

Harney County ORMAP 5-Year Business Plan

January 2003 to June 2009

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1 Introduction & Purpose of Plan

1.1 BRIEF HISTORY OF COUNTY DIGITAL MAPPING OF TAXLOTS.

Harney County began the digitizing of the Taxmaps in 1999 through an agreement with the Oregon Department of Revenue and the Engineering Services Unit of the Oregon State Prison. Consequently, the products that were provided once the Taxmaps were all completed was a vector line drawing with annotations of each Taxmap geo-referenced, as well as a polygon layer of each Taxmap. The Taxlot layer was then built using the polygon layer from each Taxmap to construct a countywide Taxlot Layer. The attribute table was updated with the Account number of each Taxlot as the linking field between the Taxlot layer and the Assessor's database.

1.2 BRIEF STRATEGIC PLAN ABSTRACT

Harney County has all Taxmaps converted to a digital format with a working Taxlot Layer. The Harney County GIS Coordinator is updating the Assessor Taxmaps instead of the DOR, which provides a greater flexibility to map maintenance. The emphasis now is accuracy of Taxmap location. Efforts are being made toward collecting digital control points throughout the County.

1.3 WHAT ORMAPP GOAL (S) DOES THE COUNTY CURRENTLY MEET?

GOAL 1 - By April of 2002, Oregon will have a statewide easily accessible digital base map system that provides picture images of assessor maps and a limited amount of information.

Goal 1 has been met. Harney County had county Taxmaps scanned as did the other counties with the images available online via ORMAPP's website.

GOAL 2 - By October of 2004, Oregon will have a statewide "tax lot map" digital system that supports a limited number of GIS applications. Ten percent of the parcel maps are also used by the assessors' as tax lot maps.

Goal 2 has been met. Harney County has had all of the Taxmaps digitized with a resulting product of a Taxlot polygon layer being constructed. The Taxlot Layer attribute table has linked to it the Assessor's property information database with the common link field being the Account Number. The Taxmap and Taxlot layers are ARC/INFO coverages and are

now being converted to an ARCMAP Geodatabase. The coordinate system that we currently use is STATE PLANE, NAD 27, and Zone 3602.

The County has not yet placed any of this data on the web as far as mapping and interactive features. The Taxmaps are updated as often as changes are required with subsequent updates to the Taxlot Layer.

Additionally, Taxmap and Taxlot Layer coverages, as well as the other coverages that have been created, can be purchased by the public or private agencies/individuals in a variety of formats for use in a number of software applications. A GIS Data Request Form was compiled with a list of the data sets, custom maps and pre-printed maps the County has to offer. Also a software license agreement was developed for limited use rights of the data. Partners have been solicited to contribute to our program where services are provided for their GIS needs. The most important feature of our services stems from having a complete Taxlot Layer base.

GOAL 3 - By October of 2006, Oregon will have a statewide digital “tax lot map” digital system that supports a wide variety of GIS applications. Fifty percent of the parcel maps are also used by the assessors’ offices as tax lot maps (will meet accuracy targets)

1. Primary Focus: Increased map accuracy
2. Increased assessment info available
3. Technical Design
 - a. Accuracy Targets: 50% goal
 - ~~///~~ In town: 1-2 feet
 - ~~///~~ Urban growth boundary: 5-10 feet
 - ~~///~~ Farmland: 10-20 feet
 - ~~///~~ Resource land: 20+ feet
 - b. Tie more data bases to tax lots
 - c. Tie regional systems together
4. Maintenance
 - a. Dual system costs
 - ~~///~~ Updating map changes
 - ~~///~~ Indexing
 - ~~///~~ User applications

Harney County is now looking to increase Taxmap and subsequently Taxlot Layer accuracy. The County has two incorporated cities (Burns and Hines) with two other communities that were platted (Crane and Drewsey). The first round would be to collect sub-foot accuracy points within the city limits of Burns and Hines with some in the Urban Growth Boundary area. The next round would be to collect points within the

platted communities and other areas to ensure the Taxmaps and Taxlot Layer meets or exceeds the standards set by ORMAP in Goal 3.

