

## **FINAL PROCEEDINGS**

### **Proposed Great Lakes, Rivers, and Gulf Inter-Unit CESU Consortium**

**March 29-30, 2016**

**National Great Rivers Research and Education Center**

**East Alton, IL**

#### **I. WELCOME AND OPENING REMARKS**

Brief welcoming remarks were provided by Dale Chapman, President of Lewis and Clark Community College and Chair of the National Great Rivers Research and Education Center (NGRREC) who questioned if community colleges can escape their traditional workforce boxes and broaden their approach and scope to include research activities such as those related to the CESU network.

Opening remarks were delivered by Tom Fish, National Coordinator for the Cooperative Ecosystems Studies Units (CESU) Network, who provided some initial context for the meeting's participants. The day's challenge included exploring the potential for greater use of the CESU network via a consortium of member organizations strategically aligned around the Great Lakes, Mississippi River Basin, and Gulf (GLRG).

Tom mentioned a GAO report on Climate Change 'Agencies Should Develop Guidance for Addressing the Effects on Federal Land and Water Resources' (GAO-07-863, <http://www.gao.gov/assets/270/265207.pdf>) that stressed the need for increased agency collaboration and identified the underutilization of the CESU network.

Tom expressed a desire to design a platform and identify a possible proof of concept for a GLRG Inter-Unit CESU Consortium and introduced some existing models of unique collaboration that achieved success in attracting resources including the Southeast Regional Partnership for Planning and Sustainability (SERPPAS) and the Great Lakes Restoration Initiative.

The consortium would be designed to attract additional resources under the three legs of the CESU (Research, Technical Assistance, and Capacity Development/Education) while being responsive to multiple drivers in the region, such as sustainable water resource management or renewable energy.

#### **II. PANEL 1: CESU HISTORY IN THE MID-CONTINENT US – OUTPUTS, OUTCOMES, OPPORTUNITIES**

The morning panels consisted of brief overviews and histories of efforts and experiences in partnerships within the mid-continental CESU regions (Great Lakes-Northern Forest, Gulf Coast, Great Rivers, Great Basin, Great Plains, Rocky Mountains).

### ***Great Lakes-Northern Forest CESU***

Dr. Mae Davenport spoke on behalf of the Great Lakes-Northern Forest CESU regarding their interest in communities and resilience against climate change and efforts at engagement with federal partners, and agencies. Founded in 2002, most of the unit's projects have been NPS efforts, and its current cooperative agreement runs through 2017.

Community resilience was identified amongst the unit's opportunities for research, particularly in relation to climate change impacts, environmental and social justice. The unit also recognizes the need for community based research and ecosystem management, and is looking to the inter-unit consortium concept as a potential opportunity for growth in these areas.

### ***Gulf Coast CESU***

Dr. Giselle Mora-Bourgeois, NPS Coordinator for the Gulf Coast CESU, provided an overview and brief description of the unit, which has over 50 members including unique federal partners like NASA. Giselle identified the Department of Defense (DoD) as the most active partner of the Gulf Coast CESU.

The Gulf Coast CESU currently has a collaborative effort around the issue of Gulf Hypoxia, and Giselle provided a handout on the Mississippi River Basin Multi-LCC and Hypoxia Joint Initiative.

Giselle used the Deep Water Horizon Oil Spill to illustrate a great example of the sudden response capability of the CESU, as it easily facilitated the process of identifying available experts at partner institutions and deploying a response to the major ecological emergency. In this case, several Gulf Coast CESU agreements sped up the development and deployment of training programs through the USFWS training center to respond to the oil spill. Speed can be overlooked as an advantage of the CESU system, and the mechanism allowed for rapid activation of partners and quick allocation of funding.

