## Applicant Information

<table>
<thead>
<tr>
<th>Applicant Name:</th>
<th>Ryan Aylesworth</th>
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</thead>
<tbody>
<tr>
<td>Project Title:</td>
<td>Mississippi River Basin Inter-Agency Coordination: Institutional Frameworks for Natural Resource Governance</td>
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<tr>
<td>Department:</td>
<td>Forest Resources / NRSM</td>
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<tr>
<td>College:</td>
<td>CFANS</td>
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<tr>
<td>Home address:</td>
<td>1845 Hawthorne Ave E</td>
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<tr>
<td>City &amp; State:</td>
<td>Saint Paul, MN</td>
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<tr>
<td>Zip:</td>
<td>55119</td>
</tr>
<tr>
<td>Faculty advisor name:</td>
<td>Dennis Becker, PhD</td>
</tr>
<tr>
<td>Email:</td>
<td><a href="mailto:drbecker@umn.edu">drbecker@umn.edu</a></td>
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<tr>
<td>Dept. Head’s name:</td>
<td>Alan Ek, PhD</td>
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<td>Dept. Head’s email:</td>
<td><a href="mailto:aek@umn.edu">aek@umn.edu</a></td>
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<tr>
<td>Dean’s name:</td>
<td>Alan Levine, PhD</td>
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<td>Dean’s email:</td>
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</tr>
</tbody>
</table>

### How did you hear about this funding opportunity?

Email sent to active NRSM graduate students

## Funding

| Total amount of funding requested: | $5,000 |

## Executive summary (maximum 200 words)

Although interagency assemblages exist for managing various natural resources (i.e., fisheries, water quality, and floodplains) in the Mississippi River Basin (MRB), the current governance structure in the basin is complex and largely fragmented. Current institutional frameworks lack mechanisms to promote the sort of coordinated multi-agency approach needed to effectively manage natural resources at the basin-scale. Research will use qualitative methods to examine the efficacy of present interagency coordination in the MRB and explore how existing institutional frameworks promote or inhibit effective conservation delivery. Specifically, research will: (1) characterize existing institutional frameworks and policy mechanisms in place to facilitate interagency coordination in the MRB; (2) provide insights into the efficacy of existing regional collaborations (i.e., Great Lakes Regional Collaboration) with regard to enhancing interagency coordination to promote landscape-scale resource management; (3) query key stakeholders on how interagency coordination in the MRB could be improved through modified governance structures; and (4) examine which theoretical perspective(s) on organizational change best explains the growing desire of stakeholders in the MRB to pursue a more collaborative institutional framework. Findings will be used to inform future development of policy mechanisms that promote the sort of interagency coordination needed to effectively manage natural resources in the MRB.

## Approvals

Check all appropriate approvals required for your proposal. Approvals must be obtained prior to receipt of funding. If you have applied for approval but have not yet received it, indicate that below.

- [ ] IRB Status: Pending
- [ ] IACUC Status
- [ ] Other Status

## Checklist

- [x] The proposal is 1000 words or less excluding budget, biographies, references and citations.
The proposal includes a work plan with a specific timeline using months or quarters to identify work to be done and completion dates.

The proposal includes a 1-2 paragraph biography of the applicant and all co-investigators.

The budget form is complete including the funds sought for this project, other pending applications for this project, and the amount/source of matching or other funds.

The applicant's faculty advisor is copied on the application email. Professional students w/o advisors check NA.

All necessary approvals are pending or received.
PROPOSAL FOR CONSORTIUM ON LAW AND VALUES RESEARCH GRANT
(Graduate and Professional Students)

Title: Mississippi River Basin Inter-Agency Coordination: Institutional Frameworks for Natural Resource Governance

Principal Investigator: Ryan J. Aylesworth, PhD student, University of Minnesota
Congressional Affairs Liaison, Midwest Region, U.S. Fish and Wildlife Service
612-713-5311 / ryan_aylesworth@fws.gov or ayle0005@umn.edu

Faculty Advisor: Dennis R. Becker, Assistant Professor, Department of Forest Resources,
University of Minnesota, 612-624-7286 / drbecker@umn.edu

INTRODUCTION

Problem Identification: The governance structure for managing natural resources in the Mississippi River Basin (MRB) is necessarily a complex web of governmental (i.e., federal, state, tribal) and non-governmental (i.e., private and non-profit) organizations. However, existing interagency assemblages (i.e., working groups) lack the capacity to address issues that require increased coordination due to their interconnected nature. Coordinated action requires institutional arrangements that facilitate interagency responses. Failure to better coordinate among agencies is resulting in inefficiencies and the implementation of resource management actions that unnecessarily conflict across agency lines (USACE, 2005; UMBRA, 2005).

