2002 Report to the Legislature

Improving the Administration of Water Right Records

and Integrating Records with County Property Information

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Department of Ecology
Water Resources Program
PO Box 47600
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SUMMARY

Senate Bill 6387 directed the Department of Ecology to "provide to the appropriate standing committees of the legislature, a plan, schedule, and budget for improving the administration of water right records held by the department of ecology. The department of ecology shall work with the department of revenue and with county auditors in developing recommendations for improving the administration of water rights ownership information and integrating this information with real property ownership records. The department of ecology shall evaluate the need for grants to counties to assist with recording and information management needs related to water rights ownership and title."

The findings and recommendations detailed in the attached report are the result of work done in cooperation with representatives from the Washington Association of County Officials, Thurston County, Yakima County, Whatcom Public Utilities, Mentor Law Firm, Department of Revenue, Office of Financial Management, and Department of Ecology.

Currently the DOE maintains an electronic tabular database of information related to water rights and claims. This database provides the starting point for most administrative procedures. However, the relationship of county tax parcels and thus property ownership information is related to water rights primarily through the geographic area of land and water use described for each. This geographic relationship between the place of water use and land use is the key to linking county-maintained property ownership information to water right and claim information.

In light of the current revenue forecast and resulting budget deficit, Ecology recommends that a "pilot" (Phase I) be funded at a cost of $601,352.00. This would allow Ecology to begin mapping the State's water rights. As additional funding becomes available, the full project, or Phase II, could begin. Phase II would lapse over six years and cost $5,971,932.00. Phase II would add the imaging component to replace mapping of water rights from paper copies, with mapping of water rights from images of water rights documents. This would increase the efficiency of the mapping process. Phase II would also add the Geographic Information System component which enables the state water rights and county property ownership information to be connected. The benefit of a pilot also allows Ecology and the counties to identify any unforeseen factors that would affect this effort. It is also recognized that the capacity of counties are currently strained and this activity may not be considered a core function. Although counties currently do not have the resources to support new work, it is possible that they may elect to take advantage of state sponsored grants as economic conditions improve.

If fully funded through Phase II, the proposed projects will provide increased usability and access to water right information by the public, county agencies, municipalities, and federal agencies as well as special interest groups such as Conservancy Boards, Watershed Planning Units, and lending institutions. Integrating water right ownership information with real property information will result in increased efficiencies for county staff and Ecology staff as Ecology staff will have direct access to property information when notification is required for proposed actions, which otherwise requires assistance from county staff for the manual process for any research required. The improved data systems will also provide increased research capabilities for those wishing to participate in a water market.

BACKGROUND

Questions posed by the legislature

1. What plan, schedule, and budget would be required to improve the administration of water rights records?

2. What recommendations do we have for improving the administration of water rights ownership information and integrating this information with real property ownership records?

3. What grants are needed by counties to assist with recording and information management needs related to water rights ownership and title?

METHODOLOGY

How did we approach this study?

A committee consisting of stakeholders from the counties, the Department of Revenue, the Office of Financial Management, and the Department of Ecology (Ecology) was established to develop this report. Subcommittees were formed to address specific areas of the study, and findings reported back to the larger committee.

Acknowledgements

The Department of Ecology acknowledges the contributions of Michelle Hagen and Brenda Bamford (Washington Association of County Officials - Assessors), Tom Clingman (Thurston County), Mike Vashon and Dave Cook (Yakima County), Ann Atkinson and Peter Gill (Whatcom Public Utilities), Bill Clarke (Mentor Law Firm), Ed Ratcliffe (Department of Revenue), and Anne-Marie Sweeten (Office of Financial Management), Ron Dixon (Department of Ecology, Ben Bonkowski (Department of Ecology), Anna Trombley (Department of Ecology), Ed Young (Department of Ecology), Doug McChesney (Department of Ecology), Fred Rajala (Department of Ecology), and Stella Satter (Department of Ecology).

BENEFITS

What are the benefits of improved water right administration and property ownership information?

For the public and special users:

- Increased usability, transparency, and access to water right information by the public via Ecology data systems.
- Ability to provide watershed planning units and other special interest groups with water right information related directly to county parcel information.