Giselle also identified a unique CESU inter-mountain unit program based around the recruitment and training of law enforcement rangers (ProRanger Program) in order to help the ranger workforce better reflect the diverse communities they serve. Recruits from community colleges, universities, tribal colleges and HBCUs, enroll in the two-year (two summer long) program consisting of classes taught by NPS employees (first summer at a NPS site) and on the job law enforcement training (second summer on the job law enforcement training), resulting in immediate placement into jobs as law enforcement rangers.

### ***Great Rivers CESU***

Dr. Jill Findeis, Director of the Great Rivers CESU, described the transitional period for the Great Rivers unit after recent significant retirements as the host (University of Missouri). The changes have helped to identify important trends and issues, including demographic shifts with an aging workforce and the need to ensure data is collected and maintained as researchers retire.

Jill identified the Great Rivers' Midwestern geographical region as at the center of global food security, production, and availability. Recognizing the importance of promoting science through public engagement, the unit has identified growth potential for research on food production and availability and its relation to ecosystem services and ecological management. The unit also recognizes the inter-unit consortium and the collegial nature of participating units as an opportunity for additional personal interaction rather than procedure-based institutional interaction.

### ***Great Rivers CESU Success Stories: NGRREC/USACE-STL***

Dr. Lyle Guyon, Terrestrial Ecologist at the National Great Rivers Research and Education Center (NGRREC), discussed his efforts in establishing the terrestrial ecosystem monitoring program as a counterpoint to traditional aquatic ecosystem monitoring programs along the river. Working in collaboration with Charles Deutsch at the U.S. Army Corps of Engineers (USACE) Rivers Project Office, the program began as an offshoot of the USACE's EMP program, but in Fall 2011 transitioned to using the CESU as a mechanism prompting NGRREC to join the Great Rivers CESU (via Lewis and Clark Community College). Administratively, this effort found more flexibility and discretionary funding as it aligned with USACE's project operational community, working at the project level with Corps natural resource managers.

Dr. Guyon described his own experiences with CESU work products and his direct experience with Corps task orders. Initially developed as a four year project, the CESU provided the flexibility to embark on a long running research project with annual agreement modifications. The project includes habitat assessment and forest resources inventory, as well as CRP technical assistance for landowners through preparation of conservation plans and assessment of CRP management practices. Both Guyon and Deutsch expressed desire to promote the CESU as a mechanism within areas of the USACE where it is not currently being utilized.

Charles noted the USACE has 450 projects across the country, which makes partnership essential to maximizing available resources. Noting the success of past partnerships, both expressed interest in the concept of a Mississippi River related inter-unit consortium to better support Federal program managers operating in the Mississippi River Basin on larger system-scaled water resource challenges.

### **III. PERSPECTIVES FROM OTHER CESU REGIONS**

#### ***Great Basin CESU***

Maureen McCarthy, Director of the Great Basin CESU, connected via phone to provide an overview of her experience with the Great Basin Consortium ([environment.unr.edu/consortium](http://environment.unr.edu/consortium)). Established in order to streamline efforts in the Great Basin, the consortium consists of six organizations where the Great Basin CESU is a member (GB-CESU Cooperative Ecosystem Studies Unit; GB-EP Environmental Program; GB-LCC Landscape Conservation Cooperative; GB-NPP Native Plant Project; GB-RMP Research and Management Partnership; GB-FSE Fire Science Exchange Project).

The consortium holds an annual conference where each member organization also holds their annual meeting (resulting in cost and time savings). The consortium maintains a strong relationship with the LCC and facilitates resource leveraging while avoiding duplication of effort. Challenges include the lack of resources for a full time director for the consortium (Maureen is in a non-teaching administrative position which gives her additional time to devote to CESU, which is not commonplace for all units) as well as the need to include socio-economic and cultural studies in these “landscape” platforms.

Maureen identified the compatibility of the CESUs, with its access to science, and the LCCs, with their landscape mission. In the consortium, the CESU serves as both a convener and mechanism to get work done.

