

EXECUTIVE SUMMARY

“...[The ORMAP Policy Advisory] committee would like ... feedback from other states that may have projects similar to our ORMAP project, especially the challenges they may have faced when coordinating regional efforts.”

At the Policy Advisory Committee meeting on 10/24/2002, the Department of Administrative Services' Geospatial Enterprise Office offered to research other states' efforts regarding the use of regional strategies as the means to create a statewide taxlot base map. This document is the result of that research effort. Research was conducted through the Internet, through documents provided by the National State Geographic Information Council, and through telephone and email interviews.

There are three key observations to be made as a result of this research. First, while several states have implemented web-based information systems similar to ORMAP's Goal 1 image product, there is no pattern to be discerned concerning the content or the goals of those efforts. Many sites lack clear documentation about the improvement and maintenance of those data systems. Access to assessment information associated with the imagery is very limited, especially in state-scale implementations. Second, while several states are in the earliest stages of developing an ORMAP-like integration of assessment maps and associated data, none have established a “local-regional-state-federal” cooperative model for the effort. Most have started from a funded legislative mandate (like Tennessee) or from a centralized, state agency-hosted situation (like Montana). Others seek a standardized data reporting structure (like New Jersey) or a simple point-based base map tied to assessment data (like Maryland). And third, several states are beginning to explore the creation of statewide base mapping similar to ORMAP, but have not yet moved ahead with those efforts.

The ORMAP effort is uniquely positioned to lead state-level efforts to create statewide cadastral information systems that tie GIS-based taxlot polygons to assessment databases. Our integration of the concerns of cartographers, surveyors, assessors, and GIS professionals in the creation of ORMAP is exemplary. In short, there are no other states doing quite the same thing quite the same way that ORMAP is. We are a bit ahead of the game in the arena of cooperative collaboration across traditional jurisdictional boundaries, especially in terms of receiving guidance from local data creators/maintainers. A consistent suggestion among the people I contacted was the need for a strong statewide leadership perspective as the best way to accomplish statewide goals.

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To determine the extent to which other states' efforts can inform ORMAP's regional coordination activities, I began my research with the National States State Geographic Information Council's *Statewide Leadership and Coordination of Geographic Information and Related Technology in the 50 States* document (particularly Appendix D: State Summaries), which is available as a PDF document. Then, as appropriate to the development of statewide cadastral data systems, I visited each state's GIS clearinghouse website (see appended lists of relevant URLs). In some cases, I followed up the website-based research with telephone and/or email interviews of state GIS coordinators or other appropriate contacts in the state. I found that the ORMAP effort is uniquely positioned to lead the effort to create a statewide cadastral information system that ties GIS-based taxlot polygons to assessment databases. ORMAP is positioned to succeed, in part because no other state is pursuing a locally-oriented, regional approach to creating a maintained tax mapping system that is simultaneously tied to assessment data, due to the highly collaborative and cooperative nature of the development of a series of goals and standards for the creation and maintenance of these data sets.

There are only a handful of states that have pursued aspects of statewide cadastral information system development that can inform the ORMAP effort at this point. First, there are several states that host websites similar to ORMAP's Goal 1 effort (Alaska, Idaho, and Montana). All of these state sites have a slightly different interface for accessing the scanned imagery hosted there, and all have more-developed user interfaces than the ORMAP Goal 1 site (hosted by OGDC). These three sites provide access to generalized ownership information about land parcels, and do not attempt to integrate all county assessor maps into a spatially-enabled system. It is also unclear from the research how these sites and the data that underlie them are maintained.

Second, there appear to be several nascent efforts to coordinate the collection of statewide assessment and mapping information, similar to ORMAP's work, but none are at the same point in their development as ORMAP nor did any of them start from the same set of conditions. For example, Tennessee and New Jersey are both attempting to improve their statewide efforts, but are approaching that improvement differently. New Jersey is letting an RFP (Request For Proposals) to receive a standardized assessment roll from all of their reporting units. This appears to be similar in some respects to the Goal 3 and Goal 4 ORMAP objectives that tie assessment attribution and databases to the taxlot polygons being developed through the overall ORMAP effort. Tennessee, on the other hand, has a legislative mandate and funding to produce a standardized taxlot GIS, built on an orthophotography standard, with assessment information – but they are working incrementally across the state and are doing the work centrally. By the end of the third year of their work, they plan to have completed 29 of 95 counties and are working at a rate of six counties per year. For comparison to ORMAP, the Tennessee Comptroller's office maintains 80 of the 95 counties' base maps (85%) whereas DOR maintains 15 of 36 counties in Oregon (42%). Again, for comparison, Tennessee has approximately 25,000 taxmaps maintained by the Comptroller (out of about 31,000 in the state), and they have a total of about 3.2 million taxlots. Oregon seems to have about 44,000 taxmaps and 1.6 million taxlots.