- Increased access to water right information by special users such as lending institutions, realtors, and prospective buyers and sellers of water rights via Ecology data systems.
- Simplify market exchange research of water rights by providing water right information related to ownership information.

For counties:
(Although in most areas, counties do not currently utilize water right information on a routine basis, digital access over time will likely lead to benefits.)

- Access to basic water right information as related to the place of water use and tax parcels.
- Supports concept of shared interest between local and state government.
- Assistance in land use planning and land zoning activities.
- Assistance to local Watershed Planning Units.
- Assistance to local Conservancy Boards.
- Assistance in determining available water supply for public health related activities.
- Assistance in resource analysis.
- Reduction in county staff workload answering routine request for property ownership information from Ecology staff.

For Ecology:

- Better access to property ownership information and its relation to the water right place of use.
- Actively supports water market.
- Increased staff productivity related to the processing of change applications and new applications.
- Increased staff efficiency when notification is required for proposed actions. Examples include but are not limited to mass mailings related to droughts, metering, instream flow regulation, and adjudication service of summons.
- Increased staff efficiency involving maintenance of property ownership information for active permits.
- Increased understanding of local and state government's roles and responsibilities which may result in more efficient methods of working together. This will directly support the local/state cooperation envisioned in the Watershed Planning Act. RCW 90.82
- Increased efficiency in answering routine requests for copies of water right documents including certificates, claims, and well logs; dependent on development of Internet access systems.
- Improved access to water right information by other Ecology programs such as Water Quality and Toxics.
- Easier identification of involved parties to an adjudication of water rights.

CURRENT STATE OF RECORDS

Water right records

What water rights records are maintained?

The Department of Ecology maintains records of water right applications, permits, certificates, claims, and adjudicated certificates. Well logs associated with water rights are maintained along with the water right record. In addition, well logs submitted since about 1974 are also maintained separate from the water right records and include those wells constructed under the groundwater permit exemption.

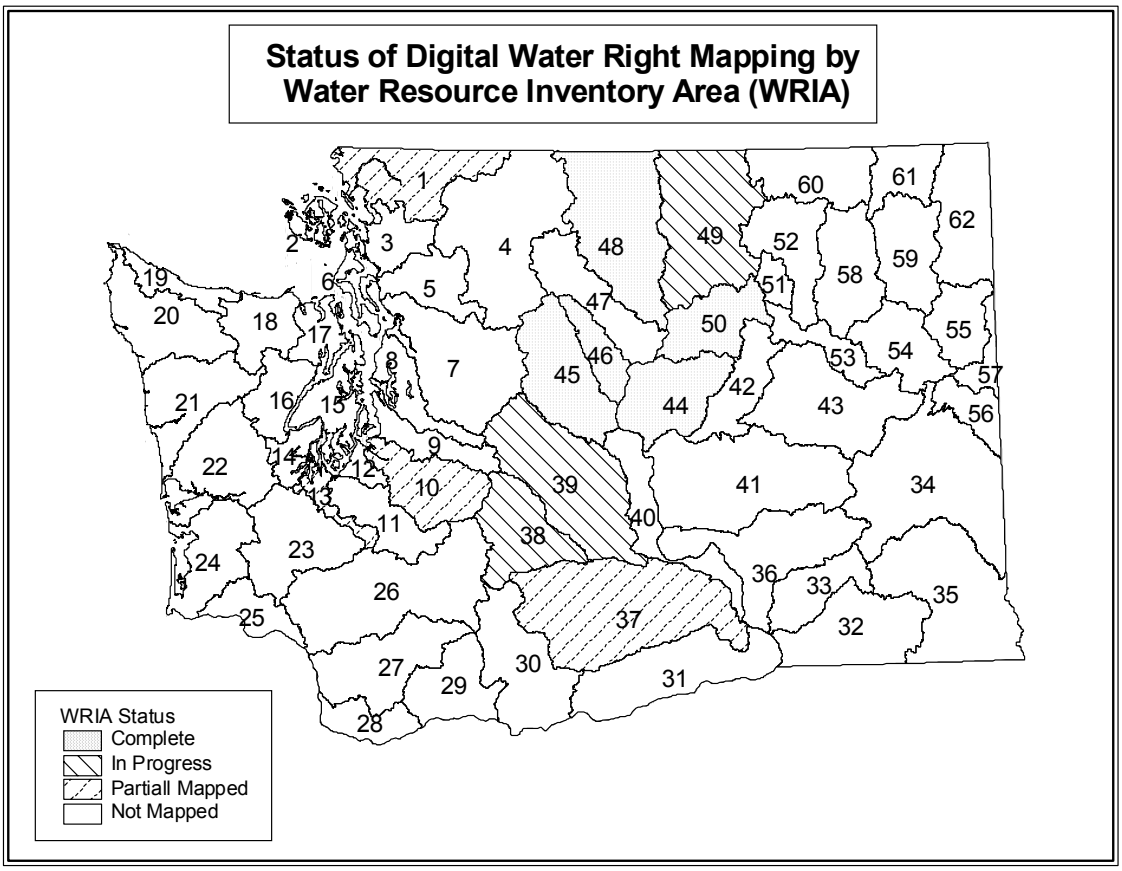
How is the information maintained and accessed?

