2007 Project Abstract
For the Period Ending June 30, 2009

PROJECT TITLE: DataWorkshop: Democratizing access to Minnesota's data assets – a user friendly data integration and visualization tool
PROJECT MANAGER: Terry Brown
AFFILIATION: Natural Resources Research Institute, University of MN
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WEBSITE:
FUNDING SOURCE: Environment and Natural Resources Trust Fund
LEGAL CITATION: M.L. 2007, Chp. 30, Sec. 2, Subd. 6(d) and M.L. 2007, Chp. 30, Sec. 2, Subd. 7

APPROPRIATION AMOUNT: $61,000

<u>**Overall Project Outcome and Results**</u>
Originally developed to facilitate the work behind the Statewide Conservation and Preservation Plan, the DataWorkshop is a tool that allows users to combine and cross reference existing GIS datasets to synthesize new information. The DataWorkshop is now available for use by other users such as the public, municipalities, non-profits, and state and county agencies The ability to integrate existing datasets through a web browser without the need for additional software and with only a basic computer background makes the tool unique. Users previously lacking any such capability are enfranchised and users with GIS resources may find DataWorkshop simpler and more efficient for some analysis tasks.

For example, a user may wish to produce a map of all the lakes larger than 100 acres in the western prairie habitat zone. The user would use this system to select the DNR's lake and habitat zone datasets, select from the lake dataset those lakes with an area greater than 100 acres, and from that subset, only those lakes which overlap the prairie habitat zone.

The project has used free (open source) software technologies to minimize the cost associated with hosting this service on the web. These include UMN-Mapserver, Postgis, and Python. NRRI will temporarily host a demonstration site to allow interested parties to evaluate the system and until a permanent location is determined on a Minnesota state agency website. The project will also be promoted at the upcoming MN GIS/LIS Consortium conference. Although projects of this kind can only be truly evaluated by their long term adoption and use, we are hopeful that this work has been a valuable step towards democratizing access to Minnesota's data assets.

<u>**Project Results Use and Dissemination**</u>

At the time of writing we are in the final stages of releasing the project, which we will promote through our contacts with agencies, potential users, and the MN GIS/LIS Consortium conference in Duluth in October.

NRRI will host a demonstration version of the website at http://gisdata.nrri.umn.edu/DataWorkshopDemo – this site should be available starting Jan. 1 2010 when a necessary server upgrade is complete.

Trust Fund 2007 Work Program Final Report

Date of Report: August 04, 2009
Trust Fund 2007 Work Program Final Report
Date of Next Status Report:
Date of Work program Approval:
Project Completion Date: June 30, 2009

I. PROJECT TITLE: DataWorkshop: Democratizing access to Minnesota's data
assets – a user friendly data integration and visualization tool

Project Manager: Terry Brown
Affiliation: Natural Resources Research Institute, University of MN
Mailing Address: 5013 Miller Trunk HWY
City / State / Zip :   Duluth, MN, 55811
Telephone Number: 218-720-4345
E-mail Address: tbrown@nrri.umn.edu
FAX Number: 218-720-4328
Web Page address: System development site:
                              http://gisdata.nrri.umn.edu/Tracker/DataWorkshop/
                        Public / distribution site: TBA

Location: Statewide

Total Trust Fund Project Budget: Trust Fund Appropriation:

$61,

000

Minus Amount Spent:
$61,000

Equal Balance:
$0

**Legal Citation: M.L. 2007, Chp. 30, Sec. 2, Subd. 6(d) and M.L. 2007, Chp. 30,
    Sec. 2, Subd. 7**

*M.L. 2007, Sec. 2., Subd. 6. (d) Natural Resource Data Collection and Mapping
$49,000 is from the trust fund to the Legislative-Citizen Commission on Minnesota
Resources for analysis and implementation of critical state natural resource data
collection and mapping.*

and $12,000 from the Emerging Issues Account

M.L. 2007, Sec. 2, Subd. 7.Emerging Issues Account $160,000 is from the trust fund to an emerging issues account as authorized in Minnesota Statutes, section 116P.08, subdivision 4, paragraph (d).

II. and III. FINAL PROJECT SUMMARY:

Overall Project Outcome and Results

Originally developed to facilitate the work behind the Statewide Conservation and Preservation Plan, the DataWorkshop is a tool that allows users to combine and cross reference existing GIS datasets to synthesize new information. The DataWorkshop is now available for use by other users such as the public, municipalities, non-profits, and state and county agencies The ability to integrate existing datasets through a web browser without the need for additional software and with only a basic computer background makes the tool unique. Users previously lacking any such capability are enfranchised and users with GIS resources may find DataWorkshop simpler and more efficient for some analysis tasks.

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Project Results Use and Dissemination

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IV. OUTLINE OF PROJECT RESULTS:

Result 1: Development of the DataWorkshop data integration and visualization capabilities for Statewide Plan analyses.

Description: In this phase we developed, tested, and implemented a working version of the DataWorkshop with datasets specific to the LCCMR Statewide Plan for Conservation and Preservation.

