F I S C A L I M P A C T R E P O R T

SPONSOR Arnold-Jones **ORIGINAL DATE** 03/06/09 **LAST UPDATED** **HJM** 81

SHORT TITLE Geospatial Info Sharing Task Force **SB**

ANALYST Archuleta

ESTIMATED ADDITIONAL OPERATING BUDGET IMPACT (dollars in thousands)

	FY09	FY10	FY11	3 Year Total Cost	Recurring or Non-Rec	Fund Affected
Total		$0.1	$0.1	$0.2	Recurring	General Fund

(Parenthesis ( ) Indicate Expenditure Decreases)

SOURCES OF INFORMATION
LFC Files

Responses Received From
Department of Information Technology (DoIT)
Energy Minerals and Natural Resources Department (EMNRD)
Department of Health (DOH)
Public Education Department (PED)

SUMMARY

Synopsis of Bill

House Joint Memorial 81 requests that Secretary of Information Technology in cooperation with the Governor's Office and Legislative Council to convene a task force to study the sharing of geospatial information and data analysis in order to address cross-jurisdictional issues including emergency responsiveness. The task force will study how public policy decisions can be made at the state and local level using integrated data analysis and data management models and methodologies for locating businesses, schools, hospitals and other public and private services as well as the management of natural resources and environmental issues.

The task force is to be comprised of the agency head, lead representative or appropriate designee from the Department of Information Technology, Department of Environment, Department of Finance and Administration, Public Education Department, Public School Facilities Authority, Higher Education Department, Department of Transportation, Office of the State Engineer, Administrative Office of the Courts, NM Association of Counties, NM Municipal League, Sandia National Laboratories, Los Alamos National Laboratory, as well as a variety of other state agencies and members from private information technology sector.

FISCAL IMPLICATIONS

The creation of the task force would require time and resources from each respective agency included assigned to the task force.

PED indicates that there would not be any significant fiscal implications to PED which is requested to participate in the task force along with 16 other agencies and the national laboratories.

DoIT is the lead agency on the memorial. It should be noted that DoIT, like other State of New Mexico agencies is faced with resource shortages due to budget shortfall.

SIGNIFICANT ISSUES

DoIT indicates that consistent and reliable geospatial coordination and support across the state is lacking, and geospatial technologies are inefficiently applied. Better coordination of these technologies will improve access to data and their application by all agencies while supporting data standards, acquisition, and sharing. Additionally, while many agencies perceive the utility of a GIS (Geographic Information System), they lack the resources (staffing levels, software/hardware, training, etc.) needed to build and maintain successful GIS programs. Such agencies would benefit from centralized expertise and technical support, especially in the most critical aspect, planning for a GIS.

> The Department of Health notes the following: Geospatial information can be a powerful tool to inform pubic health policy and programmatic decisions. Visualization of health outcomes and risk factors can provide important information regarding where conditions are unfavorable, and also potential explanations for unfavorable conditions.
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> At the program level, mapping of health outcomes and risk factors assists public health practitioners in targeting interventions to appropriate geographic areas. It is a uniquely interesting and engaging mode of communication to practitioners of public health as well as other disciplines. It has been used effectively to mobilize communities to make local, community-based improvements.
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> For policy makers, mapping can allow visualization of health and economic data by geopolitical boundaries, including counties, legislative districts and cities and towns. Geospatial analysis and mapping can allow policy makers to visualize data for their constituents.
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> Mapping also promotes understanding of health, economic, environmental, and social conditions that cluster geographically, and may need to be addressed in unison to improve those conditions. In this sense, mapping and geospatial analysis is a natural catalyst for inter-jurisdictional and interdisciplinary approaches to improve living conditions and health outcomes for New Mexicans.
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> Because of the interdisciplinary nature of geospatial data, a cross-jurisdictional task force would seem to be particularly useful. It is difficult and extremely inefficient for each public agency to work in isolation. To meet the business needs of multiple public agencies, and to create an organized structure and information technology infrastructure

best suited to address the geospatial information needs of the state, multiple agencies will need to be consulted.

GIS is a specialized field. Many public agencies will not have a sufficiently broad employee base to staff such a specialized position. Sharing information, tools, and expertise across agencies will support GIS activity in each agency.

GIS software is specialized and can be expensive. New Mexico would benefit from an evaluation of the need for enterprise licenses for the software. New Mexico would also benefit from interoperability of GIS systems and databases. An organized approach that includes the development and early profusion of technical standards will be beneficial. A task force could facilitate the development of those standards.

PERFORMANCE IMPLICATIONS

According to DoIT, state agencies collect and use a wide variety of data to support their respective mandates. Many of these data provide vital information for making sound management decisions that impact the State of New Mexico and its citizens. However, the application of geospatial technologies across all state agencies is not equitable. The current model is for each agency to acquire, process, and maintain data. This results in costly duplication of data, hardware, software, and technical expertise.

A more cost-effective model is collaborative and service based with centralized functions that manage, maintain, and deliver data; provide online and custom mapping services; and coordinate pilot and prototype projects. Accessing and sharing data, technology, expertise, and infrastructure become important elements in the collaborative model.

ADMINISTRATIVE IMPLICATIONS

Compliance with FERPA for education data requires monitoring and legal reviews. The PED can participate in HJM 81 with existing staff.

RELATIONSHIPS

House Bill 834 – State Data Analysis Center Act

Senate Bill 217 – UNM Geographic Information System

TECHNICAL ISSUES

DoIT notes that on page 4, around line 19, DoIT recommends change the recruitment authority to read “and any other entities deemed necessary by the secretary of information technology”. As written, the other entities are limited to colleges and universities – there may be other entities within the state that need to be included.

OTHER SUBSTANTIVE ISSUES

DoIT further notes that UNM’s Earth Data Analysis Center (EDAC) has been maintaining a

clearinghouse of GIS data and layers for over 15 years at the University of New Mexico (UNM). This effort faces numerous limitations:

- The present clearinghouse is a limited metadata portal that catalogs metadata and provides limited services to search and download spatial data (please review the ESRI portal toolkit to understand the metadata portal concept).
- There is not enough funding support to maintain the clearinghouse as an operational state GIS metadata portal.
- Complete datasets are needed for SSDI, NSDI and GOS contributions.
- Metadata is being developed, but Federal Geographic Data Committee (FGDC) standards need to be enforced more rigorously to conform to standardization.
- The existing portal is not sufficiently sophisticated to search, retrieve, download, and archive customized data, applications, and Web services.
- The data distribution system is not a Web-based map portal; such a portal would have to be designed and deployed.
- Existing staff is not sufficient to develop and maintain the clearinghouse or even provide specialized GIS services to other agencies within the state.

The GIS clearinghouse can be an excellent asset and resource to serve citizens. Inquiries are received for state data almost daily via the Colorado GIS website for geospatial information (www.giscolorado.com). Yet, there is no strategic direction for the clearinghouse that ideally would come from a higher authority.

> DOH indicates that disadvantaged populations often live in geospatial clusters. For instance, certain zip code areas of a city may have multiple disadvantages, including poverty, low educational status, poor health status, and lack of convenient access to health care and commerce. Better access to geospatial information on these issues will shed light on multiple disparities simultaneously. An inter-jurisdictional task force may help agencies to recognize the multifaceted disparities experiences in such areas, and work together more effectively to address them.

DA/svb