SCIPP
A NOAA RISA TEAM

Southern Climate Impacts Planning Program
LSU: 225.578.8374 | OU: 405.325.7809
scipp@mesonet.org | www.southernclimate.org

February 2, 2016

Caitlin Simpson
Director, RISA Program
NOAA Climate Program Office
315 East-West Highway, Building SSMC-3
Silver Spring, MD 20910

Dear Caitlin,

I have spoken with Rezaul Mahmood concerning his submission of a RISA proposal that would include Kentucky, Tennessee and Ohio, and Indiana. I strongly support his initiative and if his proposal is selected, SCIPP would be willing to transfer Tennessee to his region.

As you know, SCIPP is by far the largest area of any of the RISA teams. As was discussed at the last SCIPP annual advisory committee meeting, because of its distance from both Norman and Baton Rouge, it is difficult for us to have substantial direct interaction with stakeholders in Tennessee. Those stakeholders would be better served by another RISA team in closer proximity to them, particularly with Vanderbilt as part of their proposed team. Furthermore, Tennessee has more in common with the focus of the proposed new RISA on climate, water, energy and transportation.

SCIPP will continue to include Tennessee in any new products and tools we develop, as we try to make these tools cover the entire service area of our Southern Regional Climate Center partner. This also presents opportunities for cross-RISA projects in Tennessee and an ability to study diffusion of information across institutional providers.

I have worked with Rezaul for many years and know that he is an excellent researcher and understands the challenges of providing climate services and stakeholder engagement. I am confident that he will assemble a strong team that will quite capably be able to address the concerns and needs of stakeholders in Tennessee.

Please let me know if you have any concerns or wish to discuss this with me or the SCIPP team.

Sincerely.

Mark A. Shafer

Mark Shafer
Director, SCIPP

Louisiana State University
Geography and Anthropology Dept.
Howe-Russell Building
Baton Rouge, LA 70803

The University of Oklahoma
Oklahoma Climatological Survey
120 David L. Boren Blvd. Suite 2900
Norman, OK 73072

Texas A&M University -
Dept. of Geography
University of Nebraska-Lincoln
National Drought Mitigation Center

BGMU Bowling Green Municipal Utilities
CONNECTING BOWLING GREEN

February 5, 2016

Rezaul Mahmood PhD.
Professor
Dept. of Geography and Geology
Associate Director, Kentucky Climate Center
Associate Director, KY-Mesonet Project
Co-Director, WKU-High Performance Computing Center
Western Kentucky University
Bowling Green, KY 42101

Subject: RISA Proposal

Dear Dr. Mahmood:

I am writing in support of your RISA proposal to the Midwest Climate, Water, and Energy Consortium. Bowling Green Municipal Utilities (BGMU) is engaged in discussions and planning for potential drought and other climate changes that could impact the public water supply and general water resources in Bowling Green, Warren County and Western Kentucky. I understand that your proposed study will evaluate extreme climate conditions as they affect the water-energy nexus. This study could be very beneficial in BGMU's planning efforts to provide reliable and affordable long term water and wastewater service to our community. BMGU serves approximately 130,000 people through retail and wholesale water sales. As the community grows additional demands will be placed on our water resources. Better understanding and planning for extreme climate conditions is a very important part of our efforts. Please let me know how we can support your study and integrate your findings into our long term utility planning.

Sincerely,

Michael R. Gardner, PE
Water/Wastewater Systems Manager
BGMU

Cc Mark Iverson, BGMU

BARREN RIVER
BRADD
AREA DEVELOPMENT DISTRICT

GREG WILSON, Chair
MARK STRATTON, Vice Chair
STEVE THURMOND, Secretary
TOMMY WILLETT, Treasurer
RODNEY KIRTLEY, Executive Director

Rezaul Mahmood, PhD
Professor, Department of Geography & Geology
Western Kentucky University
Environmental Science & Technology 359
1906 College Heights Blvd. #31066
Bowling Green, KY 42101

Dear Dr. Mahmood:

I am writing on behalf of the Barren River Area Development District (BRADD) to express our support of and enthusiasm for your RISA proposal to research climate variability in the Midwest and its implications for climate change adaption and mitigation and water resource management. We believe this inquiry will produce valuable information that will positively impact economic development in our region.

