is an Associate Professor in the Department of Natural Science and has been with the University since 2004. He has special knowledge in molecular parasitology with an emphasis on ecology of disease causing agents of crustaceans.

The following faculty have notified Dr. Pitula of their interest in participating in the CESU:

Dr. Bradley G. Stevens is Professor of Marine Science in the Department of Natural Sciences. He has expertise in fisheries and biology of crustaceans and mollusks, with emphasis on reproduction and growth. He specializes in survey design and assessment of marine populations. He would be responsible for planning, supervision, budgeting and reporting on any UMES-NPS joint research projects, as well as recruiting and supervising graduate students working on these projects. Dr. Stevens is a highly experienced grant administrator.

Dr. Salina Parveen is a Professor in the Department of Agriculture, Food and Resource Sciences and has extensive expertise in the areas of ecology, antibiotic resistance, pathogenicity of food and water-borne pathogens and bacterial source tracking. Dr. Parveen has extensive expertise in the management of grants and cooperative agreements.

1. (i) c. Summary of the organization business management departments

The University supports the Office of Sponsored Research and Program (OSRP), who are responsible for identifying potential funding sources and communicating such information to the faculty, maintaining contract with potential sponsors and arranging appointments with such sponsors as requested by the faculty, helping with development of proposals to potential sponsors. The OSRP is responsible for proposal processing, ensuring that proposals conform to all agency and organization's requirements, that the proposed financial arrangements are acceptable and consistent with UMES and University System of Maryland (SM) requirements, and that special commitments (e.g., in kind, matching funds) have had prior internal review and approval. OSRP is responsible for grant and contract administration, functioning as the liaison between the funding organization, the faculty member, and other University offices.

The OSRP is the primary support organization for sponsored programs at the University. As such it works within the Office of Provost and Vice President for Academic Affairs and collaborates with the Office of the Vice President for Administrative Affairs and other appropriate offices to ensure that sponsored activities are carried out according to the University mission and the sponsoring organization's requirements.

The office is managed by a program director, contract and grant associate and a secretary. Financial responsibilities (e.g., accounting functions) are handled by grant accountants in the Office of the Comptroller under the Office of the Vice President of Administrative Affairs. The University uses the Quali Financial System to perform a variety of tasks including, but not limited to, purchasing, capital asset management, accounts payable, labor distribution, statement of payroll, as well as, other accounting functions by division, department, sub-department. Unique accounts numbers are assigned to each award and entered into the Quali system upon receipt. University accounts are audited annually by the USM, State of Maryland, and an independent audit company. UMES is in compliance with OMB Circulars and the FARs.

OSRP Services

- Identification of funding sources;
- Use electronic databases to identify private/corporate sector sources of support for university faculty, research associates, students and staff;
- Identification of faculty interest using an Internet-based faculty research form;
- Delivery of grants workshops are held periodically. Faculty are encouraged to suggest topics and speakers;
- Consultation on proposal writing and editorial services;
- Coordination of animal welfare (IACUC), human subjects; biohazard, biosafety, recombinant DNA and other related compliance committees;
- Pre- and Post- award administrative services from pre-proposal through award negotiation to extensions and close-outs;
- Protection of intellectual property (e.g., patents, trademarks);
- MOU and NDA development;
- Annual reports to UMES and USM; and
- Security clearances.

The OSRP web site can be found at www.umes.edu/osp. Annual reports of grants and contract awards by school, department and funding source can be found at this site, as well as, information designed to assist faculty, staff and students with their grantsmanship efforts.

The attached flowchart provides an overview of the processes used by the University to handle applications, receive and process awards, conduct administrative actions, and eventually to close out of an award. Attachment OSRP Flowchart.

Contact Information:

Business

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Technical

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United States Department of the Interior
NATIONAL PARK SERVICE
Assateague Island National Seashore
7206 National Seashore Lane
Berlin, MD 21811
(410) 629-6061



In reply to:

N2219

January 24, 2018

Dr. Daniel M. Filer
Chesapeake Watershed CESU Research Coordinator
National Park Service
University of Maryland Center for Environmental Science - Appalachian Laboratory
301 Braddock Road - Room 304
Frostburg, MD 21532

Dear Dr. Filer:

Assateague Island National Seashore (ASIS) fully supports the application from the University of Maryland Eastern Shore (UMES) to join the Chesapeake Watershed CESU. The Seashore has collaborated successfully with UMES for decades on multiple natural resource management and monitoring projects along Assateague Island and within the adjacent Maryland coastal bays estuary.