Harney County is now updating the Taxmaps and Taxlot Layer in house. DOR has assisted greatly in this effort and the County is using ArcMap 8.3 and the new features this software provides. Thus, the Taxmaps and Taxlot Layer are continually being updated with the changes being requested by the Assessor's Office/public to Oregon State standards and regulations. The Taxmaps are also being printed and distributed from the Planning/GIS Department.

GOAL 4 - By October of 2008, Oregon will have a statewide digital property tax map system that supports a broad array of public and private GIS applications.

1. Primary Focus: Increased map accuracy to support broadest base of applications
2. Access to assessment and other public and private data bases possible
3. Maintenance – move to single system
 - a. More efficient
 - b. Updating map changes
 - c. Updating indexes
 - d. Bigger, more complicated system
4. Technical requirements
 - a. Accuracy: meets assessor tax lot standards
 - b. Control: meets assessor tax lot standards

The County will work on this goal and the issues that surround it.

1.4 WHAT ARE THE COUNTY'S PRIMARY LIMITATIONS TO MOVING FORWARD WITH ORMAP GOALS?

Harney County has few limitations in moving forward with the specified ORMAP Goals. Similar to most counties, time and money is always a factor in accomplishing these goals. Harney County officials recognize the value to a functioning GIS Program and the importance of the Taxmap and Taxlot Layer features of that Program. The accomplishment of these goals, for the most part, will further enhance the value of the Program the County has been implementing.

1.5 WHAT PRIORITY IS THIS PROJECT TO THE COUNTY?

Harney County places a great amount of resources in the achievement of the ORMAP Goals. The formulating of the GIS Program occurred prior to the

formation of ORMAP and the goals that have been adopted by ORMAP only enhances the efforts of the County. Investment in time and money has increased as the GIS Program has improved. The initial investment of digitizing the Taxmaps showed the importance GIS has for Harney County.

1.6 WHAT COUNTY DEPARTMENTS ARE INVOLVED?

Harney County Planning/GIS and the Assessor's Office have been the driving force behind the fulfillment of the ORMAP Goals. Many other departments have contributed and benefited from these efforts: The Road Department, Weed Department, etc.

2 Status of the Taxlot Base and Digital Production of Taxmaps

2.1 COUNTYWIDE TAXLOT COVERAGE

2.1.1 What is the current status of the county's Taxlot base and of the Taxmaps project? Please include reference to the ORMAP Goals 2-4.

Harney County has all Assessor Taxmaps digitized. The Taxlot Layer is also created and covers the entire County with links to the Assessor's property database. Maintenance of the Taxmaps and subsequent updates to the Taxlot Layer are ongoing by the County GIS Coordinator. The accuracy of the location of the Taxmaps/Taxlot Layer is questionable and at this point the County is unsure of the accuracy level. Efforts are being made to determine accuracy and ensure Goal 3 and Goal 4 accuracy in the city limits and UGB area. Later projects will provide digital control points in the unincorporated communities and the rural areas of the County.

Status of the Taxmap Remapping Project August 2003

Map Type	GIS Produced	Manually Produced	Total	Percent
Township	310			100%
Section				
Quarter Section				
Sixteenth				
Supplemental				
Totals	310 with a number of sub-maps			100%

2.1.2 Does the county actively update this layer? How?

Harney County does actively update the Taxlot Layer. Initially, Department of Revue updated the Taxmaps and sent the line work to the County. The Taxlot Layer was then updated from the DOR material. The County has now taken the task of updating the Taxmap and using that data to update the Taxlot Layer. The County has migrated to ArcMap 8.3 and the Geodatabase features. We have developed a procedural manual on the updates to the Taxlot Layer and can provide these details if it is necessary.

2.1.3 Is the county's layer distributed and/or used internally?

Few County departments use the Taxlot Layer in their work where they manipulate the data to produce maps or analysis. Most discuss their needs with the Planning/GIS Department for desired results.