Community and economic development is at the heart of BRADD's mission. The data collected through the proposed research will better inform our staff on issues affecting the region's economy, and will facilitate decision-making by our planners and development specialists, in coordination with local officials, to mitigate the effects of climate change. We are also responsible for managing and updating a regional hazard mitigation plan. The projections produced by you and your colleagues will allow us to better understand natural hazards that will impact our region and should enable us to better prioritize hazard mitigation projects.

We applaud the content of your research and the policy-oriented approach to disseminating your results. The proposed strategy for engagement of stakeholders should be successful in both educating decision-makers and laying the foundation to develop tools and strategies to prevent the knock-on effects of climate change predicted to impact the Midwest. By focusing on effective communication with interested parties, we believe that this study could have a tremendous impact on policy formulation and implementation in South Central Kentucky.

We look forward to hearing about the progress made in your research. Best of luck with your application!

Sincerely,

Rodney Kirtley
Executive Director

177 GRAHAM AVENUE BOWLING GREEN, KY 42101 TELEPHONE 270-781-2381 FAX 270-842-0768

MRCC
Midwestern Regional Climate Center

2204 Griffith Drive
Champaign, IL 61820-7495
Telephone: (217) 244-8226
Telefax: (217) 244-0220
Web: http://mrcc.isws.illinois.edu

February 7, 2016

Dr. Rezaul Mahmood, Professor
Department of Geography and Geology
Kentucky Climate Center and KY-Mesonet Project
Western Kentucky University
Bowling Green, KY 42101

Dear Dr. Mahmood:

I enthusiastically support your RISA project, "Midwest Climate, Water, Energy, and Transportation (MCWET) Consortium". The Midwestern Regional Climate Center (MRCC) has a long record of engaging stakeholders and communicating science. We also value our long-term partnership with you in connecting with our stakeholders in Kentucky and the Midwest region. Our monthly conference calls with you on various aspects of providing climate services to our stakeholders are always valuable. As you know, the Midwest is an important region for national economy and hence climate resiliency is critical not only to maintain economic stability in the region but also for future growth.

If funded, the MRCC will collaborate with you in engaging the stakeholders in our region, communicating results and in introducing various decision tools you plan to develop. I am looking forward to hearing from you on whether you and your team receives the funding. If you have any additional questions, please feel free to contact me.

Sincerely,

Beth Hall

Beth Hall, Ph.D.
Director, Midwestern Regional Climate Center
University of Illinois

WKU

A Leading American University with International Reach

February 12, 2016

Dr. Rezaul Mahmood
Department of Geography and Geology
Western Kentucky University
1906 College Heights Blvd, #30166
Bowling Green, KY 42101-1066

Dear Dr. Mahmood:

Kentucky, a state that is a net exporter of energy, is impacted by climate variability and concerned about impacts of a changing climate on its water resources and energy-based economy. I strongly support the RISA proposal to create the Midwest Climate, Water, and Energy Consortium. Funding to create this consortium will fill a void within the Midwest, and frankly such a proposal is long overdue. In the remainder of this letter, I will highlight the need and how the proposed RISA would benefit the Kentucky Climate Center.

In April of 2012, I participated in a workshop, *Alternative Climate Normals and Impacts to the Energy Industry*, hosted by the National Centers for Environmental Information. Participants from both the public and private sectors highlighted the complex, dynamic linkages between climate and energy. The need for high-quality, reliable data and information products and tools became evident through presentations and discussions involving engineers, economics, consultants, and regulators within the energy sector.

The Midwest is a major producer, supplier, and consumer of energy and has enjoyed a comparative advantage in the ability to produce energy at low cost. This in turn has helped to form a strong industrial economy centered on energy-intensive manufacturing and assembly facilities, particularly in the metals and auto industry. Therein, the continued ability to produce and deliver energy in a cost-efficient manner is vital to support the regional economy. The natural variability of climate however, in conjunction with projections of climate change, create challenging decision scenarios for decision makers throughout this system of energy producers, distributors, and consumers. Further, changing environmental regulations and market conditions highlight the need for a consortium dedicated to developing and providing specialized data and information tools and products for decision makers.