ORMAP Survey of Other States' Experiences with Collaborative Cadastral Data Development

Third, and finally, there are several states that would like to be doing something similar to ORMAP, but have not yet progressed to the point of activity. These states have invested varying levels of energy and resources in creating cadastral standards and the like (e.g., Nebraska, New Mexico, Washington, and Wisconsin). There are also active state-level participants in the national effort to create a cadastral data content standard. Some states are also producing taxlot centroid files, with associated assessment information, on a county-by-county basis (in sum, of course, this could be used to create a statewide point coverage – see New York's GIS clearinghouse page (<http://www.nysgis.state.ny.us/repository/Cadastral.htm>) – but they are in the process of being reviewed as “sensitive data”).

Montana:

Stu Kirkpatrick: 406-444-9013; skirkpatrick@state.mt.us; www.doa.state.mt.us/
Statewide GIS Coordinator for Montana

48 of 56 counties are maintained by the Montana Department of Revenue. 7 of the 8 counties that are not maintained by Montana DOR have their data converted by the Montana Administration Department into a standard format. Their web-based application can be reviewed at <http://gis.doa.state.mt.us/index.html>.

Key characteristic of their success has been leadership and coordination from the State level, to transcend local needs and political concerns. Stu suggested the use of ORMAP funds as directed from the State perspective (in addition to, or in the place of, local-level needs that are identified).

Alaska:

While they do not have an effort similar to Oregon and other states related to the creation and maintenance of cadastral information, there is a joint effort under the auspices of the Bureau of Land Management (BLM) and the Alaska Department of Natural Resources to create and maintain a statewide cadastral information system website (<http://www.dnr.state.ak.us/cgi-bin/Iris/landrecords>). According to the website, they maintain “status plats” for the Townships in which the state has a landholding interest (approximately 28% of the state, 7800 townships). “Master Title Plats” for all upland townships are being scanned and made available by the BLM. The Alaska Department of Natural Resources Office of the Recorder houses all of the documents describing real property in Alaska, and they are accessed through a linked website (<http://www.dnr.state.ak.us/ssd/recoff/default.htm>).

Idaho:

Idaho has a scanned taxmap system similar to the ORMAP Goal 1 website (available online at <http://gis.idl.state.id.us/GIShtm/static/LandRec.htm>).

New Jersey:

Tom Bishop: (609) 943-3496; thomas.bishop@treas.state.nj.us
Tom is the System Analyst for the Property Assessment and Management System (PAMS) RFP, which was initiated by their Property Tax and Assessment Department within the New Jersey Division of Taxation.

ORMAP Survey of Other States' Experiences with Collaborative Cadastral Data Development

There are 21 counties in New Jersey. All are using a client-server architecture provided by several vendors for the recording of tax and assessment information (they developed a standardized data structure 25 years ago, but without a specified platform). This architecture has been unsatisfactory in that each vendor has "enhanced" the basic data structure for localized needs.

Currently, NJ has 15 regional vendors (data centers) that collect/provide data to the "standardized data structure." RFP is intended to contract with a single source provided of a web-based solution for property assessment/tax management/CAMA (with a GIS component). This initiative is driven both from above (new legislature and governor) as well as below (county assessors). Part of the problem has been the separation of tax functions within New Jersey government. Individual County Assessor's Offices set tax assessment regulation/policy, while local Community Affairs offices (municipal employees) handle tax collection activities. Additional information about the original RFI for the NJ Property Assessment and Management System (PAMS) can be found at: <http://www.state.nj.us/treasury/taxation/text/rfi/rfitxt.htm>.

Tennessee:

Roger Lowe: (615) 401-7818; rlowe@state.tn.us

Mark Tuttle: (615) 741-9356, GIS Director

Implementing a statewide base mapping program for Tennessee in which all "paper" maps will be digitized (<http://gis.state.tn.us/projects/bmp/index.htm>). Currently, the state is the legal custodian of all base maps and individual counties provide the staff resources for map updates. They plan to have all of these maps in digital form by 2006.