Ecology maintains paper copies of water right applications, permits, certificates, declarations, claims, and adjudicated certificates. Much of this paperwork is aging and becoming brittle and fragile. There is a high need for this paperwork to be preserved. Adjudication records, dating back at least as far as 1918 have not been imaged and remain in a fragile paper record. Microfiche images are maintained for active certificates, and claims, as well as inactive (withdrawn, canceled, rejected, or relinquished) applications, permits, and certificates. Digital images exist in part for active certificates and claims as well as inactive applications, permits, and certificates. Well logs, submitted since about 1974 have been maintained in a paper form and are also currently being kept in a digital format.

Water right information is primarily accessed using paper copies or microfiche images. Digital imaging of water right records is incomplete. The design and maintenance of water right imaging systems is currently not funded.

Digital mapping of the spatial attributes (the place of water use and the point of diversion and/or withdrawal) of water rights has occurred on a limited basis. This mapping has been accomplished by Ecology, Thurston County, and the Whatcom County PUD in support of Watershed Planning currently going on throughout the state as well as limited mapping associated with the Yakima Adjudication proceedings. Figure 1 below depicts the current status of water right mapping throughout the state.

Figure 1
(See Appendix A for a list of WRIAs)



What is the nature of the information and its limitations including the relationship to property ownership information?

Information about current water right ownership is updated only when Ecology is involved with a change in the water right that also alerts the agency to a change in ownership or if the change in ownership involves a water use authorized by permit or proposed by an application. There is currently no process in place which requires water right certificate, permit, or claim owners to update Ecology regarding this information. Property ownership information is needed on an ongoing basis by Ecology for various business functions such as permit maintenance, mailings related to emergency drought correspondence, mailings related to court orders such as metering, permit regulation, adjudication proceedings, and other notification requirements. Ecology staff, with the assistance of county staff, currently obtains property ownership information through site visits or phone inquiries to the county offices. This requires extensive research that occurs at great public expense due not only to the Ecology staff time required, but also to the county staff time. Digital access to county ownership records would greatly reduce this cost. Property ownership information is also available, on a limited basis, via Internet systems.

