Environment and Natural Resources Trust Fund
2011-2012 Request for Proposals (RFP)

LCCMR ID: 086-C3+4

Project Title: Training for Collaborative Local Conservation and Development Planning

Category: C3+4. Technical Assistance and Community-Based Planning

Total Project Budget: $ $414,658

Proposed Project Time Period for the Funding Requested: 3 yrs, July 2011 - June 2014

Other Non-State Funds: $ 0

Summary:

Land-use decision makers and stakeholders in 20 high-growth, environmentally diverse communities will conserve natural and cultural resources through a collaborative resource management planning and ordinance development process.

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Sponsoring Organization: U of MN

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Web Address

Location

Region: Statewide

Ecological Section: Statewide

County Name: Statewide

City / Township: Statewide

_____ Funding Priorities	_____ Multiple Benefits	_____ Outcomes	_____ Knowledge Base
_____ Extent of Impact	_____ Innovation	_____ Scientific/Tech Basis	_____ Urgency
_____ Capacity Readiness	_____ Leverage	_____ Employment	_____ TOTAL _____%

I. PROJECT STATEMENT. Some of the most important remaining natural resources in Minnesota are located in fast-growing cities and townships that have the least capacity to manage these resources or plan for development. The structures that guide land use and environmental decision making in these jurisdictions are often highly fragmented because they are governed by dispersed authority, including town boards or city councils, counties with planning and zoning authority, adjacent cities with annexation powers, regional bodies such as the Metropolitan Council, and local and state regulatory agencies such as watershed districts and the MnDNR. Decisions that pit development against natural resource protection are also fraught with conflict that can render decision making in the public interest difficult.

To respond to these challenges, we propose to train those responsible for land use and environmental decision making in such communities to use a new collaborative approach to development decisions and land management. The "trainees" will include municipal and county planners, conservation district and natural resource managers, watershed district personnel, state and local regulators, and non-governmental organization personnel. The ultimate goal of the collaborative process and of our proposed project is to ensure that future development in high-growth, natural resource–rich communities is achieved in ways that take advantage of existing infrastructure and other public investments and conserve critical cultural and natural resources such as ground and surface water, wildlife habitat, remnant prairie and forest habitat, prime farmland, historic sites, recreational lands, and scenic views.

The collaborative planning and implementation process we propose to teach trainees has been piloted in communities in Carver and Washington Counties. The process is designed to build consensus among decision makers, the public, and other stakeholders around a common set of ecological, cultural, and community values that can guide development and conservation decision making. This is achieved in a workshop setting using (1) computer-assisted modeling to help stakeholders understand the multiple natural and cultural systems that are impacted by development decisions, (2) computer-aided visualization (e.g., maps, perspective drawings) to help stakeholders "see" the short-term and long-term impacts of alternative development and conservation scenarios, (3) group deliberation to clarify and reach a shared understanding of the ecological, cultural, and community values that underlie development and conservation decisions, and (4) collaborative decision making to build and evaluate alternative land use scenarios, and to translate preferred scenarios into an implementation framework (e.g., zoning ordinances) that achieves community growth objectives in a sustainable and conservation-oriented manner.

II. DESCRIPTION OF PROJECT ACTIVITIES

Activity 1: Recruit Participating Communities and Trainees $1,500

We will invite 60 participants representing up to 20 communities statewide to participate in the training. To be eligible, communities must meet three criteria: a high projected growth rate during the next 20 years; a significant amount of high-quality natural resources; and low capacity for natural resource management (see Map). We will market the training to communities directly and advertise through the League of MN Cities, Association of MN Counties, MN Association of Townships, and MN Chapter of the American Planning Association. As an incentive to participate, the training will be free of charge and we will offer a free 12-month subscription to ArcGIS (retail value $1,500), the software program used for the computer-aided modeling and visualization. In exchange, communities must commit to conducting a collaborative planning process in their own jurisdictions within 12 months of completing training.

