

**National Spatial Data Infrastructure Cooperative Agreements Program**  
**Category 3: Institution Building and Coordination**  
**Agreement No. 04HQAG0181**  
**Final Report –August 20, 2004 to June 30, 2005**

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**Project Summary**

The Bi-State Regional Commission has proposed to expand its scope of regional GIS coordination tasks to include the following: organize additional meetings and information sharing opportunities among key GIS personnel; coordinate informational presentations and

training sessions for the region's GIS users; enhance the Commission's website with a GIS resources section; collect information pertaining to existing GIS datasets in use around the region and publish this information to the Commission's website; maintain and improve regional GIS datasets; and coordinate a joint purchase of aerial photography for a five-to-six-county area.

These goals have been compiled into four distinct action items. A summary of the goals, accomplishments, challenges, successes and next steps follows for each of the four action items:

### **Action Item 1 – Expand the Bi-State Regional Commission Website**

#### ***Accomplishments***

The Bi-State Regional Commission website has been expanded in the following areas: a page has been added called GIS Coordination under the heading, Services -> Mapping & GIS. Please click on the link to review this page - <http://www.bistateonline.org/ser/map/gis.shtml>. Staff has also created a comprehensive list of links to local, regional, state and national resources and added it to the Commission's website under the heading, Links -> Mapping & GIS. Please click on the link to review this page - <http://www.bistateonline.org/lin/lin.shtml#gis>. In addition to local and state resources, this section includes links to the FGDC, NSDI, Geospatial One-Stop and The National Map.

#### ***Challenges***

We continue to find it challenging to assign staff resources for keeping the website content up-to-date. Developing the list of links to Internet resources was somewhat challenging in finding credible resources.

### **Action Item 2 – Survey of GIS Data Used in the Region**

#### ***Accomplishments***

Staff has developed a draft survey (Appendix A) to collect information regarding the types of geospatial data the various jurisdictions in our region maintain. After finalizing the survey, staff will post the it on the Bi-State Regional Commission website and, as results become available, publish them to the site.

#### ***Challenges***

Determining the datasets about which to query the survey respondents has proven to be quite challenging. The web-enable scripts are in place for the survey development. Now survey questions need to be designed into the website interface. Planning for the best way to get the most respondents has also been a challenge, knowing that most likely, very few local government staff will voluntarily take the time to fill out the survey.

### **Action Item 3 – Maintain and Improve Region-wide Datasets**

#### ***Accomplishments***

Staff continues to maintain and improve the Commission's five-county, region-wide GIS datasets that include street centerlines; political boundaries; points of interest, parks, public buildings and other landmarks; railroads; rivers and streams; trails and greenways; current and future land use designations; available industrial sites; urban area annual average daily traffic counts and aerial photography. Having these datasets up-to-date and readily available is crucial for use in the many projects that the Bi-State Regional Commission completes on behalf of its member governments and the region.

For example, the Commission provides mapping for a multitude of individual projects for our member governments, from Comprehensive Plans to Zoning Maps, from Water and Wastewater System Maps, to Developable Industrial Site Maps, and many more.

Many of these datasets were also instrumental in providing up-to-date geospatial data for use in updating a Quad Cities Street Map that is co-published by the Bi-State Regional Commission and the Quad City Development Group, with cartography provided by the Seeger Map Co. in Racine, WI. This map is a valuable marketing/location tool for current or prospective businesses and/or residents. The map update was completed and new maps ordered on August 10, 2005. New printed maps were received for distribution through the Commission and the Quad City Development Group on August 29, 2005.

In addition, the region-wide data collected and maintained by the Commission is frequently requested to use for region-wide planning done either by Commission staff or by outside consultants on behalf of one or more jurisdictions within the region. For example, the datasets are used extensively for the Urban Area Long Range Transportation Plan Update, an update for which is currently underway. Street centerlines and other base layers, along with demographic data are used for transportation network modeling. Natural resources and other geographic features are used to plan for recreation planning within the transportation network. The Commission's geospatial data has also been requested for such regional projects as: Interstate Corridor Planning, Wayfinding Signage Studies, Transit System Planning, Phone Directory Mapping and School District Planning.

