

**U.S. DEPARTMENT OF COMMERCE**

**Performance Progress Report**

2. Award Or Grant Number  
33-50-M09048

4. Report Date (MM/DD/YYYY)  
10-08-2010

1. Recipient Name  
University of New Hampshire

6. Designated Entity On Behalf Of:  
New Hampshire

3. Street Address  
8 College Road, Morse Hall,

8. Final Report?  Yes  No  
9. Report Frequency  
 Quarterly  
 Semi Annual  
 Annual  
 Final

5. City, State, Zip Code  
Durham, NH 03824

7. Project / Grant Period  
Start Date: (MM/DD/YYYY)  
01-01-2010

7a. End Date: (MM/DD/YYYY)  
12-31-2014

8. Reporting Period End Date:  
(MM/DD/YYYY)  
06-30-2010

9a. If Other, please describe:  
N/A

**10. Broadband Mapping**

10a. Provider Table

Number of Providers Identified	Number of Providers Contacted	Number of Agreements Reached for Data Sharing	Number of Partial Data Sets Received	Number of Complete Data Sets	Number of Data Sets Verified
72	72	15	3	15	0

10b. Are you submitting the required PROVIDER DATA by using the Excel spreadsheet provided by the SBDD grants office?  Yes  No

10c. Have you encountered challenges with any providers that indicate they may refuse to participate in this project?  Yes  No

10d. If so, describe the discussions to date with each of these providers and the current status

To date, we have only encountered issues with one small fixed-wireless service provider that we have been in contact with. However, there have been a number of providers who have been unable to submit the full complement of last-mile data we have requested. Further, we have had difficulty to date collecting the required middle-mile data, and continue to work with the small number of providers involved.

10e. If you are collecting data through other means (e.g. data extraction, extrapolation, etc), please describe your progress to date and the relevant activities to be undertaken in the future

The New Hampshire Broadband Mapping & Planning Program (NHBMP) is using Cellular Expert signal propagation software to map the service areas of wireless providers that do not have spatial service data available. We successfully processed data from three providers for the last data submission in May. The only difficulty we encountered is that not all providers have knowledge of the entire suite of input parameters required to fully characterize their transmission towers, and thus we were forced to rely on some default values to generate results. We will continue to refine our methodology in future iterations, and plan to offer customized modeling services to providers who may request it.

10f. Please describe the verification activities you plan to implement

We are planning to verify the provider data through a number of mechanisms. In the fall, we will host a series of community forums where we will distribute broadband surveys to participants. We will also expand our web site to collect data from residences/businesses regarding access. To complement these elements, we are reviewing several commercial data sets to determine their utility.

In the coming months, we will be exploring several field data collection activities. First, we will map clusters of homes with satellite dishes, as our premise is that satellite broadband will only be purchased if no other option is available. Secondly, we are exploring the feasibility of conducting a field survey to verify the wireless coverage using broadband signal meters.

We also will be implementing verification of the CAI data by sending a "profile" of data collected to each CAI contact, and asking the contact to update the information.

10g. Have you initiated verification activities?  Yes  No

10h. If yes, please describe the status of your activities

We have implemented two communication pieces on our project web site ([www.iwantbroadbandnh.org](http://www.iwantbroadbandnh.org)) - an email feedback to collect data on broadband availability, and a speed test. In terms of the CAI data set, and as reported previously, we used two techniques to verify the data collected. First, a randomly selected subset of 20% of the entities within each of the 7 data categories was generated as the basis of the verification. For each entity, the location was confirmed via web-based mapping services (Google Maps, Visual Earth, etc.). The attribute information was confirmed by re-calling the contact at each CAI. (This verification was conducted such that the surveying entity was independent from the initial data gathering entity.) Additional verification of the CAI mapping data was completed by the regional planning commissions by evaluating each CAI location with respect to available digital parcel data.

10i. If verification activities have not been initiated please provide a projected time line for beginning and completing such activities

Community forums: September - November, 2010

Windshield survey of satellite dishes: July - December, 2010

CAI verification - August - September, 2010

Web site data collection - ongoing throughout project, with enhancements incorporated incrementally

**Staffing**

10j. How many jobs have been created or retained as a result of this project?

For the calendar quarter ending 6/30/10, there were 4.87 (FTE) jobs created/retained.

10k. Is the project currently fully staffed?  Yes  No

10l. If no, please explain how any lack of staffing may impact the project's time line and when the project will be fully staffed

N/A

10m. When fully staffed, how many full-time equivalent (FTE) jobs do you expect to create or retain as a result of this project?