2.1.4 Is the county's layer available publicly?

Both the County and the Bureau of Land Management use the Taxlot Layer. The County has license agreements with a few of the Real Estate offices here locally where updates are provided to them and they use the data in their work. The City of Burns also has acquired the software and hardware to generate maps and manipulate the data using the Taxlot Layer, streets, water lines, signs, etc.

2.1.5 Is the county's layer integrated with any other systems or databases?

The County's Taxlot Layer is an integral part of the BLM Burns District Office GIS. The County and the BLM have an intergovernmental agreement where they use the County's layers and we can use their layers. The agreement limits the BLM from providing the public a free copy of the Taxlot Layer (as they are mandated to do with their data through FOIA) and provides the County the opportunity to sell their data.

2.1.6 In what time frame does the county make updates?

The County makes updates to the Taxlot Layer as needed. Typically it is every month as line work is required to be modified or annotation errors are found.

2.2 STATUS OF DIGITALLY PRODUCED TAXMAPS

2.2.1 Does the county produce digital tax maps from this data?

The County does have digital Taxmaps, which were digitized through a work plan with DOR and ESU in 1999. The Taxmaps are a separate set of data from the Taxlot Layer. The Taxmaps are grouped by Township and Range with the vector line and annotations and a polygon layer being created from the line work. Updates to the Taxmaps line work will also require an update to the polygon layer, which matches the vector lines of the Taxmaps. The polygon layer for that Township and Range is then used to update the Countywide Taxlot Layer.

2.2.2 If partially what areas are done?

The entire County has digital Taxmaps and also a Taxlot Layer.

2.2.3 What standards do these maps conform to?

The County Taxmaps conform to the Oregon State standards. The DOR has been making updates to the Taxmaps and the polygon layer for each Township and Range. Now the County will be doing that work and will adhere to the same standards the State has set for Taxmaps updates.

2.2.4 Are they used by the county and/or any other agencies?

The County Taxmaps are used by many different public and private agencies. The County and all of departments dealing with land use the Taxmaps (Assessor, Tax Office, Planning, Surveyor, Roads, etc.) as well as Real Estate Offices, Title Companies and Banks.

2.2.5 Is there a manual system running alongside a digital one?

The Taxmaps are being updated digitally. The computerized Taxmaps have updates made and the Taxmaps are printed from these fields. There are no "manual" or hand drawn maps.

2.2.6 What is the predicted date when the county will have 100% digital assessor's maps?

The County already has 100% digital Taxmaps.

3 Remapping Procedures and Strategic Approach

What departments or agencies work together in remapping projects?

The County staff along with private contractors provide the remapping efforts such as collecting digital control points, adjustment to the Taxmap location and updates to the Taxmaps/Taxlot Layer.

3.1 SURVEY COORDINATE BASE DEVELOPMENT:

3.1.1 What sources of control points does the county use?

The County does not have a reliable source for digital control points. The Taxmaps were snapped to the grid that Department of Revenue generated initially when the Taxmaps were digitized. The grid DOR used is not used by the County as it seems to be unavailable. It is the County's desire to have a reliable control point system in place to ensure accuracy and reliability.

3.1.2 In what portions of the county are the control points adequate to meet ORMAP Goal 4?

There are historical monuments that are as accurate as the standards required over the years as surveys were completed. There are very few of these monuments, however, that have been digitally collected for use with the Taxmap or Taxlot Layer. When DOR digitized the Taxmaps a grid system was used and it is assumed that a known point on the ground was the starting point for this grid system. The actual beginning points that were tied to the ground are not known at this time.

It should be noted that the BLM has what is known as the GCDB layer, which provides some references to the ground. There are reliability descriptions to these points with "1" being the most accurate and "8" being the least. Harney County has only a handful of "1" designated points and most are down near the Steens Mountain. Most GCDB points in Harney County are extrapolations and tend to have accuracy issues.

3.1.3 What number of control points are there currently and what number of control points still need to be developed?

Harney County has at best 10 points that are accurate and of these control points that are digital, most are in remote areas of the County.

