

REACCH PNA Research Data Policy

University of Idaho Regional Approaches to Climate Change for Pacific Northwest Agriculture (REACCH PNA) Updated as of: *August 2013* Version 11.0

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Introduction

The following policy statements have been developed and refined for the Regional Approaches to Climate Change for Pacific Northwest Agriculture (REACCH PNA), a Coordinated Agriculture Project (CAP) funded under the United States Department of Agriculture – National Institute of Food and Agriculture (USDA – NIFA) award #2011-68002-301891.

The REACCH PNA effort is a five-year program to examine the long-term profitability of the cereal production systems of northern Idaho, north central Oregon, and eastern Washington under ongoing and projected climate change, while contributing to climate change mitigation by reducing emissions of greenhouse gasses.

REACCH PNA includes efforts in research, extension, and education that integrate diverse elements including climate modeling, cropping systems modeling, economics, agronomy, and crop protection in a trans disciplinary manner.

The project is a partnership of four institutions (USDA Agricultural Research Service, University of Idaho, Washington State University, and Oregon State University). More than 50 scientists, students, and staff are participating. It also includes an educational element by developing programs for K-12 educators and students.

For more detailed information on REACCH PNA, please see <u>https://www.reacchpna.org</u>.

In addition, this document and related documents (including the REACCHPNA Data Management Plan, can be found at <u>http://reacchpna.org/resources/reacch-policy-library</u>.

All REACCH work output, including this REACCH PNA research data policy, is licensed by REACCH PNA and the University of Idaho under the terms of the



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REACCH Research Data Policy Common Terms and Definitions

Terms and definitions that will be used as part of this document:

"REACCH Member" – Faculty members, scientists, graduate students and others funded by the REACCH project or joining the REACCH project through invitation if supported by other funding sources.

"Data" – information collected as part of the REACCH PNA research project effort.

"Metadata" – refers to descriptive information for your research data. Metadata describes said information, so we can search for these data, and find it easily using technology tools. Metadata is a collection of descriptive fields, or columns of data, that define core information about a dataset that helps someone who is unfamiliar with the information understand:

- Who created it;
- Where it came from;
- How it was created;
- When it was created; and
- What particular components of the dataset mean.

"Dataset" – Digital data and its metadata derived from any research activity such as field observations, collections, laboratory analysis, experiments, or the post-processing of existing data and identified by a unique identifier issued by a recognized cataloging authority such as a site, university, agency, or other organization.

REACCH Research Data Policy Overview

These REACCH PNA research data policies are intended to supplement standard legal constraints (such as Institutional Review Board [IRB] requirements) and are not intended to supplant or create conflicts with other institutional and/or legal requirements. These policies will be reviewed annually by the REACCH PNA Leadership Committee and by the REACCH PNA Team 8 Infrastructure and Cyberinfrastructure objective group.

As benefactors and contributors in the REACCH PNA program, we recognize that we are a team of scientists and administrators who have a collective obligation to maximize the utility of the granted resources through:

- Active communication between objective teams including the Team 8 Infrastructure and Cyberinfrastructure objective group – the lead working team to facilitate technology and data management;
- 2. Collaboration, to more efficiently allocate and share resources (e.g. personnel, equipment, and software); and
- 3. Recognition that raw data and subsequent data products generated internal to REACCH PNA are a common good and priority should be given to provide mechanisms for access and sharing to

the research community and the public as rapidly as possible according to the polices outlined below.

The new paradigm for research data management is for rapid and open access. The policy statements in this document set a trajectory towards this end for REACCH PNA. These policies will require revision and vigilance before rapid and open access to data become the new norm in the collaborating institutions. REACCH PNA is committed to this pathway. However, one or several institution's new policies will not by themselves usher in a new data management paradigm and neither will "rapid and open access" to all research data occur without substantial new cyberinfrastructure investments to data management hardware, software, tools, and personnel.

Data Management defined

Data Management can be defined as: '...the development, execution and supervision of plans, policies, programs and practices that control, protect, deliver and enhance the value of data and information assets'¹

The USDA has determined that Data Management '..lays the foundation for information systems that provide managers with the leading edge for decision-making and better, more timely service to the customer."² Critical to this effort are the following:

- Development and coordination of policies, procedures, and standards for the management of data;
- Development of strategic and tactical plans, including a data architecture coordinated with business processes;
- Development of data repositories; logical and physical models; and data warehouses.
- Development of performance measures;
- Administration of databases; and
- Administration of training programs beginning with data management awareness to highly technical subject matter.

In addition, data management facilitates some critical goals that are essential to the REACCH PNA program:

- Promotes data sharing;
- Ensures that data collected and disseminated meet programmatic, privacy, security, and oversight requirements, particularly in sharing and reuse of data between agencies;
- Leverages management decision-making by providing better access to more accurate and timely data;
- Avoids the cost of redundant data collection; and
- Ensures acquisition related to data management is carried out efficiently in terms of cost, need, and use.³

¹ DAMA-DMBOK Guide (Data Management Body of Knowledge) 2007. Introduction & Project Status

² USDA Data Management – program overview. <u>http://www.dm.usda.gov/infores/dataman/dmview.htm</u>

This REACCH research data policy document is a critical component to accomplishing the above. This REACCH research data policy also works in tandem with the REACCH Data Management Plan (2012), accessible at <u>http://reacchpna.org/resources/reacch-policy-library</u>.

REACCH PNA Structure regarding data access, management and oversight

The REACCH PNA program has several levels of review and approval amongst the key team members:

The Objective 8 Infrastructure and Cyberinfrastruture team is the core group that oversees all technology related policy. This team is made up of

Dr. Paul Gessler, University of Idaho – Objective 8 Team Lead Erich Seamon, REACCH Environmental Data Manger – University of Idaho Dianne Daley Laursen, REACCH Project Manager – University of Idaho Dr. Sanford Eigenbrode, REACCH Project Director – University of Idaho Dr. Rick Rupp, Washington State University Greg Gollberg, Northwest Knowledge Network Manager - University of Idaho

The REACCH PNA Leadership Committee, which is comprised of:

Dr. Sanford Eigenbrode, REACCH Project Director, University of Idaho

- Dr. David Huggins USDA Agricultural Research Service (ARS), Washington State University
- Dr. Susan Capalbo Oregon State University
- Dr. William Pan Washington State University

³ USDA Data Management – program overview. <u>http://www.dm.usda.gov/infores/dataman/dmview.htm</u>



Figure 1. Overall REACCH Organizational Chart (2012)

Data Management Plan

While this document sets forth the policies to be followed by participants in the REACCH PNA program, the REACCH Data Management Plan goes into more procedural detail and addresses objective group roles & responsibilities. The REACCH PNA Data Management Plan describes in detail the organization of the cyberinfrastructure team, appropriate metadata standards and metadata management, quality assurance and quality control (QA / QC), and provides a discussion of supporting tools, technologies, and resources for investigators to manage data. Additionally, the REACCH PNA Data Management Plan document includes details on application, use, and integration of other efforts to address research data management regionally and sustainably.