Maureen cited the importance of location in selecting a host institution for any consortium; in her case, her location at Reno is optimal for their consortium. A Mississippi River Basin Consortium needs to find the right central location for making interpersonal interaction with members less of a burden both logistically and financially.

### ***Bureau of Indian Affairs (BIA)***

Rachael Novak, Climate Science Coordinator at the Bureau of Indian Affairs (BIA), noted that the BIA is involved with five different CESU units and are currently trying to raise awareness about BIA’s membership in the CESUs. There are currently only six Tribally Controlled Universities (TCU) that are members of the CESU, but the BIA is working on a series of webinars to help connect TCUs with national research and education resources including the CESUs.

Rachael noted the CESU is a useful mechanism for tribes to use to leverage BIA resources, and is hoping tribes and TCUs can be made aware of the opportunities to partner with BIA regional offices on developing ideas for projects in these regions. The BIA plans to join 14 of the 17 units, but to date have only worked with the Colorado Plateau unit on a tribal climate change education and training plan.

Dr. Richard Warner, Senior Scientist at NGRREC, asked Rachael about the potential role BIA could play in gaining traction with ideas that might involve tribal nations and their infrastructure. Rachael responded that the BIA could help facilitate introductions to regional points of contact that work closely and regularly with tribes on the ground.

### ***Great Plains CESU***

Dr. Larkin Powell, Director of the Great Plains CESU, provided a handout that noted the challenge of limited resources and funding due to a lack of public federal lands in the Great Plains as compared to other CESU regions as well as challenges with turnover of staff assigned CESU duties at the unit’s partners. The region’s wildlife or natural resource conservation projects are limited to efforts on prairie lands. The unit recognizes the future of its landscapes is

highly influenced by agricultural commodity prices, with agricultural trends and global food production continuing to shape plans for the near-future.

The amount of money that flows through the CESU is limited in the region, so Larkin expressed interest in the potential for increasing those resources via inter-unit consortium. Dr. Tanya Shenk, National Parks Service (NPS) Research Coordinator for the Great Plains CESU, noted attempts to coordinate efforts between the three units within the Midwest region of the National Parks Service (GL-NF, GP, GR).

Tanya noted NPS efforts to identify new partners, participate in inventory monitoring, and provide feedback to enhance research proposals. The NPS excels at public engagement for the small amount of NPS sites in the region, and could bring these strengths to the table for the inter-unit consortium effort, particularly if based around a unifying theme.

### ***Rocky Mountains CESU***

Lisa Gerloff, Executive Coordinator for the Rocky Mountains CESU, discussed the Rocky Mountains location on the periphery of Mississippi River Watershed in relation to the focus of the potential inter-unit consortium. The unit maintains interest in engaging its four member tribal colleges, and has found it difficult to engage small non-research based colleges and community colleges regionally. Lisa expressed hope that an inter-unit consortium could serve as opportunity to engage tribal colleges with an entity that is not as focused on federal agencies.

### ***National Parks Service: Healthy Parks, Healthy People***

Diana Allen provided an overview of the NPS' Healthy Parks, Healthy People Program. Healthy Parks, Healthy People is an initiative to connect people to nature through health promotion; where natural and cultural resources are packaged and promoted as health resources. These resources include healthy and sustainable foods (food sheds and food systems), healthy recreation (how do resources used to promote recreation help people reconnect to nature), and healthy habitats (both the built and the natural environment).

## **IV. DAY ONE FACILITATED SESSION – COMMUNICATING EXPECTATIONS FOR A REGIONAL INTER-UNIT CONSORTIUM**

The facilitated afternoon session, led by Bill Kruidenier, Associate Director at NGRREC, discussed themes including: identifying the key attributes of both the existing CESU units and a potential inter-unit consortium, emerging challenges to the region and system, opportunities within existing programs, and scoping of resources needed to build an inter-unit consortium. The group also discussed launching an inter-unit consortium and considered possible proof of concept projects.