Property ownership records

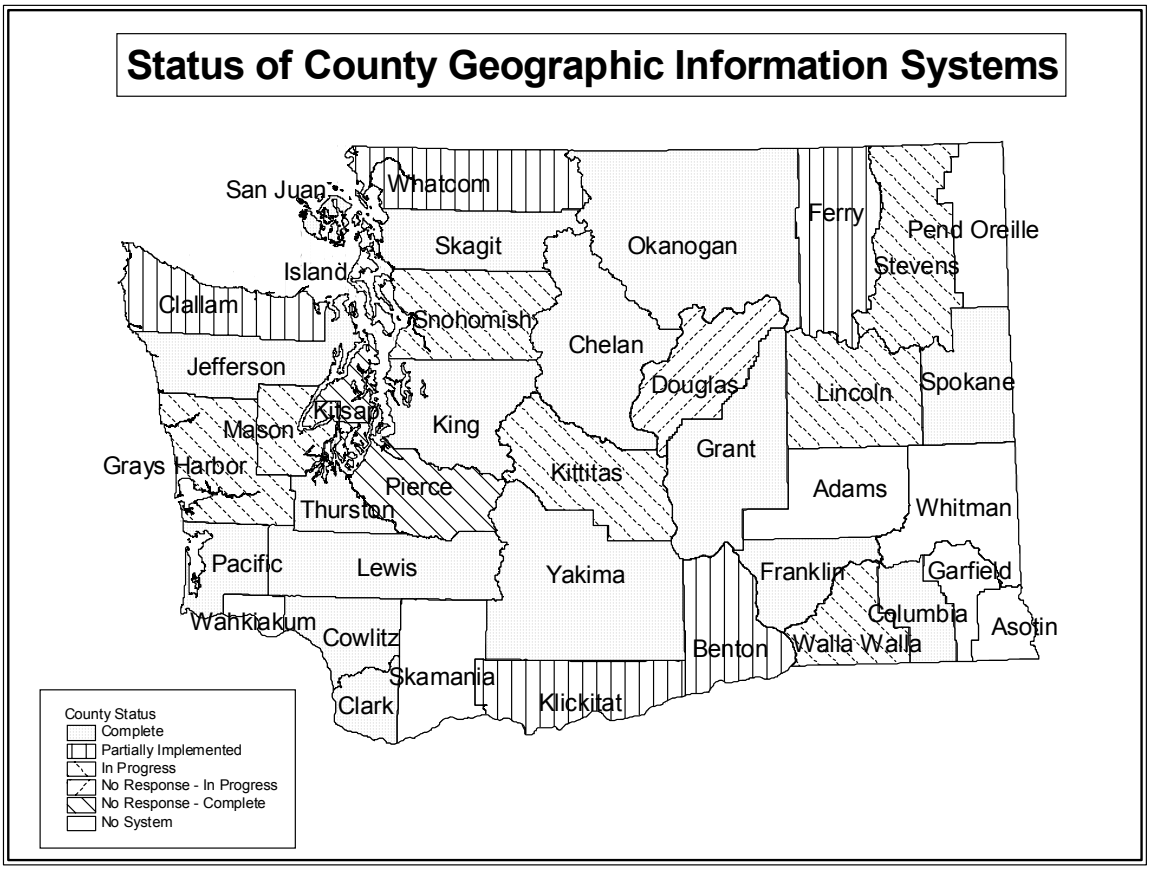
What property ownership records are maintained?

Property ownership information, including but not limited to owner name and address, is maintained by the County Auditor's Office. The County Assessor's office maintains the property description information and determines property assessment value. For those counties with Geographic Information System(s) (GIS) in place, the systems and related information are maintained by widely varying county departments such as the GIS Department, the Planning Department, the Assessor or others.

How is the information maintained and accessed?

Property ownership information is maintained in paper form as well as computerized databases. Property description information is maintained in paper form, cartographic form, computerized databases, and in many counties in digital geographic information systems. Inquiries regarding the type of information systems in place at the counties were sent to all 39 counties. A summary of the responses received by the counties follows. Sixteen counties have fully implemented geographical information systems, six counties have geographical information systems in place but the systems need to be updated or are not fully implemented, and eight counties are in the process of building geographical information systems. Seven counties do not have any form of a geographical information system and three counties did not respond. Figure 2 below shows the digital status of county systems.

Figure 2



What is the nature of the information and its limitations including the relationship to water right information?

Counties are at different stages in mapping their property tax parcels and developing their GIS. For larger counties the benefits of utilizing their existing GIS or developing more advanced GIS are greater. For smaller counties which do not have GIS already developed and do not have the infrastructure to support it, innovative solutions will be required to develop digital systems. The relationship of county tax parcels and thus property ownership information is related to water rights primarily through the geographic area of land and water use described for each.

Difficulties exist in matching the water right place of use to the tax parcel due to historical methods used in describing the water right place of use and due to the historic nature of water rights. Even though property boundaries commonly change, once a water right reaches the certificate stage, there are seldom updates to the spatial attributes of the right unless a change application is filed. Currently there is no formalized process in place to update the place of use description for a water right as changes occur in property boundaries at the county level.

The Real Estate Excise Tax (REET) System

What is the real estate excise tax?

A person who sells real property must pay estate excise tax. The tax is based upon a percentage of the selling price. The real estate excise tax rate varies because it has both a state and a local rate. The state rate is 1.28%. The local rate varies from .25% to 2%. Penalties and interest apply if the tax is not paid within thirty days from the date of sale.