Peaks in demand for energy tend to be closely related to drought and heatwaves. Therein, the ability of energy producers and distributers to meet regional demand and export energy to meet demands elsewhere across the United States, is strongly influenced by the magnitude of climate variability on an operational timescale and climate change on a strategic planning timescale in the capital-intensive energy industry. The payoff from the proposed consortium could be a stronger regional economy, while the inability of decision makers to effectively manage risk associated with the uncertainties of climate could have adverse long-term implications.

The Kentucky Climate Center has a long history of providing weather and climate services. In addition to providing historical data, outlooks, and information about climate-related issues, I have developed contacts with both energy producers and distributers across the Commonwealth of Kentucky. In many cases, municipal utilities are responsible for serving local markets for both water and energy. During periods of summertime drought, both water and energy demand frequently reach peak levels simultaneously. The ability of those utilities to meet demand and do so in the most efficient manner depends upon the availability of weather and climate data used to place demand into historical perspective and to forecast demand peaks on a monthly basis well into the future. As smart-grid technology creates opportunities to enhance efficiency of energy production and consumption, the need for effective information tools and products is accentuated. The proposed RISA promises to greatly expand our ability to strengthen relationships across the energy sector in Kentucky by providing information products and tools that are tailored to the needs of producers, distributors, and consumers of energy. While benefitting the Kentucky Climate Center, the ability to enhance the quality of decision making throughout the energy sector promises to create efficiencies and strengthen the state's economic base. Again, I strongly support this proposal and look forward to the opportunity to work in partnership with the consortium.

Respectfully,

Stuart A. Foster, Ph.D.
Professor of Geography
State Climatologist for Kentucky

University of Nebraska Lincoln

SCHOOL OF NATURAL RESOURCES
National Drought Mitigation Center

February 2, 2016

Dr. Rezaul Mahmood, Professor
Department of Geography and Geology
Associate Director, Kentucky Climate Center and KY-Mesonet Project
Co-Director, WKU-High Performance Computing Center
Western Kentucky University
Bowling Green, KY 42101

Dear Dr. Mahmood:

I am writing to express my enthusiastic support for you and your colleagues on your proposal ***Midwest Climate, Water, Energy, and Transportation (MCWET) Consortium*** for ***Regional Integrated Sciences and Assessment (RISA)*** being submitted to NOAA's Climate Program Office. We look forward to continuing to work with you and your team if this project is funded. As the Director of the National Drought Mitigation Center (NDMC), I have had multiple opportunities to interact and work with you and your MCWET Consortium colleagues over the years and I appreciate the significant contributions you especially have made on multiple climate-related projects and research, and especially those dealing with drought.

The Midwest is a key region when considering the climate-water-energy-transportation nexus highlighted by your proposal. Climate extremes occurring within the region, including droughts and floods, will certainly have global implications in the future. Because droughts and extreme climate events will continue to impact society, and because of preparing and responding to these events is complex, partnerships will be especially important. The NDMC looks forward to partnering with the MCWET Consortium on a variety of projects (continued participation on the weekly U.S. Drought Monitor assessment, for example) and stakeholder interactions. The NDMC can also assist, given our wide variety of networks and audiences, on the transferability and dissemination of some of your results that might be relevant beyond the U.S. Midwest. In addition, I would also be honored to serve on a MCWET Consortium Advisory Committee.

I look forward to hearing whether this extremely valuable project receives the funding you have requested. If you have any additional questions for me, please feel free to contact me at (402) 472-4271 or "mhayes2@unl.edu".

Sincerely,

Michael J. Hayes

Michael J. Hayes, Ph.D.
Director, National Drought Mitigation Center
Professor, School of Natural Resources

3310 Holdrege Street / 819 Hardin Hall / P.O. Box 830988 / Lincoln, NE 68583-0988
(402) 472-4271 / FAX (402) 472-2946 / E-mail: mhayes2@unl.edu / http://drought.unl.edu

Southeast Climate Science Center

U.S. DEPARTMENT OF THE INTERIOR
NORTH CAROLINA STATE UNIVERSITY
127 David Clark Labs
Campus Box 7617
Raleigh, North Carolina 27695-7617
919-515-7687

9 February 2016

Rezaul Mahmood PhD.
Professor, Dept. of Geography and Geology
Associate Director, Kentucky Climate Center
Associate Director, KY-Mesonet Project
Co-Director, WKU-High Performance Computing Center
Western Kentucky University
Bowling Green, KY 42101

Dear Rezaul,

The RISA proposal from the Midwest Climate, Water, Energy, and Transportation Consortium (MCWET) has my strong support. The MCWET program will be a great resource for climate adaptation planning and action in Tennessee, Kentucky, Ohio, and Indiana, also for other states within the spatial domain of the Department of the Interior's Southeast Climate Science Center.