In 1996, two pilot projects were funded. Of the 95 counties in Tennessee, 80 have their base maps manually maintained by the Tennessee Comptroller of the Treasury. The paper updates to mylar are occurring on mapped data that are projected against the NAD27 datum. Participation in their digital conversion/mapping effort requires a 25% funding match on the part of the county (75% will be funded by the state). Currently, 18 counties have agreed to participate. A contact among participating counties is Anderson County (Vernon Long, Assessor, 615-457-5400), but I have not yet contacted him. Once the county agrees to participate, they receive "ParcelMapper" software, with ArcGIS and COGO being donated. I believe that software maintenance is the responsibility of the participating county.

Their "[Tennessee Base Mapping Program Technical Specifications](#)" documents the technical requirements for building digital imagery, cadastral maps, and GIS databases in support of their base mapping program.

Utah:

Neil Hood: (801) 297-2771; nhood@utah.gov

Utah State Tax Commission

According to Neil, Oregon is probably ahead of Utah with respect to our effort to compile a statewide taxlot base map. They are working primarily on creating a shared "taxing districts boundary" coverage/shapefile. He shared their synopsis of a county GIS survey that was conducted in 2002 to ascertain the progress that individual counties have made toward capturing

parcel data (in particular, SITUS addresses related to taxlot polygons) in a GIS format. Similar to Oregon's experience, Utah's counties are at different points along a spectrum of GIS functionality and access to funding, and thus their progress is similarly varied.

He suggested two other names that may have further information about the Utah efforts: Bert Granberg (with the Automated Geographic Reference Center – (801) 538-3072) and Finch Bingham (with the Utah State Tax Commission's Property Tax Division – (801) 297-3606).

New York:

Ross Testa: 518-486-4518; Ross.Testa@orps.state.ny.us

Ross is responsible for monitoring the Tax Map Program for the Office of Real Property Services in Albany, NY. Their URL is <http://www.orps.state.ny.us>. They also have tax parcel point GIS data sets available at <http://www.nysgis.state.ny.us/repository/Cadastral.htm>.

In New York State the individual counties are responsible for their own tax map programs, with the State setting Rules and Regulations related to the program. There is no mandated cross-jurisdictional data sharing of tax parcel polygons at present. However, the parcel points dataset mentioned above allows for the sharing of taxing attribute information statewide.

Maryland:

John Coleman: 410-767-4614; jcoleman@mdp.state.md.us
MDPropertyView Coordinator, Maryland Planning Department

State government is responsible for mapping all 23 counties in Maryland. MD Property View began in 1995 with an effort to create GeoTIFF images of all mylar/mapsheets. Simultaneous with that effort, their contractor created a "parcel points" coverage for tying in with assessor information/databases. Currently, they create a CD product (referenced in ESRI software) and sell the CD sets for approximately \$10,000 annually – approximately 230 subscribers. Annual updates are created by 10 mapping/GIS professionals at the state. Their CD products include custom enhancements (Avenue scripts and VBA) and additional reference data layers (all MdProperty View 1999 Edition products include jurisdiction boundary files for ZIP codes (1997), census tracts and block groups (1990, includes census data), current congressional and legislative districts and Smart Growth boundaries. Also included are updated (1997) roads, streams and features (includes text and annotation) from the Maryland State Highway Administration's 1:24,000 grid maps and generalized land use/land cover for 1997)). They hope to have a taxlot polygon coverage "at some point" but this is not a huge priority given their parcel points spatial index. They have 2772 maps and approximately 2,021,700 parcels. Their pricing schedule can be viewed at <http://www.mdp.state.md.us/data/pricelst.html>. Information about the application can be found at <http://www.mdp.state.md.us/data/mdview.htm>.

Nebraska:

Nebraska is in the process of developing the "Nebraska Guidebook for a Local Government Multipurpose Land Information System", which contains chapters on base mapping and cadastral standards (http://www.calmit.unl.edu/gis/LIS_Stds_Intro.html). This effort could be leveraged to facilitate Oregon's efforts to develop statewide guidelines.

Washington:

The Washington Geographic Information Council (WaGIC) has a robust website describing the Washington Department of Natural Resources' (DNR) Cadastral Project (<http://www.wa.gov/gic/Framework/cadastre/index.html>) as well as an ArcIMS site for querying taxlot information about Washington (<http://www3.wadnr.gov/dnrapp2/website/cadastre/>).

I did not contact the Cadastral Data Steward listed there yet (Frank Fischer, DNR, 360-902-1206, frank.fischer@wadnr.gov).

West Virginia:

West Virginia Statewide Addressing and Mapping Board (<http://www.addressingwv.org/>) created to support the E911 community, and their project is starting off by collecting aerial imagery for the entire state. Legislation somewhat similar to Oregon's was used to create a steering board and funding source (though clearly it has a different objective than ORMAP's – the support of emergency service provision).