Outcome 1: Identify eligible participant communities based on selection criteria described above	*Aug 2011*
Outcome 2: Advertise training availability and recruit 60 trainees representing 20 communities	*Oct 2011*

Activity 2: Compile Datasets, Develop Automated Software, Refine Training Materials $74,455

We will compile customized geographic information systems (GIS) datasets related to natural and cultural resources for trainees from each participating jurisdiction for future use in their own communities. Data will include but not be limited to land cover classification, soils, prime farmland, high-quality ecological areas, landscape hazards such as steep slopes, recreational amenities such as parks and trails, roads and infrastructure, and impervious surfaces. Second, we will create software to automate the GIS modeling and visualization techniques used in the collaborative planning process so trainees can use these techniques in their own communities without a high degree of technical GIS skill or knowledge. Finally, we will refine training materials piloted in Washington and Carver County to create a comprehensive six-session training course that includes a training manual, class presentations, and annotated exercises.

Outcome 1: Customized data sets representing all 20 participating jurisdictions	*Dec 2011*
Outcome 2: Automated GIS modeling and visualization software program/extension	*Dec 2011*
Outcome 3: A six-session training course and accompanying training materials	*Dec 2011*

Activity 3: Deliver Training for Collaborative Conservation and Development   **$144,954**
Planning and Implementation, Design Training Support Website

We will deliver the training course in three locations across Minnesota. At least one session will be in the central region, with the others likely in the northern and southern one-third of the state. During the sessions, trainees will work with a sample dataset to provide hands-on experience in applying the landscape assessment and visualization software. We will also reference the local datasets they receive to build understanding of how to apply these techniques in their home communities, and encourage trainees to practice the techniques between sessions using these local datasets. Trainees will also learn about sources for finding data on their own. During the training sessions, trainees will role-play to gain experience in working with varied stakeholder values and work in small groups to simulate the collaborative planning process and encourage interactive learning. This phase will also include designing a website based on the training course to provide ongoing support.

Outcome 1: 60 trainees qualified to conduct a collaborative planning & implementation process	*Apr–Aug 2012*
Outcome 2: A publicly available training support website	*Apr 2012*

Activity 4: Provide Post-Training Consultation and Technical Assistance   **$131,344**

Following the multiple-session training program, trainees will be given a complimentary copy of ArcGIS computer software with a 12-month educational license (available to our team, courtesy of the software developer ESRI, at the University of Minnesota's discounted enterprise license rate of $400), as well as other materials needed to conduct a collaborative conservation and development planning process in their home communities. Project staff will provide ongoing consultation and technical assistance to trainees at no cost for a period of 12 months, including assistance applying the software to local data sets, designing and conducting the collaborative decision making process, and creating an implementation framework (e.g., zoning ordinances) tailored to their communities' values and goals.

Outcome 1: A completed collaborative planning process in all 20 participating communities	*Apr –Aug 2013*
Outcome 2: A conservation and development implementation framework for all 20 communities	*Apr –Aug 2013*

Activity 5: Program Evaluation   **$62,405**

Trainees will be asked to provide continuous evaluation of the content and delivery of the training material. Project staff will also conduct interviews with stakeholders from the trainees' home communities to evaluate each community's application of the collaborative planning and implementation approach.

Outcome 1: Evaluation of training, technical assistance, and trainee-led community processes	*May 2014*
Outcome 2: Recommendations and strategies for refining the program for the future	*June 2014*

III. PROJECT STRATEGY

A. Project Team. Planners and landscape architects from the University of Minnesota's Humphrey Institute of Public Affairs (Dr. Carissa Schively Slotterback), College of Design (Dr. David G. Pitt), and Center for Urban & Regional Affairs (Mike Greco, Jeff Matson); and CR Planning, Inc. (Jean Coleman). Pitt will manage the project, Pitt and Matson will lead the modeling and visualization efforts, Slotterback and Coleman will lead the collaborative process and implementation components, and Greco will lead the training development and technical assistance components. A research fellow and research assistants will assist with these tasks as needed.

B. Timeline Requirements. A 36-month timeline is proposed.

C. Long-Term Strategy and Future Funding Needs. The funding requested is sufficient to complete the project outlined here. In addition, the project will build long-term capacity within the statewide planning and natural resource communities by training participants, providing a resource for the broader practitioner public (the training materials will be made available free online), and offering experience to graduate research assistants who represent the next generation of planners, GIS analysts, and natural resource managers.

