AGREEMENT

between

U.S. ARMY ENGINEER RESEARCH AND DEVELOPMENT CENTER

and

UNIVERSITY OF PUERTO RICO - MAYAGUEZ

to form the

TROPICAL ENVIRONMENTAL RESEARCH CENTER

WHEREAS Department of Defense Instruction dated August 9, 1995, authorizes Federal government activities to enter into no-cost agreements with nonprofit organizations; and

WHEREAS the U.S. Army Engineer Research and Development Center (ERDC) and the University of Puerto Rico-Mayaguez (UPRM), hereinafter referred to as "the parties," entered into an educational partnership agreement on November 17, 1999 pursuant to 10 U.S.C. Section 2194; and

WHEREAS a primary objective of the educational partnership agreement is to promote mutual participation and collaboration in research, teaching, and development of engineering and scientific research projects; and

WHEREAS the ERDC and UPRM have identified a mutual need and opportunity to collaborate on the development and incorporation of new algorithms into ERDC's existing environmental management and assessment tools to address tropical processes;

NOW THEREFORE ERDC and UPRM hereby agree as follows:

- 1. <u>PURPOSE</u>. This agreement establishes the Tropical Environmental Research Center (TERC) and defines its policies and procedures to support and execute activities pursuant to the educational partnership agreement,
- 2. <u>OBJECTIVES</u>. The TERC is established to:
 - a. Utilize the technical capability at UPRM to contribute to the solution of problems being addressed by the ERDC.
 - b. Provide opportunities for UPRM faculty and students to learn and develop professionally through collaborative research and development studies.
 - c. Improve the visibility of ongoing ERDC-UPRM research at UPRM, ERDC, and throughout the Army

- d. Overcome cultural and language barriers through increased hemispheric technology exchange, educational opportunities, and research and development collaboration.
- e. Provide points of contact (POCs) at ERDC and at UPRM to address issues and coordinate efforts regarding ERDC-UPRM research.
- 3. <u>ACTIVITIES</u>. Under this agreement, ERDC and UPRM will participate in activities to promote joint research and information exchange that includes (but is not limited to):
 - a. Incorporating tropical processes into ERDC's environmental management and assessment tools.
 - b. Creating continuing education courses in environmental engineering, science, and sustainability.
 - c. Collaborating on joint research proposals and projects.
 - d. Coordinating opportunities for staff exchanges and for student involvement in research projects.

4. AGREEMENTS

- a. Initially, focus areas for research collaboration will reflect mutual capability in the following areas. This list may be expanded in response to future challenges and opportunities.
 - 1) Watershed Management
 - 2) Receiving Water Management
 - 3) Living Resources Management
 - 4) Emergency Response
 - 5) Catastrophe Management
- b. Focus area leaders will be identified at the ERDC and at the UPRM to assist in the coordination of research studies. Focus area leaders may be removed or added as focus areas change.
- c. An annual report documenting activities of the TERC will be prepared by ERDC and UPRM.

5. SPECIFIC PROVISIONS.

a. Selection of Research Topics: The ERDC and UPRM POCs will coordinate the identification of research topics of mutual interest with input from their respective organizations' POCs and focus area leader. They will publicize the topics within their organizations and match interested ERDC researchers with interested UPRM faculty/students. Discussions between the ERDC researchers and UPRM faculty/students will lead to the development of research Work Plans (WPs) that address the identified research topics. When possible, the WPs will include student participation.