Wisconsin:

The State of Wisconsin Department of Administration's Office of Land Information State hosts a webpage containing county and state agencies' "Land Information Modernization and Integration Plans" as a component of the **Wisconsin Land Information Program** (http://www.doa.state.wi.us/dhir/land_info_mod.asp). Most, if not all, of these plans are dated "1998."

Arizona:

Gene Trobia: 602-542-4060; gtrobia@lnd.state.az.us
Arizona GIS Coordinator

I did not contact Mr. Trobia yet, though he was mentioned as a state GIS Coordinator that is very interested in Cadastral framework theme development. However, a visit to their website (<http://agic.az.gov/>) did not yield information about the type of cadastral development work that the State of Oregon is currently investigating.

North Carolina:

Zsolt Nagy: 919-733-2090; zsolt@cgia.state.nc.us
North Carolina GIS Coordinator

I did not contact Mr. Nagy yet, though he was mentioned as a state GIS Coordinator that is very interested in Cadastral framework theme development. Once again, though, a visit to their website (<http://cgia.cgia.state.nc.us/ncgdc/>) did not yield information about the type of cadastral development work that the State of Oregon is currently investigating.

GIS Clearinghouse Links

[Alabama GSA Geospatial Data Clearinghouse](#)
[Alaska Geospatial Data Clearinghouse](#)
[Arkansas Center for Advanced Spatial Technologies](#)
[Arkansas OnLine Geospatial Data Infrastructure - GeoStor](#)
[California - CASIL](#)
[Delaware Spatial Data Clearinghouse](#)
[Georgia GIS Data Clearinghouse](#)
[Idaho GIS Data](#)
[Illinois DNR Geospatial Data Clearinghouse](#)
[Iowa GIS Clearinghouse](#)
[Kansas Data Access and Support Center \(DASC\)](#)
[Kentucky Office of Geographic Information](#)
[Louisiana Statewide GIS Atlas](#)
[Maine Office of GIS](#)
[Massachusetts Geographic Information System](#)
[Michigan Center for Geog. Info.](#)
[Michigan Information Center - GIS Clearinghouse](#)
[Minnesota Land Management Information Center](#)
[Mississippi - MARIS](#)
[Missouri Spatial Data Information Service](#)
[Montana State Library Geographic Information System](#)
[Nebraska Geospatial Data Clearinghouse](#)
[New Hampshire Statewide GIS - GRANIT](#)
[New Jersey Spatial Data Clearinghouse](#)
[New Mexico RGIS](#)
[New York GIS Clearinghouse](#)
[North Carolina Geographic Information](#)
[North Dakota Geological Survey](#)
[North Dakota GIS Repository](#)
[Ohio GeoData Distribution](#)
[Oklahoma Center for Geospatial Information](#)
[Pennsylvania Spatial Data Access](#)
[Rhode Island Geographic Information System](#)
[South Carolina DNR GIS Data](#)
[South Carolina Office of Research and Statistics](#)
[Tennessee GISource](#)
[Texas Natural Resources Information System](#)
[Utah Automated Geographic Information Center \(AGRC\)](#)
[Vermont Center for Geog Info \(VCGI\)](#)
[West Virginia State GIS Technical Center](#)
[WISconsin Land INformation Clearinghouse \(WISCLINC\)](#)
[Wyoming Spatial Data Clearinghouse](#)

Cadastral links

[Cadastral Links viewer](#) – FGDC summary website – interesting view of national progress, but the links are sometimes hard to tie directly to cadastral information, and the extent of web-enabled counties in Oregon does not seem complete.

[Alaska DNR LRIS, Public Land Records](#)

[Idaho Land Records](#)

[Maryland MdProperty View](#)

[Montana GIS Cadastral \(land owner ownership, property, parcel, plat\) Mapping Project](#)

[Washington Framework Cadastral Project](#)

[West Virginia Statewide Addressing and Mapping Board](#)

Cadastral Document links

[Nebraska Land Information System Base Map Standards](#)

[Nebraska Land Information System Cadastral Data](#)

[Status of New Mexico Parcel Mapping](#)

[New Mexico Mapping Manual](#)

[Montana Draft Plan for Cadastral Framework Layer](#)

[Wisconsin Land Information Board Unique Parcel Identifier document](#)

[Wisconsin Digital Parcel Mapping Standard](#)

[Cadastral Data Content Standard \(version 1.2\) for NSDI](#)

[New York Cadastral \(Point\) metadata](#)