Terms of Reference
LTER Network Information System Advisory Committee (NISAC)
Approved by _____ on _____   [DRAFT V11, 16 May 2011]

1. Overview
The Network Information System Advisory Committee (NISAC) is a Targeted Standing Committee that serves at the discretion of the Executive Board as described in the LTER Bylaws Article VII, Section 1 (2006, Revision 2).

2. Purpose
NISAC was established specifically for the purpose of guiding and critically evaluating efforts to promote network-scale activities. NISAC provides a forum where ecological research scientists, information managers, and members of the LTER Network Office (LNO) work collectively to facilitate synthesis through discussion and review of information systems and infrastructure that promotes the exploration, analysis, and presentation of LTER data and data practices. NISAC periodically reviews and evaluates the success of strategies planned to accomplish Network Information System (NIS) goals, helping identify and prioritize tasks critical to NIS development. It does so by interacting with and facilitating communication among the LTER Executive Board, Science Council, Information Management Committee, LTER Network Office and various working groups.

Goals
The primary NIS goals are to 1) increase data quality, 2) increase accessibility of data and of a diversity of data products, 3) increase knowledge generation and discovery through multi-site synthesis, and 4) identify and review standard approaches and LTER standard-making activities. Specific attention is given to: 1) articulating information management committee and science council efforts and their relation to LTER network-level endeavors, 2) establishing expectations for form, content and usability of data products, 3) helping to discern roles and responsibilities of researchers, information management personnel, the Network office personnel, and partners and the interactions among them, and 4) establishing criteria for evaluating progress and performance toward NIS goals.

Background
NISAC was established in May 2003 by vote of the Coordinating Committee (CC) at Kellogg Biological Station. The first advisory group for the development of NIS, the Network Information System for the LTER, was created following the May 2002 EXEC recommendation that a mechanism be created for encouraging better interaction between scientists and information managers with respect to building cross-site data products. At the Fall CC meeting at NWT, EXEC reviewed a proposed plan of action developed by the information managers and then recommended to CC that a committee as described in that plan be formed for a limited duration with the specific goal of drafting a long-term plan for NIS development. This plan would become part of the LTER response to the 20-year review. Under discussion was whether this group should persist formally beyond the production of this plan or whether its mandate could be sustained by defining some de facto rules for membership based on involvement with current cross-site activities. Membership is designed to ensure balance between the CC, the IM committee, and the Network office.

A strategic plan written by NISAC for the Network Information System (NIS) including a mission statement, goals, and strategies was approved in September 2005 at the VCR CC meeting.

3. Membership
Official membership will consist of 4 LTER information managers, 6 LTER research scientists and 3 representatives from the LNO. The LTER chair will request nominations from Network participants.

Typically some nominations for IM membership are made by the Information Management Committee (IMC) at their annual meeting held in the Fall and forwarded to NISAC. Nominations by the IMC and by NISAC are forwarded by NISAC to EB for approval. Membership is staggered with at least 1-2 nominations for IM and research scientist members each year. Replacement of the retiring member(s) with those newly elected will occur at the NISAC annual meeting. There will be overlap of official retiring members and newly confirmed but non-voting members in teleconferences. Participation in teleconferences by new members may begin upon receipt of confirmation from the EB If a member leaves before the end of their term, the timing of the nomination, confirmation, and replacement process will be determined by NISAC.

Voting
At the designated annual meeting, continuing and newly confirmed members attend so membership turnover occurs upon the opening of the annual meeting. Official members who are in attendance at in-person meetings or teleconferences will vote. In the case of a tie, a re-vote will be carried out. At least half the members must be present to constitute a quorum.

All official members are voting members except when there is a conflict of interest. Before any vote, there will be a discussion of potential conflicts of interest especially with sensitivity to having LNO voting on their own direction or project-leaders on their own funded projects. Discussion will continue until consensus is reached as to identification of those members who will abstain from voting.

4. Offices

Terms
The length of term of site members who have been nominated and approved is three years with an optional fourth year for those who become co-chair.

