

Nebraska GIS Steering Committee

Meeting Minutes -- November 4, 1999

Present were (authorized to vote *):

Bryan Adamson		Lamp, Ryneerson & Associates, Inc.
Mahendra Bansal	+	Natural Resources Commission
Dennis Burling	+	Department of Environmental Quality
Lash Chaffin	+	League of Municipalities
John Erickson		Nebraska Department of Health and Human Services
Val Goodman	+	Nebraska Legislature
Dan Hoffman	+	Governor's Policy Research Office
Erik Hubl		Lancaster County Assessor's Office
Ed Kelley	+	Nebraska Department of Roads
Jim Koch		Nebraska Department of Property Assessment and Taxation
Mele Koneya	+	Nebraska Game and Parks
Jim Lacy	+	UNL - Conservation and Survey Division
Josh Lear		NNRC
Bob Martin	+	Department of Property Assessment and Taxation
Nathan McCaleb	+	USDA-NRCS
John Miyoshi	+	Lower Platte North NRD
Joseph Moore		Health and Human Services - SMS
Dick Nelson	+	Health and Human Services
Norm Nelson		Health and Human Services - SMS
Jerry Odum		National Geodetic Survey, NOAA
Sandy Powell		Hastings Engineering Department
Scott Richert		Lancaster County Assessor
Doug Steinke		Central Platte NRD
Duane Stott	+	Scottsbluff County
Mike Thompson		Nebraska Department of Water Resources
Paul Yamamoto		Nebraska Department of Environmental Quality
Larry Zink		GIS Steering Committee Coordinator

Complete Meeting Agenda

MAJOR MEETING TOPICS

Multipurpose Land Information Systems
Governmental Units - Priority Databases
Hydrography (Streams) - Priority Database
NITC Planning Process
Geospatial Data Sharing Cooperative
NACO Annual Conference
Next Meeting Date

DOQs & DEMs - Priority Databases
Transportation - Priority Database
Land Cover/Land Use - Priority Database
NITC Standards Invitation
GIS Annual Report
GIS/LIS Association
Meeting Voting Record

NOTICE OF MEETING: A public notice of the meeting, pursuant to Section 84-1411 R.R. S. 1943, was published in the Lincoln Journal-Star on October 28, 1999.

ROLL CALL: Chairperson Lash Chaffin called the meeting to order at approximately 1:00 p.m. and requested a call of the roll. Thirteen duly authorized representatives were present at the time of the roll call. Therefore, a quorum was present to conduct business.

MINUTES: Chairperson Lash Chaffin requested approval for the September minutes. Dick Nelson moved for the minutes of the September 9, 1999 Steering Committee meeting to be approved as distributed. Val Goodman seconded. As no discussion

was desired, Larry Zink called roll and the motion passed unanimously (*see vote #1 on Voting Record sheet*).

ADVISORY COMMITTEE ON STANDARDS FOR MULTI-PURPOSE LAND INFORMATION SYSTEMS: Erik noted that from the beginning, the advisory committee decided to focus on what it saw as the four fundamental elements of a Land Information Systems (geodetic control, base maps, cadastral data, and attribute data). A broader outline was developed to provide a context for the advisory committee's work. That outline includes addressing needs assessment, county applications, metadata, etc., however the committee has concentrated its work on the four key areas that it feels an agency should focus on when it starts to set up a GIS system. Erik quickly reviewed the previous guideline sections (and their recommendations) which the advisory committee has developed and the Steering Committee has approved.

Draft Cadastral Data Section. Erik Hubl then distributed a draft cadastral data section, commenting that completing this section was a long process. Erik indicated that the advisory committee would like to solicit comments from county assessors and clerks and from the GIS/LIS Association about this draft cadastral section. Erik highlighted the following four recommendations of the draft cadastral section and provided some related background information.

Importance of Spatial Accuracy. In a GIS/LIS, the cadastral layer contains the boundaries of property ownership and other rights to land. Many of the applications that use the cadastral layer involve overlaying other layers such as soils, flood plains, or zoning to determine property parcel characteristics or relationships to certain conditions. To support these types of applications, it is necessary to register accurately the spatial locations of various layers to each other. It is equally important to place the parcel boundaries in their accurate spatial locations and to portray their proper geometric shape as found in legal descriptions.