Status of Knowledge: While the value of interagency collaboration is increasingly recognized, recent research indicates that agencies pursuing inter-organizational partnerships must confront numerous challenges to accomplish effective collaboration (Grubbs, 2000, Milward and Provan, 1998; O’Toole, 1997; O’Toole et al., 2005; Thompson and Perry, 2006). The inevitability of many such challenges makes them deterrents to collaborative interagency governance structures.

Many studies have explored the governance and organizational structures of new collaborative approaches for managing water resources, but the vast majority have focused on small-scale watershed networks and partnerships (Bidwell and Ryan, 2006; Imperial, 2005; Leach, 2006; Lubell, 2004; Moore and Koontz, 2003; Weber, 2009). Relatively few studies have examined the design of large-scale multi-jurisdictional arrangements developed to address management of regional watersheds and ecosystems (Gerlak and Heikkila, 2006).

Although a modest number of recent studies have focused on interagency collaboration and associated institutional frameworks in the Great Lakes (Borre et al., 2001; Gaden, 2007; Heinmiller, 2007; Heinquinet, 2007; Rabe, 1996) and other regions such as the Chesapeake Bay and Everglades (i.e., Gerlak and Heikkila, 2006), to date, no comprehensive studies have investigated the overarching governance structure for managing natural resources in the MRB.

Given that a more coordinated approach to resource management in the basin would necessitate bureaucratic restructuring, consideration must also be given to the literature on organizational change. Over time several prominent theories on organizational change have emerged, including: rational adaptive theories; institutional theories; life cycle theories; evolutionary theories; and...
policy diffusion and innovation models (Berry and Berry 1999; Fernandez and Rainey 2006, Van de Ven and Pool, 1995). Research has not examined which theoretical perspective(s) on organizational change best explains increased demand among stakeholders for enhanced interagency coordination and more collaborative natural resource governance across the country.

**PLAN OF WORK**

**Research Objectives:** Research will: (1) characterize existing institutional frameworks and policy mechanisms in place to facilitate interagency coordination in the Upper and Lower Mississippi River sub-basins of the MRB\(^1\) (Figure 1); (2) provide insights into the efficacy of existing regional collaborations (i.e., Great Lakes Regional Collaboration) with regard to enhancing interagency coordination to promote landscape-scale resource management; (3) query key stakeholders on how interagency coordination in the MRB could be improved through modified governance structures; and (4) examine which theoretical perspective on organizational change best explains the growing desire of stakeholders in the MRB to pursue a more collaborative institutional framework.

**Interdisciplinary Nature of Research:** The study will generate findings of practical value by shedding light on how institutional frameworks can promote needed interagency coordination. Research will add to the body of interdisciplinary research on the efficacy of collaborative approaches to natural resource governance, but do so across a considerably larger geographic scale than is typically undertaken. Finally, research will build on the organizational change literature by examining how well various theories on organizational change align with current demand for new approach to interagency coordination and governance in the MRB.

**Research Questions:**

**R1.** What is the present governance structure for managing natural resources in the MRB, and to what extent is interagency coordination and collaboration taking place to promote development and implementation of effective natural resource management strategies?

**R2.** To what extent have institutional frameworks in other regions (i.e., Great Lakes Basin) designed to manage natural resources at the region/landscape-scale enhanced interagency coordination among those agencies participating in such collaborations? What elements of these collaborations have been critical to attainment of efficacious conservation outcomes?

**R3.** To what extent is an enhanced model for interagency coordination and collaboration needed in the MRB? What would be the determinants of successful implementation of a new institutional framework in the MRB? Which theoretical perspective(s) of organizational change best explains growing demand among stakeholders in the MRB for a new collaborative approach to managing natural resources in the basin?

**Research Design:** Research will be interdisciplinary in nature and theoretical frameworks will be developed from areas of inquiry such as natural resources policy, public administration, collaborative governance, organizational behavior, and organizational change theory. The study will assume a qualitative research design with a multi-method approach, and will partially

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\(^1\) For the purposes of this proposal, MRB refers to the Upper and Lower Mississippi River sub-basins constituting the main-stem portion of the Mississippi River (comprised of six sub-basins, including the Missouri and Ohio rivers).
incorporate a *case study approach* to obtain in-depth information on natural resource governance structures in the MRB. *Comparative analysis* will be used to contrast the MRB’s current governance structure with institutional frameworks in place in other regions. Finally, *prospective policy analysis* will be used to facilitate development of alternative model frameworks by research subjects.