For the calendar quarter ending 6/30/10, there were 4.87 (FTE) jobs created/retained. The staffing table below reflects FTE % based on the hours worked funded by the Recovery Act per job category for this quarter.

10n. Staffing Table

Job Title	FTE %	Date of Hire
Project Director	0	
Project Coordinator	91	01/29/2010
GIS Analyst/Information Technologist	16	
RPC Executive Directors	34	
RPC Fiscal and Administrative Assistants	92	
GIS Specialists	100	
GIS Specialists	79	
Regional Planners/Analysts	87	

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**Sub Contracts**

10o. Subcontracts Table

Name of Subcontractor	Purpose of Subcontract	RFP Issued (Y/N)	Contract Executed (Y/N)	Start Date	End Date	Federal Funds	In-Kind Funds
Southwest Regional Planning Commission	Proposed Mapping Activities	N	Y	01/01/2010	12/31/2011	\$811,381	\$219,069
Southwest Regional Planning Commission	Proposed Planning Activities	N	Y	01/01/2010	12/31/2014	\$477,895	\$79,895

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**Funding**

10p. How much Federal funding has been expended as of the end of the last quarter? \$510,702      10q. How much Remains? \$1,225,013

10r. How much matching funds have been expended as of the end of last quarter? \$129,489      10s. How much Remains? \$180,921

10t. Budget Worksheet

Mapping Budget Element	Federal Funds Granted	Proposed In-Kind	Total Budget	Federal Funds Expended	Matching Funds Expended	Total Funds Expended
Personal Salaries	\$177,219	\$0	\$177,219	\$68,172	\$0	\$68,172
Personnel Fringe Benefits	\$39,816	\$0	\$39,816	\$14,892	\$0	\$14,892
Travel	\$9,500	\$0	\$9,500	\$715	\$0	\$715
Equipment	\$0	\$0	\$0	\$0	\$0	\$0
Materials / Supplies	\$98,759	\$0	\$98,759	\$35,331	\$0	\$35,331
Subcontracts Total	\$811,381	\$219,069	\$1,030,450	\$349,513	\$47,958	\$397,471
Subcontract #1	\$811,381	\$219,069	\$1,030,450	\$349,513	\$47,958	\$397,471
Subcontract #2	\$0	\$0	\$0	\$0	\$0	\$0
Subcontract #3	\$0	\$0	\$0	\$0	\$0	\$0
Subcontract #4	\$0	\$0	\$0	\$0	\$0	\$0
Subcontract #5	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$0	\$74,326	\$74,326	\$0	\$74,326	\$74,326
Total Direct Costs	\$1,136,675	\$293,395	\$1,430,070	\$468,622	\$122,284	\$590,906
Total Indirect Costs	\$99,366	\$17,015	\$116,381	\$42,080	\$7,205	\$49,285
Total Costs	\$1,236,041	\$310,410	\$1,546,451	\$510,702	\$129,489	\$640,191
% Of Total	80	20	100	80	20	100

## Hardware / Software

10u. Has the project team purchased the software / hardware described in the application?  Yes  No

10v. If yes, please list

Cellular Export signal propagation modeling software has been purchased.

10w. Please note any software / hardware that has yet to be purchased and explain why it has not been purchased

We have not yet purchased the server, as development of our interactive mapping site is not scheduled to begin until the fall.

10x. Has the project team purchased or used any data sets?  Yes  No

10y. If yes, please list

N/A

10z. Are there any additional project milestones or information that has not been included?  Yes  No

10aa. If yes, please list

We have submitted 2,658 CAIs, as follows:

1. Schools: 605 (20.0%)
2. Library: 619 (20.5%)
3. Medical/health care: 468 (15.5%)
4. Public safety: 526 (17.4%)
5. Post-secondary: 51 (1.7%)
6. Other community support – government: 713 (23.6%)
7. Other community support – non-governmental: 40 (1.3%)

The [iwantbroadbandnh.org](http://iwantbroadbandnh.org) web site has been developed to promote the project and host the NHBMP speed test. To date, over 887 data points have been collected. We are looking to extend the speed test to collect additional data fields that will enhance our data verification activities.