The REACCH Data Management Plan can be found in the REACCH policy library.

http://reacchpna.org/resources/reacch-policy-library

Partners with REACCH PNA to help facilitate its' data management needs include:

• The Interactive Numeric & Spatial Information Data Engine (INSIDE) Idaho – Idaho's statewide geospatial clearinghouse for archiving and distributing geospatial data. REACCH is using Inside Idaho's geospatial services to extend our data in geographic formats;

- The Northwest Knowledge Network (NKN) will make regional multidisciplinary research data
 more accessible, comprehensible, usable, and secure for data providers and data users by
 promoting commonly accepted policies, standards, and protocols and supplying services (e.g.
 secure data storage, seamless discovery, exploration, transfer of data between and with user
 groups, etc.) that are adaptive to changing data management and storage needs. NKN is
 providing computer infrastructure and networking facilities for REACCH that will enhance our
 informational security and management;
- The Long term Ecological Research Network (LTER) A collaborative network of over 1100 scientists that investigate ecological processes over long temporal and spatial scales.

REACCH PNA Data User Agreements

Compliance with the REACCH PNA data release policy is instantiated through three agreement documents:

- REACCH PNA Terms and Conditions of Service (Appendix B of this document). All users, public and REACCH members, must agree to the REACCH Terms of Service each time they search and analyze data via www.reacchpna.org.
- REACCH PNA General Data Use Agreement (LINK) must be signed in order to access, upload and access data Types II, III, and IV data (see data types below) securely through the REACCH data portal on www.reacchpna.org. All REACCH members must sign the REACCH General Data Use Agreement.
- REACCH PNA Restricted Data Use Agreement

 (www.reacchpna.org/reacch_restricted_data_agreement) must be signed in order to access
 Type III and Type IV data (see data types below). This agreement is in addition to the above agreements, and must be requested by navigating to:

REACCH Data Types

REACCH PNA data types describe the basic security groupings of data that can be uploaded by REACCH PNA team members. Each dataset should be defined as one of the following types, and included in the dataset metadata.

There are four REACCH PNA data types:

Type I – raw data or results (aggregated means or similar processed data) that are available to the general public according to the terms of the REACCH PNA General Data Use Agreement, typically within 2 years from collection and no later than the publication of the main findings from the dataset.

Type II – raw data or results (aggregated means or similar processed data) that are available only to REACCH project members – including scientists, students, staff members, and administrators. Type II

data include those data in the process of being analyzed and processed, and, as such, are not ready to be released to the public.

Type III – raw data, results or output (aggregated means or similar processed data) that are available only to a subset of REACCH project members – such as an objective team or a grouping of individuals that have approved certifications or authorizations that allow them to view Type III data. An example of Type III data would include social survey information, which requires privacy and confidentiality constraints as determined by the owners of said data.

Type IV – any data that are only accessible to a particular researcher or individual. Type IV data is the highest level of REACCH confidential data. Type IV data are kept physically separated from Types I, II, and III data, and may be maintained on systems that are not accessible via the internet or by other networked systems. Type IV data will typically always remain Type IV, and will not co-mingle with other datasets. However, aggregate or summarized data that is output from original Type IV datasets may, as determined by the REACCH PNA data owner, be categorized as Types I-III and, as such, would be moved from this secure location to available REACCH systems. At the discretion of the principal researcher the type of any dataset can be changed (e.g., type III can be changed to type II, etc.)

While the spirit of this document is to promote maximum availability for REACCH transdisciplinary data in either Type I, II, or III status, there are criteria by which priority for data release may be determined. Primary observations collected for core research activities directly supported by REACCH PNA research must receive the highest priority for data release. Data collected by other sources to which REACCH supported research has added value is also a high priority. Other types of data including non-REACCH PNA data that was acquired for REACCH PNA research, student thesis data, educational REACCH PNA data, or legacy data that already suffer from inadequate documentation or format obsolescence may be ranked a lower priority by the REACCH PNA leadership committee. Finally, some data may be determined of lowest priority for archiving on the grounds that it is interim data that led to final products that carry the scientific value. These might include data files created during stages within an analytic workflow, raw or replicate data values that were subsequently aggregated or processed for release, or individual outputs from climatic models.



Figure 2. REACCH Data Access Policy Agreement Flow Diagram (2013)

REACCH PNA Research Data Policy Statements

Communications and Consultation Policy Statement

REACCH PNA PIs, Co-PIs, The REACCH Executive Leadership Team, and the team 8 Infrastructure and Cyberinfrastructure objective group, have a responsibility to routinely communicate and consult in order to: 1) assess and record the status and effectiveness of CI expenditures (e.g. hardware, software, tools, and personnel); 2) coordinate and develop strategies that maximize the cumulative effect of CI expenditures and promote sustainability; and 3) determine appropriate analytical tools for the REACCH PNA program.

Researcher Accountability and Additional Responsibilities Policy Statement

It is the responsibility of individual REACCH PNA researchers to contribute their raw data in a timely manner as explicitly described below. The institutional leads from each of the REACCH PNA Objective teams (see organizational chart above, Figure 1), are responsible for monitoring and following up with

individual objective team researchers who need to provide the data. Enforcement protocols with regards to data access and uploading are outlined in the REACCH Management Plan.⁴

Any barriers will be clarified and documented by the objective team leads and approved or denied by the REACCH PNA Project Director, with recommendations from the Environmental Data Manager. If the REACCH PNA Project Director is unable to resolve the issue, the REACCH PNA Project Director will communicate the problem to the appropriate Vice President of Research at the institution where the researcher resides.

Timeliness of Data Contribution Policy Statement

Raw data, processed data, and other derived data products should be made publicly accessible in accordance with forthcoming data sharing policies from the USDA NIFA. Until such policies exist, the REACCH PNA program adopts the following policy for the timeliness of data sharing for both raw and derived data products:

- Raw, unprocessed data: At a minimum, researchers will catalog and deposit raw, unprocessed data and corresponding metadata in the REACCH PNA repository approved by the REACCH PNA Team 8 Infrastructure and Cyberinfrastructure objective group, no later than six months from the time of acquisition or collection.
- Derived, processed data products: All derived and processed data products will be made available to other REACCH PNA researchers via the REACCH PNA Data Discovery Server, after data transformation, approval, and publishing by the Environmental Data Manager and the REACCH PNA team 8 Infrastructure and Cyberinfrastructure objective group. These derived data products will be made publically accessible via the REACCH data repository no later than two years from the time of their creation.

REACCH PNA Metadata Requirements

All data, both raw and derived, must be documented and cataloged with appropriate, complete metadata. Shared data without adequate, corresponding metadata has limited intrinsic value and is incomplete. REACCH PNA has adopted the following metadata standard:

• ISO 19115-2: A broad, international metadata standard for documenting geographic information and services.

Shared data should be documented with the ISO19115 metadata standard. The REACCH PNA Objective 8 Infrastructure and Cyberinfrastructure objective team must approve the use of alternative metadata standards. Upon request, the REACCH PNA Data Management staff will provide necessary documentation, coordination, and training for effective use of these metadata standards.

⁴ Page 4, REACCH Management Plan, REACCH policy library - <u>https://www.reacchpna.org/data/reacch-policy-library/</u>

The following metadata requirement s should be observed by all REACCH PNA researchers:

- 1. Metadata documenting archived/online datasets of all types listed above will be made available when, or before, the dataset itself is released according to the terms above;
- 2. All metadata will be publicly available regardless of any restrictions on access to the data; and
- 3. All metadata will follow REACCH recommended standards and will minimally contain adequate information on proper citation, access, contact information, and discovery. Complete information including methods, structure, semantics, and quality control/assurance is expected for most datasets and is strongly encouraged.
- 4. Each Data Owner must ensure they complete the access constraints portion for each dataset, to provide documentation for the appropriate use of said dataset by other researchers.
- 5. Each Data User must ensure they review the access constraints portion for each dataset, in order to use the dataset in the appropriate fashion.