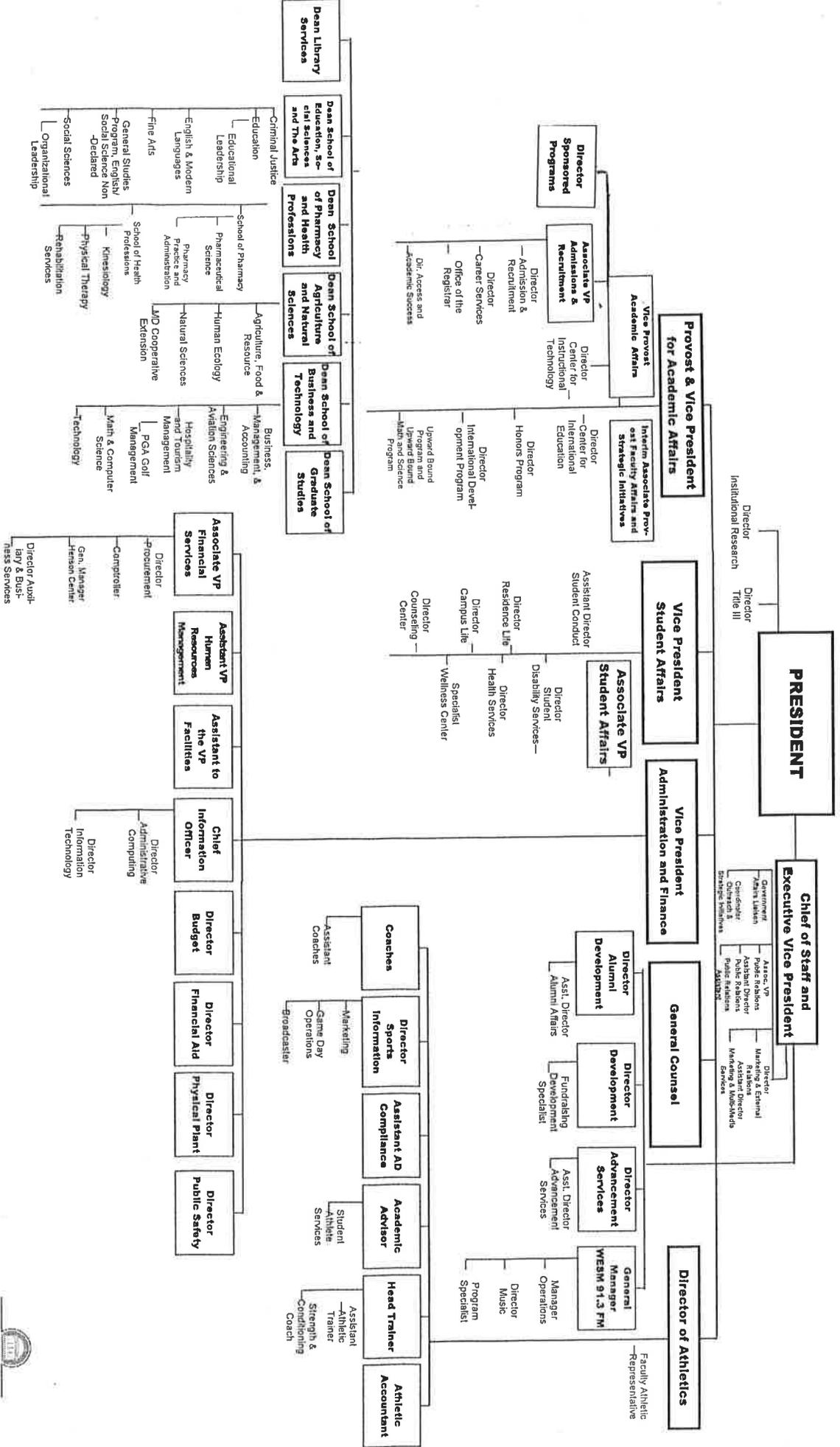
A recent collaborative effort with Drs. Joseph Pitula and Meng Xia consisted of a new student internship program that was initiated in 2014. Both graduate and undergraduate students from UMES participated in field research projects of interest to ASIS under the guidance of park staff and a University mentor. This provided an excellent opportunity for UMES students to enhance their educational goals while learning more about future careers in natural resource stewardship with the National Park Service.

