Maine Library of Geographic Information Board Meeting
Date: Wednesday, August 18th   , 2010
Time: 10:00 AM to 12:30 PM
Place: Burton M. Cross Building, Conference Room 105.

AGENDA

1. Approval of the July 21st meeting minutes – Chair

2. Membership - All
   Seat # 6 - Representing Municipal Government
   Seat # 15 - Representing the Public

3. Strategic Plan Implementation Groups
   - Coordination & Communication – Mike Smith, Dan Walters

   - GeoParcels – Nancy Armentrout
     Grant for roads and parcel development- Mike Smith

   - Education & Training – Tora Johnson (or designated Board member)

   - Geospatial Data – Joseph Young (or designated Board member)

4. Committee Reports
   - Financial Committee - Chair
     Work request from Mr. McNeal:
     * funding options & $ amounts*
     * talking points*
     * time frame: next legislative session*

   - Policy & Marketing Committee

   - Technical Committee – Christopher Kroot
     Status of GeoPortal

NEXT SCHEDULED MEETING: Wednesday, September 15th , 2010, 10:00 a.m. – 12:30 p.m.,
Burton M. Cross Building, Conference Room 105.

Maine GeoLibrary Board
August 18th , 2010
Meeting Minutes

Present
Dan Walters
Michael Smith
Nancy Armentrout
Vinton Valentine (by phone)
Gretchen Heldmann, Chair
Kenneth Murchison (by phone)

Paul Hoffman
Judy Colby-George
Christopher Kroot
Staff
Larry Harwood
Visitors
Steve Weed, Assessor Town of Bar Harbor
Joseph Young, State Planning Office
Tora Johnson, University of Maine at Machias (by phone)

The meeting was called to order at 10:08 AM. Lacking a quorum, the Chair moved to item 2 on the agenda.

2. Membership
Seat #6, Representing Municipal Government, was recently vacated by the resignation of Greg Copeland. Aimee Dubois reported earlier that her nomination by the Maine Municipal Association has gone out to the President of the Senate. There has been no word yet on the appointment.

Presuming the appointment takes place, seat # 15, Representing the Public will be vacant. No nominating authority is named in the legislation. Interested people had been asked to submit via mail a letter of interest and summary of experience to Larry Harwood by August 1st however Larry has heard nothing at all. There was a suggestion that regular visitors Joseph Young or Steve Weed be asked to volunteer for nomination. It was also suggested that the nominee not be from state government. It was decided to promote the position and ask for volunteers at the next Maine GIS Users Group (MEGUG) meeting on the 16-17 September.

3. Strategic Plan Implementation Groups

Coordination and Communication
Mike Smith reported that Dan Walters, Joe Young and himself have been concentrating on the orthoimagery 'pilot project' in cooperation with the Greater Portland Council of Governments (GPCOG). It will recalled that this was a proposal to fly orthoimagery for Cumberland county funded by contributions from the federal, state and county governments. Ideally both York and Cumberland counties – "section 3" in the Orthoimagery Report[1] - would be flown for 2 foot resolution imagery. Dan Walters has completed an article (see Attachment A) on the Orthoimagery Report intended for publication by the Maine Municipal Association. This has been circulated and Board members have contributed their input. Also noted, Jon Giles has submitted articles to the Maine Association of Professional Soil Scientists (MAPSS) and the Maine Association of Site Evaluators (MASE).

GeoParcels
Nancy Armentrout reported that the Maintenance team, subgroup of the Hancock County project team, has been working on a plan or process for maintaining parcel data in the pilot project. She listed the team members as Steve Weed, Aimee Dubois, Jon Giles, Judy Colby-George and herself. The parcel viewer is still being worked on by OIT programmer Bob Bistrais but is nearly complete. There will be a meeting of the GeoParcels Group today at 1:30.

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[1] For the full text of the report go to http://www.maine.gov/geolib/workgrps/geo_data/memb_mission.htm

Mike Smith announced that his request for roads and parcels data funding through the broadband mapping program has been tentatively approved; actual funding is almost a certainty. The total budget from 2011 to 2014 is $375,000. Calendar 2011 and calendar 2012 funding are intended to support the cost of E911/DOT roads conflation at approximately $100K and parcel data development at approximately $225K. This will allow an expansion of parcel data development into Washington County. The last 2 calendar years are specifically broadband mapping funding.