Both of the proposed MCWET program goals match priorities of the SECSC. Societal response to climate extremes is a challenge throughout the Southeast, and the proposed focus on effective decisionmaking in water resource management, in particular, is something that will be very helpful to the Landscape Conservation Cooperatives. I am excited and supportive of your proposed emphasis on alternatives to the "loading dock" model of science communication. As the Climate Science Centers explore how to involve decisionmakers and stakeholders in a co-production science model, we need additional, research based understanding about how communication approaches help or hinder co-production.

As the Director of the USGS Southeast Climate Science Center, I am looking forward to collaboration with the MCWET program. Best wishes for success with your proposal.

Gerard McMahon, Ph.D.
Director, Southeast Climate Science Center

CLIMATE CHANGE SCIENCE INSTITUTE
OAK RIDGE NATIONAL LABORATORY

PO Box 2008 MS-6301
Oak Ridge, TN 37831-6301
(865) 574-5767 | fellowsjd@ornl.gov

12 February 2016

Dear Dr. Mahmood:

On behalf of the Climate Change Science Institute (CCSI) at Oak Ridge National Laboratory (ORNL), it is my pleasure to write in support of your proposal for a new NOAA RISA Center – *Midwest Climate, Water Resources, Energy, and Transportation Consortium* (MCWET). We are quite familiar with the important role that the RISA program has played since its inception in making information on climate variability and climate change useful for stakeholders. We view the proposed new RISA as an excellent opportunity for CCSI to develop new partners and collaborators through which our scientific resources and capabilities can be used to help inform decision-making on climate risk management in our region.

As you know, CCSI was established to drive a more integrated, interdisciplinary approach to climate change research at ORNL. Our institute is ORNL's home for expertise in Earth System Modeling; Data, Dissemination, Integration, and Information; Terrestrial Ecosystem Science; and Impacts, Adaptation, and Vulnerability. In addition, CCSI is increasingly seeking opportunities to engage communities and decision-makers to enhance the impact of our research. Being able to engage another RISA in our own backyard that fills the current Midwest gap in the RISA program would be of significant value to CCSI.

The theme of the proposed RISA is also well-aligned to CCSI research interests as well as those of the U.S. Department of Energy. As a national leader in energy and materials research, ORNL is well placed to pursue research at the intersection of climate, energy, and water resources. Furthermore, CCSI works closely with ORNL's Urban Dynamic's Institute, which focuses on water/energy linkages in urban settings as well as urban infrastructure and resilience.

We envision a range of options through which CCSI and MCWET could work effectively together in the future. Investigators in CCSI can host students affiliated with MCWET and support their work on collaborative research projects of mutual interest. In addition, CCSI and MCWET could collaboratively to convene joint expert workshops or research symposiums that bring regional and national experts as well as regional stakeholders from the Midwest. We would also be happy to explore opportunities to formalize our relationship with MCWET through a future Memorandum-of-Understanding or other collaborative agreement.

We at CCSI look forward to working with MCWET, and I wish you the best of luck with your proposal.

Sincerely,

Dr. Jack D. Fellows, Director

The Nature Conservancy
Protecting nature. Preserving life.™

210 25th Avenue North, Suite 810
Nashville, TN 37203

Tel (615) 383-9909

nature.org/tennessee

February 11, 2016

Janey Smith Camp, PhD, PE, GISP
Department of Civil and Environmental Engineering
and Vanderbilt Institute for Energy and Environment
Vanderbilt University
2301 Vanderbilt Place
VU Station B #351831
Nashville, TN 37235-1831

Subject: RISA proposal, Midwest Climate, Water, and Energy Consortium

Dear Dr. Camp:

I am writing in support of the proposed Midwest Consortium project to improve the information and tools available to resource managers and the public regarding the climate-water-energy nexus in our region. The Nature Conservancy's Global Conservation Agenda through 2020 prioritizes strategic actions aimed at transforming the narrative on climate change from one of threat to opportunity and incorporating nature-based solutions into global adaptation strategies.