3.1.4 Which county department(s) develop(s) control points?

Digital control points are the focus of the Planning/GIS Department. The County Surveyor completes re-monumenting of section corners on a regular basis but does not collect digital locations of these corners. It is a priority for these corners to be digitally collected to ORMAP standards and the equipment will soon be obtained and training completed for this to happen.

3.1.5 What are the county's limitations regarding the development of control survey points?

The County has limitations when collecting digital control points from existing monuments, which are time and money. There are hundreds of existing monuments and the collection of digital locations of these locations can be done with the right equipment and the person trained to do the work. The County Surveyor can easily do the collection of section corners when re-monumenting occurs throughout the year. These digital points would improve the accuracy of the Taxmaps to Goal 4 standards.

3.2 POSITIONAL ADJUSTMENTS OF TAXLOT BOUNDARIES

3.2.1 What department(s) are responsible for remapping activities within the county?

The Planning/GIS Department would be responsible for remapping when better digital control points are obtained.

3.2.2 What internal positions is this team made up of and will work be outsourced?

The County GIS Coordinator would complete the remapping work.

3.2.3 What methods are used in positional adjustments?

The methods that would be used for adjustments to the Taxmaps are technical in nature. The adjustment of the line work would, in simple terms, require movement of taxlots to be in conformance with the new points as needed.

3.2.4 What software is utilized in this process?

Harney County uses ESRI's ArcMap 8.3 software at this time.

3.2.5 What other data sets does this process rely on?

There are no other datasets that this adjustment process relies on.

3.2.6 For counties improving the positional accuracy of taxlots, what other processes are affected by the adjustment of taxlot boundaries?

There are a number of layers that were created from the Taxlot Layer. These layers would be recreated so that line work matches closely. These layers include zoning, floodplain, ownership, taxing districts, rural addressing, etc.

3.3 CREATION OF DIGITAL TAXMAPS

3.3.1 What quality control procedures does the county have in place?

The updates of the County Digital Taxmaps have as part of the maintenance the procedures required by the State of Oregon.

3.3.2 How many maps does the county convert to digital on an annual basis?

The County has all of the Taxmaps digital at this time. That means that all of the Taxmaps are in a digital format to edit, print and otherwise modify in ArcMap.

3.3.3 What department conducts the digital taxmap creation?

The Taxmap and Taxlot Layer updates are coordinated through the Planning/GIS Department.

3.3.4 What happens to the manual Taxmap once a digital one is created?

All Taxmaps were digitized in 1999 and have been updated and maintained since then electronically. There are no manual Taxmaps in existence where the Taxmap is updated by hand. All Taxmaps are edited and printed electronically.

3.3.5 How does the county store and archive Taxmaps?

County Taxmaps are edited and saved on two computers (one acting as a backup). The Taxmaps are printed and several copies are given to the Assessor's office. Edits are tracked with forms supplied to the Assessor's office for a record of changes that have occurred. Thus, an electronic version and a paper copy with backups are kept to ensure that the data and information is not lost.

3.4 OTHER TAXLOT RELATED ACTIVITIES

3.4.1 What other activities are related to digital taxlots within the county?

The advantage of having the Taxmaps and Taxlot Layer in digital form is that comparisons and other analysis can occur. One such effort was and is ongoing and that is a comparison between County records and Federal records. One area of the County was found to have some 11,000 acres of privately owned land that was shown on the County records as Federal land. Thus, persons over the years did not record the deeds to property they purchased from the Federal Government. Analysis such as this can occur more readily with digital taxlots.

3.4.2 What organizations use these Taxlot maps?

The Taxmaps are used by a number of different organizations. Real Estate offices, Title Companies, Banks and Surveyors use the paper copies. The BLM, Harney Soil and Water, the City of Burns and others who have purchased the right to use the electronic versions use the digital Taxmaps to generate custom maps. Updates are also provided to these organizations on a periodic basis.

3.4.3 Are Taxlot related GIS data sets maintained by other county departments?

There are no other County departments that maintain or create GIS datasets using Taxmap or Taxlot data.