Education and Training

Tora Johnson reported that esri[2] is now offering 'full site' licenses for K thru 12 schools. In practice this means licensed schools may use, quite literally, any esri product they wish. A meeting is being scheduled this Fall to see how Maine schools can take advantage of this initiative. If something develops there will be a minimal amount of funding needed for set-up. Data will also be required but that is more widely available. The esri products are attractive in part because of the large volume of curriculum materials available.

Unfortunately, despite strong efforts, GIS usage has not spread much in Maine schools at the K thru 12 level. Where GIS is in use it is usually an individual teacher's effort based on that individual being somewhat skilled with some GIS software. It has also proved difficult to introduce GIS software onto the iBook laptops. This is partly because of the operating system and partly because the iBook is a light duty machine with a modest processor. On the other hand, there has been some use of the use of internet for GIS and of Google Earth. The on-line approach however does not allow for GPS collection by students.

This topic generated many questions and comments which are here summarized in outline form.
- Frankly it seems we are again encountering the old Mac[3] vs PC problem. It is said that esri is moving away from Mac altogether by reason of the operating system problems.
- There are some non-esri solutions. Quantum GIS, aka QGIS, is a freeware that will run on any of the common operating systems. Cartographica is a low cost GIS software specifically for the Mac operating system.
- In state government we have had good success with Citrix[4] as an way to access our GIS software. Citrix is particularly good for thin clients; it does not load down the local processor.
- The state agencies have been doing a great deal with Google Earth, too much to relate. Suffice it to say we think we can replicate many GIS functions with the GE enterprise licenses and certain scripts in the process of being written.
- The on-line approaches mentioned have their own problems, particularly the lack of bandwidth at schools and the inability to store data and projects locally. Different areas also have very different wireless availability and bandwidth.
- Q: Could the students use newer technology such as 'smart phones'? A: No, because as public schools, the rules will not allow that for many reasons.

Wrapping up, there were two more items to report. First the next version of the screen or 'image' for the MLTI[5] iBooks will be prepared in the near future. If anything is to be added to this year's image it

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[2] Formerly Environmental Systems Research Institute, makers of the ArcInfo suite of GIS software. The corporation now goes by this acronym.

[3] Short for Macintosh a series of machines produced by the Apple corp, and a term commonly used in the GIS community to refer to all Apple products and their operating system.

[4] Here meaning one of the Citrix Corporation's software products that eliminates the permanent installation of applications on the user's machine by streaming the application and data.

[5] Maine Learning Technology Initiative, the official name for the laptop program in K-12.

would have to be negotiated very soon. Second, the third annual conference of GIS educators is scheduled for November 19th at the Augusta Civic Center, details to be provided later.

At this time sufficient Board members had arrived to form a quorum. The Chair returned to item 1 on the agenda followed by a return to item 3.

1. Approval of the July 21st   Meeting Minutes

The Chair entertained a motion to approve the minutes. There was one change; on page 5 under Policy & Marketing, Vinton Valentine is representing "the University of Maine *System*". Mike Smith moved to approve the minutes as amended. Christopher Kroot seconded. The Board voted 7[6] in favor, none opposed, no abstentions[7]. The motion carried.

Geospatial Data

Joe Young reported that the Group has had somewhat reduced activity in the past month. As Mike Smith had previously detailed, they have been investigating with Greater Portland Council of Governments a pilot orthoimagery project in southern Maine. They plan to have a meeting soon of a subgroup to look again at a landuse coding standard based on extensive previous research by Janet Parker of State Planning Office. The plan is to send out a synopsis of the standard to the municipal assessors for comment; the details need to be worked out for that operation. Lastly the LiDAR[8] collection will begin as soon as the leaves are off the deciduous trees.

5. Subcommittee Reports

Financial

Mike Smith reported that he and Dan Walters have been working on a proposed budget which is nearly finished. That will be the easy part compared to determining which funding options to pursue. It was noted that some way will have to be found to pay for the maintenance of the GeoPortal in the future and this should be reflected in the budget.

Policy and Marketing

There was no report today on this topic.