Our Tennessee business unit and our Conservancy colleagues across the Midwest have been active participants in a variety of collaborative efforts to increase our understanding of the water management challenges facing our region in the coming decades. We have identified addressing our water management infrastructure in the region as a focal area for our work with state and federal agency partners due to the economic significance of these systems as well as the opportunities to improve the ecological health of our major river basins.

Our organization also has a keen interest in utilizing the data available from stakeholder engagement studies to improve how we communicate about climate challenges to key constituencies and political leaders. In 2015 the Conservancy launched a 50-State Climate Strategy with three major pillars: climate and clean energy policy; biosequestration and clean energy; and communications, outreach and education. In Tennessee, we have identified opinion research and message development as one of our operating unit's contributions to the Conservancy's 50-State strategy.

Thank you for the opportunity to express our support for this RISA proposal. We look forward to engaging with you and the research team as local stakeholders as the project moves ahead in the coming months.

Best regards,

Sally Palmer
Director of Science
The Nature Conservancy, Tennessee

DEPARTMENT OF THE ARMY
NASHVILLE DISTRICT, CORPS OF ENGINEERS
110 9TH AVENUE SOUTH, ROOM A-405
NASHVILLE, TENNESSEE 37203

IN REPLY REFER TO

Hydrology & Hydraulics Branch

February 12, 2016

Janey Smith Camp, PhD, PE, GISP
Research Assistant Professor
Dept. of Civil and Environmental Engineering
Vanderbilt University
Nashville, TN

Dear Dr. Camp,

On behalf of the Nashville District, Hydrology and Hydraulics Branch, of the U.S. Army Corps of Engineers (USACE), it is my pleasure to write in support of your proposal for a new NOAA RISA Center – Midwest Climate, Water Resources, Energy, and Transportation Consortium (MCWET). USACE, specifically the Nashville District, is intricately involved in management of water resources in the Ohio Valley Region to ensure that these resources are available for use by the many different demands placed upon them. Also, USACE has a strong interest in considering the impacts of future climate change and weather conditions on both the inland waterway infrastructure system as well as the impacts of drought and flooding on availability of water supply.

As you know from your continued work with USACE, the Nashville District is currently undergoing efforts to update our Drought Contingency Plan taking into consideration future climate conditions, and information developed through modeling and other activities associated with this RISA could be valuable to USACE for assisting with our planning efforts and other water resource management activities.

The proposed Midwest Climate, Water Resources, Energy and Transportation Consortium (MCWET) could benefit USACE initiatives by helping engage stakeholders that are affected by inland waterway management decisions as well as provide useful information on the "tradeoffs" that may be faced under future climate conditions with regards to the demands placed on our water resources by energy, transportation, and other sectors. We are all ultimately working toward improved resilience for these systems.

We at the USACE Nashville District Office look forward to working with MCWET, and I wish you the best of luck with your proposal.

Sincerely,

Benjamin L. Rohrbach, P.E.
Chief, Hydrology and Hydraulics Branch

STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
NASHVILLE, TENNESSEE 37243-0435

ROBERT J. MARTINEAU, JR.
COMMISSIONER

BILL HASLAM
GOVERNOR

February 11, 2016

Janey Smith Camp, PhD, PE, GISP
Research Assistant Professor
Department of Civil and Environmental Engineering
Vanderbilt Institute for Energy and Environment
Vanderbilt University
VU Station B #351831
Nashville, TN 37235-1831
janey.camp@vanderbilt.edu

Dear Dr. Camp:

It is with great pleasure that I express my support of your research proposal investigating the nexus between climate, water, energy, and transportation in portions of the Midwest and Southeast under the National Oceanic Atmospheric Association's Regional Integrated Sciences & Assessments program. The work your proposal will undertake will contribute regionally-specific information that is critical to understanding the environmental, social, public health, and economic impacts that potential variability in climate conditions may have on various sectors. As the environmental regulatory and natural resource agency in Tennessee focused on improving the quality of the state's air, land, and water, promoting environmental stewardship, and preserving the characteristics of our natural environment, the Tennessee Department of Environment and Conservation (TDEC) has a vested interest in better understanding these impacts and exploring associated mitigation and resiliency strategies.

