Riverside Technology, Inc.
2950 E. Harmony Rd, Suite 390
Fort Collins, CO 80528
TIN# 84-0979061

Nebraska Community Foundation, Inc.
PO Box 83107
Lincoln, NE 68501-3107
TIN# 47-0769903

PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM

SECOND AMENDMENT

To Agreement between Nebraska Community Foundation, Inc., Platte River Recovery Implementation Program, and Riverside Technology, Inc.

1. **Parties.**
This is the Second Amendment to the Agreement entered into by and between the Nebraska Community Foundation, Inc. ("Foundation") of Lincoln, Nebraska, representing all signatories to the Platte River Recovery Implementation Program ("Program") and Riverside Technology Inc ("Consultant") dated April 4, 2009. The following persons are authorized to represent the parties through this Agreement: Diane Wilson of the Foundation, Dr. Jerry Kenny of the Program; and Dr. Timothy Martin of the Consultant.

2. **Purpose and Authority**.
This First Amendment to the Agreement between the Nebraska Foundation and Consultant is being made for the purposes of:

(1) Approve 2010-2011 Phase III contract compensation of $157,081.45. This budget increase shall be effective as of the date of this Amendment. A maximum Phase III expenditure of $17,115 is authorized in the remainder of the 2010 fiscal year (same as calendar year). The remaining $139,966.45 will be obligated as part of the 2011 Program budget and will become available on January 1, 2011. Obligated funds not liquidated in a fiscal year will be carried over to the next fiscal year. The Program's Executive Director's Office (ED Office) will issue a Notice to Proceed to the Consultant prior to commencement of Phase III work.

(2) Expand the Scope of Work to include the Phase III tasks as described in Attachment A.

All other terms of the original agreement remain in effect as originally written.

IN WITNESS WHEREOF, the Parties have executed this Agreement.

Nebraska Community Foundation	Riverside Technology, Inc.
By_____	By_____
DIANE M. WILSON, Chief Financial and Administrative Officer	DR. TIMOTHY C. MARTIN, Vice Pres.
Date: _____	Date: _____

ATTACHMENT A:

PRRIP WEBSITE SUPPORT, MAINTENANCE AND SYSTEM ENHANCEMENTS

PRRIP WEBSITE SUPPORT, MAINTENANCE AND SYSTEM ENHANCEMENTS

Contents

1.0 HOSTING, SUPPORT, AND MAINTENANCE

The recommended scope of work for the hosting, support and maintenance of the System is based on the historical data gathered since the launch of the System and estimates for planned maintenance for the term of this agreement. The following sections lists the activities associated with hosting and support.

1.1 Hosting

Hosting activities include both setup and continuing hosting tasks.

Virtual Servers

The proposed hosting arrangement includes two virtual servers with the following specifications:

Virtual Server One:

- 4GB RAM
- Dual 64-bit Processors
- 0.75 Terabyte (TB) of storage area network space, distributed as follows
    - 25 Gigabyte (GB) Virtual Hard Drive ('C-drive' for System Applications and Data)
    - 0.25 (TB)Virtual Hard Drive ('D-drive' for application data and databases)
    - 0.1 TB Virtual Hard Drive ('E-drive' for database backups)
    - 0.375 TB for system backup
- Operating System: Windows Server 2008 Web Edition

Virtual Server Two:

- 4GB RAM
- Dual 64-bit Processors
- 150 GB of storage space, distributed as follows
    - 25 GB Virtual Hard Drive ('C-drive' for System Applications and Data)
    - 50 GBVirtual Hard Drive ('D-drive' for Microsoft Office SharePoint Server 2007 search index files and backups)
    - 75 GB for system backup
- Operating System: Windows Server Web Edition

The hosting arrangement includes

- DNS Hosting
- SMTP
- 5 Mbps of synchronous bandwidth (burstable to 100 Mbps)

- Server anti-virus
- Basic Data Center Support, including
  - Monitoring
  - Server maintenance
  - Patch management
  - Backups

1.2 Transition

The existing site and all associated licenses, configuration, and data will be migrated from the existing hosting provider to Front Range Internet Inc., in Fort Collins, CO. Since the servers are virtualized in both the existing environment and the new hosting environment, the transition will not include any hardware moves. The software will be installed and configured to match the existing configuration as closely as possible. This one-time activity will be executed at the beginning of the hosting period.