Land Ownership Patterns and Legal Lots. To provide the foundation necessary for a wide variety of local government GIS/LIS applications, it is recommended, that at a minimum the cadastral data elements associated with property parcels defined through legal government land subdivision and those associated with property parcels defined by land ownership patterns be captured as part of the graphic cadastral data layer(s). These graphic cadastral data elements include the locational coordinates for points representing parcel corners, topologically constructed lines between parcel corners representing parcel boundaries, and closed polygons representing the area included in a parcel.

Parcel Identification Numbers. A system of unique, permanent feature identification numbers is the key to linking specific graphic cadastral features to attribute information related to that particular graphic feature, which may be stored in separate databases. At a minimum, it is recommended that a system of permanent, unique feature identifiers be incorporated into the GIS/LIS for the land ownership parcel polygons, commonly known as Parcel Identification Numbers (PIN).

Cadastral Attribute Data. To provide the foundation necessary for a wide variety of local government applications, it is recommended that non-graphic, attribute data should be organized within the MPLIS which describes individual property parcels relative to their basic parcel characteristics, tenure, value, history, buildings and units within the parcel, and tax status. Much of this attribute data will already exist in separate databases within a variety of local agencies. The challenge will be interagency efforts to develop data linkages between databases; data standardization through shared coding, nomenclature and definitions; and processes within the MPLIS to facilitate the on-going maintenance of these dynamic, shared, parcel attribute databases.

Erik noted that the Advisory Committee was broad based in its make up and that its members include Erik Hubl from the Lancaster County Assessors Office, Roy Hahn, an attorney from the Land Title Association, Sandy Powell, an engineer from Hastings, Dan Silvis from the Douglas County Assessors office, Jim Koch from Property Assessment and Taxation, Duane Stott from Scottsbluff, John Beran from the State Surveyor's Office, Brian Dunnigan, Natural Resources Commission and Larry Zink, GIS Steering Committee Coordinator.

Wisconsin Funding Model. On a different, but related topic, Erik also noted that one of the charges to the Advisory Committee was to come up with ways to fund, promote and encourage the use of GIS. Erik observed that the idea of a document stamp tax is surfacing again. It was first discussed in terms of GIS funding in 1995 with a study of the Wisconsin model. In 1995, the Property Parcel Task Force discussed the document stamp tax. In 1996, the NACO Technology Task Force discussed the document stamp tax. This year at the October NACO meeting, Jack Mills proposed the concept to county assessors and commissioners as a possible way to fund assessment duties. Kathy Lang reiterated that concept at a separate meeting with the county assessors and mentioned it in a GIS Executive Committee meeting.

Erik noted that the Wisconsin model specifically directs the money to land modernization in a given county, not necessarily GIS development or usage. With this idea being discussed, the time may be right to promote this as the concept for deriving

some funding for GIS development. Currently, the money for the document stamp tax is channeled to the Affordable Housing Fund and to the Homeless Shelter Assistance. Wisconsin derived one million dollars in the first year and even a small amount of money could go a long way in the smaller counties.

John expressed appreciation to Erik and the Advisory Committee for all their work. He asked if the document stamp tax needed to be addressed. Lash said he was not comfortable raising this issue when it was not published on the agenda for today. Dick Nelson said that taking action would be subject to challenge. John pointed out that if this issue is to be presented to the Legislature, the Steering Committee needs to do its homework. Lash asked if NACO has taken action on this. Duane said no one knew it would be discussed. Larry added that currently those funds are earmarked for two housing funds until 2003. Duane said that in order for any statewide GIS development to be attempted, some funding source needs to be discovered. Larry pointed out that in the draft recommendation for the NITC, there is mention of the importance of a dedicated funding source.

Lash asked for the deadline for review of the draft cadastral guidelines. Erik said the Committee wants to give people plenty of time to comment on the PID recommendation so they are planning on more than two months. It is such an important section, they do not want to rush through approval.