Technical

Christopher Kroot reported that rather extensive personnel changes at the University of Southern Maine (USM) had greatly hampered progress on the GeoPortal. They have also had a recent system-wide outage. Work on the portal however has been ongoing of which the following is an outline.
- The viewer MapFish has not worked out. Instead they propose to use another free software called OpenLayers[9]. The map viewer will use the state's own data layers for the basemap display. Users will be able to turn layers on and off.
- There is a new navigation toolbar with more typical GIS functions and icons.
- The Redmine[10] reporting system is OK technically but the response needs to be looked into.

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[6] Due to members arriving and departing during the meeting, the numbers may change.

[7] Unless otherwise indicated, the Chair abstains from all votes.

[8] Light Detection And Ranging, an optical remote sensing technology used in this case to measure elevation with great accuracy.

[9] http://openlayers.org/

[10] Redmine is an open source internet based project management and bug tracking tool.

- Searching by geographic area has been a problem. It turns out this is due to the bounding coordinates given for some data in the metadata. This is outside the original scope of the project and needs to be thought over. One way to fix this is to read the actual bounding coordinates of incoming data and correct the metadata.
- Another search problem is that the GeoPortal is searching on ISO[11] keywords as opposed to FGDC[12] as is maintained in most of our metadata. This will not be a problem when FGDC is eventually 'folded into' ISO
- Tool tips will be added to the help function
- There are still bugs in the current version of GeoNetworks. They want to upgrade to the next version. However the agreement does not include the Board paying for the upgrade so they have not decided yet.
- We should be ready for the formal review in about 2 weeks.

Q: Could we add a fly-out with plain language descriptions?
A: Yes but someone would have to write it – and it would have to be in the metadata.

Sidebar
Christopher Kroot gave a short report on his work with the Public Utilities Commission (PUC) and the Maine Emergency Management Agency (MEMA) on a Common Operating Picture or COP. This is a Google Earth based application to track utility outages. In an emergency it will be available to nearly 600 users. It is scheduled to be available for testing in September and MEMA will handle the training of users. This application will use Maine data, especially the most up to date E911 roads data. In this respect the map view will be similar to the GeoPortal and on-line base maps.

There was some discussion of bringing into the GeoPortal data other than municipal parcel data. Some examples cited were non-profits, non-governmental organizations, snowmobile associations and recreational, e.g. Maine Island Trails. Opinions differed on which organizations to approach and how to do so. The consensus seemed to be to show the potential data sources the GeoPortal at work and then ask them for their participation – and data. The Chair asked the GeoParcels Workgroup to discuss this matter and come back to the Board with a recommendation.

The meeting was adjourned at 11:38.

Attachment A

GeoLibrary Recommends Improvements to Statewide Orthoimagery Production

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[11] Not an acronym, ISO is an international organization composed of national organizations that promote standards.

[12] Federal Geographic Data Committee, interagency committee promoting standards including metadata standards.

Aerial photography, in the form of **digital orthoimagery**, has become the key element for emergency management, public safety, economic development, conservation, environmental protection, and many more state, local and private programs in Maine. It is an essential product that has been developed by many organizations, including the state's larger cities and towns. In contrast, most small towns in Maine cannot afford to acquire orthoimagery on their own. Regardless, there is still a statewide need for this kind of information.

With this in mind, the Maine Library of Geographic Information (GeoLibrary) produced high resolution digital orthoimagery for most of the state in 2003, 2004 and 2005. State bond funds were matched by federal dollars to pay for the project. The products have been widely used and have become a valuable resource for work across the state. Testimonials from organizations which have used that 2003-2005 orthoimagery can be seen at this link: http://www.maine.gov/geolib/orthosurveyresults.htm

The orthoimagery is aging and much has changed over the Maine landscape. It is time to acquire new aerial photography, produce digital orthoimagery and make plans for future updates. The Maine GeoLibrary Strategic Plan, developed with the input of stakeholders across the state, identifies updated digital orthoimagery as a statewide priority. As a result the GeoLibrary established a subcommittee to develop a report and make recommendations for an orthoimagery program for Maine. The mission of the orthoimagery subcommittee was to develop a program that leverages federal, state, local and private funding to provide statewide high resolution orthoimagery on an ongoing basis. *The GeoLibrary's goal is to establish a statewide program that will provide this valuable imagery data resource at a lower per square mile cost, at higher resolution and on a regular schedule.*