REACCH PNA Researcher Expectation of Infrastructure Policy Statement

Researchers have a right to expect:

- Clear procedures for data cataloging & depositing their data;
- Unrestricted access to edit and modify their data or records about their data (i.e., metadata);
- The availability of tools for cataloging and depositing their data, or in the absence of tools, staff who can assist them with data curation;
- A secure and well maintained repository for their data;
- Adequate mechanisms for data discovery and access by others;
- As creators of data, researchers have first rights to analyze and publish those data; and
- To be credited for their data contributions.

Research Data Citation Policy Statement

After data have been deposited and cataloged in the REACCH PNA repository (as described in the REACCH PNA Data Management Plan), users of the data should appropriately acknowledge the USDA/NIFA, REACCH PNA and the individual investigators responsible for the dataset. Any use of data provided by REACCH PNA must acknowledge the USDA/NIFA and the funding source(s) that contributed to the collection of the data. Any restrictions on the usage of the data shall be clearly stated and obvious to the potential data user, as documented in the metadata.

All derived data products built from external data sources will cite the external data sources and collectors in the metadata for the new derived product. The appropriate statement to be used when acknowledging data that was generated under support from REACCH PNA is as follows:

"Data provided by (Name, University Affiliation) through the support of the Regional Approaches to Climate Change for Pacific Northwest Agriculture Program and by the United States Department of Agriculture, National Institute for Food and Agriculture, under award number 2011-68002-301891."

Compliance with Federal and State Privacy Regulations

- Protection of Personal Financial Information: The Federal Trade Commission's Safeguard Rule and the Financial Services Modernization Act of 1999, also known as the Gramm-Leach-Bliley Act (GLBA) requires institutions of higher education to implement administrative, technical, and physical safeguards for certain types of nonpublic personal financial information. Therefore, all deposited research data shall be separated from any data with nonpublic personal, financial, or confidential content.
- Personal Medical Information: All REACCH PNA researchers must comply with all applicable Federal and State regulations concerning the privacy and security of personal medical information, including but not limited to the Health Insurance Portability and Accountability Act (HIPAA) and the Health Information Technology for Economic and Clinical Health Act (HITECH).
- Compliance with the Code of Federal Regulations Department of Health and Human Services Part 46 Protection of Human Subjects concerning the rights of research participants in funded research.
- Compliance with the Federal Educational Rights and Privacy Act (FERPA) regarding the privacy of data and information about students' academic performance and status.
- Compliance with any other agreements of confidentiality, MOU's, or data sharing agreements that may be made with individuals, agencies, or organizations external to the REACCH project.

Consideration of Additional Policies

Finally, we are sensitive to the potential effect that these policy statements may have throughout academia. We are particularly aware of potential negative consequences to junior academic research faculty if the data they collect are not adequately cited and if there is not institutional consideration given to these contributions with respect to tenure and promotion.

APPENDIX A

Potential Barriers to Sharing Data and Procedures for Policy Compliance

A detailed survey of cyberinfrastructure users within the REACCH PNA community have identified the following potential barriers to the contribution of shared data resources. This is not meant to be a comprehensive list. Special cases that fall outside the scope of this list should be brought before the REACCH PNA Objective 8 Infrastructure and Cyberinfrastructure team.

Barrier A. Inadequate resources to upload and provide QA/QC for data

A pervasive problem has been the underestimation of the time required to assemble and upload data and associated metadata. This is particularly true for legacy data, which may be in paper form, or require highly qualified researchers to screen data, identify what is important, assess the quality of data, and decide how to report the information.

Barrier B. Lack of training in data preparation

The transformation and preparation of data for insertion into the REACCH PNA data repository is not minimal – and as such, appropriate training needs to be provided to involve researchers and their staff.

Barrier C. Sensor Failure or inability to capture required information

The risk for this type of data loss is highest when using experimental sensor technology or when intended surrogates do not correlate well with the required parameter.

Barrier D. Refusal to share data or failure to deliver data in a timely fashion

This can arise for many reasons including personality conflicts, concerns about data being published by third parties before being published by the research team that collected the data, and time/resource constraints. The barriers described above are not unique to REACCH PNA participants, but represent the broader research community. The current approach that is in place and being monitored for effectiveness is the usage of our REACCH data management system to quantitatively review data uploading and/or manual data contributions – with oversight from the REACCH Environmental Data Manager. Summarized reviews of Barrier IV are outlined in periodic status reports by the REACCH Environmental Data Manager.

DM/CI group participation towards goals

Although specific responsibilities are assigned to particular individuals and groups mentioned previously, all can play an active role in monitoring the effectiveness of this policy and recommend changes as necessary. Ongoing education for faculty and other REACCH PNA members will also be needed to foster

their willingness to advance the REACCH PNA data management/cyberinfrastructure agenda. The implementation of this plan comprises:

- Data management as a standing agenda item on the Objective 8 Infrastructure and Cyberinfrastructure team monthly meetings. The data flow within REACCH PNA will be reviewed, and any anticipated or current difficulties will be identified. The cause of the difficulty and the REACCH PNA researchers likely to be affected will be documented in this discussion and a mitigating action item recorded and distributed to the team. The REACCH PNA CI and DM staff, including the Objective 8 Team Lead and the Environmental Data Manager will have primary responsibilities for reporting the status of data management/cyberinfrastructure activities to the Objective 8 Infrastructure and Cyberinfrastructure team.
- The institutional leads from the various REACCH PNA objective teams are responsible for monitoring and following up with individual researchers who need to provide the data. Any barriers will be clarified by the institutional objective team lead.
- Early communication of potential or actual problems is essential to ensure that members of the research team are not disadvantaged through missing or late information. The Environmental Data Manager will be responsible for anticipating and coordinating these difficulties on behalf REACCH PNA and the REACCH PNA Objective 8 Infrastructure and Cyberinfrastructure team.
- Planned approaches for when Type A-D barriers (identified above) are encountered:
 - Barrier A or B: a brief request will be prepared for the REACCH PNA Executive Leadership Team to identify appropriate additional training or needed resources.
 Decisions on the scope of legacy data to be included within the time and budget will be made within the scientific theme teams.
 - Barrier C: the difficulties will be communicated to all participants with a plan for modifications to the data collection program in the following year. These modifications will include contingency plans should sensor problems be encountered again.
 - Barrier D: these issues are the most difficult to resolve and the most difficult to generalize. If the institutional lead from the REACCH PNA Objective 8 Infrastructure and Cyberinfrastructure team cannot resolve this issue, it will be passed to the REACCH PNA Project Director whose responsibility will be to assess the implications to the goals of the REACCH PNA program and the broader scientific community. He will consider extenuating circumstances and develop a course of resolution. Measures such as relief from teaching or other institutional duties to provide the time to address the issue, removal of individuals from the project, elimination of future funding or disciplinary action shall be conducted by the REACCH PNA Project Director in close consultation with the VPR of the relevant University.
- The Objective 8 Infrastructure and Cyberinfrastructure team lead will keep track of the results of action items, and will place them on the agenda for the next meeting to be reviewed by the REACCH PNA Executive Leadership Team. Additional measures will be taken as needed until a timely resolution is reached.

