Annual LTER Information Management Committee (IMC) Report (2012)

1. Date: April 24, 2012

2. Committee: Information Management Committee

3. Co-chairs: Margaret O'Brien (SBC), Don Henshaw (AND)

4. IMC leadership (IMExec): Sven Bohm (KBS), Emery Boose (HFR), Dan Bahauddin (CDR), John Chamblee (CWT) and Jason Downing (BNZ), plus ex-officio representatives, James Brunt (LNO) and Yang Xia (LNO)

5. Current committee composition (only site-designated IM contacts are listed): Dan Bahauddin (CDR), James Conners (PAL, CCE), Corinna Gries (NTL), Sven Bohm (KBS), Emery Boose (HFR), John Campbell (HBR), John Chamblee (CWT), Jason Downing (BNZ), Hap Garritt (PIE), M. Gastil-Buhl (MCR), Don Henshaw (AND), Hope Humphries (NWT), Nicole Kaplan (SGS), Jim Laundre (ARC), Eda Melendez-Colom (LUQ), Margaret O'Brien (SBC), John Porter (VCR), Linda Powell (FCE), Ken Ramsey (JRN), Wade Sheldon (GCE), Adam Skibbe (KNZ), Kristin Vanderbilt (SEV), Jonathan Walsh (BES), Philip Tarrant (CAP), Inigo San Gil (MCM).
Note: Membership also includes additional site-identified members.

6. Membership changes in 2011-12: Inigo San Gil (MCM) is the new site information manager at McMurdo. Hubbard Brook expects to announce a new information manager shortly.

7. Plans for leadership transitions
- Both of the IMC co-chairs are scheduled to rotate off. Margaret O'Brien (SBC) will be nominated to remain as co-chair for an additional year, and another nomination solicited to replace Don Henshaw (AND). The co-chairs are generally elected for three-year terms.
- Two members will rotate off IMExec this year, Emery Boose (HFR) and Sven Bohm (KBS), and will be replaced by election at the annual meeting in September 2012. As the IMC representative to the LTER EB, Emery will continue on IMExec as an ex-officio member.

8. Frequency/Number of times met since May 2011
- Sep 2011: The entire IMC met for one day in Santa Barbara and most members participated in the two-day Ecological Information Management Conference (EIMC) co-hosted by LTER, NCEAS and DataONE that directly followed. Gries (NTL) served as an EIMC conference co-chair and LTER IMs lead four of the five "Birds of a Feather" sessions. *SIP Action 2.C.A, 4.C.A*.
- Apr 2012: IMExec met at the LNO and Saran Twombly (NSF) joined the meeting in person for a half day to discuss data availability issues within LTER. Scott Collins, Bob Waide, Peter McCartney (NSF) via vtc and John Porter (VCR) via vtc joined some portions. *SIP Action 2.C.A.*
- IMExec meets monthly via VTC. *SIP Action 2.C.A.*

9. Activities and Accomplishments since May 2011 *(Information Management SIP sections are cited)*
- **Ongoing activities**
  - Monthly "Virtual Water Cooler" sessions via VTC were conducted with informal discussions and follow-up on key topics to which all sites are invited. Approximately 60% of sites are regularly represented. Key discussions included the IMC response to the 30-year review and plans for improving data availability. *SIP Action 2.C.A*.
  - Dec 2011, May 2012: The LTER IMC Newsletter, *Databits*, is published twice a

year, http://databits.lternet.edu. Rotating editors: Chamblee (CWT), Valentine (AND), Skibbe (KNZ) *SIP Action 2.C.A*.

- o The IMC website, http://intranet.lternet.edu/im, which documents all committee activities, is structured and maintained (chair: Corinna Gries). *SIP Action 2.C.B*.

