***Template of an NSF Data Management Plan (2-page limit)***

*This is the template of the Data Management Plan which uses the HAZHub Natural Hazards archive described on the department web page* [*http://www.mtu.edu/geo/research/hazard-data/*](http://www.mtu.edu/geo/research/hazard-data/)*. Please modify this to fit your project. You are welcome to use the archive for your data, but it is not required if you have plan that better fits your project. Please Contact me if you would like assistance in using HAZHub - Carol Asiala*

**Data Management Plan**

In a previous NSF project (NSF PIRE Grant #0530109) Michigan Tech developed an instance of the open-source integrated Rule-Oriented Data System (iRODS), a data grid software system developed by the Data Intensive Cyber Environments research group, and collaborators. Natural hazard data is stored on a Michigan Tech server with online access and password protection in a directory structure that separates public and proprietary data. Datasets are then organized by the country and geologic feature where the data is focused. New project data can be uploaded into the current archive; the current archive can be expanded to include additional directories of data and associated users unrelated to natural hazard data; or an additional instance of iRODS can be installed on a separate server for a data management plan that requires a different directory or metadata structure.

**TYPES OF DATA**

*(the types of data, samples, physical collections, software, curriculum materials, and other materials to be produced in the course of the project)*

Any type of digital data (project files, raw data collections, theses, software codes, databases, etc.) can be stored with a pre-defined set of metadata. The types of data to be archived in this project consist of ……

**METADATA**

*(the standards to be used for data and metadata format and content (where existing standards are absent or deemed inadequate, this should be documented along with any proposed solutions or remedies)(*

Related data sets are combined in tar and zip formats to conserve disk space, and to keep file directories more readable. Metadata about each composite file consists of the following: **Contributor Name, Contributor Organization, Country, DataID, Data Description, Data Use Permissions, Field of Study, Interest Level, Keywords, Latitude, Longitude, Reference Citation, and Geologic Feature/Location Name.**

Online access methods allow users to search for data based on file names, metadata values, and selections of geographic areas on a location map.

**DATA ACCESS**

*(policies for access and sharing including provisions for appropriate protection of privacy, confidentiality, security, intellectual property, or other rights or requirements)*

All users must register for a userid/password to access any data in the archive. Proprietary data is protected with passwords and additional user group permissions. Users of proprietary agree to follow the policies of the data they access. Data available for public use can be freely downloaded from the archive by registered users, as long as they cite the source in presentations and publications.

**RE-USE, RE-DISTRIBUTION, PRODUCT DERIVATIVES**

*(policies and provisions for re-use, re-distribution, and the production of derivatives;)*

Data distributed to the scientific community will be available for reuse and redistribution.

**DEPOSIT AND LONG-TERM PRESERVATION**

*(plans for archiving data, samples, and other research products, and for preservation of access to them.)*

The data archive will be maintained by the Department of Geological and Mining Engineering and Sciences and the Information Technology units at Michigan Tech. All data will be retained for at least the minimum time period (three years following public release). Data likely to be useful to the scientific community will be retained and archived indefinitely. Project data will also be archived through publications in scientific journals.