3.4.4 How is it distributed?

NA

3.5 COORDINATION WITH OTHER COUNTIES

3.5.1 What region does the county participate in?

Harney County participates in the Southeast Region.

3.5.2 What neighboring counties do you actively meet with to plan Taxlot conversion projects with?

Harney County meets with Grant and Malheur counties to discuss ORMAP related issues and projects.

3.5.3 Is there a regional strategic plan?

There is not a regional strategic plan in place at this time. We are working to compile such a document and will soon be completing a draft version.

3.5.4 How often are you a part of regional projects or meetings?

The Southeast Region meets each quarter with the next meeting on Thursday, August 28, 2003.

4 Project Schedule and Progress Tracking

4.1 WHAT STEPS DOES THE COUNTY EXPECT TO TAKE TO SEE A COMPLETION OF GOAL 4 ACCURACY FOR DIGITAL TAXLOTS?

The accomplishment of Goal 4 accuracy standards for the digital Taxmaps would be to collect an increased number of digital control points. As mentioned, there are an incredible number of monuments throughout the County. The collection of these points using a highly accurate GPS unit would provide the necessary digital location data for use with the GIS Program.

4.2 WHAT ARE THE COUNTY'S ESTIMATED PRODUCTION RATES GIVEN CURRENT AND ESTIMATED FUNDING?

The County will take a phased approach and collect the points in this order:

- ✍️ City limits and urban growth boundary control points – funding is being sought for and work should be completed in the next six months (2003-2004)
- ✍️ Unincorporated community boundaries - 2004
- ✍️ Rural areas of the County - 2005

4.3 WHAT PROJECT TRACKING METHODS ARE IN PLACE?

The goals the County has set will drive the completion of projects and the planning for funding and implementation. The GIS Coordinator tracks these projects and plans.

4.4 HOW DO YOU SET PROJECT SCHEDULES?

The projects that are a part of the overall plan for accomplishing Goal 3-4 are prioritized and estimated dates and funding are listed. Schedules are built from the listed activities to accomplish these goals.

4.5 WHAT ARE THE CHALLENGES TO THE COUNTY SCHEDULE AND PROGRESS TRACKING?

The only real challenge to the accomplishment of the desired goals would be the day-to-day requests that come into the GIS Coordinator and consistency of

personnel. Smaller projects can be completed quickly and the interruption of long-range goals should not be overwhelming but could be a challenge. And, although it is not encouraged, personnel may move on to different positions and could be a challenge in the future.

5 Staffing and Training

5.1 WILL TRAINING BE REQUIRED FOR COUNTY PERSONNEL TO USE GIS AS A TOOL FOR TAXLOT MAINTENANCE?

The Harney County GIS Coordinator was hired with the basic knowledge of ArcMap and has been trained and has developed the skills necessary to update not only the Taxlot Layer but the Taxmaps as well. The County will be doing the maintenance of the Taxmaps.

5.2 WHAT ARE THE COMPOSITION AND NUMBERS OF STAFF INVOLVED WITH THE DEVELOPMENT AND MAINTENANCE OF DIGITAL TAX LOT MAPS?

Harney County has one person who updates the Taxmaps and Taxlot Layer.

5.3 TO WHAT EXTENT DOES THE COUNTY RELY ON TEMPORARY AND PERMANENT STAFF?

The County has one permanent employee and relies heavily upon that position to complete the Taxmap and Taxlot Layer maintenance.

6 Timeline

Step	Start Date	End Date	Project	Status	ORMAP Goal	Funding Source		
						ORMAP	Other	Total
1	2003	2004	Collect digital control points in city limits and UGB	Application under review	3,4	\$16,520	\$3,750	\$20,270
2	2004	2004	Collect digital control points in unincorporated communities	Holding	3,4			\$20,000
3	2004	2005	Collect digital control points in Rural Harney County in the north (1), central (2) and south (3)	Holding	3,4			\$45,000
TOTAL to reach Goal 4		2005						\$85,270 (estimated)

Note:

7 Contact Information

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