TDEC is engaged in conversations and research regarding climate change impacts at the national, state and local level. The U.S. Environmental Protection Agency (EPA) is encouraging state environmental regulatory agencies to consider media-specific impacts across its programs in planning, permitting, and funding decisions. For example, our Division of Water Resources is considering the adverse impacts that warming temperatures may have on water quality and treatment processes and encourages applicants to its State Revolving Loan Fund to demonstrate that water infrastructure vulnerability to extreme weather events has been considered throughout project planning. The Division of Water Resources also regularly engages in watershed planning with stakeholders that considers potential water quality and quantity challenges on a localized basis. Our West Tennessee River Basin Authority works to restore natural stream and floodplain dynamics to improve the surrounding environment and prevent future flooding. Our Division of Air Pollution Control is considering how increasing temperatures may make it more difficult for nonattainment areas to reach attainment with National Ambient Air Quality Standards for criteria pollutants.

TDEC is also interested in ways it can better support community decision-making that considers the potential impacts of climate change. We are one of several agencies within Tennessee state government that has been awarded funding from the U.S. Department of Housing and Urban Development's National Disaster Resilience Competition to engage in hazard mapping, climate change vulnerability assessment tool development, and mapping activities.

It is evident that your research will be complementary to ongoing and planned efforts to study climate change and its impacts in Tennessee. I fully support your team as it seeks external funding to support its research focusing on climate and its impacts to natural resources and specific sectors. Any program that can enhance TDEC's ability to prepare for climate change impacts will provide direct benefits for Tennessee industry, businesses, citizens, and visitors. Please do not hesitate to let me know how I can further support your research.

Sincerely,

Shari Meghreblian, PhD
Deputy Commissioner, Bureau of Environment

SLM:cm

CUMBERLAND RIVER
COMPACT

February 12, 2016

Janey Smith Camp, PhD, PE, GISP
Research Assistant Professor
Dept. of Civil and Environmental Engineering
Vanderbilt Institute for Energy and Environment
Vanderbilt University
Nashville, TN

Dear Dr. Camp,

The Cumberland River Compact is pleased to provide a letter of support for your proposal to the NOAA Regional Integrated Science Assessment center. The Compact is a nonprofit that is dedicated to the health of the Cumberland River Basin, with its 18,000 square miles of watershed and 2.5 million people. As such, we are keenly aware of the importance of the critical relationships of climate, water, energy, and transportation. The hydrologic cycle is profoundly impacted by our changing climate conditions. We have been actively engaged in risk assessment and climate adaptation planning and implementation in the region, including a climate adaptation plan developed by the Nashville Area Metropolitan Planning Organization for the 7-county region of Middle Tennessee. The Compact is a co-leader of the Climate Solutions University program that facilitated their adaptation planning process in 2015. We will continue to collaborate with the MPO in implementation of their adaptation strategies and your project can bring a helpful boost to that work.

The collaborative project that you are proposing involving Vanderbilt University, Western Kentucky University and The Ohio State University will prove highly valuable to the quest for greater climate resilience for our region. Deeper and more localized science and engineering information, downscaled climate projections, and more effective communication tools will be extremely helpful to advance the goals of climate resilience in our Basin and beyond. The extreme variability of weather from severe flooding to severe drought and back again are already creating very challenging hurdles for proactive adaptive responses. Looking forward, your research and development of analytical tools to inform decision making will lead to more resilient choices for land use, energy production, transportation, and water resource management for the region.

The Compact will be particularly interested in participating and supporting the translation of your project findings and tools into education and outreach for leaders, landowners, and citizens in local governments, resource management agencies, businesses, and schools. We will also look to your results to help inform out watershed restoration projects that include ambitious goals for restoring free flowing healthy streams, hazard mitigation planning, and greater efficiency at the water-energy nexus. For example, our programs to maximize tree canopy, riparian restoration, and rainfall infiltration directly benefit stable base flow in our streams for resilience in the face of drought. Your project will improve how we prioritize and implement our projects as well as build more public support for wise land use and watershed resilience efforts.