The Paul S. Sarbanes Coastal Ecology Center, also operated by UMES and located adjacent to Seashore headquarters, provides an unprecedented opportunity for future research endeavors as well as potential for new education and outreach partnerships. New opportunities will play an important role in providing the best science and information transfer that can inform the future management of the National Seashore.

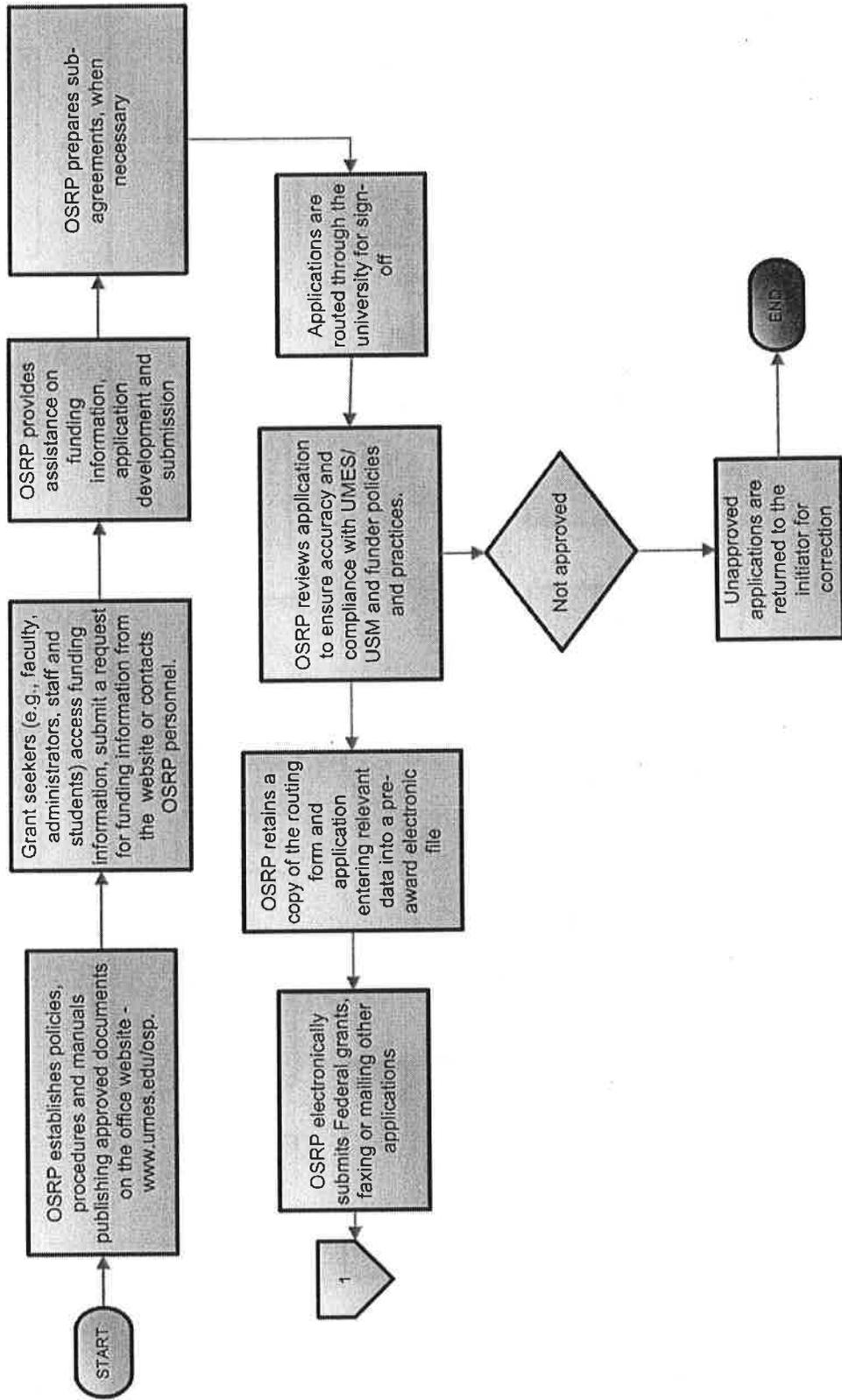
If you have any questions or need additional information, please contact me at 410-629-6061 or by email at bill_hulslander@nps.gov.