Training for Collaborative Local Conservation and Development
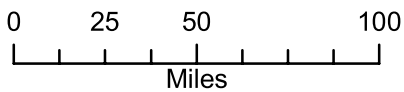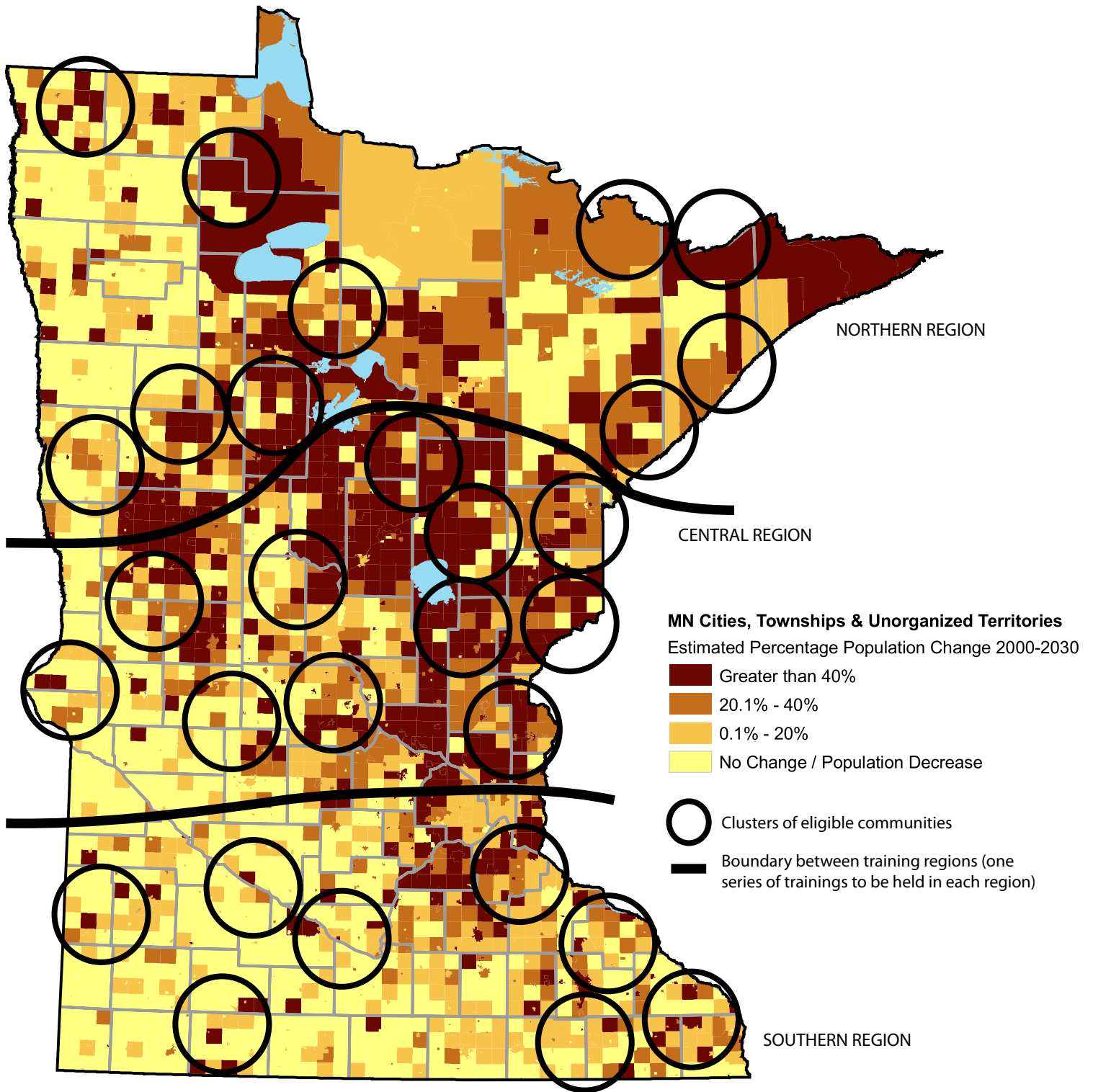## 2011-2012 Detailed Project Budget