Larry Zink said that he, Erik, Bob Martin, Jim Koch and Kathy Lang met to review the revised regulations. Currently, Property Assessment and Taxation is removing their PIN definition because none of the counties were following their structure. She was open to the Steering Committee testifying and raising this issue at an upcoming hearing about the draft regulations. It was also noted that there are four major vendors servicing all the counties in their administrative assessment work. If consensus could be reached with the vendors, the Property Assessment and Taxation would be willing to consider adding PIN guidelines into the summer revision of their proposed regulations.

Larry indicated that the Advisory Committee would like to request Steering Committee approval to use Str. Cmte. funds to send out a copy of this draft to the county clerks and assessors for their feedback. John Miyoshi agreed that it definitely needs to be done. He volunteered to mail this section out to the twenty-three NRD's if Larry will draft a cover letter. Lash offered to mail it to the larger cities if needed. Larry said that this is not the last section the Advisory Committee is working on, but that it is critical to attain as much consensus as possible.

John asked if there was a reason why a number was used instead of a letter to identify quarter sections. Erik explained that their suggestions were modeled after the original property tax guidelines. Sandy Powell commented that the reason the number remained numeric instead of changing to alpha numeric is data entry time.

John asked why they stopped at quarter sections instead of quarter quarter sections. Larry said that there is built in intelligence into the number. If the intelligence goes much lower than the quarter section, more complex issues arise and it is hard to maintain that intelligence. Erik added that parcels do not always end at the quarter section line. Duane said that when you are dealing with graphic and tabular information there has to be a mechanism to join the two so they can be related to one another. It must be a common item in each database field to serve as the joining item. Many agencies have unique identification schemes that are designed for their specific activities and those will remain.

Larry noted that at this point, the Advisory Committee is not proposing any kind of standards shift to this, these are guidelines for a PIN when a county goes to a GIS system.

John Mioyshi moved to approve the financial resources for printing and mailing the draft guidelines to county clerks and assessors for comment and feedback. Mahendra seconded. The motion passed. (see vote #2 on Voting Record sheet).

DOQ/DEM DATABASE ADVISORY COMMITTEE: Mahendra reported that they met last week and voted to have the NRC and USGS move ahead with the pilot project in Lancaster County. The purpose is to investigate and evaluate various methodologies and procedures to update the DOQ's. Three different techniques were identified to develop these DOQ's.

- The first is to develop DOQ's with GPS controls and aerotriangulation points. That is the best way to get good resolution and photoquality.
- The second method is to not use control points or aerotriangulation points but use the old aerotriangulation points and rectify those to develop the new generation of DOQ's. This method would reduce completion time by 50%.
- The third method is to not use GPS points or aerotriangulation but use the old DOQ's and rectify point by point with the new photography.

They will evaluate these methods to evaluate resolution loss versus costs.

DOQ's require the use of DEM's. The first generation was 30m intervals. The advisory committee recommended that the DEM's be revised to 10m intervals to improve resolution. However, the topography used to create DEM's has not been revised. The 10m interval DEM's may not be as accurate as envisioned. They plan to develop DOQ's based on 10m DEM's and on 30m DEM's to determine the respective quality of each.

Another issue that will be addressed by the pilot project involves using either the UTM system or the state plane system. The USGS requires DOQ's to be in UTM while the state has recommended using the state plane coordinate system for local government use. The pilot project will develop the DOQ's in state plane as well as UTM to facilitate the decision whether to use both systems or to store the data in UTM and translate it into state plane on demand.

These various techniques and methodologies will be explored to determine an optimum, cost effective means of developing DOQ's for the entire state. Larry pointed out the resolution drafted for the Steering Committee to extend its support to this project.

Prior to the meeting, Larry said he was approached by a new firm called Pixxures who is attempting to make a niche for themselves in updating DOQ's. Pixxures would receive the existing DOQ's and the new photography and would rectify them with the old photos point by point. Pixxures would then own the final product. Based on that information, the advisory committee discussed the offer and decided to continue with the pilot project and present the resolution to the Steering Committee. Reasons include ownership of data and the fact that in-house resources may be available to complete the pilot project but the advisory committee did not know where to locate the funds to pay Pixxures.