We have employed a number of public outreach mechanisms to promote the program and solicit participation in our data collection activities, including:

- o Press releases issued through the various news channels
- o Project presentations delivered at annual statewide planning conference and to NH Telecommunications Advisory Board
- o Team member participation in local/regional stakeholder meetings, including sessions in Rindge, Greenfield and Keene

10bb. Please describe any challenge or obstacle that you have encountered and detail the mitigation strategies the project team is employing  
The most significant challenge we continue to encounter is that of securing full service provider cooperation. Many providers indicate their willingness to participate, but have difficulty allocating the resources required to prepare/package the data for submission.

Our mitigation strategy is threefold:

- 1) The NHBMP has intensified its efforts to provide technical assistance to providers. For wireless providers, we have offered to work individually with them to conduct custom signal propagation modeling as a means of demonstrating the benefit of participating in the program.
- 2) We have enlisted the participation of the state's Director of Broadband Technology at the Department of Resources and Economic Development, who will be assisting us in working with individual providers.
- 3) We have requested supplemental funds in Year 2 to increase the level of technical assistance we can provide.

We anticipate that this will remain a challenge for the duration of the project.

10cc. Please provide any other information that you think would be useful to NTIA as it assesses your Broadband Mapping Project

N/A

## 11. Broadband Planning

11a. Please describe progress made against all goals, objectives, and milestones detailed in the approved Project Plan. Be sure to include a description of each major activity / milestone that you plan to complete and your current status

The NHBMP did receive an allocation to support broadband planning activities. However, these activities are not scheduled to commence until January, 2011. Accordingly, no activities are being reported at this time.

11b. Please describe any challenge or obstacle that you have encountered and detail the mitigation strategies the project team is employing

N/A

11c. Does the Project Team anticipate any changes to the project plan for Broadband Planning?  Yes  No

11d. If yes, please describe these anticipated changes. Please note that NTIA will need to approve changes to the Project Plan before they can be implemented

N/A

## Funding

11e. How much Federal funding has been expended as of the end of the last quarter? \$0                      11f. How much Remains? \$499,674

11g. How much matching funds have been expended as of the end of last quarter? \$52,769                      11h. How much Remains? \$80,738

### 11i. Planning Worksheet

Planning Budget Element	Federal Funds Granted	Proposed In-Kind	Total Budget	Federal Funds Expended	Matching Funds Expended	Total Funds Expended
Personal Salaries	\$11,455	\$0	\$11,455	\$0	\$0	\$0
Personnel Fringe Benefits	\$4,914	\$0	\$4,914	\$0	\$0	\$0
Travel	\$0	\$0	\$0	\$0	\$0	\$0
Equipment	\$0	\$0	\$0	\$0	\$0	\$0
Materials / Supplies	\$487	\$0	\$487	\$0	\$0	\$0
Subcontracts Total	\$477,895	\$79,895	\$557,790	\$0	\$0	\$0
Subcontract #1	\$477,895	\$79,895	\$557,790	\$0	\$0	\$0
Subcontract #2	\$0	\$0	\$0	\$0	\$0	\$0
Subcontract #3	\$0	\$0	\$0	\$0	\$0	\$0
Subcontract #4	\$0	\$0	\$0	\$0	\$0	\$0
Subcontract #5	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0	\$0
Other	\$0	\$52,769	\$52,769	\$0	\$52,769	\$52,769
Total Direct Costs	\$494,751	\$132,664	\$627,415	\$0	\$52,769	\$52,769
Total Indirect Costs	\$4,923	\$843	\$5,766	\$0	\$0	\$0
Total Costs	\$499,674	\$133,507	\$633,181	\$0	\$52,769	\$52,769
% Of Total	79	21	100	0	100	100

### Additional Planning Information

11j. Are there any additional project milestones or information that has not been included?

N/A

11k. Please describe any challenge or obstacle that you have encountered and detail the mitigation strategies the Project Team is employing

N/A

11l. Please provide any other information that you think would be useful to NTIA as it assesses your Broadband Mapping Project

N/A

12. Certification: I certify to the best of my knowledge and belief that this report is correct and complete for performance of activities for the purpose set forth in the award documents.

12a. Typed or Printed Name and Title of Authorized Certifying Official

Karen Jensen

12c. Telephone  
(area code, number, and extension)

(603) 862-2172

Sr. Grant & Contract Administr

12d. Email Address

karen.jensen@unh.edu

12b. Signature of Authorized Certifying Official

Submitted Electronically

12e. Date Report Submitted  
(Month, Day, Year)

10-22-2010

Performance Progress Report  
OMB Approval Number: 0660-0034  
Expiration Date: 08/31/2010