**Data Collection Methodology:**

- **Discourse analysis** of relevant federal and state laws, executive orders, administrative rules, agency reports and plans, interagency MOUs, group charters, and other policy documents will be used to characterize existing institutional frameworks in place to manage natural resources in the MRB and regions selected for comparison.

- **One-on-one semi-structured interviews** (in-person and telephone) with federal, state, and tribal natural resource officials within the MRB and other select regions chosen for comparative analysis. Participants will be selected using purposive sampling (Miles and Huberman, 1994) to target agency executives, program chiefs, and line officers.

- **Focus groups** with federal, state, and tribal natural resource officials within the MRB will be used to identify institutional frameworks and implementation mechanisms for promoting sustained interagency coordination for managing natural resources in the MRB. Sessions will be conducted in a manner consistent with methods outlined by Krueger (2000). Federal, state and tribal representatives will include agency executives, program chiefs, and line officers.

**Data Analysis and Deliverables:** Triangulation of data findings will be used to enhance the validity of the data (Yin, 2003). All interviews will be recorded and fully transcribed and a process of open and axial coding of each interview/focus group discussion will be used to identify salient themes, from which to trace patterns and make comparisons (Corbin and Strauss, 1998). The primary deliverable will be a report made available to participant agencies and organizations. Findings will also be presented at select meetings and conferences. Finally, research findings will be formatted as a publishable peer-reviewed manuscript to be submitted to a journal in the field of natural resource management or public policy and administration.

**BUDGET AND RESEARCH TIMELINE**

External funding in the amount of **$5,000** is requested from the Consortium to support a portion of project’s travel-related data collection costs. The total direct cost of this project is estimated to be approximately $14,500. Additional financial support for this project will come from the U.S. Fish and Wildlife Service in the form of matching funds to support 4-months salary for the project PI. Detailed information on project budget and cost estimates have been included.

Funding to support examination of institutions and governance structures is difficult to obtain and rarely made available by state and federal agencies. Grant funding has also been sought from The McKnight Foundation, and our application is currently pending. Finally, other sources of funding available to Dr. Becker have been expended in pursuit of other research areas.
**June 2009 – April 2010**  
(currently underway)  
Document analysis and attendance at relevant agency meetings (observational data will be used to inform and refine research questions), identify interview and focus group participants

**April 2010**  
Schedule interview and focus group sessions, finalize interview and focus group guide, consent statements, and interview plan

**May – October 2010**  
Organize and conduct interviews and focus groups

**October 2010 – April 2011**  
Focus group and interview transcription, data analysis

**April – October 2011**  
Complete final report, prepare journal manuscript(s), prepare presentations, present material at select agency meetings and academic conferences

**November 2011**  
Submit journal articles for peer review

**REFERENCES**


Figure 1: Map delineating the Upper and Lower Mississippi River sub-basins of the greater Mississippi River basin (Source: U.S. Fish and Wildlife Service, 2009)
Title: *Mississippi River Basin Inter-Agency Coordination: Institutional Frameworks for Natural Resource Governance*

**Mr. Ryan Aylesworth (Primary Investigator):** Ryan Aylesworth is a doctoral student in Natural Resources Science and Management (NRSM) at the University of Minnesota. Mr. Aylesworth also holds a B.S. (Natural Resources) from Cornell University and a Master of Public Policy and Administration from the University of Massachusetts Amherst. Mr. Aylesworth is currently employed on a full-time basis by U.S. Fish and Wildlife Service (Service) as the Intergovernmental Affairs Liaison for the Service’s Midwest Region (eight-state region headquartered in the Twin Cities). In this capacity, Mr. Aylesworth is responsible for coordinating congressional and legislative affairs activities (i.e., informational briefings, legislative analysis, Hill visits, and public events) as well as representing the Service on various interagency conservation groups (i.e., Midwest Natural Resources Group). Mr. Aylesworth’s academic and professional interests primarily lie in the areas of natural resources policy and public administration. More specifically, his research aims to help facilitate the development and evaluation of policies that enhance interagency coordination and collaborative governance structures for managing natural resources at the landscape-scale. The U.S. Fish and Wildlife Service (Service) will provide salary and fringe benefits to Mr. Aylesworth for time spent working on the proposed project.