John Miyoshi moved to approve the resolution. Nathan McCaleb seconded. The resolution passed (see vote #3 on Voting Record sheet).

GOVERNMENTAL UNITS: Val reported that in his research on governmental units, he determined that the tax code of the Nebraska administration code requires cities to inform the Department of Revenue regarding boundary changes. Roads also collect boundary changes. On the taxable side, there are 39 different taxable divisions. Only three or four are statutorily provided for. Most of the local government units do not go higher than the county level.

Larry said that Val and his preliminary research has shown that there several of the governmental boundary databases of interest are in existence, but many of them need to be documented so that people can get access. Information flow is a big issue.

Lash asked how election commissioners keep track of municipal boundary changes. Val explained the flow of information comes from the voting precincts. It is all local information and it never comes to the state.

Lash asked if the next step was to develop recommendations. Larry said they plan to document existing information and make it publicly accessible. Then a method will be devised to capture municipal boundaries. Cities frequently send information to roads because they get reimbursed for road maintenance and that may be means for acquiring information.

Ed Kelley commented that Roads is working on developing an incorporated, comprehensive database of cities and villages in Nebraska.

TRANSPORTATION: Ed reported that a draft action plan was presented to the director of the Department of Roads. He reviewed and approved the plan, including setting up an Advisory Committee with Roads taking the lead. The Committee will meet and formally set up and adopt goals. They have identified an initial list of potential Advisory Committee members. They are hoping that local governments will come forward with their E911 data.

John Mioyshi asked how much of Nebraska's roads are already digitally available. Ed said they have 10,000 miles of state maintained highways on a scale of 1/24,000 and another 10,000 miles of local arterial roads being digitized right now. There are about 66,000 miles of road that has not been electronically mapped.

HYDROGRAPHY: Larry said the Committee has not met since the last Str. Cmte. meeting. It is currently waiting for approval from the USGS on the Committee's draft proposal. Mahendra commented that there are two methods of waterway tracking and the Advisory Committee is waiting for the release of ESRI's new methodology, to be included in its draft proposal.

Larry added that he has met with the Roger Patterson, Director of the Department of Water Resources to discuss the pilot project and that there are a number of agencies supporting this pilot project effort.

LAND COVER: Larry said there have been two meetings of this Committee. There is a good cross section of groups on this Committee. The Committee met and shared what is being done right now in terms of land cover and land use. The next step is to determine a classification scheme that will allow some sort of nesting of these features from the most general to the most specific.

GIS PARTICIPATION IN THE NITC PLANNING PROCESS: Larry pointed to the handout on draft NITC recommendations and explained that the core recommendations are in this document but that it is as of yet incomplete. Larry noted that he is still waiting for the final format guidelines from the NITC. When he gets that, he will complete the draft recommendations and the Executive Committee will review and approve them as per the understanding developed at the last Steering Committee meeting.

Lash asked if the concept of some type of funding mechanism in the document. Larry said that it shows up twice. The first mention raises the general concept of creating some type of fund aimed toward collaborative efforts in developing geospatial databases. There is also more direct recommendation identifying the importance of GIS/LIS along with recognition of the need to adequately fund GIS enterprises. The land transaction fee is named as a possible source.

Lash questioned whether the GIS Steering Committee is the most appropriate advocate for this sort of funding request. There is a lot of state representation on the Committee and pressing for additional taxes and funding may place those representatives in a conflict of interest. NACO may be a better vehicle.

Dick agreed that the most effective role for the Steering Committee is to draw attention to the need for funding not to promote any specific source. Any public funding is a matter of priority. The land transaction fee is currently devoted to two homeless shelters. Whether the Steering Committee should be attempting to divert the money from those sources is a question of priority. The availability of existing funds has not been explored at all. It is easy to levy additional taxes but it is much harder to reallocate existing resources. Dick expressed discomfort in having the Steering Committee come out in favor of any particular funding mechanism, especially as no other avenues have been explored.

Larry said that funding for statewide databases and funding for local government land modernization have always been separate issues for him. Cathy Lang had raised the document stamp tax funding idea in conjunction with a discussion of the collaborative fund concept. There is a lot of merit in considering the funding for each separately.