### ***Challenges***

Acquiring up-to-date information from individual counties and municipalities continues to be a challenge. Most jurisdictions are usually willing to share the geospatial data; however, we end up with multiple copies of files that do not merge together very well. A common format and layout for attributes would be beneficial.

### **Action Item 4 – Coordinated Aerial Photography Purchase**

This project has been the main focus of our GIS coordinative efforts for the timeframe from August 20, 2004 through June 30, 2005.

A total of five hundred and seven (507) Bi-State staff hours have been spent on this project since its inception in April 2004 through June 30, 2005. One hundred seventy-one (171) of those hours were funded through the CAP Award. Participating jurisdictions have mutually spent five hundred and forty (540) hours (\$16,649) of in-kind match toward the CAP Award. All hours have been part of the effort to coordinate the joint purchase of updated aerial photography and other mapping products for the region.

### ***Accomplishments***

- Gathered information from similar multi-jurisdictional projects for reference;
- Held twelve multi-jurisdictional meetings to coordinate the joint purchase of updated aerial photography and associated mapping products, eight of which were within the CAP grant period; documented agendas and notes from the meetings;
- Held or attended nine additional meetings of various individual jurisdictions participating in the joint purchase to present information on the project;
- Developed a PowerPoint presentation about the project; and gave two formal presentations to the Bi-State Regional Commission (See PowerPoint slides, Appendices B & C);

- Determined participants in the project, i.e., geographic area and jurisdictions/agencies, etc.;
- Developed a “Letter of Intent” for various jurisdictions to commit to the project;
- Determined aerial mapping service products, needs and specifications;
- Developed a timeline and tasks to achieve acquisition of photography;
- Arranged informational presentations from two vendors;
- Developed a Request for Statement of Qualifications to solicit qualified firms to do the work;
- Reviewed twelve Statements of Qualifications from aerial mapping vendors and coordinated the selection of ten vendors to invite to submit proposals for the project;
- Developed a draft Request for Proposals;
- Procured a consultant to assist with the technical specification section of the Request for Proposals;
- Reviewed eight Proposals from aerial mapping vendors; procured consultant to assist with technical review and rating of proposals and coordinated the selection of two vendors to interview for the project;
- Coordinated interview sessions with two vendors and facilitated the selection process among participants;
- Contacted references in preparation of final vendor selection, shared with group;
- Facilitated final vendor selection, arranged and attended vendor’s project kick-off meeting;
- Finalized project areas and developed cost distribution scenario for project participants;
- Shared final project information with the media (press);
- Facilitated the addition of one jurisdiction to the project after media coverage and other presentations;
- Facilitated contract development for project between vendor and individual jurisdictions;
- Coordinated sharing of ground control information between vendors and jurisdictions to get set up for flight;
- Shared information on progress of flight, film scanning and orthophoto production between vendor and jurisdictions;
- Coordinated selection of pilot project areas, from which to view sample products;
- Reviewed sample orthophotos (pilot areas) as delivered;
- Shared information on this project with entities attempting a similar project through personal contact, phone and email
- Won an Iowa State Association of Counties (ISAC) 2005 Innovation Award for the Bi-State Aerial Photo Consortium Project. “The award recognizes those counties/affiliates that have initiated efforts resulting in greater efficiency and effectiveness in new or existing programs. It provides the opportunity for officials and staff of Iowa counties to receive appropriate recognition by their peers and the public for superior and innovative efforts in their profession. In addition, the program provides a means of sharing the best public service ideas in Iowa, providing other county officials a chance to learn what works and demonstrating that county government public servants are progressive, competent and caring.”

### ***Challenges***

- Developing a consensus among varying jurisdictions in terms of the size of the entity (municipality vs. county), level of expertise and the level of development in their Geographic Information Systems was one of our initial challenges.