**Dr. Dennis Becker (Faculty Advisor):** Dennis Becker is an Assistant Professor of Environment and Natural Resource Policy at the University of Minnesota in the Department of Forest Resources. Dr. Becker conducts research on the social and economic impacts of forest and related natural resource policy focusing on program development and evaluation in the areas of forest utilization, wildland fire management, community development, and environmental review. Current research includes: 1) assessing the conventional wisdoms of biomass removal on public and tribal lands, 2) characterization of physical, environmental, and social availability of biomass on private lands, and 3) modeling the policy interactions of state and federal biomass policies. Dr. Becker also serves as an auditor for third-party forest certification, provides technical assistance for international forest governance, and conducts policy analysis for various congressional, agency, industry and stakeholder inquiries. He teaches courses in natural resource and environmental policy and holds a Ph.D. in Natural Resources from the University of Idaho.
### Project Title: Mississippi River Basin Inter-Agency Coordination: Institutional Frameworks for Natural Resource Governance

#### Instructions: add rows for multiple personnel.

<table>
<thead>
<tr>
<th>Category</th>
<th>Description &amp; justification</th>
<th>Requested funding</th>
<th>Matching/other funding</th>
</tr>
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<tr>
<td>Personnel</td>
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<td>25,453</td>
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<td></td>
<td>Fringe rate (0.351) (8,944)</td>
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<td><strong>Personnel Subtotal</strong></td>
<td><strong>34,397</strong></td>
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<tr>
<td>Speaker Honoraria</td>
<td>In total, 6 focus group sessions will be convened with approximately 10 participants in each session receiving an honorarium valued at $20&lt;br&gt;(6 sessions \times 60 participants \times 20 = $1200)</td>
<td>1,200</td>
<td>McKnight Foundation (pending)</td>
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<td>Supplies &amp; Services</td>
<td>Focus group transcription ($3/\text{min for six 120-minute sessions}, mailing services, printing-duplicating-binding)</td>
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<td></td>
<td><strong>Equipment Subtotal</strong></td>
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<td>Equipment</td>
<td>$250 is being requested to purchase a high quality digital recorder with USB plug-in capability for the purpose of recording the focus group sessions and one-on-one in-person and phone interviews</td>
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<td>Travel</td>
<td>Travel costs must include a description of the purpose of the travel, start and stop dates of travel, transportation costs, housing costs, and allowable per diem (use University rates found at <a href="http://travel/umn.edu">http://travel/umn.edu</a>).</td>
<td>5,000</td>
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**Subtotal research supplies, equipment, travel, other**:<br>5,000 $9,540

**TOTAL BUDGET**:<br>5,000 $43,937 $48,937
**Project Title:** Mississippi River Basin Inter-Agency Coordination: Institutional Frameworks for Natural Resource Governance

**Instructions provided below.**

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<td>1 Your salary (stipend)</td>
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<td>$6,076/mo. x 3 mo. (GS-12 pay grade)</td>
<td>$7,225/mo. x 1 mo. (GS-13 pay grade)</td>
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<td>2 Other personnel</td>
<td>Aylesworth fringe benefits [(2236/mo. x 4 mo.) x 1.5 years]</td>
<td>8,944</td>
<td>U.S. Fish and Wildlife Service</td>
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<td>3 Other personnel</td>
<td></td>
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<tr>
<td>4 Other personnel</td>
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<tr>
<td>5 Personnel Subtotal</td>
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<tr>
<td>6 Speaker Honoraria</td>
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<tr>
<td>8 Equipment</td>
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<td>9 Travel</td>
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<td>10 Subtotal research supplies, equipment, travel, other</td>
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<td>$9,540.00</td>
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<td>11 TOTAL BUDGET</td>
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<td>$43,937.00</td>
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$5,000 is requested for 5 trips in Year 1 for cooperator meetings and focus group sessions (Washington, DC, Chicago, IL, St. Louis, MO, Memphis, TN and New Orleans, LA) taking place during summer and fall of 2010. Total per trip costs are $1003, including $500 for flights, 2 nights lodging at $120/night ($240), per diem of $61/day for three days ($183), and car rental of $40/day for two days ($80). Funds to cover an additional five trips (approx. $5,000) related to data collection and presentation of findings in Year 2 of the study has been requested from The McKnight Foundation.
Consortium on Law and Values in Health, Environment the Life Sciences

Budget for Student Proposals