A dialogue needs to begin with the Legislature and the Governor to express the need for funding for GIS and ask them how they envision proceeding.

John said that NACO would be a good advocate for this idea. Larry commented that it was his third-hand understanding that Jack Mills was thinking of this money as being more for the general funding of the assessor's office rather than targeted specifically for the modernization of land records.

NITC STANDARDS PROPOSALS : Larry explained that the NITC and Steve Schafer asked if the Steering Committee would be interested in assisting the NITC in their process of developing standards. The NITC has been charged with developing technology standards for the state and is working on creating a process to do so.

Larry suggested forwarding the already drafted and approved metadata standards to the NITC along with some guidelines on application. Dick Nelson recommended the accompanying documents include policy options to avoid getting into mandates. Larry explained that the NITC is looking for fairly clear recommendations from the Steering Committee, as the NITC is not versed in GIS. As GIS issues arise in the NITC, they will be referred to the Steering Committee.

Dennis pointed out that the Steering Committee is charged with recommending standards but has no enforcement ability. The NITC should be informed that metadata standards exist governing the creation of GIS databases. Larry agreed that the Steering Committee does not have enforcement authority but the NITC does. Dennis said he would be willing to create guidelines but not mandates and will not be a part of voting in mandates.

Larry said that the three issues that need to be decided are whether the Steering Committee wishes to submit a standard for the NITC's consideration. Second, is metadata good to begin with. Third, does the Steering Committee want to send guidelines for the application of standards. Lash asked if that translates into potential enforcement. Larry explained that enforcement would probably mean that the NITC would not approve projects that do not meet the recommended standards.

Mele asked what type of standards the NITC was seeking. Larry said they have global authority that they can technically act in, which includes hardware and software issues. Larry has been advocating that they also consider the data side of standards and the NITC is responding to that.

Larry clarified that the Steering Committee would like to tell the NITC that there exists a nationally recognized and Steering Committee sanctioned standard for documenting geospatial databases known as the FGDC compliant. The Steering Committee offers that as a standard to document and recommends its use for geospatial database because it facilitates the sharing of the data. John suggested using the term 'endorses' rather than recommends. Larry said 'endorse' would work if that was the Steering Committee's choice. However, Larry indicated that he would be inclined to use 'recommends' and 'should' because he felt it is good stewardship to document geospatial databases created with public funds so that everyone can use them and so they retain their value and he felt the Steering Committee should say so. Lash pointed out that it seemed dishonest for the Steering Committee to recommend standards with no enforcement authority and ask another entity to apply that enforcement.

Dick noted that the worst thing that could happen would be if the NITC did not ask for help from the Steering Committee. Due to their mandate to set standards, they could adopt standards that would not be aligned with the work already done by the Steering Committee

GEOSPATIAL DATA SHARING COOPERATIVE: Lash said that he, Larry, Lauren Hill and Jim Koch met to discuss drawing up a document for local government and state agencies to use to perpetuate the idea that they will be exchanging electronic data among agencies. The group agreed to limit this to government agencies. Power districts can be tied in to government to allow them access to this information. Lauren Hill will draft a document as an interlocal agreement allowing each agency to retain ownership of its own data and barring reuse and reselling of other agency data.

Larry said that the intent was to include federal agencies but there was concern about negotiating the bureaucracy to get approval for the agreement. Nathan was unaware of any agreement of that type. He suggested taking it a step at a time. Lash said that in New York, a second agreement had been drafted.

Mahendra pointed out that the Secretary of State is moving toward disseminating most database information through his initiative as part of E-Government promotion. Larry questioned whether this included geospatial databases. Lash said that the Secretary of State's office is an independent entity that no one else can really speak for and that they are moving very aggressively to get a handle on records. Mahendra added that they have stated that all information will go through NOL.

John said that this might get rid of that gatekeeper mentality. Mahendra explained that they are interested in promoting E-Government. Lash said that this agreement needs to be implemented quickly to set the precedent for data to be shared at production costs among local and state government.

ANNUAL REPORT: Larry pointed out a draft outline of this year's Annual Report and explained that last year he created a traditional, comprehensive report along with a shorter summary to distribute to the Legislature. This year, he proposes drafting a shorter report. The Steering Committee agreed.