Appendix B

REACCH Terms and Conditions of Service

Regional Approaches to Climate Change for Pacific Northwest Agriculture (REACCH PNA) Terms of Service Version 1.0 May 2013 IMPORTANT NOTICE

YOU SHOULD CAREFULLY READ THE FOLLOWING TERMS OF SERVICE ("TOS") BEFORE USING THE REACCH PNA DATA LIBRARY ("SERVICE") PROVIDED BY THE UNIVERSITY OF IDAHO ("UI") AND THE REGIONAL APPROACHES TO CLIMATE CHANGE FOR PACIFIC NORTHWEST AGRICULTURE (REACCH PNA) PROJECT. YOUR USE OF THE SERVICE CONSTITUTES YOUR ACCEPTANCE OF THE TOS. IF YOU AGREE TO THESE TERMS ON BEHALF OF A BUSINESS, ORGANIZATION, AGENCY OR INSTITUTION ("ORGANIZATION") YOU REPRESENT AND WARRANT THAT (I) YOU HAVE AUTHORITY TO BIND THAT ORGANIZATION TO THE TOS, AND (II) YOUR AGREEMENT TO THE TOS WILL BE TREATED AS THE AGREEMENT OF THE ORGANIZATION. IN SUCH CASE, "YOU" AND "YOUR" IN THE TOS SHALL REFER TO THE ORGANIZATION YOU REPRESENT.

THE SERVICE MAY BE USED TO PUBLISH AND REPRODUCE MATERIALS. YOU MAY ONLY USE THE SERVICE TO PUBLISH OR REPRODUCE NON-COPYRIGHTED MATERIALS, MATERIALS IN WHICH YOU OWN THE COPYRIGHT, OR MATERIALS YOU ARE AUTHORIZED OR LEGALLY PERMITTED TO PUBLISH OR REPRODUCE. IF YOU ARE UNCERTAIN ABOUT YOUR RIGHT TO COPY AND/OR PUBLISH ANY MATERIAL, YOU SHOULD CONTACT YOUR LEGAL ADVISOR.

This site is owned and operated by the University of Idaho – as part of a 5-year USDA/NIFA-funded Coordinated Agriculture Project, entitled REACCH PNA (Regional Approaches to Climate Change for Pacific Northwest Agriculture – www.REACCH PNA.org). You may view, download, and print material from this site according to the provisions of the TOS and any additional use constraints published by REACCH PNA at http://www.REACCH PNA.org/resources/REACCH-policy-library and incorporated herein by reference. You may not use this site or information found at this site for selling or promoting products or services, soliciting clients, or any other commercial purpose, except as may be permitted under Section 12 of the TOS. You may not share your sign-in or password with anyone. Notwithstanding the foregoing, REACCH PNA reserves the sole discretion and right to deny, revoke, or limit use of this site.

1. DESCRIPTION OF SERVICE.

REACCH PNA gives users the ability to browse, search, publish, and exchange data and other content in the Service. The Service may be used through a web browser or other applications. The TOS apply to all users of the Service, including users who are also contributors of Content on the Service. "Content" includes but is not limited to the data, metadata, text, software, scripts, graphics, photos, sounds, music, video, audio visual combinations, interactive features, or other material that you may view on, access through, download from, or contribute to the Service. Copies of this Content may reside on your computer, REACCH PNA's servers, and/or on the computers of third parties. You understand and agree that the Service, including Content and any new features provided with the Service, is provided "AS IS" and that REACCH PNA assumes no responsibility for any Content, user communications, or personalization settings of the Service. You are responsible for obtaining access to the Service and for any third-party fees (such as ISP charges) that such access may entail. In addition, you must provide and are responsible for all equipment necessary to access the Service.

2. MODIFICATIONS.

REACCH PNA may modify and update the TOS without notice at any time. You can review the current version of the terms of service at: https://reacchpna.org/reacch_tos.html. Failure to comply with the current version of the TOS may result in revocation of your REACCH PNA user account ("REACCH PNA Account") and/or your access to REACCH PNA.

REACCH PNA reserves the right, without notice at any time, to modify or discontinue, temporarily or permanently, the Service (or any part thereof), or to assign REACCH PNA's rights hereunder to any third party. You agree that neither REACCH PNA, nor its successors or assigns, shall be liable to you or to any third party for any modification, suspension or discontinuance of the Service.

3. REACCH PNA ACCOUNTS

Account registration and verification is required in order to use some features of the Service. During account registration, users are required to provide accurate, complete and current information about themselves in all required fields. Users under 18 years of age are required to have a parent or guardian review and complete the registration process. Should any of your own information change after submitting it to REACCH PNA, you are required to update that information as soon as possible. Should REACCH PNA suspect that your registration information is not complete, current or accurate; your REACCH PNA Account may be subject to suspension or termination.

You are responsible for maintaining the confidentiality of your password and are fully responsible for all activities that occur under your REACCH PNA Account. You agree: (a) neither to provide your password to any third party, nor to allow any third party to access your REACCH PNA Account; (b) to immediately

notify us of any unauthorized use of your REACCH PNA Account or any other breach of security; and (c) that you will establish and maintain only one REACCH PNA Account at a time.

4. PRIVACY

You acknowledge, consent and agree that REACCH PNA may access, preserve, and disclose your REACCH PNA Account information and Content if required to do so by law or in a good faith belief that such access, preservation or disclosure is reasonably necessary to: (a) comply with legal process; (b) enforce the TOS; (c) respond to claims that any Content violates the rights of third-parties; (d) respond to your requests for customer service; or (e) protect the rights, property, or personal safety of REACCH PNA, its users and the public.

REACCH PNA respects the privacy of all personal information you provide to the Service and shall use such information solely for the operations of the Service.

5. USER CONDUCT.

You understand that all Content on the Service is the sole responsibility of the user of the Service who published it.

You agree to NOT use the Service to:

-publish any Content that is unlawful, abusive, harassing, tortuous, defamatory, obscene, libelous, invasive of another's privacy, or racially, ethnically or otherwise objectionable;

-harm minors in any way;

-impersonate any person or entity, including without limitation, any REACCH PNA official, content editor, guide or host;

-forge or otherwise manipulate identifiers in order to disguise the origin of any Content published via the Service, or falsely state or otherwise misrepresent your affiliation with a person or entity;

-publish any Content that you do not have authority and/or a right to make available under any law or under contractual or fiduciary relationships (inside information, proprietary and confidential information disclosed as part of employment relationships or under nondisclosure agreements, etc.); -publish any Content that infringes any patent, trademark, trade secret, copyright or other intellectual property or other proprietary rights of any party;

-publish or exchange any Content that is subject to disclosure, security, or privacy prohibitions or restrictions under federal or state laws and regulations related to protected health information and/or participation by an individual in human subject research, except as permitted by such laws or regulations (See SPECIAL ADMONITIONS FOR PROTECTED HEALTH INFORMATION (PHI) AND/OR IDENTIFIABLE PRIVATE INFORMATION OF HUMAN SUBJECT RESEARCH PARTICIPANTS, below);

-publish or exchange any Content that is classified, subject to export control laws and regulations, and/or economic sanctions and embargoes laws and regulations of the United States (See SPECIAL ADMONITIONS FOR INFORMATION SUBJECT TO EXPORT CONTROLS AND/OR ECONOMIC SANCTIONS OR EMBARGOES, below);

-publish any material that contains software viruses or any other computer code that interrupts, destroys or limits the functionality of any computer software or hardware or telecommunications equipment; or

-intentionally or unintentionally violate any applicable local, state, national or international law, regulation or order, including without limitation, any laws regarding privacy or any regulations promulgated by the SEC or any rules of any national or other securities exchange.

