From:	Ron Moen
To:	Diana Griffith
Cc:	Morgan Swingen
Subject:	Clarification on 030-AH if allowed
Date:	Wednesday, June 20, 2018 11:08:00 AM

#### Hi Diana,

If allowed, we would like to follow up with some additional thoughts on our response to the question by Representative Hoppe regarding the differences between our proposal 030-AH (City Bats and Country Bats - What's the difference?) and the proposal 015-A (Minnesota's Imperiled Bats - Protecting the Survivors) presented by Gerda Nordquist at the 6/19/2018 LCCMR hearings.

Results of our proposal (030-AH) will fill the knowledge gap on bat communities and space use in areas of higher human population densities, and in addition, we will identify higher level impacts bats have from biological and economic perspectives. This is particularly important with current bat population declines caused by WNS.

Proposal 015-A focuses on important surveys of winter hibernacula in Minnesota and on monitoring summer bat roosts, with an additional public outreach component. Winter surveys are very important, because some of the hibernacula have not been visited for over 30 years. Summer roosts are important for survival and reproduction of bats that make it through the WNS problem.

We do believe that public outreach and engagement is important, and we expect that our proposed project would generate media interest (as our past projects have), and we would add our city bat / country bat project to our current website.

The projects can complement each other, and do not duplicate effort. For example, we will be identifying summer roosts as part of our telemetry work that could be included in the summer roosts for Gerda's project. Gerda's project could provide bat scat for us to analyze to idenfity insect prey that are eaten. We have a 3+ year history of working together on the ENRTF ML 2015 *Endangered Bats, White-Nose Syndrome, and Forest Habitat* project, and would certainly work out ways to increase efficiencies of both projects if they were funded.

Please feel free to contact us if additional clarification is desired. We appreciate the consideration of our project by the LCCMR.

Thanks, Ron Moen and Morgan Swingen

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www.d.umn.edu/~rmoen, www.nrri.umn.edu/lynx, www.nrri.umn.edu/moose

#### June 26, 2018

TO:	LCCMR members and staff
FROM:	Bruce Carlson, Supervisor, DNR MN Biological Survey
RE:	ML19 Proposals 001-A and 004-A; MN Biological Survey response to questions asked by LCCMR Member, Della Young.

# \*What is the difference between Minnesota Biological Survey (001-A) and Minnesota's Ecological Monitoring Network (004-A)?

#### 001-A:

The focus is on *survey* as opposed to *monitoring* (see also page 2). It is designed to determine the presence (or absence), distribution, and abundance of native and rare species and native plant communities.

The project proposes to achieve a significant milestone: finish the last remaining field surveys for the statewide, county-by-county biological survey begun in 1987. This will complete the data gathering component of the project, MN (County) Biological Survey 1987-2021.

The project also proposes continued baseline surveys of aquatic lake plants, native moths (pollinators), native prairie, and select sites of high biodiversity significance.

#### 004-A:

The focus is on *monitoring* as opposed to *survey* (see also page 2). It is designed to detect and measure change through time of forests, wetlands, and grasslands. This project relies on data and information produced by 001-A (previous ENRTF appropriations).

The focus is on *long-term, statewide monitoring* of the *status and trends* of native vegetation as opposed to short-term, cause-and-effect monitoring.

The data will allow us to provide reliable *statewide* estimates and information on how forest, wetland, and grassland *vegetation* changes through time. Minnesota currently does not have a data-driven system that can track statewide changes in native vegetation through time.

# \*What is foundational data gathering vs. research?

MBS collects data and organizes projects under one of three approaches described below. Each of these can be designed as needed to focus on broad, foundational needs or more narrowly defined, specific needs.

## Survey

- Designed to determine the presence (or absence), distribution, and abundance of a species or native plant community.
- Survey is the method used by MBS in the statewide county biological surveys (i.e. ML19 001-A).
- Survey is often necessary or requisite before certain types of monitoring or research are possible.

## Monitor

- Designed to detect and measure natural or human-influenced change through time of species, native plant communities, or landscapes.
- The distinction among monitoring and research may not always be sharp.

## Research

- Designed to address specific questions, detect patterns or relationships, or test alternatives.
- Unlike monitoring, research is not by definition about change through time, although it can be.
- The distinction among monitoring and research may not always be sharp.

# \*What is traditional work by MBS vs. something "extra?"

**Traditional work** is the work we are mandated to do and the highest priority work we accomplish given limits on funding, staffing, and Dept. priorities.

## Examples include:

- i. Subject matter expertise and technical guidance on Department priorities, policies, and projects that affect Minnesota's biological diversity.
- ii. Management of the state's Natural Heritage Information System.
- iii. Data collection and analysis directed at
  - a. specific Dept needs (e.g., monitoring the outcomes of land management; environmental review; state list of ETS species).
  - b. foundational or broad needs (e.g. plant, animal, and plant community locations and condition)
- iv. Project management and subject matter expertise for ENRTF and other special projects.
- v. Products and outreach related to the above.

**Something Extra** is the high-priority work that cannot be accomplished or the good ideas that cannot be acted upon within current base funding, staffing, or other limitations.

#### Examples include:

- i. Acceleration, enhancement, or expansion of traditional work;
- ii. Addressing critical gaps in data and information;
- iii. Updating existing data and information;
- iv. Statewide baseline surveys for species and plant communities;
- v. Addressing new or emerging data and information needs;
- vi. Intensive or very specialized data collection and analysis;
- vii. Developing specialized products and outreach.
- viii. New or novel ways to increase utility of existing data and products.
- ix. New or novel ways to collect, manage, and deliver ecological data.