- **LNO-Funded Production Workshops / IM Compensation supporting Working Groups**
  - o June 2011: The Web Services working group met to redesign the LTER personnel database and make available for all sites and the LNO to use via a web service interface. 2011: IM compensation was provided to Mason Kortz (CCE) to build the web service. *SIP Action 3.A.A, SIP Action 5.A.C*.
  - o 2011: IM compensation was provided to O'Brien (SBC) for development of the LTER EML Compliance Checker and communication to broader communities on EML. *SIP Action 1.B.A, 2.B.D, 4.C.A*.
  - o 2011: IM compensation was provided to Jamie Hollingsworth (BNZ) to complete and implement a dynamic mapping tool, the Interactive Cartographic Almanac. *SIP Action 2.A.A, 3.A.A.*
  - o Nov 2011: Begin Phase II of LTERmapS project, to create a consistent map representation of data across sites. Organizer: T. Valentine (AND). *SIP Action 2.A.A, 3.A.A.*
  - o Feb 2012: Prototype workflows and develop best practices for designing workflow scripts for the NIS. Chairs: Gries (NTL) and Wade Sheldon (GCE), *SIP Action 3.B.A, SIP Action 5.B.B*.
  - o Mar 2012: Produce a comprehensive set of consistency checks to assure that LTER data packages meet a standard of high quality. Chair: O'Brien (SBC). *SIP Action 1.B.A, 2.B.C, 2.B.D.*
  - o Apr 2012: Redesign SiteDB to facilitate the integration of value-added databases, e.g., ClimDB/HydroDB, into the NIS framework. Chair: Henshaw (AND) *SIP Action 2.A.A, 3.A.A.*

- **Site-initiated activities using NSF IM supplements**
  - o SensorNIS (Oct 2011): This workshop was organized by Henshaw (AND), Lindsey Rustad (HBR), and Gries (NTL) and held at Hubbard Brook. Thirty representatives from 20 LTER sites were among the 72 total participants. The workshop focused on the emerging roles of environmental sensor technology and management in providing high quality, near real-time data on the physical, chemical, and biological properties of ecosystems. *SIP Action 1.B.A, 2.A.A.*
  - o GeoNIS (Feb 2012): Theresa Valentine (AND) organized eleven LTER Geospatial Information specialists and met at the University of Colorado-Boulder to develop practices and methods for introducing GIS data into the LTER NIS. *SIP Action 2.A.A, 3.A.A.*

- **LNO-funded Training Workshops / Tiger Team Activities**
  - o Nov 2011: Train sites on the adoption of Drupal Ecological Information Management System (DEIMS) to enable consistent EML preparation for data integration into the NIS. Organizer: San Gil (MCM). *SIP Action 2.B.C., SIP Action 5.A.A*, *SIP Action 5.A.B*.
  - o Nov 2011: Develop ecological informatics training modules for graduate student and other researchers. Chair: Corinna Gries (NTL), *SIP Action 2.C.A*
  - o May 2012: Hands-on training on software tools for managing sensor data including DataTurbine, R, Kepler, CUAHSI ODM, GCE Toolbox, NEON. At least 17 LTER sites are represented. Organizers: Henshaw (AND), Gries (NTL), Matt Jones (NCEAS). *SIP Action 4.C.C, 5.A.C.*
  - o Ongoing: Several IMC members assisted NIS development through Tiger Team Participation, http://nis.lternet.edu. M. Gastil-Buhl (MCR) is the Tiger Team coordinator and liaison to NIS developers. Active teams included Metadata

Quality and NIS Data Portal. *SIP Action 3.B.A.*

10. Planned or Anticipated for 2012-2013 – the primary committee emphasis will be directed to EML improvement, data availability, and sustainability of site IM systems. *Sip Action 1.A.A, 1.E.C.*

- The Annual IMC Meeting will be held for one day in Sep 2012 in conjunction with the LTER ASM. IMC members are planning to organize ASM sessions including topics such as data availability, GIS databases, and sensor networks *SIP Action 2.C.A, 4.C.A.*
- Web services development for managing personnel records in PersonnelDB is planned as a IM buy-out activity for James Conners (PAL, CCE) and the Web Services working group. *SIP Action 3.A.A.*
- EML improvement through mentorship on technical diagnosis and compliance with EML Best Practices is planned as a buy-out activity for M. Gastil-Buhl (MCR). *SIP Action 1.A.A, 1.B.A, 2.B.D.*
- A white paper intended for the entire LTER community and NSF will describe the overall status of the IM in the network, and propose potential solutions to some long standing issues. This paper will be discussed at ASM and produced in fall 2012. Chamblee (CWT) will lead. *SIP Action 2.C.A, 4.C.A.*
- A training workshop aimed at training site IMs on developing web services to retrieve and use information with the goal of improving EML is funded for 2012. Organizer: Gries (NTL). *SIP Action 3.A.A.*
- A training workshop is funded for the DEIMS group to improve management and consistency of EML and allow for adoption by other LTER sites. Chair: Vanderbilt (SEV). *SIP Action 2.B.C., SIP Action 5.A.A., 5.A.B*.