You understand that by using the Service, you may be exposed to Content that is offensive, indecent or objectionable. You acknowledge that REACCH PNA may or may not pre-screen Content, but that REACCH PNA and its designees shall have the right (but not the obligation) in their sole discretion to pre-screen, refuse, or remove any Content that is available via the Service.

You agree to evaluate, and bear all risks associated with, the use of any Content, including any reliance on the accuracy, completeness, or usefulness of such Content.

Should any Content be reported to REACCH PNA as being offensive or inappropriate, or otherwise in violation of this Section or any other provision of the TOS, REACCH PNA may call upon the user publishing the content to retract, or modify the Content in question. REACCH PNA has the full authority to terminate the Account of a user publishing such Content, but is under no obligation to restrict or monitor Content in any way.

REACCH PNA has unilateral right but has no obligation to delete any Content it deems offensive, inappropriate, or otherwise in violation of this Section or any other provision of the TOS.

6. INDEMNITY.

You agree to indemnify and hold REACCH PNA, and its subsidiaries, affiliates, officers, agents, cobranders or other partners, and employees, harmless from any alleged claim or demand, including reasonable attorney fees, made by any third party due to or arising out of your Content, your use of the Service, your connection to the Service, your violation of the TOS, or your violation of any rights of another.

7. SPECIAL ADMONITIONS FOR PROTECTED HEALTH INFORMATION (PHI) AND/OR IDENTIFIABLE PRIVATE INFORMATION OF HUMAN SUBJECT RESEARCH PARTICIPANTS.

You agree to comply with applicable laws and regulations regarding the disclosure through the Service of Content including protected health information (PHI) and or individually identifiable information of research participants, including but not limited to the Health Insurance Portability and Accountability Act (HIPAA), the Health Information Technology for Economic and Clinical Health (HITECH) Act, and/or federal regulations governing human subject research (e.g. 42 C.F.R. §46 and 21 C.F.R. §§50, 56, 312, and 812), except as permitted by such laws and regulations.

8. SPECIAL ADMONITIONS FOR INFORMATION SUBJECT TO EXPORT CONTROLS AND/OR ECONOMIC SANCTIONS OR EMBARGOES.

You agree to comply with applicable laws and regulations regarding the disclosure of classified information, export controlled information, or information the disclosure of which is subject to economic sanctions and embargoes of the United States. You specifically agree not to publish Content through the Service the disclosure of which is subject to the International Traffic in Arms Regulations (ITAR), 22. C.F.R. §§ 120-130, or the Export Administration Regulations (EAR), 15. C.F.R. §§ 730-774, except as permitted by these regulations.

9. SPECIAL ADMONITION FOR SERVICES RELATING TO FINANCIAL MATTERS.

The Service is provided for informational purposes only, and no Content included in the Service is intended for trading or investing purposes. REACCH PNA and its licensors shall not be responsible or liable for the accuracy, usefulness or availability of any information transmitted or made available via the Service, and shall not be responsible or liable for any trading or investment decisions made based on such information.

10. TERMINATION.

You agree that REACCH PNA, in its sole discretion, may terminate your Account and/or the Account of any other user associated with your Organization for any reason, including and without limitation, lack of use or if REACCH PNA believes that you have violated the TOS. You agree that any termination of your access to the Service under any provision of this TOS may be effected without prior notice, and acknowledge and agree that REACCH PNA may immediately deactivate or delete your Content and all related information. You agree that REACCH PNA shall not be liable to you or any third-party for any termination of your access to the Service.

11. LINKS.

For your convenience, this site may contain links to web sites operated by others. These sites are not maintained or controlled by us, and we are not responsible for their content. Although we have made an effort to link only to appropriate sites, some may contain inaccurate or unfounded material. You acknowledge and agree that REACCH PNA shall not be responsible or liable, directly or indirectly, for any damage or loss caused or alleged to be caused by or in connection with use of, or reliance on, such links.

12. CONTENT.

REACCH PNA claims no ownership or control over any Content contributed by users of the Service. Except as provided under Section 16, REACCH PNA disclaims any obligation for monitoring and/or enforcement of any license associated with Content contributed by a user of the Service. By posting any Content, you represent that you have the Organizational authority, as applicable, and rights necessary to contribute such Content (and for REACCH PNA to use and make available such Content) without violation of any intellectual property or other rights or any laws or regulations. However, by submitting Content to the Service, you hereby grant REACCH PNA a worldwide, non-exclusive, royalty-free, sublicense-able, and transferable license to use, reproduce, distribute, prepare derivative works of, display, and perform the Content in connection with the Service.

REACCH PNA supports a wide range of rights possibilities and offers the ability to mark your Content as licensed under the Creative Commons or other limited basis: <u>http://creativecommons.org</u>. You, as provider and published of Content through the Service, agree that the default rights in your Content granted to all other users of the Service shall be those identified in the Creative Commons License titled Attribution-NonCommercial-ShareAlike ("Default License"), unless otherwise specified by you. You hereby grant each user of the service a license under the Default License or other license specified by you at the time of your submission of the Content.

You, as user of the Content made available through the Service, agree to adhere to the rights associated with the Content you find in REACCH PNA and agree that you will not use the Content in any manner that violates the license that governs its use.

You agree to cite REACCH PNA appropriately whenever data obtained from REACCH PNA is published in any publication, product or commercial application.

13. DISCLAIMER OF WARRANTIES.

YOU EXPRESSLY UNDERSTAND AND AGREE THAT:

YOUR USE OF THE SERVICE IS AT YOUR SOLE RISK. THE SERVICE IS PROVIDED ON AN "AS IS" AND "AS AVAILABLE" BASIS. REACCH PNA MAKES NO WARRANTY THAT THE SERVICE WILL MEET YOUR REQREACCH PNAREMENTS OR WILL BE UNINTERRUPTED, TIMELY, SECURE, OR ERROR-FREE. REACCH PNA EXPRESSLY DISCLAIMS ALL WARRANTIES OF ANY KIND, WHETHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND NON-INFRINGEMENT.

ANY MATERIAL DOWNLOADED OR OTHERWISE OBTAINED THROUGH THE USE OF THE SERVICE IS DONE AT YOUR OWN DISCRETION AND RISK AND THAT YOU WILL BE SOLELY RESPONSIBLE FOR ANY DAMAGE TO YOUR COMPUTER OR LOSS OF DATA THAT RESULTS FROM THE DOWNLOAD OF ANY SUCH MATERIAL.

NO CONTENT OR INFORMATION, WHETHER ORAL OR WRITTEN, OBTAINED BY YOU FROM REACCH PNA OR THROUGH OR FROM THE SERVICE SHALL CREATE ANY WARRANTY.