- Securing a commitment from all jurisdictions to participate in the project was a challenge, budgetarily, mainly because the nature of the pricing was predicated on the participation of all of the jurisdictions in the geographic area. We did have one county drop out at the last moment, but it did not affect pricing too greatly. We also had another city join in on the project right before costs were finalized!
- Developing the technical specification section of the Request for Proposals was an additional challenge, for which we hired a photogrammetrical consultant, which was paid for through the CAP funding. There were differences of opinions, also, on whether the use of an outside consultant was necessary or not. The same consultant was also hired to perform a technical review and ranking of the Proposals for Services. One of our participating jurisdictions covered the consultation costs for those services.
- The project turned into quite a lengthy process, presumably because of the extra amount of work that went into coordinating this as one joint purchase. If each jurisdiction had procured a vendor individually, they may have been able to expedite the process, but . . .
- Because of so many jurisdictions participating, selection of pilot areas was very individualized; whereas if it were one or two jurisdictions participating, one pilot area would have sufficed.
- Communication has been an on-going challenge. With so many entities, meetings were not always feasible, so we worked through email. The only problem was that not everyone read their emails thoroughly.

### *Successes*

- The most obvious and tangible success of the project was the cost savings that were realized by joining together as a region and procuring aerial mapping services for a broad area, rather than individually contracting for these services. The magnitude of the coverage area brought a certain amount of buying leverage to the table when procuring a vendor and we were able to get very competitive pricing for the project. Participating jurisdictions estimated their individual cost savings to be between twenty-five and forty percent.
- This project opened the doors for more communication between the various jurisdictions than there ever was before. There was a great deal of information sharing that occurred on many levels, including technical issues, policy and administration issues and data sharing issues. Those jurisdictions that had less technical expertise were able to capitalize on the experience of those who had procured air photos in the past. Several data-sharing initiatives also resulted from the increased communication and coordination that occurred with this project.
- The end product for the joint aerial photo purchase will be seamless aeriels for an area covering portions of the two states, three counties and numerous cities and villages within. These photos and other mapping products will have the same vintage year, the same technical specifications and the same geographic projection.
- This project provided a jump-start for one of our counties, in particular, to initiate the development of its own Geographic Information System. Scott County, Iowa began to plan for the creation of a county-wide GIS in April 2002 by hiring outside consulting to create a strategic plan for implementation of GIS. This plan was approved in August 2003, but because of budgetary constraints and higher priority issues within the County, the implementation was put on hold. When the opportunity became available to participate in the region-wide acquisition of aerial photography, the County put the GIS project on the front burner again.

### ***Next Steps***

Bi-State staff will continue to provide a coordinative role in this project in future months as final products are delivered and inspected. It is the hope that this sort of coordinated acquisition of geospatial data could continue in the future, specifically with another region-wide aerial photo update. In addition, future ambitions call for a region-wide depository of geospatial information, which would be extremely beneficial to market the area to prospective residents, developers, tourists, etc.

### **Cooperative Agreements Program Feedback**

The Cooperative Agreements Program has been very beneficial, because it provides supplemental funding to sustain the regional coordination efforts that the Bi-State Regional Commission has been involved in, and has planned to implement in the future. The grant award was also instrumental in funding staff's time to coordinate the region-wide aerial photo project. In addition, the simple fact of being awarded the grant through its competitive process that spans nation-wide applicants was also rewarding. The recognition for the coordinative efforts fed into the success of the region-wide aerial photo project.

From our perspective in applying for the funding, the guidelines for which types of projects were eligible for the CAP funding was a little vague. We would suggest that CAP administrators provide fairly detailed summaries of projects that were funded for 2004 on the website as examples for future applicants. More direct email correspondence to all recipients, e.g., reminders when the Interim Report is due, etc., would be beneficial as well.

The kick-off workshop was an excellent source of information to learn about other GIS Coordinative efforts taking place across the U.S. It seems that similar projects across the nation have a common challenge: where to find funding. Could the CAP program be used to develop a repository of GIS funding resources? Perhaps a website could be developed that users can submit links or other information pertaining to funding resources. The list-serve was a good idea, but unfortunately it isn't being used. The administration of the award has been simple and low maintenance; this is appreciated.

Overall, participating in the Cooperative Agreements Program has been a positive experience.