

## **Proposed Great Lakes, Rivers, and Gulf Inter-Unit CESU Consortium Foundational Planning for Creation of Consortium and Kick-Off Gathering**

### **Membership**

The Great Lakes, Rivers, and Gulf (GLGR) Inter-Unit Consortium, as conceptualized, would be made up of four of the seventeen Cooperative Ecosystem Study Units – Great Lakes-Northern Forest, Great Rivers, Great Plains, and Gulf Coast. Given the geographically expansive area of the Mississippi River watershed, an initial corridor approach has been proposed as a manageable starting point. Eventually, the coverage and coordination could be expanded to include other CESUs that intersect the Mississippi River watershed (e.g., Rocky Mountains, Southern Appalachian Mountains).

### **Purpose**

The purpose of this inter-unit CESU consortium is to optimize collaboration on complex system-scale challenges and reveal an institutional arrangement and integrative synergy in support of Federal Agencies whose missions and programs contribute to informed policy and management of our nation's most critical and iconic large aquatic ecosystems.

This inter-unit cooperation could foster scalable efficiencies by engaging multiple partners and broad institutional knowledge around a shared set of research objectives. Thereby recognizing the potential contributions that CESU member institutions offer to support healthy natural systems and resilient human communities.

### **Mission**

A preliminary mission statement for 'organizing purposes only' of the Great Lakes, Rivers, and Gulf Inter-Unit CESU Consortium has been crafted as follows.

*To improve and disseminate the knowledge base for managing natural and cultural resources in the rapidly changing social, cultural, and environmental landscape of the Great Lakes, the Mississippi River Basin and Delta, and the Gulf of Mexico. When called upon, this body could also extend its expertise to national issues where appropriate.*

The Mid-continental region of the U.S. is home to America's central coast. The region is marked by a diverse array of prominent water features and sustains a rich maritime history and heritage from the Great Lakes, the length of the Mississippi River Valley, the Delta, and the Gulf of Mexico. The region presents challenges and opportunities for innovative and creative eco-regional resource management spanning numerous jurisdictions. The challenges of a modern society are complex and its principal drivers will demand coming to grips with resource scarcity, climate uncertainty, and a growing expectation for greater transparency and accountability. The nexus of water, energy, and food security present unique challenges for Federal program managers along the Great Lakes to Gulf riparian corridor. The GLRG Consortium presents a timely platform to support these challenges by bringing together the region's best scientific talent and scholarship to better inform decision making and management across social, cultural, economic, political, and environmental sectors.

Revitalizing communities and improving their ability to function sustainably with resilience will be aided by informed efforts that build capacity. Major research universities and community colleges can make a substantial contribution to this effort, particularly in a collaborative environment. Rebuilding communities of the future will include tackling key workforce development challenges at the community level to support the needs of a new economy. Likewise most waterside communities will benefit from enhanced risk management. Community college members of CESU units, as trusted community portals, have a unique role to play.

The GLRG Consortium and its member institutions are keenly positioned with capacities to aid in the development and transmission of knowledge to land managers, political and industry leaders, and others who need such information. The CESUs already conduct research, education, and technical assistance on both agency specific issues and on issues concerning areas of diverse jurisdiction and ownership. One of the CESU Network's demonstrated strengths is the ability to identify and manage activities that require efforts involving multiple partners.

## **Goals**

- Identify a stronger, more actionable role for CESUs in addressing challenges confronting social-ecological systems at multiple scales (e.g., integrated water resource management; local/regional food systems; workforce development; environmental and public health; monitoring/observation systems and data integration; climate literacy; community resilience).
- Foster inter-unit research, education, and technical assistance opportunities that are responsive to regional research, education, and technical assistance priorities.
- Facilitate opportunities for greater student research, internships, and capacity development activities aligned with the needs of participating CESU agencies and institutions.
- Coordinate with and leverage engagement and support from allied regional efforts and organizations.
- Advance the consortium toward an operationally effective and publicly visible organization whose activities and research outputs produce integrated rather than aggregated results.

### *Example of Abridged GLRG Consortium Goal Statement:*

Coordinate, facilitate, promote, and add value to large landscape stewardship to build resource and community resilience in the face of climate, resource scarcity, and other landscape-level stressors through the following key action areas:

- Support science development that enhances eco-regional decision making
- Effect enhanced communication, coordination, cooperation, and collaboration across institutional boundaries

- Inform and therefore empower stewardship and community action
- Monitor and evaluate performance and impact to support adaptive management

### **Objectives**

- Regionally strengthen the research, technical assistance, and education support provided to federal land management, environmental and research agencies and their potential partners utilizing a regional landscape platform that is system based.
- Identify and encourage a program of research, technical assistance, and education that involves the biological, physical, social, cultural, and engineering sciences needed to address resources issues and interdisciplinary problem-solving at multiple scales and in an ecosystem context.
- Place special emphasis on the working collaboration among federal agencies and universities and their related partner institutions across a landscape scale that can positively inform and influence greater natural system and community resiliency.

### **Function of a GLRG Consortium Host Institution**

- Serve the CESU Network National Office, the GLRG Consortium Steering Committee, and the four Member CESUs as a secretariat for the consortium.
- Develop and maintain a GLRG Consortium Website.
- Provide the GLRG Consortium CESUs file updates in coordination with the CESU National Office, showcasing consortium-supported activities and meeting proceedings.
- Facilitate enhanced regional cooperation and integration of research activities by establishing a forum for consortium member units to address landscape scale challenges and opportunities collaboratively.

### **Initial Considerations Regarding GLRG Consortium Landscape-Scale Science Priorities, A Starting Point**

- Aquatic integrity and source water protection
- Climate resiliency and community risk abatement
- Habitat connectivity and floodplain management
- Community capacity building and workforce development
- System monitoring, performance assessment, and data integration
- System resiliency education and outreach
- Partnership development
- Comprehensive planning technical support and assistance