1.3 Server Administration and Maintenance

This task consists of general support activities for the System, including administrative and maintenance tasks for both servers and all components.

1.3.1 PRRIP Website and Database Administration and Maintenance

1.3.1.1 SharePoint Administration

General:

- Manage SharePoint Permissions
- Analyze SharePoint Usage and Activity
- Clean Up, Manage and Configure SharePoint accounts and sites
- Analyze SharePoint content and storage
- Monitor SharePoint trends
- Set up alerts and Enforce policies
- Audit the SharePoint environment

Daily:

- Check the top level sites of all instances of SharePoint within the program site, to ensure they are reachable.
- Log on to all applicable SharePoint servers (Web Front End, Application, Database) to ensure they are running properly.

- Check the IIS functionality on the Web Server, ensure that the Web Apps and the Web sites are started. Restart as necessary.

Weekly:

- Monitor SharePoint Disk space usage for the site collection.
- Check the backups for consistent size and proper completion.
- Check for Microsoft Patches relevant to MOSS.
- Archive Event logs, if necessary.

Monthly/Quarterly

- Monthly - Check for Operating System and SQL Patches. Work with hosting vendor to ensure that BIOS and Service Packs are applied properly to the Hardware that is running the environment.
- Monthly – Validate backups. Restore backup to a test environment to ensure that everything is getting backed up correctly.
- Monthly – Update Documentation. Check the validity and accuracy of all documentation that is used by the end users, site owners and EDO.
- Quarterly- Check long term storage needs based on weekly numbers.
- Quarterly-Review security/Change admin passwords

1.3.1.2 GeoServer Administration

The planned activities for the maintenance of the GeoServer software include:

- Monitor the service
- Check for updates and apply patches as necessary
- Upload new data files to geo datastore as needed.

1.3.2 Scientific Data Repository: SQL Databases

For SQL Server databases to perform at optimal levels, a database administrator (DBA) will conduct routine maintenance on each database. Some of these routine database tasks involve rebuilding indexes, checking database integrity, updating index statistics, and performing internal consistency checks and backups.

The planned activities for the maintenance of the SQL database include:

- Apply service packs and patches as they are released
- Run database integrity checks
- Update database statistics

- Reorganize database indexes
- Perform database backups
- Clean up database historical operational data
- Shrink databases as needed
- Clean up leftover files from the maintenance plan
- Monitor SQL Server jobs
- Clean up maintenance tasks as needed

1.3.3 Sentry/Flowlink

The planned activities for the maintenance of the Flowlink Server software include:

- Check for updates and apply patches as necessary
- Monitor Flowlink data transmission into Sentry
- Troubleshoot as necessary

1.4 System Support

Riverside has subcontracted the hosting service to Front Range Internet Inc., (FRII). FRII will be responsible for providing and maintaining connectivity, physical health of the servers, and backup services. FRII support is 24x7 with a support hotline available to Riverside. Details of the service are included with this document.

Riverside support activities will include the following:

- User account support such as account creation/deletion, password reset, end-user support
- Configuration and functionality additions that can be completed through the standard application UI such as the creation and configuration of sites, document libraries, security groups, etc.
- Simple workflow creation and maintenance using SharePoint Designer with standard workflow activities
- Adding or removing data layers in GeoServer
- Adding gage monitoring in Sentry

Requests that cannot be performed through the applications UI, that require addition coding, or that require an extended amount of time and effort will be reviewed and scoped separately from this support agreement, in cooperation with Headwaters staff. Support requests should typically take less than 4 hours to complete. If a request is estimated to require more than 8 hours, it will be reviewed with PRRIP staff to determine the best approach for scoping and budgeting the activity.