Sincerely,

Bill Hulslander
Chief of Resource Management

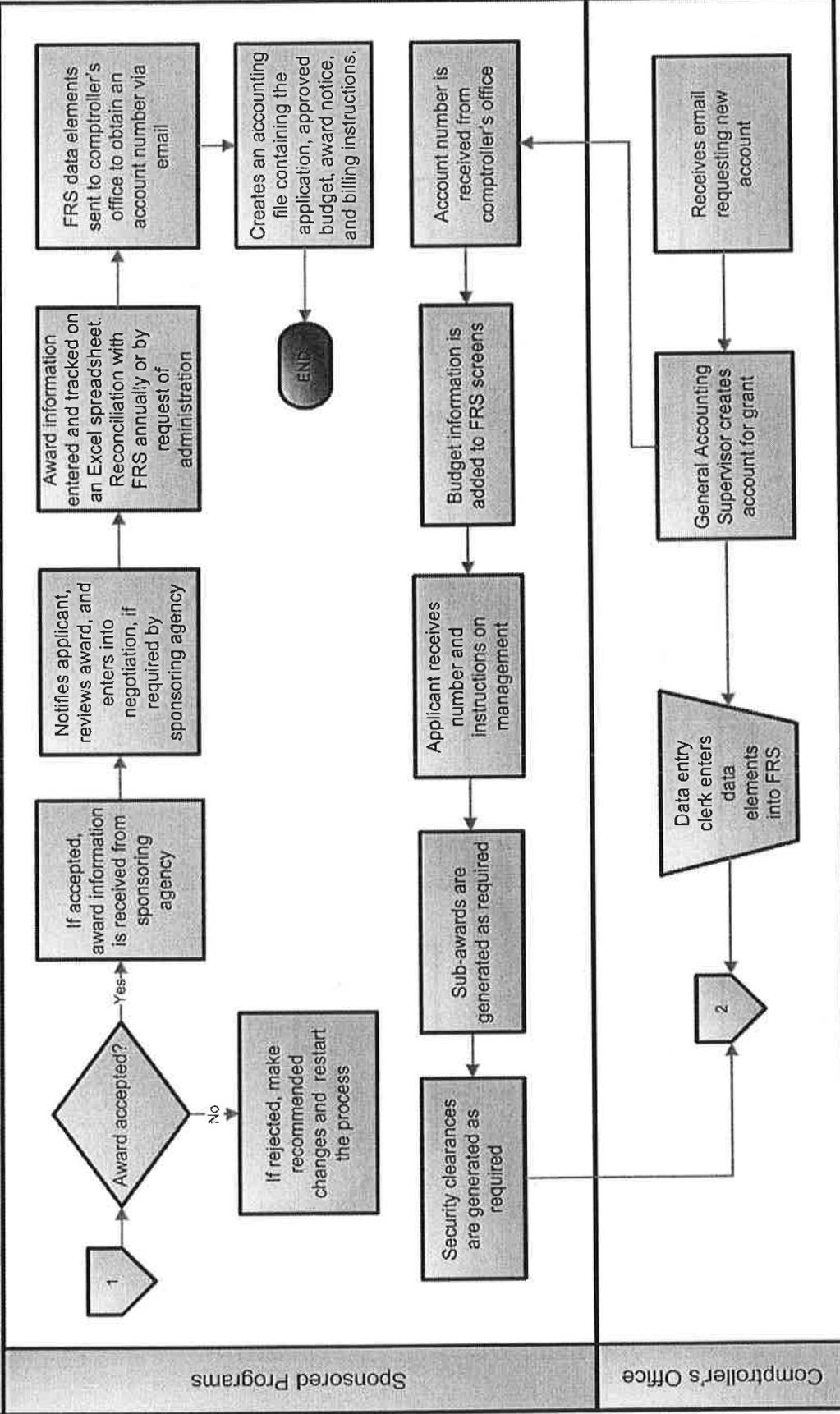


University of Maryland Eastern Shore
 Financial Business Process Flows
 Grants – Pre-Award Process