The group observed that an inter-unit consortium could leverage the existing CESU structure's added potential value: the CESU is cost effective with an efficient administrative structure, and is responsive spanning multiple disciplines. The group considered how to make a case for

funding and promotion of the CESU to the drivers of the federal agencies with resources and noted that a unique area of focus was needed.

In addition, in order for a consortium to be effective it needs to have a strong foundation built upon a mission with a vision, goals and objectives, rather than be focused around the energy of individuals who can leave the project at any time. The consortium needs to give priority to opportunities that add value (beyond efficiency and engagement) with the potential to bring in additional resources. It was also suggested that the CESUs tend to react to requests, whereas a consortium could be more proactive in its role as convener and facilitator of system-scale problem solving.

The group questioned if a new organizational structure was needed or could the consortium be an ad hoc arrangement acting as a facilitator, forum or broker to provide new opportunities for all units. In addition to the efficiency and simplicity of the mechanism, education and public awareness are central to the spirit and appeal of the CESU making them unique amongst others coalitions (such as the LCCs). CESUs uniquely recognize and focus upon the people that exist within the landscape that form their geographical boundaries. The opportunity exists for the consortium to reflect these characteristics and for the CESU to grow beyond land management technical support.

A larger consortium would allow for CESU projects to address bigger picture problems and common issues where permanent solutions are difficult without collaboration. The program was formed to engage and foster partnerships and a larger coalition could provide greater opportunities across a broader spectrum. Such a consortium could also serve a complimentary role to the efforts of LCCs and other multi-agency regional and system initiatives.

The group quickly arrived at a consensus that considerable focus needed to be placed on identifying strong candidates for “proof of concept” projects that could serve as a launching device for an inter-unit consortium. Candidates mentioned included:

- Expansion of the MRTDL platform as a viable, proven successful coalition
- Training program for federal managers with focus on pre-service, in-service, and professional development

Several comments suggested that participants needed to consider additional proof of concept candidate projects to reveal the broad capacity of the consortium and its CESU members.

## **V. DAY ONE EVENING SESSION**

### ***MRTDL and the Mississippi River Community College Consortium***

Remarks provided by Brett Reinert, Project Director, MRTDL; Stephen Long, Associate Vice Chancellor, St. Louis Community College; and, Troy Courtney, Director, Inland Logistics and Marine Institute, West Kentucky Community and Technical College

The purpose of MRTDL<sup>SM</sup> (Mississippi River Transportation, Distribution & Logistics) Consortium is a collective effort to bring together the expertise and resources of industry, education, government and local communities to close the gap between business' need for highly skilled workers and workers' need for high wage, high skilled and sustainable jobs.

The Impetus for MRTDL was a TAACCCT (Trade Adjustment Assistance Community College and Career Training) grant from the U.S. Department of Labor. The American Association of Community Colleges (AACC) facilitated early discussions to bring together a consortium of nine community colleges along the length of the Mississippi River corridor. Community colleges typically operate rather independently within their respective geographic districts. The Mississippi River Community College Consortium in operating across district boundaries at great distances are proving the value and power of regional cooperation.

The MRTDL Initiative and the Mississippi River Community College Consortium view the Mississippi River corridor as an eco-regional platform that forms the unifying system purpose for our activities. Nine colleges in eight states make up the Consortium, stretching from the river's headwaters to the Gulf. At least one college is located in each of the six Corps of Engineer Districts of the Mississippi Valley Division. Each partnering college practiced at serving their individual communities, adept at public and industry engagement, and a community leader in advancing local and regional economic development strategies.

We know that barges will be coming north to our ports. Grain from our northern states will make its way south on those same barges. Highways crisscross the river. Large and small communities follow the river and are challenged to support the corresponding needs in river work and other essential transportation work that can drive commerce in these communities.

We also know that addressing ecological needs of the river corridor and our watershed is driving career needs to sustain the ecological services of the system and the corresponding training and education to support those careers that will support a new regional economy.