IV. TOTAL TRUST FUND REQUEST BUDGET• 3 years

BUDGET ITEM	AMOUNT
Personnel: David Pitt, 0.083 FTE (1 mo.), Yrs 1-3 (Salary $33,992/Fringe $6,866 = $40,858)—project management, GIS technical work, GIS training, technical assistance, evaluation	$40,858
Personnel: Carissa Schively Slotterback, 0.083 FTE (1 mo.), Yrs 1-3 (Salary $25,022/Fringe $4,944 = $29,966)—collaboration and implementation training, technical assistance, evaluation	$29,966
Personnel: Michael Greco, 0.25 FTE, Yr 1 (Salary $18,014/Fringe $5,818 = $23,832); 0.5 FTE, Yr 2 (Salary $37,088/Fringe $11,986 = $49,094); 0.25 FTE Yr 3 (Salary $19,095/Fringe $6,618 = $25,263)—training development, GIS training, technical assistance, evaluation	$98,189
Personnel: Research Fellow (TBD), 1.0 FTE, Yr 1 (Salary $43,085/Fringe $8,695 = $51,780)—data acquisition, GIS technical work	$51,780
Personnel: 12-month Grad Rsrch Assist (TBD), 0.25 FTE, Yr 1 (Salary $9,018/ Fringe $8,058 = $17,076; *NOTE: 85% of fringe is for tuition*)—training	$17,076
Personnel: 12-month Grad Rsrch Assist (TBD), 0.5 FTE, Yrs 1-2 (Salary $36,070/Fringe $31,128 = $67,198; *NOTE: 85% of fringe is for tuition)•* GIS data acquisition, GIS technical work, GIS training, technical assistance	$67,198
Personnel: 12-month Grad Rsrch Assist (TBD), 0.25 FTE, Yr 3 (Salary $7,069/Fringe $7,564 = $14,633; *NOTE: 85% of fringe is for tuition*)—evaluation	$14,633
Contract: Jean Coleman, CR Planning, Inc., Yrs 1-3—implementation training, technical assistance, evaluation	$40,858
Contract: Web Design Professional (TBD), Yr 2• design public web-based training resource	$15,000
Supplies: Materials and supplies for group exercises and for plotting maps during training sessions	$1,000
Equipment: 60 18-month ESRI ArcGIS software licenses at the University of Minnesota enterprise license rate of $400 (a $1500 value), to be used during classroom training and conduct of the collaborative planning and implementation process back home	$24,000
Travel: Travel and overnight accommodations for personnel to attend training sessions and travel to individual communities for follow-up technical assistance and evaluation	$5,500
Additional Budget Items: Computer training facility rental for 18 training sessions (@ $300 for 0-4 hour rental at U of M computer lab)	$5,400
Additional Budget Items: Printing training manual and handouts for trainees (60 trainees x 200 pages x $0.10/page = $1,200); and printing display-size maps (20 communities x 5 maps/community x $20.00/map = $2,000)	$3,200
TOTAL ENVIRONMENT & NATURAL RESOURCES TRUST FUND $ REQUEST	$414,658

V. OTHER FUNDS

SOURCE OF FUNDS	AMOUNT	Status
Other State $ Being Applied to Project During Project Period• from the Center for Urban and Regional Affairs (CURA), U of MN: (1) Jeffrey Matson, 0.05 FTE, Yr 1-2, $8,116; (2) 12-month Grad Rsrch Assistant (TBD), 0.5 FTE, Yr 2, $35,199; (3) Summer Grad Rsrch Assistant (TBD), 0.5 FTE, Yr 3, $5,783.	$49,098	Secured
In-kind Services During Project Period: A $1,100 discount per copy for ArcGIS software licenses x 60 copies (courtesy of ArcGIS software developer ESRI)	$66,000	Secured
Funding History: $60,000 grant from CURA, 2008-2009; $99,500 grant from the Metropolitan Council, 2001-2003; $400,000 grant from LCMR ($200,000 applied to work related to this project), 1999-2001	$359,098	