Co-chairs
One research scientist and one information manager will be co-chairs. They are ex-officio members of the LTER Science Council in accordance with the LTER Bylaws Article IV, Section 2.5 (2006, Revision 2). The co-chairs of the committee or a member they designate will be identified as NISAC representative(s) for LTER Science Council meetings. The term of the NISAC co-chairs is for a period of two years.

Co-chairs will be identified by NISAC members voting at the NISAC annual meeting. If a co-chair leaves office before the end of their term, NISAC will decide on the timing of the replacement process.

Co-chairs generally oversee, supervise and coordinate the governance and communication of the NISAC. They ensure communication occurs among NISAC members as well as between NISAC members and other LTER boards, committees, and partners.

Subgroups
Subgroups will be designated for targeted tasks in consultation with the full committee. Criteria for creation of subgroups will include a statement of why they are needed, expected benefits, identification of characteristics, projected timeframe, and the process for selection of members who are engaged either as an expert or a user.

5. NISAC Responsibilities

Agenda
An agenda for the annual meeting and teleconferences will be created, distributed, and posted by the co-chairs prior to each meeting. Co-chairs will request agenda items prior to meetings.

Rosters
A roster of members and co-chairs, their site affiliations, and their dates of service will be maintained and posted online.

Communication and Reporting Requirements
-A final agenda and notes will be made available publically after each meeting.
-An annual report to the LTER EB will be produced and posted online.
-Meeting notes with motions and decisions made will be recorded and posted online.
-A list of recommendations to the CC along with their response will be recorded and posted online.
-Information about NISAC activities will be disseminated via reports to the Science Council
-NISAC will be represented online by maintaining publically available web pages with the support of LNO.
-The ramifications of new requirements involving site responsibilities and being a good citizen of the network will be discussed and documented.

6. Meetings
NISAC meets in person at least once a year for a designated annual meeting. Additional meetings by teleconference will be scheduled regularly and as needed. A January meeting or teleconference will include review of the old and new milestones of the LNO relating to NIS and the LTER information infrastructure.

7. Budget and Expenses
A budget will be maintained at the LTER network Office to support the NISAC annual meetings. Funds will be made available when possible for at least one in-person meeting per year that will be held at LNO except when special circumstances arise.

8. Amendments
These Terms of Reference may be amended by two-thirds vote of NISAC voting members at the annual meeting.

9. Appendices

9.1 Types of decision-making
Following are types of NISAC decision-making:
   -Formal (vote will be taken)
   -Semi-formal (consensus; special meeting circumstances)
   -Informal agreement (iterative discussions; example: meeting agenda)
   -Tacit (tradition; example: having periodic teleconference calls)
   -Compliance (mandatory: request from LTER Executive Board)

9.2 Types of projects
Following are types of NISAC projects:

-Multi-site LTER project led within LTER; site participation is optional
(e.g. MALS)
-All-site LTER project led by an LTER member; site participation is mandatory
(e.g. PersonnelDB, BiblioDB, SiteDB, ClimDB)
-Multi-site domain project led by LTER member or partner; site participation is optional
(e.g. MIRADA)
-All-site domain project led by LTER member or partner; site participation is mandatory
(e.g. Metacat, EcoTrends)

9.3 Types of actions
NISAC reviews materials and situation. NISAC does not approve materials but rather passes recommendations on to the Executive Board. Reviews, activities, requests, and responses may be initiated by NISAC or may be requested by LNO, IMC, SC, or EB. NISAC may take action in the following ways:
- Carry out a review of plans or activities relating to NIS.
- Respond to requests for comments, support, and endorsement.
- Issue a request for information about NIS to LNO, IMC, SC, or EB.

9.4 Types of Responses
NISAC can create responses to 'Letters of Request' from members of the augmented IMC or to outside project leads. Inquiries may take the following forms:
-*Response to RFC*: in response to informal review request or Request for Comment (RFC); an informal response that includes acknowledgement and evaluation of a request
-*Response to RFS*: in response to a Request for Support (RFS); a semi-formal response regarding development of an idea presented in a project abstract
-*Response to RFE*: in response to a Request for Endorsement (RFE); a formal recommendation about a project request that may or may not have included a request for funding