In a very short time, this consortium has already demonstrated it can be extremely successful supporting industry needs – needs that are relevant to rebuilding vibrant livable communities and economies that complement a healthy natural system.

In its short existence, the MRTDL grant has already successfully developed or improved over 30 programs of study. Thirteen new programs have been created and seventeen programs now have expanded capacity. New arrangements have been instituted to develop stacked and latticed credentials; responding quickly to the changing needs of industry and employers while allowing for easy re-skilling and up-skilling. MRTDL has also developed new capacity for issuing credit for prior learning. Perhaps, most importantly, we have developed infrastructure and relationships to cooperate and communicate more effectively across the corridor.

Looking ahead, the Mississippi River Community College Consortium is already looking beyond our current MRTDL program and focusing on challenges to build out our consortium platform to address emerging basin challenges, where the role of the community colleges as trusted and

capable community portals can be leveraged and brought to bear on a variety of basin challenges demanding timely and scalable responses.

### ***State Perspective on Big Rivers Science and Policy***

Illinois State Senator Andrew Manar made keynote remarks during the dinner program focused on the community college role in workforce development and the role of workforce development in regional economic recovery and community resiliency.

Sen. Manar opened his remarks by pointing to four key needs important to legislating. The need for strategic regional collaboration, the need for science to inform sound policy, the need to integrate workforce development into regional policy decisions, and the need to measure and quantify the impact of decisions of government.

Sen. Manar stated that since being elected to the Illinois Senate in 2012, he has become more aware of the role of community colleges in workforce development and the linkages between higher education and the economy. He has personally witnessed how progressive community colleges in Illinois are taking that relationship one step further by linking workforce development to green jobs and the green economy. He stressed the value of having every expenditure of every state dollar for higher education viewed through the lens of workforce development and economic impact.

He cited the National Great Rivers Research and Education Center (NGRREC), where the group met earlier in the day, as a useful example. Without a doubt, NGRREC has a profound impact on promoting the science of big rivers, scientific research, and water policy, not just in Illinois, but also across the region, our country, and even across the globe. But, beyond just science, its economic impact and its ability to tie its activities directly to workforce development is equally, if not more profound.

He pointed out that if we could just get workforce development right, how that alone would transform our economy and at the same time transform our environment. And, in our regional economy, how different our regional economy would be if we could work together on jobs that are green and sustainable. That would lead to a better quality of life, more sustainable and resilient communities, and a growing (not shrinking) middle class.

He reinforced the value of a regional CESU inter-unit consortium and the continued efforts of institutions of higher education to work across state lines and collaborate on workforce development, while linking their efforts to a green, sustainable economy – all key elements to regional economic success and viability. Most importantly, he called attention to the opportunity to use our natural systems as the basis for planning workforce development and smart growth.

At this point, he turned his remarks toward the role of science in better informing public policy especially when it comes to rivers and water systems. He stated that during a time of limited resources, coupled with a demand from taxpayers to get as much bang for their buck as possible, science driving public policy decisions has never been more critical.



Too often emotion is the only factor driving decision-making, both small decisions and large-scale decisions. The emotional approach too often times leads to uniformed decisions that end up costing public bodies much more than necessary in the short and long term. And, this leads to poor results, which leads to angry taxpayers who lose faith in their government to make good factual decisions based on science and a rational approach.

He commended the group, pointing out how NGRREC and the proposed consortium can each play a pivotal role in providing science and data and those pesky little things called “facts” to State governments facing critical questions. And by extension, we have an incredible opportunity, to use science as a driving factor to link workforce development to green jobs, a more sustainable economy, and economic growth in our region of the country.

For his final point, he turned to the importance of regional collaboration. Local governments are strained, the state government is starved for resources, the federal government is looking for partners to help better connect it to the communities it serves. Collaborative partnerships help to keep the costs down, making the greatest use of available resources, bringing a greater degree of legitimacy to any conversation on public policy, and bringing differing perspectives to a common table.