The subcommittee has completed its work and their report is published on the GeoLibrary website (links below). Here are the main components of the proposed program:

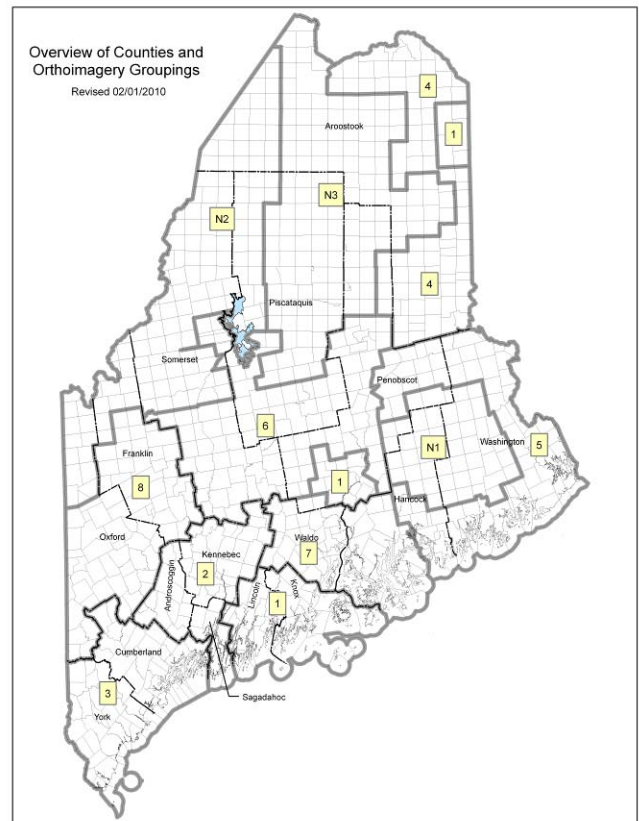- Divide the state into 11 groups of towns (see figure 1).

Figure 1.

- Acquire aerial imagery for each group of towns every 3 or 5 years based on the estimated rate of change and development. For example groups 1 and 4 on Figure 1 would be acquired in year 1 with group 1 being acquired again 3 years later while group 4 would not be acquired again until 5 years later.
- Provide 2 foot resolution aerial orthoimagery for all organized towns and 3.3 foot resolution aerial orthoimagery for the unorganized territories.
- Allow buy-up options for groups of towns to acquire better quality orthoimagery (e.g., 1 foot or 6 inch resolution imagery) by adding funding to the base program.

- A recommendation to issue a request for proposals to hire a contractor for a five year cycle to establish the best possible pricing for the base program and buy-up options.

and finally and possibly most importantly

- **publish a schedule of acquisition so that cities and towns and other partner organizations know when their areas of interest will be acquired 2 years in advance so they can budget funds for buy-ups.**

The cost of the base program is estimated to be approximately $450,000 per year over a 5 year cycle. The anticipated savings generated by this coordinated effort would be significant. The program has not been funded yet, but the Board's Finance Committee is exploring options with the hope of implementation by the spring of 2012. One option could be an agreement between state, county and federal government to share the base program costs and meet fundamental needs statewide. Other stakeholders would participate in buy ups to improve the products to varying local needs.

If implemented, the recommended program will reduce the cost to towns and other program participants, increase the amount of standardized, high-quality products, provide regular updates, and ensure all Mainers have access to current orthoimagery for their community and businesses.

The GeoLibrary Board urges all organizations using orthoimagery to read this report carefully and provide comments to the Board as soon as possible.

Send comments and questions to Larry Harwood at Larry.Harwood@maine.gov.

Report and recommendations
http://www.maine.gov/geolib/workgrps/geo_data/orthoimagery_sub_gp/Orthoimagery%20Subcommittee%20Report%20Final%20.pdf

Appendices
http://www.maine.gov/geolib/workgrps/geo_data/orthoimagery_sub_gp/Orthoimagery%20Subcommittee%20Report%20Appendices%20.pdf

GeoLibrary Board Website
http://www.maine.gov/geolib/