Riverside will provide system and end-user support during business hours of 7:30am to 5:30pm Mountain time, Monday through Friday. After hour support requests and services outages will be handled the next business day. Turn-around time for requests will be as follows:

Type	Effort	Turn around
Simple request	< 2 hours	24 hours
Moderate request	2- 4 hours	48 hours
Complex request	4-8 hours	72 hours
Out of scope	> 8 hours	Negotiated

1.5 Term of Performance

This agreement covers a term of 12 months plus 10 additional weeks to realign the billing cycle to a January start. The total term will be 14 months and 2 weeks beginning October 18, 2010 and ending December 31, 2011. Riverside will review costs and submit a proposal for extending the hosting services at least 30 days prior the end of the term.

2.0 PRRIP WEBSITE SYSTEM ENHANCMENTS

The recommended scope of work for the enhancement of the PRRIP Website and Database System is focused on the Scientific Data Repository (SDR) and the Data Visualization components.

2.1 Additional Geomorph/Veg Protocol Implemented in the SDR

The program has requested to have an additional protocol added to the process for data ingest and display in the SDR. The new protocol is similar to the existing Geomorph and Vegetation protocol and will require a higher frequency of data gathering and SDR ingest.

2.2 Online datasheets for bird observation protocols using InfoPath forms.

A powerful feature of the Enterprise MOSS system is the Infopath Form Services infrastructure. InfoPath forms provide a rich user interface for entering and editing data in either online or offline sessions. Currently the Program protocols utilize an enhanced Excel spreadsheet for data recording and SDR ingest. Using InfoPath forms will allow online editing in a browser as well as offline editing and printing for fieldwork. Data is stored as XML with the form, and is also available to the SharePoint infrastructure for processing and in this case, ingest into the SDR. The implementation of the datasheets in Infopath will significantly reduce the effort required by the Data Custodian role that was identified in Phase II of the project.

- WC – there are 6 separate datasheets for the WC protocol
- LTPP – there are 3 main datasheets associated with the LTPP protocol

The geomorph protocol will not likely benefit from having an on-line form since the process is very well defined with the contractor and the data is very regular. The data loading process of the spreadsheet fits well with the current process.

2.3 Enhanced reporting

The SDR is functional and contains historical data for the LTPP, WC, and Geomorph protocols. The reporting interface allows granular selection of data by type, location and time, but is limited by the formatting of the output. Riverside will enhance the SDR reporting capabilities by adding the following features:

- Map-based reporting interface – this interface will allow improved spatial interaction with the observation data. The map-based search interface will allow users to see observation data locations overlaid on a map of the PRRIP associated habitat region and surrounding areas. The Observed Locations Mapping Web part will allow the user to drag and drop a marker onto a location to be used as a center point. From this center point, a radius in miles can be adjusted to draw a circle in which all named locations within that circle will be returned. When a particular named location marker is clicked, a popup will be displayed that lists the related observed locations and their data in a tabular format. The data is downloadable directly from the popup report. This will allow the user to query specific locations using a geo-spatial interface rather than depending on the labels that are associated with a location in the current reporting application. Sometimes these labels are not descriptive enough to completely

identify the location of the observation. Using a map-based interface will improve the user experience and the efficiency of locating specific data.

- Custom one-click reports – these reports will be designed and customized specifically for each protocol with a limit of three reports per protocol. We will work directly with Program staff and contractors to determine specific reporting needs for each protocol and design custom reports with preconfigured parameters and output layout that will allow Program users to quickly get to the data they need to see most. The reports will render in a browser for online viewing, and also allow exporting into Excel or CSV formats.