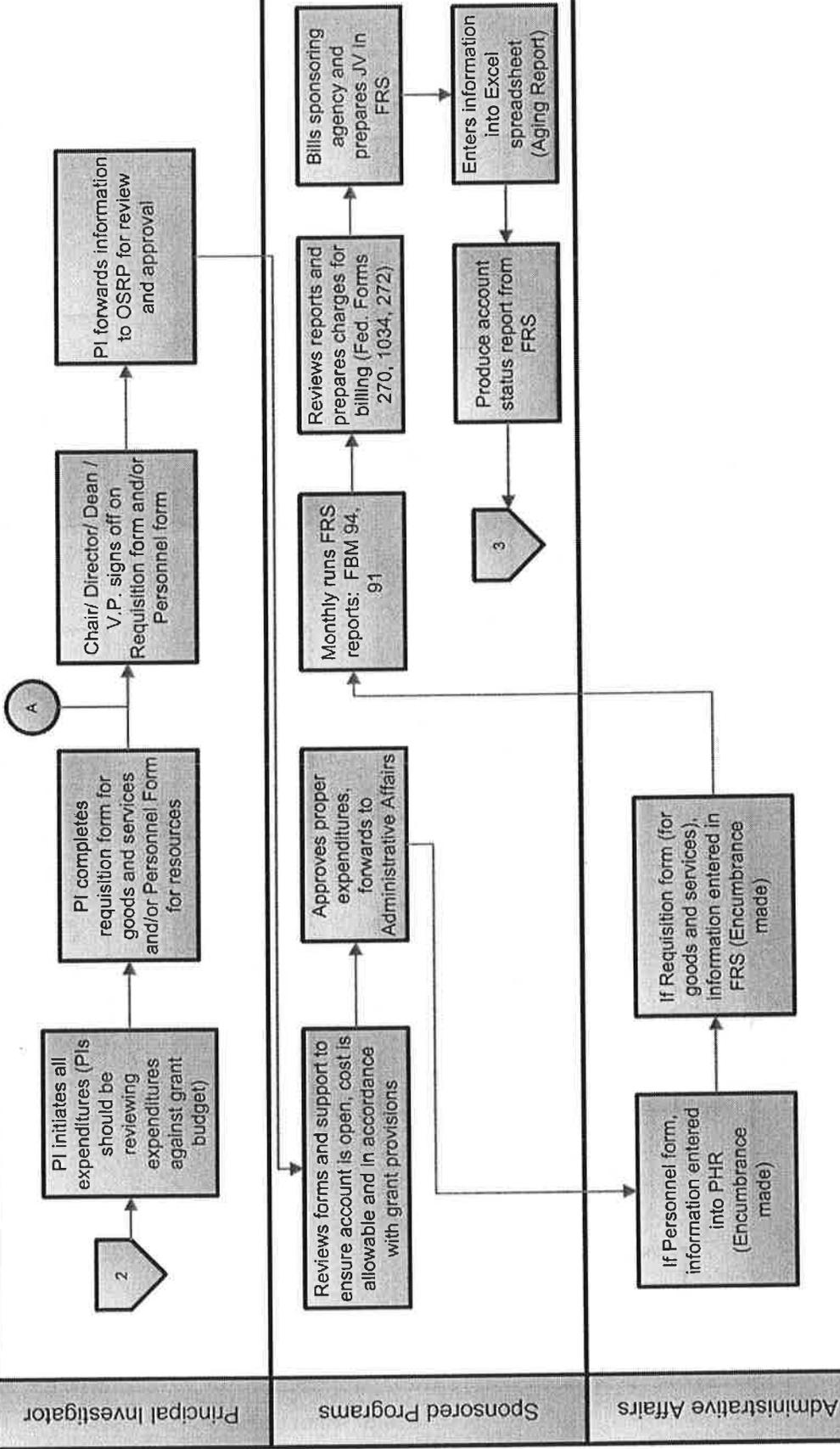


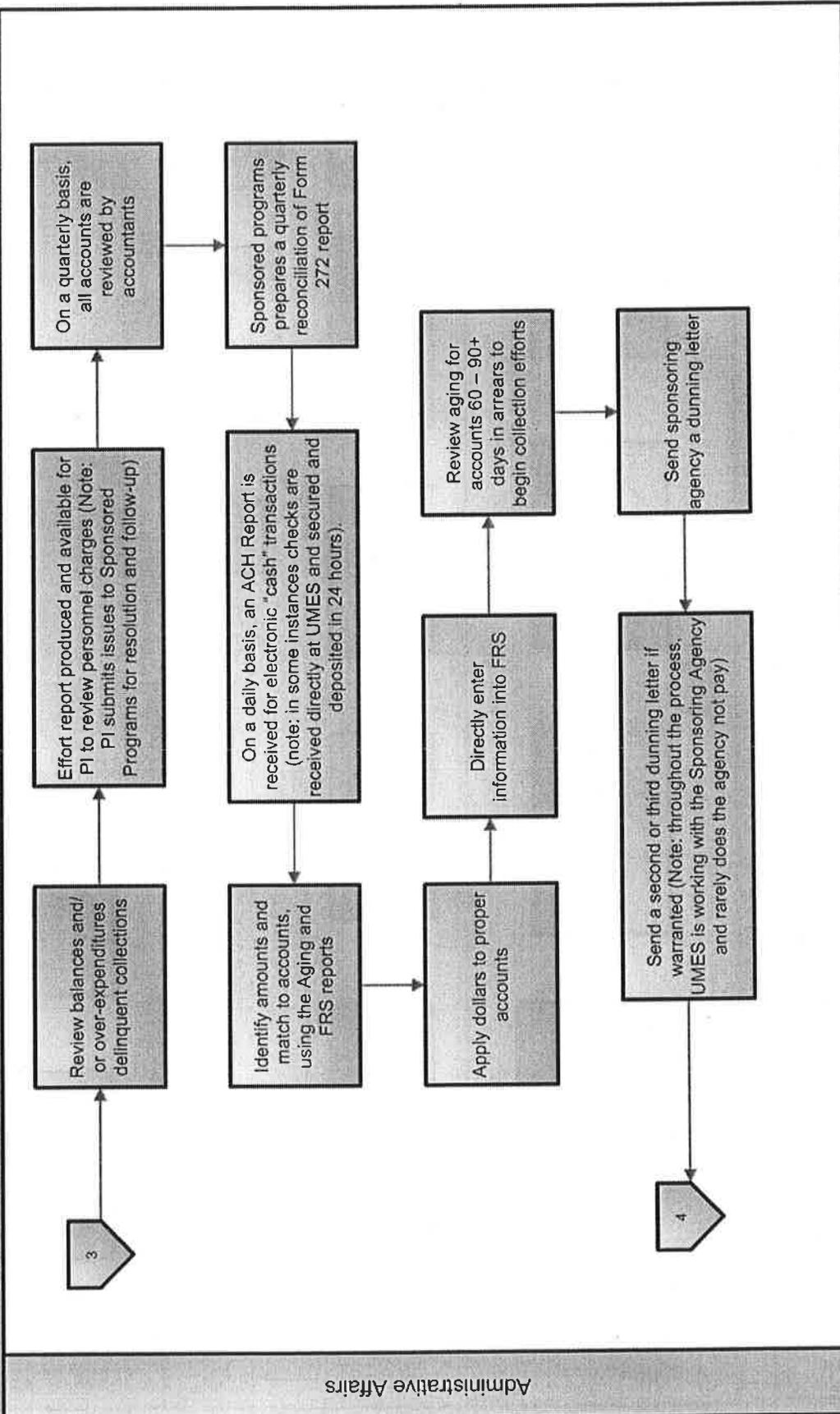
Sponsored Programs

University of Maryland Eastern Shore
 Financial Business Process Flows
 Grants – Award Process