Summary Budget Information for Result 1: Trust Fund Budget: $12,000

		Amount
Spent:	$12,000	
	Balance:	$ 0

	Deliverable	Due	Budget	Status
1	Develop basic architecture	1-Feb-08	1200	Completed
2	Concept demo with Statewide plan data (tabular format)	15-Mar-08	4200	Completed (see text)
3	Beta testing of basic functions with Statewide team members	30-Apr-08	3800	Completed (see text)
4	Application with Stateside Plan data	30-Apr-08	2000	Completed (see text)
5	Prototype documentation complete	15-Jun08	800	Completed (see text)

Completion Date: 30-Jun-08

Notes: The intent of this phase was to develop and test a working version of the DataWorkshop with team members from Statewide Plan to provide data for plan completion. Since the funding came in the final stages of the statewide plan, the testing was conducted NRRI and the work required to supply GIS data for the plan was used to guide development of the tool.

Result 2: DataWorkshop Online

Description: In this phase we developed the GIS mapping capabilities and Internet access capabilities of DataWorkshop.

Summary Budget Information for Result 2: Trust Fund Budget: $49,000

		Amount
Spent:	$49,000	
	Balance:	$0

	Deliverable	Due	Budget	Status
1	Develop spatial data architecture model	01-Mar-08	8100	Complete
2	Concept demo with Statewide plan data (GIS format)	30-Mar-08	9500	Complete, modified, see text.
3	Beta testing of basic functions (spatial)	30-Aug-08	4200	Complete

4	Internet interface development and implementation	30-Sep-08	11900	Complete
5	All output formats functional	31-Dec-08	8300	Final review
6	Final documentation release	15-Apr-09	4000	Final review
7	Final documentation and model delivery	30-Jun-09	3000	Final review

Completion Date: 30-Jun-09

Final Report Summary:

We have successfully implemented a web-only application for simple GIS analyses. This application creates a new level of access to data sets not previously available, making Minnesota's natural resource data accessible to a wider audience. We will be finalizing deployment of a demonstration site for the project in the next 2-3 months.

V.   TOTAL TRUST FUND PROJECT BUDGET:

Staff or Contract Services: Terry Brown, system development, 70%, to June 08
George Host, 8%, to June 08
Terry Brown, 20%, July 08 to June 09
George Host, 6%, July 08 to June 09
Total Salary & Fringe: $58,233

Equipment: none
Development: N/A
Restoration: N/A
Acquisition, including easements: N/A
Other: Travel $1,180; Supplies $480; NRRI GIS lab fees $1,107

TOTAL TRUST FUND PROJECT BUDGET: $61,000

Explanation of Capital Expenditures Greater Than $3,500: *none*

VI.   OTHER FUNDS & PARTNERS:

A. Project Partners:

B. Other Funds Proposed to be spent during the Project Period:

C. Past Spending:

D. Time:

VII. DISSEMINATION:

At the time of writing we are in the final stages of releasing the project, which we will promote through our contacts with agencies, potential users, and the MN GIS/LIS Consortium conference in Duluth in October.

VIII. REPORTING REQUIREMENTS:

Periodic work program progress reports will be submitted not later than June 2008, December 2008, June 2009**.   A final work program report and associated products will be submitted between June 30 and August 1, 2009 as requested by the LCCMR** .

IX. RESEARCH PROJECTS:

Attachment A: Budget Detail for 2008 Projects - ## Summary and a Budget page for each partner (if applicable)

Project Title: *Democratizing access to Minnesota's data assets – a user friendly data integration and visualization tool*

Project Manager Name: *Terry Brown*

Trust Fund Appropriation: $ *61,000*

    1) See list of non-eligible expenses, do not include any of these items in your budget sheet

    2) Remove any budget item lines not applicable

2008 Trust Fund Budget	Result 1 Budget:	Amount Spent (6/30/09)	Balance (6/30/09)	Result 2 Budget:	Amount Spent (6/30/09)	Balance (6/30/09)	TOTAL BUDGET	TOTAL BALANCE
	Development of the DataWorkshop			DataWorkshop Online				
PERSONNEL: wages and benefits	10,430	11,125	-695	47,803	48,093	-290	58,233	-985
Other direct operating costs: *GIS lab. user fees*	500	500	0	607	607	0	1,107	0
Printing	0	0	0	0	100	-100	0	-100
Other Supplies: *backup media*	480	175	305	0	0	0	480	305
Travel expenses in Minnesota	590	200	390	590	200	390	1,180	780
COLUMN TOTAL	**$12,000**	**$12,000**	**$0**	**$49,000**	**$49,000**	**$0**	**$61,000**	**$0**

Invoice detail for LCCMR funded project *"DataWorkshop: Democratizing access to Minnesota's data assets – a user friendly data integration and visualization tool"* (described as *"Deliverable A5: User-Friendly Data Portal – GIS Data"* on the invoice).

This project produced a web-based application for performing simple GIS data processing and turning GIS data sets into simple maps. The application increases access to the large quantity of GIS data that is available on-line but could not previously be used without specialist training and / or software.

Spending was consistent with the proposal, primarily salary expenditure to cover application development: **$59218** (George Host, management, $6967, Terry Brown, development, $52,251).
- software system evaluation and selection
- software development
- software testing
- software deployment system development
- documentation preparation
- project management and administration

Additional expenditure covered:
- GIS lab. fees: **$1107**
   - access to source data sets
   - server space
- Supplies (backup media, poster preparation) **$275**