Project Title: Training for Collaborative Local Conservation and Development Planning

NORTHERN REGION

CENTRAL REGION

SOUTHERN REGION

MN Cities, Townships & Unorganized Territories
Estimated Percentage Population Change 2000-2030

- Greater than 40%
- 20.1% - 40%
- 0.1% - 20%
- No Change / Population Decrease

○ Clusters of eligible communities

▬ Boundary between training regions (one series of trainings to be held in each region)

0 25 50 100
Miles

N
W   E
S

This map shows general clusters of communities eligible for assistance based on two of the three proposed selection criteria: projected population growth and natural resource richness. Natural resource richness was defined based on the *MN Statewide Conservation and Preservation Plan* (2008) "Integrated Aquatic Habitat Score" (p. 46), "Integrated Terrestrial Value Score" (p. 44), and "MN County Biological Survey Sites of Biodiversity" (p. 39). In addition, selection of communities will include consideration of availablity of planning and land management services at the municipal or county level, as well as financial capacity to acquire such services.

Map created by Jeffrey Matson, CURA
Data Source: MN State Demographers Office

<p style="text-align:center">Project Manager Qualifications and Organization Description</p>

David G. Pitt, Ph.D., AICP
Department of Landscape Architecture, College of Design, University of Minnesota
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Qualifications: Dr. Pitt is Professor of Landscape Architecture and Adjunct Professor of Urban and Regional Planning at the University of Minnesota. He holds a Ph.D. in Renewable Natural Resources Studies from the University of Arizona and a Master of Landscape Architecture from the University of Massachusetts. Dr. Pitt teaches courses in environmental planning and regional design, and conducts research on the development of collaborative processes for multi-functional land use planning. He has managed more than 50 external and internal grants totaling more than $1.5 million, including participation in LCCMR (or LCMR) grants in 1991, 1999 and 2001.

Responsibilities: Dr. Pitt will be responsible for overall management of the project, including participant recruitment and selection, dataset compilation, automated software development and GIS technical work, refinement of training materials, delivery of training, training support website development, provision of technical assistance, and evaluation. Other team members will have day-to-day responsibility for carrying out many of these tasks under Dr. Pitt's supervision.

Organization Description: The University of Minnesota is one of the state's premier research and educational institutions, with five campuses and numerous research and outreach centers located throughout the state.

Selected Previous Funding and Project Management

Integrating Sustainability Science and Design in Participatory Land Use Planning and Implementation. Funded ($90,000) by UM Institute on Environment. 2008. With Professors Mulla, Jordan, Schively Slotterback, and Cadieux.

A Collaborative Decision Support Framework to Guide Stakeholder Construction of Land Use Policy in Edge Communities. Funded ($60,000) by McKnight Foundation through the UM Center for Urban and Regional Affairs. 2008–2009. With Professors Schively Slotterback and Bolan, UM Humphrey Institute of Public Affairs.

Integrative Frameworks to Optimize Ecosystem and Recreational Values in Land Use Planning in the Netherlands. Funded ($15,250) by Mansholt Graduate School of Social Sciences, Wageningen University and Research Center, Wageningen, the Netherlands. 2007.

Attractiveness in the St. Croix Valley: An Analysis of Perceptual Judgment and Landscape Dimensions. Funded ($8,500) by the US National Park Service, 2004–2007.

Development of a planning support system for environmentally based regional smart growth planning and design. Funded ($99,500) by the Twin Cities Metropolitan Council. 2001–2003.

Development of a planning support system for Environmental Quality Assurance in the Minnesota dairy industry. Funded ($50,000) by the Legislative Commission on Minnesota Resources. 2001–2003.

Development of handbook on green infrastructure planning and design for public officials and community organizations. Funded ($400,000) by the Legislative Commission on Minnesota Resources. 1999–2001.

Spatial modeling of producer/non-farm rural resident conflicts in the MN animal agriculture industry. Funded ($20,000) by the MN Environmental Quality Board. 2000.

Impacts of land use change in the Lower St. Croix National Scenic Riverway on scenic resources values and terrestrial habitat values. ($139,000) by the Legislative Commission for Minnesota. 1991.