- Improved ad-hoc reporting – current ad-hoc reporting is very granular, but needs to provide better report output options such as column selection and other formatting. We will create a new query parameter and output format selection interface that will allow the user to customize the ad-hoc data queries as well and specify how the query results are presented.

2.4 Enhanced Map interface for river flow and Program data

Riverside is working on enhancements to the SharePoint mapping web-parts. The new web-parts will have improved base maps, improved interactivity, and improved data layering. We will integrate the new web-parts with the existing Riverflow data and the Program data layers being delivered from Geoserver. The new map interface will consist of three connected web parts: MapMarker, LayerInfo, and PointInfo. The MapMarker will allow the user to configure the base map settings, such as map provider (Google, Bing, ESRI, Etc.), default center lat/lng, default zoom level, the location of the source files and layers list (a custom SharePoint list), etc. The LayerInfo web part, when connected to the MapMarker, will display the active layers defined in the layers list and allows users to toggle layers on and off on the map. The PointInfo web part will display the data for the selected layer and the point that was clicked on the map, if any exists.

3.0 PROJECT MANAGEMENT

Project Management activities for hosting, support, and maintenance include:

- Monthly reviews of hosting provider SLA performance
- Coordinating Riverside SLA actions
- Monthly status reports

Project Management activities for website system enhancements include:

- Project Oversight
- Task Management
- Conference call meeting attendance
- Bi-weekly status reports

4.0 DELIVERABLES

The following list details the deliverables associated with each task described above.

- New Geomorph/Veg protocol process for loading data into the SDR. This includes SharePoint workflow, SQL Integration Services packages, and SQL stored procedures.
- Six WC Online datasheets using Infopath forms formatted for online and offline usage. The forms will also have printing capability for use in the field.
- WC Protocol workflows to handle data load from the Infopath form.
- Updated SQL stored procedures for WC protocol.
- Three LTPP Online datasheets using Infopath forms formatted for online and offline usage. The forms will also have printing capability for use in the field.
- LTPP Protocol workflows to handle data load from the Infopath form.
- Updated SQL stored procedures for LTPP protocol.
- Observed Location Mapping web part
- Up to three custom one-click reports per protocol, providing online viewing as well as export to Excel or CSV.
- Three new mapping and data display web parts for the SharePoint Portal: MapMarker, LayerInfo, and PointInfo.
- Documentation for training purposes as well as application maintenance.
- Bi-weekly status report detailing the accomplishments of the previous reporting period and the planned activities of the next reporting period.

5.0 BUDGET

The budget required to close out 2010 and account for the transition from the previous hosting provider is shown below:

Hosting		**$8,811.00**
Transition to FRII	$4,890.00	
10 Week Hosting	$3,565.00	
Project Management	$356.00	
Monitoring and Support		**$8,304.00**
Server Administration and Maintenance	$1,632.00	
System Support	$6,672.00	
2010 10-Week hosting and support total*		**$17,115.00**

*not included in project total below.

The 2011 budget for System Enhancements effort is shown in the table below.

Hosting	***$20,394.00***
12 Month Hosting	$18,540.00
Project Management	$1,854.00
Monitoring and Support	***$53,976.00***
Server Administration and Maintenance	$10,608.00
System Support	$43,368.00
12 Month Hosting and Support Total	**$74,370.00**
Additional Geomorph/Veg Protocol Implemented in the SDR	***$5,492.40***
Create online datasheets for each protocol	***$11,819.01***
WC	$7,323.20
LTPP	$4,495.81
Enhanced reporting	***$30,534.80***
Create map-based reporting interface	$11,398.80
Custom one-click reports	$15,474.40
Improved ad-hoc reporting	$3,661.60
Enhanced Map Interface for Riverflow and Program Data	***$9,036.24***
Project Management	***$8,714.00***
12 Month System Enhancements Total	**$65,596.45**
2011 Project Total	**$139,966.45**

6.0 SCHEDULE

Detailed schedule Forthcoming….