Sincerely,

Gwen Griffith, DVM, MS
Program Director

Janey Smith Camp, PhD, PE, GISP
Department of Civil and Environmental Engineering
Vanderbilt University
2301 Vanderbilt Place
VU Station B #351831
Nashville, TN 37235-1831
February 12, 2016

Dear Dr. Camp:

Thank you for sharing the Letter of Intent that you submitted to NOAA for your RISA effort on "Midwest Climate, Water Resources, Energy and Transportation Consortium (MCWET)." I would be pleased to participate in this project as an advisory board member and project collaborator.

The project addresses issues of concern to the USGS effort to develop a Multi-Resource Analysis (MRA), which is being designed to integrate assessments for multiple natural resources including geologic (energy and mineral), water, and biologic resources. The MRA is being developed to consider biophysical interrelationships across multiple natural resources as well as societal impacts given a set of alternative scenarios. I believe that collaboration across these efforts can create potential synergies to both the MCWET and the MRA.

Please let me know if you need additional information.

Sincerely,

Carl Shapiro
Director, Science and Decisions Center
U.S. Geological Survey
12201 Sunrise Valley Drive
Reston, VA 20192
cshapiro@usgs.gov

United States Department of the Interior

U.S. GEOLOGICAL SURVEY

Lower Mississippi – Gulf Water Science Center
Suite 100, 640 Grassmere Park
Nashville, Tennessee 37211

February 9, 2016

Janey Smith Camp, PhD, PE, GISP
Research Assistant Professor
Department of Civil and Environmental Engineering
And Vanderbilt Institute for Energy and Environment
Vanderbilt University
2301 Vanderbilt Place
Nashville, TN 37235-1831

Dear Dr. Camp:

The Tennessee office, Lower Mississippi – Gulf (LMG) Water Science Center of the U.S. Geological Survey supports the RISA proposal for the Midwest Climate, Water, and Energy Consortium (MCWEC). Climate variability, frequency of extreme hydrologic events, and the impact on communities and critical infrastructure are important topics. The objectives as described in the proposal are;

- to understand extreme climate conditions (e. g., drought, extreme temperature and precipitation events) as they affect the water-energy nexus and the scenarios of possible societal response at a regional level, and
- to develop effective tools that make the science understandable to decision makers, policy makers, and the general public.

The objectives complement ongoing research in the LMG and will help provide a better understanding of potential changes in the magnitude and the spatial and temporal distributions of extreme hydrologic events due to climate change. Hydrologists in the LMG are conducting research on water-quality in the Mississippi River and have monitored flood events in 2010, 2011, and 2016. Information provided through the proposed investigation will provide a better understanding of the effects of climate change on the critical surface-water and groundwater resources in the LMG area.

The staff at the Lower Mississippi-Gulf Water Science Center looks forward to collaborating with you on this critical research. Please feel free to contact me by email mbradley@usgs.gov or by phone at 615-837-4700, if we can provide any additional information.

Sincerely,

Michael Bradley
Assistant Director
for Water Availability Studies

Compass Resource Management Ltd.
210 – 111 Water St.
Vancouver, B.C. V6B 1A7 Canada
Phone: 604-641-2875
www.compassrm.com

Date: February 13, 2016

To Whom It May Concern:

I am writing to express my support for, and to confirm my collaboration on, the National Oceanic and Atmospheric Administration (NOAA) Regional Integrated Sciences and Assessments (RISA) Program proposal on integrated decision support for users of climate information in the Ohio River Valley.

As an associate at Compass, I specialize in risk and decision analysis, stakeholder engagement, expert elicitation, and decision support tool development, particularly related to environmental management, climate change, and emerging technologies. My role in the current research will involve support on the design and development of online Decision Support Tools (DSTs) to provide users relevant climate information, to engage trade-offs effectively, and to improve the overall quality of the region's decision making

I support the work proposed in this project as a means of achieving the goals stated above, and I commit my support to this project by assisting the researchers in the development of interactive online Decision Support Tools.

Sincerely,

Christian Beaudrie
Associate, Compass Resource Management Ltd.