NACO ANNUAL CONFERENCE: Duane said that there was a lot of interest. There are three county representatives who should be contacted. One representative in particular was receptive to a hands-on demonstration to their county commissioners. Larry commented that there is a real need to develop a road show. Duane said that is what is needed to get these counties who are vacillating on committing to a GIS. Larry added that they need someone outside with no product to push to demonstrate the value of a GIS.

GIS/LIS ASSOCIATION: Scott reported that the first GIS forum was held today. It was well attended considering it was in competition with the ESRI conference. The board member meeting took place last week. Marsha Roberts was replaced by Teresa Silence from Applied Data Consultants of Omaha. She is with the Army Corps of Engineers as well. The Association is still working on a map for distribution to the legislature for GIS Day. The Association membership brochure is complete.

The Platte River GIS working group held a GIS meeting last week. Another meeting is planned for November 21.

Mahendra suggested adding an organizational membership to allow agencies to join the Association. They could then become sponsors for different projects. Scott said that was discussed but decided against including it for the first year.

STEERING COMMITTEE MEMBERS UPDATES AND AGENCY GIS ACTIVITIES: Ed Kelley said that the Department of Roads has selected Geodecisions, a consultant who is to assist the department in developing a strategic plan. This consultant may want to contact other agencies that the Department works with.

Mahendra said that work on the soil survey database, a cooperative agreement with the NRCS and CSD, is proceeding better than expected. Thirty-eight counties are certified with six or seven in process. The target completion date for a statewide

database is 2001. John recommended training for government officials and private individuals on using this database. Nathan agreed that a training program should be put together and they would work on it. As the project continues, more limitations are surfacing. For one thing, the database does not produce a published map. They are developing a digital map finishing which will allow a map to be sent directly to a plotter for printing.

The next meeting will be January 20, 2000

The meeting was adjourned.

Voting Record

Vote Tallies for <u>11/4/99</u> GIS Str. Cmte. Meeting										
	Roll call	Min. #1	MPLIS mailing #2	DOQs/ DEMs #3	.. #4	.. #5	.. #6	.. #7	.. #8	.. #9
DAS - Rick Becker (Lori McClurg)	A	.	.	.	.	.	.	.	.	.
DEQ - Tom Lamberson Dennis Burling (Mike Linder)	P	+	+	+	.	.	.	.	.	.
CSD - Mark Kuzila, Jim Merchant, Jim Lacy	P	+	+	+	.	.	.	.	.	.
NGPC - Mele Koneya Bruce Sackett (Rex Amack)	P	+	+	+	.	.	.	.	.	.
NRC - Dayle Williamson Mahendra Bansal	P	+	+	+	.	.	.	.	.	.
PRO - Lauren Hill Dan Hoffman	P	+	+	+	.	.	.	.	.	.
PTD - Cathy Lang Bob Martin , Scott Gaines	P	+	+	+	.	.	.	.	.	.
DOR - Dick Genrich (John Craig) Jon Ogden Ed Kelley	P	+	+	+	.	.	.	.	.	.
St.Surv - Jim Brown	A	.	.	.	.	.	.	.	.	.
LRD - Val Goodman	P	+	+	+	.	.	.	.	.	.
Nathan McCaleb Kelly Klenke	P	+	+	+	.	.	.	.	.	.
John Miyoshi	P	+	+	+	.	.	.	.	.	.
Blaine Dinwiddie Steve Larson	A	.	.	.	.	.	.	.	.	.
Cliff Welsh	A	.	.	.	.	.	.	.	.	.
Larry Worrell Jim Langtry	A	.	.	.	.	.	.	.	.	.
Lash Chaffin	P	+	+	+	.	.	.	.	.	.
Duane Stott	P	+	+	+	.	.	.	.	.	.
Dennis Wilson	+	.	.	.	.	.	.	.	.	.
Dick Nelson John Erickson	P	+	+	+	.	.	.	.	.	.
TOTALS	13 - P	13 - +.	13 - +	13 - +	.	.	.	.	.	.

"P"=present, "A"=absent, "+"=voting for, "-"=voting against, "NV"=not voting