14. LIMITATION OF LIABILITY.

YOU EXPRESSLY UNDERSTAND AND AGREE THAT REACCH PNA, ITS SUPPLIERS, LICENSORS, INTEGRATORS OR CONTENT PROVIDERS, OR THEIR RESPECTIVE OFFICERS, DIRECTORS, EMPLOYEES, OR AGENTS SHALL NOT BE LIABLE TO YOU UNDER CONTRACT, TORT, STRICT LIABILITY, NEGLIGENCE, OR ANY OTHER LEGAL OR EQREACCH PNATABLE THEORY FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, CONSEQUENTIAL OR EXEMPLARY DAMAGES, INCLUDING BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFITS, GOODWILL, USE, DATA OR OTHER LOSSES (EVEN IF REACCH PNA HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES), RESULTING FROM: (I) THE USE OR THE INABILITY TO USE THE SERVICE; (II) UNAUTHORIZED ACCESS TO OR ALTERATION OF YOUR COMPUTER, TRANSMISSIONS OR DATA; (III) STATEMENTS OR CONDUCT OF ANY THIRD PARTY ON THE SERVICE; OR (IV) ANY OTHER MATTER RELATING TO THE SERVICE.

15. EXCLUSIONS AND LIMITATIONS.

Some jurisdictions do not allow the exclusion of certain warranties or the limitation or exclusion of liability for incidental or consequential damages. Accordingly, some of the above limitations may not apply to you.

16. NOTICE AND PROCEDURE FOR MAKING CLAIMS OF COPYRIGHT OR OTHER INTELLECTUAL PROPERTY INFRINGEMENT.

REACCH PNA respects the intellectual property of others, and we ask our users to do the same. REACCH PNA may, in appropriate circumstances and at its discretion, disable, and/or terminate the Accounts of users who may be infringers of intellectual property rights. If you believe that your work has been copied in a way that constitutes copyright infringement, or your intellectual property rights have been otherwise violated, please provide REACCH PNA's Copyright Agent the following information:

-A physical or electronic signature of a person authorized to act on behalf of the owner of an exclusive right that is allegedly infringed;

-Identification of the copyrighted work or other intellectual property claimed to have been infringed;

-Identification of the material that is claimed to be infringing or to be the subject of infringing activity and that is to be removed or access to which is to be disabled, and information reasonably sufficient to permit REACCH PNA to locate the material;

-Information reasonably sufficient to permit REACCH PNA to contact the complaining party, such as an address, telephone number, and, if available, an electronic mail address at which the complaining party may be contacted;

-A statement that the complaining party has a good faith belief that use of the material in the manner complained of is not authorized by the copyright or other intellectual property owner, its agent, or the law; and

-A statement that the information in the notification is accurate, and under penalty of perjury, that the complaining party is authorized to act on behalf of the owner of an exclusive right that is allegedly infringed.

REACCH PNA's Agent for Notice of claims of copyright or other intellectual property infringement can be reached as follows:

Sanford Eigenbrode Project Director – REACCH PNA 875 Perimeter Drive, MS 2339 University of Idaho Moscow, ID 83844-3155 (208) 208-885-2972 phone (208) 885-7760 fax sanforde@uidaho.edu

17. NO RESALE OR OTHER TRANSFER.

You agree not to reproduce, duplicate, copy, sell, resell or exploit any portion of the Service, use of the Service, or access to the Service. You may not assign or otherwise transfer your Account without the prior written consent of REACCH PNA.

18. GENERAL INFORMATION.

Entire Agreement.

The TOS constitutes the entire agreement between you and REACCH PNA and governs your use of the Service, superseding any prior agreements between you and REACCH PNA with respect to the Service. You also may be subject to additional terms and conditions that may apply when you use or purchase certain other REACCH PNA services, affiliate services, third-party content, or third-party software.

Choice of Law and Forum.

The TOS and the relationship between you and REACCH PNA shall be governed by the laws of the State of Idaho without regard to its conflict of law provisions. You and REACCH PNA agree to submit to the personal and exclusive jurisdiction of the courts located within the county of Latah County, Idaho.

Waiver and Severability of Terms.

The failure of REACCH PNA to exercise or enforce any right or provision of the TOS shall not constitute a waiver of such right or provision. If any provision of the TOS is found by a court of competent jurisdiction to be invalid, the parties nevertheless agree that the court should endeavor to give effect to the parties' intentions as reflected in the provision, and the other provisions of the TOS remain in full force and effect.

18. VIOLATIONS.

Please report any violations of the TOS to: Project Director, REACCH PNA reacch@uidaho.edu

Appendix C

REACCH General Use Data Agreement

The REACCH General Use Data Agreement can be found and reviewed online at:

http://reacchpna.org/reacch general data agreement

Definitions

"Dataset" – Digital data and its metadata derived from any research activity such as field observations, collections, laboratory analysis, experiments, or the post-processing of existing data and identified by a unique identifier issued by a recognized cataloging authority such as a site, university, agency, or other organization.

"Data User" - individual to whom access has been granted to this Dataset, including his or her immediate collaboration sphere, defined here as the institutions, partners, students and staff with whom the Data User collaborates, and with whom access must be granted, in order to fulfill the Data User's intended use of the Dataset

"Dataset Creator" - individual or institution that produced the Dataset

"Dataset Owner" – individual or institution that holds intellectual property rights to the dataset. Note that this may or may not be defined as a legal copyright. If no other party is designated in the metadata as Dataset Owner, it may be presumed that these rights are held by the Dataset Creator.

"Dataset Distributor" - individual or institution providing access to the Datasets.

"Dataset Contact" - party designated in the accompanying metadata of the Dataset as the primary contact for the Dataset.

Conditions of Use

The re-use of scientific data has the potential to greatly increase communication, collaboration and synthesis within and among disciplines, and thus is fostered, supported and encouraged. Permission to use this dataset is granted to the Data User free of charge subject to the following terms:

- Acceptable use. Use of the dataset will be restricted to academic, research, educational, government, recreational, or other not-for-profit professional purposes. The Data User is permitted to produce and distribute derived works from this dataset provided that they are released under the same license terms as those accompanying this Dataset. Any other uses for the Dataset or its derived products will require explicit permission from the dataset owner.
- 2. Redistribution. The data are provided for use by the Data User. The metadata and this license must accompany all copies made and be available to all users of this Dataset. The Data User will not redistribute the original Dataset beyond this collaboration sphere.
- 3. Citation. It is considered a matter of professional ethics to acknowledge the work of other scientists. Thus, the Data User will properly cite the Dataset in any publications or in the metadata of any derived data products that were produced using the Dataset. Citation should take the following general form: Creator, Year of Data Publication, Title of Dataset, Publisher, Dataset identifier. Citation information for the specified dataset or non-publication can be retrieved from the metadata details page from the REACCH Data Library. Example citations include:

Citing a REACCH publication:

Walden, V.P., R.L. Tanamachi, P.M. Rowe, H.E. Revercomb, D.C. Tobin, and S.A. Ackerman, 2010: Improvements in the data quality of the Interferometric Monitor of Greenhouse Gases (IMG), Appl. Opt., 49, 520-528.