He offered that having working collaborations between the public and private sector, between higher education institutions and government agencies, between local, state, and federal government and between states that share a common geography and common goals has to be part of the path forward, especially when it comes to managing common and shared natural resources like water and rivers and ecosystems and things that don’t fit tightly and conveniently into our political subdivisions and political structures.

He concluded pointing out that because of the confluence of the great rivers...the Missouri, Illinois, Ohio, Wabash, and the Mississippi and our connection to the Great Lakes and the Gulf, Illinois is uniquely situated to play a pivotal role in great rivers research.

## **VI. DAY TWO (MORNING SESSION) / BRIEF RECAP OF DAY ONE AND TODAY’S OBJECTIVES**

The second day opened with a review of the first day’s conclusions including key themes and threads, and common understandings regarding formulation of a consortium.

### ***Continuation of Scoping Effort***

Dr. Guyon restated the value of having multiple pilot projects rather than just one proof of concept. He suggested a slate of projects chosen to emphasize the breath of the CESU’s capacity while focusing on a subset of key thematic projects and work products.

Tom Fish recalled the three pillars of the CESU program (Research, Technical Assistance, and Capacity Development/Education) and noted that pilot projects could be bound to these core principles or a central theme of capacity building. Additional possibilities for core principles or central themes included resilient natural systems and resilient communities.

The group discussed how to address community needs while building local capacity where local capacity building means community empowerment. The group identified the importance of “caring” (i.e. caring for water resources, caring for community, caring for each other) and the importance of establishing a sense of place.

The “watershed perspective” was discussed, emphasizing the nesting of local actions in a larger system perspective to ensure federal relevance and resources; this would include engaging the whole watershed. Themes such as the nexus of water-energy-food security are becoming priorities for federal agencies. The possibility exists for public challenges based on climate instability and resource scarcity emerging as change drivers.

Pat McGinnis commented on the MRTDL platform and its river corridor approach noting the proven advantage of first establishing a foothold within watersheds and communities where the connection with water was most obvious and visceral (waterside communities; i.e. oceanside, gulfside, bayside, lakeside, or riverside).

Troy Courtney, MRTDL representative from West Kentucky Community and Technical College, commented on performance measurement metrics and their importance going forward for technical and workforce training as well as grant evaluation. The group discussed education and the need for training for new skill sets (NSF/IGERT).

## **VII. NEXT STEPS AND WRAP UP**

### ***Consideration of a More Formalized Structure***

The structure of the consortium was discussed with the MRTDL consortium being questioned as a valid proof of concept because it is a finite program based on duration of a grant. Brett Reinert quickly clarified that the proof of concept would not be the MRTDL grant, but rather the nine Community College Consortium, oriented over the length of the Mississippi River that produced MRTDL and could produce future innovative opportunities in workforce development and other areas.

The group recognized that an inter-unit consortium of any type would require a structure and champions to push the concept forward. The group noted that any consortium would benefit from identifying affinity groups and partners who recognize the value of the consortium and would assist in supporting its development.

The group was presented with a possible starting point for a purpose or mission statement from the pre-read document titled “*GLGR Consortium Overview & Agenda.*” Those present quickly settled on a statement “to optimize collaboration, communication and collaboration on complex system-scale challenges.” It was agreed that this statement would require additional work but it would serve as a good starting point.

Theresa Coble commented on having a “strawman” organization conceptualized by June 2016 in order to discuss further at CESU’s Annual National Meeting. Larkin mentioned showcasing the

concept to the 2017 Midwest Fish and Wildlife Conference and the group was quickly able to identify other opportunities for presenting and discussing the consortium concept. The group decided an event calendar would be created to identify opportunities to share the concept with a larger audience. Facilitators to setup a shared webpage through Google. This webpage will provide a forum for the group to share and access information.

## MARCH 29-30, 2016 FINAL ATTENDEE LIST

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