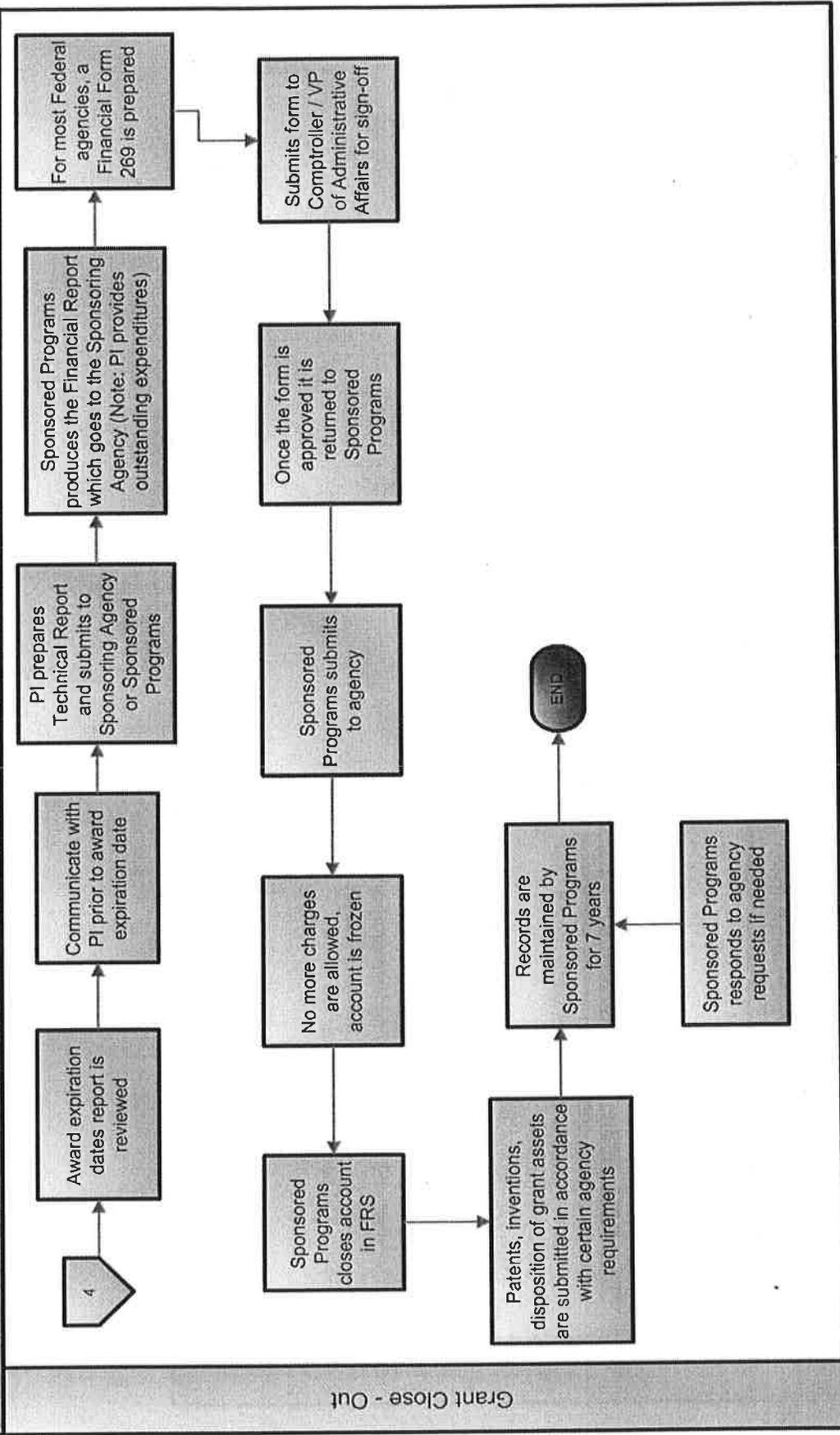


A = From HR & PR Processes, Contingent I employees, p. 1
 From HR & PR Processes, Contingent II employees, p.2





University of Maryland Eastern Shore
 Financial Business Process Flows
 Grants – Grant Close-Out Process



University of Maryland Eastern Shore
Financial Business Process Flows
Grants – Other OSRP Activities

Sponsored Programs

Other Office of Sponsored Research Programs (OSRP) Activities:

- Provides grant and contract writing workshops.
- Prepares grant and contract applications
- Edits proposals
- Writes articles and book chapters
- Manages grants generated by OSRP staff
- Prepares technical and financial reports for submission to government agencies, UMS and other universities.
- Provides compliance with OMB Circulars and FARS.
- Prepares Schedule N reports.
- Conducts billing for revolving loan program.
- Services as the federal security officer for the university.
- Holds top secret clearance.