Citing a REACCH dataset:

Johnson-Maynard, Jodi, 2013: REACCH Biotics – Earthworm, REACCH PNA, http://reacchapp2.nkn.uidaho.edu:8080/geoportal2/rest/document?f=html&id=%7B294 23FC5-05E1-46A8-A6EB-A0BAD5DD7123%7D

Citing a REACCH presentation, video, or image/photo:

Cogger, C. and T. Zimmerman (2011). Understanding the Science of Climate Change. Part 2: Climate models, skepticism, and our response to climate disruption WSU CSANR Sustainable Agriculture Webinar Series. http://reacchapp2.nkn.uidaho.edu:8080/geoportal2/rest/document?f=html&id={0AB74 EE8-A8A6-4D83-A5C7-7F610DF5AFB1}

4. Acknowledgement. The Data User should acknowledge any institutional support or specific funding awards referenced in the metadata accompanying this dataset in any publications where the Dataset contributed significantly to its content. Acknowledgements should identify the supporting party, the party that received the support, and any identifying information such as grant numbers. For example:

Datasets were provided by the Coordinated Agricultural Project (CAP) "Regional Approaches to Climate Change for Pacific Northwest Agriculture" supported by award #2011-68002-30191 from the National Institute for Food and Agriculture, http://reacchpna.org"

- 5. Notification. The Data User will notify the Dataset Contact when any derivative work or publication based on or derived from the Dataset is distributed. The Data User will provide the data contact with two reprints of any publications resulting from use of the Dataset and will provide copies, or on-line access to, any derived digital products. Notification will include an explanation of how the Dataset was used to produce the derived work.
- 6. Collaboration. The Dataset has been released in the spirit of open scientific collaboration. Data Users are thus strongly encouraged to consider consultation, collaboration and/or co-authorship with the Dataset Creator.

Disclaimer

By accepting this Dataset, the Data User agrees to abide by the terms of this agreement. The Data Owner shall have the right to terminate this agreement immediately by written notice upon the Data User's breach of, or non-compliance with, any of its terms. The Data User may be held responsible for any misuse that is caused or encouraged by the Data User's failure to abide by the terms of this agreement.

While substantial efforts are made to ensure the accuracy of data and documentation contained in this Dataset, complete accuracy of data and metadata cannot be guaranteed. All REACCH data and metadata are made available "as is". The Data User holds all parties involved in the production or distribution of the Dataset harmless for damages resulting from its use or interpretation

Registration

I certify that all materials submitted with this application for this restricted data are truthful to the best of my knowledge.

Furthermore, I acknowledge that I committed and agree to the terms of this document, and that violation will constitute unethical professional practice and may subject me to the sanctions listed above.

Name			
Affiliation			
Address			
City			
City State	 		
Zip code			
Email Address			
Phone Number			

Appendix D

REACCH Restricted Use Data Agreement

The REACCH Restricted Use Data Agreement can be found and reviewed online at:

http://reacchpna.org/reacch restricted data agreement

Definitions

"Dataset" – Digital data and its metadata derived from any research activity such as field observations, collections, laboratory analysis, experiments, or the post-processing of existing data and identified by a unique identifier issued by a recognized cataloging authority such as a site, university, agency, or other organization.

"Data User" - individual to whom access has been granted to this Dataset, including his or her immediate collaboration sphere, defined here as the institutions, partners, students and staff with whom the Data User collaborates, and with whom access must be granted, in order to fulfill the Data User's intended use of the Dataset

"Dataset Creator" - individual or institution that produced the Dataset

"Dataset Owner" – individual or institution that holds intellectual property rights to the dataset. Note that this may or may not be defined as a legal copyright. If no other party is designated in the metadata as Dataset Owner, it may be presumed that these rights are held by the Dataset Creator.

"Dataset Distributor" - individual or institution providing access to the Datasets.

"Dataset Contact" - party designated in the accompanying metadata of the Dataset as the primary contact for the Dataset.

"Restricted Data" refers to any REACCH data or dataset of Type III and any fields and/or variables derived from these data.

"Disclosure Controlled Data" refers to a dataset based on responses from human subjects that has been either redacted or modified using statistical disclosure techniques to minimize or eliminate the disclosure risk to an individual respondent in the sample. Effective disclosure control assumes the sample size is sufficiently large to ensure participant identities are protected.

"Restricted Data Investigator" refers to any investigator (whether a Principal Investigator, graduate student, or research staff) who has access to Restricted Data and assumes all responsibility for compliance with this and all applicable policy.

"Restricted Data Originator" refers to any investigator (whether a Principal Investigator, graduate student, or research staff) who collected the original restricted/sensitive data.

"Restricted Data Manager" refers to the individual who handles the archiving, storing, and security of restricted data.

"REACCH Objective 8 Cyberinfrastructure Team" refers to the group responsible for reviewing applications for restricted data use, approving or denying data users, and enforcing the data management policy.

Restricted Conditions of Use

The re-use of scientific data increases communication, collaboration and synthesis within and among disciplines, and is therefore fostered, supported and encouraged. Permission to use the dataset(s), as documented in the REACCH Restricted Use Data Agreement Application (end of document) is granted to the Data User free of charge subject to the following terms:

1. *Acceptable use.* All uses for the Dataset or its derived products require explicit, written permission from the Dataset Owner.

Access to the Dataset will be limited solely to the individuals signing the Restricted Use Data Agreement. The data may not be "loaned" or otherwise conveyed to anyone other than the signatories to this agreement.

Copies of the restricted data will not be provided to any other individual or organization without the prior written consent of the REACCH Objective 8 Cyberinfrastructure team.

The restricted data will be used solely for the purpose of scientific research, and not for any administrative, proprietary, or law enforcement purposes.

The restricted data will be used to generate only statistical summary information that does not allow any individual, farm operation, family, household, business, or organization to be identified.

The restricted data will be used solely for the research project described in the Application for Restricted Data incorporated by reference into this document.

No attempt will be made to identify any individual person, family, household, business, or organization. If an individual person, farm operation, family, household, business, or organization is inadvertently identified, or if a technique for doing so is discovered, the identification or discovery will be immediately reported to the REACCH Objective 8 Cyberinfrastructure team, and the identification or discovery will not be revealed to any other person who is not a signatory to this agreement.

The restricted data will not be linked or merged with any other dataset, including other datasets provided by REACCH, unless specifically identified in the approved Application for Restricted Data.

Use of the restricted data will be consistent with the receiving organization's policies regarding scientific integrity and human subjects research.

If the institution of the researcher requires a review of research proposals using secondary survey data by an Institutional Review Board/Human Subjects Review Committee or equivalent body, that review must have taken place and all approvals must be granted prior to application for use of the restricted data.

Use of the restricted data must also be consistent with and adhere to any policies or regulations from agencies or organizations that supplied part or all of the data, the sampling frame, or secondary data attached to the Restricted Data file. If those other agencies or organizations have additional certifications or agreements, signed copies of those documents must be completed and returned to the appropriate agency prior to data access.

The Restricted Data Investigator certifies that all aspects of the Data Protection Plan, as approved by the data management group, will be followed until which time all copies of the restricted data are destroyed.

- 2. Ownership. Ownership of restricted data will be managed by the REACCH Objective 8 Cyberinfrastructure Team at the University of Idaho. Permission to use restricted data by the Investigator(s) may be revoked at any time, at their discretion. If datasets are downloaded or physically provided, the Investigator(s) and their affiliated Universities must return or destroy all originals and copies of the restricted data, on whatever media it may exist, within 5 days of written request to do so.
- 3. *Redistribution.* The data are provided for use by the Data User. The metadata and this license must accompany all copies made and be available to all users of this Dataset. The Data User will not redistribute the original Dataset beyond this collaboration sphere.
- 4. *Citation.* It is considered a matter of professional ethics to acknowledge the work of other scientists. Thus, the Data User will properly cite the Dataset in any publications or in the metadata of any derived data products that were produced using the Dataset. Citation should take the following general form: Creator, Year of Data Publication, Title of Dataset, Publisher, Dataset identifier. Citation information for the specified dataset or non-publication can be retrieved from the metadata details page from the REACCH Data Library. Example citations include:

Citing a REACCH publication:

Walden, V.P., R.L. Tanamachi, P.M. Rowe, H.E. Revercomb, D.C. Tobin, and S.A. Ackerman, 2010: Improvements in the data quality of the Interferometric Monitor of Greenhouse Gases (IMG), Appl. Opt., 49, 520-528.