- b. Public Dissemination of Research Findings: UPRM and ERDC researchers will coordinate the content of proposed research publications to ensure that no classified, confidential, or proprietary information is inadvertently released. Researchers will be encouraged to disseminate products of their research through publications and presentations while affording the appropriate credit to their partner's programs and personnel.
- 6. <u>WORK PLANS</u>. The specific work to be performed under this MOA will be set forth in Work Plans (WPs) agreed to by the parties. The funding party will provide no funds, materials, or services without an approved WP. Not all WPs will necessarily involve the exchange of funds. However, if funds are to be exchanged, a separate contractual agreement must be negotiated. If UPRM is providing funds to ERDC, it will be necessary to execute an Intergovernmental Cooperation Act Agreement. A sample is at Appendix B. If ERDC is providing funds to UPRM a research contract must be awarded under ERDC's Broad Agency Announcement or other appropriate contracting instrument. Each WP shall contain the following:
 - a. Project background, project description, and research objective.
 - b. A scope of work (SOW) detailing the work items to be accomplished by each participant, including the names of the principal investigators who will perform the work.
 - c. A complete description of project deliverables.
 - d. The funding, materials, and/or services required to accomplish the work.
 - e. A description of the obligations of the parties with respect to the requested funds, materials and/or services.
 - f. A description of project duration and milestones.
 - g. Identification of a Project Manager for each party.
- 7. <u>PROJECT MANAGERS</u>. ERDC and UPRM will each assign a Project Manager (PM) for each WP. These will generally be the ERDC and UPRM researcher(s) who developed the project. The PMs shall regularly meet, or otherwise communicate to
 - a. Schedule work to be performed pursuant to the specific WP.
 - b. Review and evaluate the progress of the work being performed.
 - c. Monitor the expenditure of funds.
 - d. Draft and coordinate publication and presentation of completed work.
 - e. Propose, draft, and coordinate the issuance of new WPs.
 - f. Coordinate with the POC from both ERDC and UPRM.

The PMs may make minor changes to a WP via written amendment to the original WP signed by both PMs. However, major changes (e.g., funding level or product delivery schedule) to WPs must be in writing and signed by authorized representatives of ERDC and UPRM.

8. POINTS OF CONTACT.

ERDC and UPRM will designate POCs to coordinate this agreement. Details of the envisioned duties are given in Appendix A.

a. UPRM

Name :	Ismael Pagán-Trinidad
Address :	Department of Civil Engineering and Surveying
	Box 9041
	Mayagüez, Puerto Rico 00681-9041

Email: <u>ismael.pagan@gmail.com</u> ; <u>ipagan@gmail.com</u>

b. ERDC

Name John M. Nestler, PhD

Address: Director, Environmental Modeling and System-Wide Assessment Center US Army Engineer Research and Development Center 3909 Halls Ferry Road Vicksburg, MS 39180-6199 Phone 601-634-2720

Email john.m.nestler@erdc.usace.army.mil

Name Carlos E. Ruiz, PhD

Address Technical Lead, Water Quality and Contaminant Transport Environmental Modeling and System-Wide Assessment Center US Army Engineer Research and Development Center 3909 Halls Ferry Road Vicksburg, MS 39180-6199 Phone 601-634-3784 Email carlos.e.ruiz@erdc.usace.army.mil

Either party may change its POCs at any time by providing written notice to the other POCs and to the signatories of this MOA

9. AMENDMENT, MODIFICATION, AND TERMINATION.

a. This agreement may be amended or modified only by written mutual agreement between the parties.

b. This agreement may be terminated or cancelled at anytime by mutual consent of the parties by giving at least 180 days advance notice.

c. Three years after the signing of this agreement, the parties will convene a formal review to assess its merits and provide a written report and recommendations to the ERDC Director and to the UPRM Chancellor.

10. DISPUTES. Any dispute arising under this Agreement which cannot be readily resolved shall be submitted jointly to the signatories of this Agreement with each party agreeing to seek in good faith to resolve the issue through negotiation or other forms of non-binding alternative disputes resolution mutually acceptable to the parties. A joint decision of the signatories, or other designees, shall be the disposition of such dispute. However, disputes arising under any contract awarded hereunder will be covered by the Contracting Disputes Act.

11. <u>EFFECTIVE DATE</u>. This MOA will be effective on the date when the last signatory has signed it

.For ERDC:

Jamés R. Houston, PhD Director

 $\frac{6/21/00}{\text{Date}}$

For UPRM:

Jorge Iván Vélez Arocho, PhD Chancellor

e 21, 2006

Date