Citing a REACCH dataset:

Johnson-Maynard, Jodi, 2013: REACCH Biotics – Earthworm, REACCH PNA, http://reacchapp2.nkn.uidaho.edu:8080/geoportal2/rest/document?f=html&id=%7B294 23FC5-05E1-46A8-A6EB-A0BAD5DD7123%7D

Citing a REACCH presentation, video, or image/photo:

Cogger, C. and T. Zimmerman (2011). Understanding the Science of Climate Change. Part 2: Climate models, skepticism, and our response to climate disruption WSU CSANR Sustainable Agriculture Webinar Series. http://reacchapp2.nkn.uidaho.edu:8080/geoportal2/rest/document?f=html&id={0AB74 EE8-A8A6-4D83-A5C7-7F610DF5AFB1}

5. *Acknowledgement.* The Data User should acknowledge any institutional support or specific funding awards referenced in the metadata accompanying this dataset in any publications where the Dataset contributed significantly to its content. Acknowledgements should identify the supporting party, the party that received the support, and any identifying information such as grant numbers. For example:

Datasets were provided by the Coordinated Agricultural Project (CAP) "Regional Approaches to Climate Change for Pacific Northwest Agriculture" supported by award #2011-68002-30191 from the National Institute for Food and Agriculture, http://reacchpna.org".

- 6. *Notification.* The Data User will notify the Dataset Contact when any derivative work or publication based on or derived from the Dataset is distributed. The Data User will provide the data contact with two reprints of any publications resulting from use of the Dataset and will provide copies, or on-line access to, any derived digital products. Notification will include an explanation of how the Dataset was used to produce the derived work. All restricted data use agreement applications will be jointly approved by the REACCH Objective 8 Cyberinfrastructure team, as well as the data owner of the restricted dataset being requested.
- 7. Collaboration. The Restricted Dataset(s) ishould be used only for approved collaboration purposes with written approval from the data owner. Plans for dissemination, publication, or presentation of and derived work based on this dataset will be outlined in the Application for Restricted Data Use. Any changes or additions to these plans must be re-submitted As an additional REACCH restricted dataset agreement application. While Data Users are strongly encouraged to consider consultation, collaboration and/or co-authorship with the Dataset Creator, the restricted nature of this dataset requires verification of the use by the Data User to ensure privacy and confidentiality concerns are met.
- 8. *Non-Compliance.* The institution of the researcher will treat allegations, by the REACCH Objective 8 Cyberinfrastructure team, or other parties, of violations of this agreement as allegations of violations of its policies and procedures on scientific integrity and misconduct. If the allegations are confirmed, the institution will treat the violations as it would violations of the explicit terms of its policies on scientific integrity and misconduct.

If the REACCH Objective 8 Cyberinfrastructure teamdetermines that the Agreement may have been violated, the data security management team will inform the Restricted Data Investigator(s) of the allegations in writing and will provide them with an opportunity to respond in writing within 10 days.

If the REACCH Objective 8 Cyberinfrastructure team, in consultation with the REACCH Project Director and University of Idaho IRB, determines that any aspect of this agreement has been violated, sanctions may be invoked as appropriate:

- Denial of all future access to restricted data files;
- Report of the violation to the researcher's institution's office responsible for scientific integrity and misconduct, with a request that the institution's sanctions for misconduct be imposed; and/or
- Report of the violation to appropriate federal and private agencies or foundations that fund scientific and public policy research, with a recommendation that all current research funds be terminated, that future funding be denied to the investigator(s) and to all other persons involved in the violation, and that access to other restricted data be denied in the future.
- 9. Administration. This Agreement will go into effect upon approval of the Agreement by the REACCH Objective 8 Cyberinfrastructure team, and will remain in effect until the completion of the research project, as noted in the Application for Restricted Use Data, or 24 months from the date this Agreement is signed, whichever comes first. If, at the end of 24 months, access to the restricted data is still desired, the Restricted Data Investigator must contact the REACCH Objective 8 Cyberinfrastructure team in writing requesting such continued access. If continued access is denied, or if the Restricted Data Investigator neglects to contact the REACCH Objective 8 Cyberinfrastructure team prior to the end of the 24-month period, all originals and copies of the restricted data, on whatever media they exist, must be destroyed by the Restricted Data Investigator.

If changes in research plans or computer environment will alter the information originally submitted as part of this Agreement, the Restricted Data Investigator shall provide the REACCH Objective 8 Cyberinfrastructure team with a copy of the revised materials and a memorandum describing the changes in advance of the revisions. These revisions will be considered amendments to this agreement and may not be implemented until written approval is received by REACCH Objective 8 Cyberinfrastructure team.

A change in the employer of the Restricted Data Investigator requires the execution of a new Restricted Data Use Agreement and preparation of a new Data Protection Plan. These materials must be approved by the REACCH data security management before restricted data may be accessed at the new place of employment.

When other research staff join the project, they shall submit the Supplemental Agreement with Research Staff. Such supplemental agreements shall be submitted in a timely manner but, in any event, prior to granting other research staff access to the data on whatever media in which the data may exist.

Disclaimer

While substantial efforts are made to ensure the accuracy of data and documentation contained in this Dataset, complete accuracy of data and metadata cannot be guaranteed. All REACCH data and metadata are made available "as is". The Data User holds all parties involved in the production or distribution of the Restricted Data harmless for damages resulting from its use or interpretation.

Registration

I certify that all materials submitted with this application for this restricted data are truthful to the best of my knowledge.

Furthermore, I acknowledge that I committed and agree to the terms of this document, and that violation will constitute unethical professional practice and may subject me to the sanctions listed above.

This signed agreement must be accompanied by a fully completed REACCH Restricted Use Agreement Application. This application can be found on the two pages following this signature page.

Name			
Affiliation			
Address			
City			
State			
Zipcode			
Zipcode Email Address			
Phone Number			

REACCH Restricted Use Data Agreement Application Page 1

1. Applicant information: (Note: Unless otherwise instructed, the first Principal Investigator listed will serve as the primary contact person.)

Name of Restricted Data Principal Investigator:

Title: Department (if applicable): Organization: Street Address: City, State, ZIP: Phone: Fax: Email:

Name of Restricted Data Co-Principal Investigator (if applicable):

Title: Department (if applicable): Organization: Street Address: City, State, Zip: Phone: Fax: Email:

Please provide information on additional Co-Principal Investigators on additional sheets, if applicable.

REACCH Restricted Use Data Agreement Application Page 2

- 2. Title of research project for which this restricted data file is requested.
- 3. Short description of research project including research questions, primary methodology, categories of variables to be used.
- 4. Please list the REACCH objective area from which you are requesting restricted data access, and, if possible, please list the specific datasets you wish to be granted access.
- 5. What types of data from other sources will be merged with this restricted data file?
- 6. State reasons why the disclosure controlled public-use data file is not adequate for conduct of the research project.
- 7. Describe all the ways that you intend to use the results of the research, including plans for public dissemination.
- 8. Provide names, titles, and affiliations of other members of the research team who will have access to the restricted data or to output derived from these data. If not all members have been selected, please list as "unassigned" and indicate the job titles. Include individuals who are employed by different organizations.