What real estate excise tax information is maintained?

A real estate excise tax affidavit is filed with the county when real property is transferred or sold. A copy of the real estate excise tax affidavit is forwarded to the Department of Revenue. This affidavit contains the names and addresses of the grantor and grantee, a legal description, parcel number, and the selling price for the property. Our research indicates that this process is not followed when water rights are transferred separate from the land. Ecology has identified over 30 transactions in the last year as separate sales in two of their four regions. Revenue can identify only one REET affidavit filed in the same time period for one of these transfers.

There are a number of reasons for transferors failing to file REET affidavits. Except for a water rights certificate (which may or may not involve the transfer of a water right separate from the land), the law does not require the documents to be recorded. The process for transferring water rights generally does not include real estate professionals (e.g. title companies) familiar with the REET process. The water rights transfer process does not provide notice about this tax obligation to owners of water rights. Also, separate transfers of water rights are typically not transferred using a deed. Based upon a number of interviews with county auditors, we understand that the auditors do not have a system in place for identifying these water rights transfer/permit documents.

How the information relates to real property and water transactions and identified problems?

For purposes of the real estate excise tax, real property includes any interest, estate, or beneficial interest in land or anything affixed to land. Perfected water rights, *i.e.,* rights where the water has already been put to beneficial use, are real property interests. *See*, *e.g*., *Foster v. Sunnyside Valley Irrig. Dist.*, 102 Wn.2d 395, 400, 687 P.2d 841 (1984). The real estate excise tax affidavit should be filed when water rights that are real property interests are transferred.

It is not clear whether unperfected water rights (frequently referred to as inchoate water rights) *i.e.,* a legal right to use water (typically reflected in a permit) that has not yet been put to beneficial use, represent real property interests. Consequently, it is not clear whether a real estate excise tax affidavit is required to be filed under this circumstance. Provided later in this report's improvement proposal for REET, this issue is included for legislative consideration.

Administrative concerns arise when water rights are transferred separate from the land. The most common transfer is when water rights used on one person's land are transferred to another owner's land (a change in the "place of use''). As we currently understand the law relating to these transfers, the real property interest transfers at the date agreed to by the parties. It is our

understanding that the parties generally set the transfer date in these agreements to coincide with the expiration of the 30-day appeal period following the change application's approval. Currently, there is no process in place to notify these sellers that they may have a real estate excise tax obligation or when that obligation is imposed.

CURRENT SYSTEM IMPROVEMENTS

What improvements have been made and/or are currently underway for Ecology water right records and related water right information?

Ecology has a database of water right actions, which contains basic information from the paper and microfiche records. However, the database was technically outmoded and water right information contained in the database was incomplete. Ecology was funded in the 01-03 biennium to develop Phase I of the Water Rights Application Tracking System and Phase I of cleaning incomplete and inaccurate water right data contained in the database tables. Implementation is scheduled for February 2003. Phase I of both projects will move Ecology towards the vision of having more complete and accurate water right record information available. Although, additional phases will be required, these two projects are significant milestones in achieving the longer-term vision.

Over the course of the last three years the program has implemented a three phased project that is putting well logs on the Internet. Phase I has been completed and provides search and retrieval access to all historical well logs. Phase II produced a distributed means to scan and capture new well logs and modify existing well logs from each regional office making them instantly available for search and retrieval on the Ecology Intranet. Phase III which is targeted for release in January of 2003 will put the ability to search and retrieve well logs on the Internet. Over 272,000 well logs will be available and backlog is being sustained at several weeks. The system provides the ability to do GIS map searches as well as text searches.

Cleaning of well log and notice of intent to drill data is underway. One FTE has been assigned to clean identified subsets of data and images. This position is funded through the end of this biennium. However, cleaning needs will continue as this data will be available via the Internet and will need to be reliable.

The program is in the process of developing its Metering System, Phase I. Ecology was ordered by the Thurston County Superior Court to implement a water use measurement program. Water users will be required to report the amount of water diverted or withdrawn. This system will be designed to provide storage and retrieval of water measurement data. The information will be available on the Internet.

The program is in the process of developing a Notice of Intent to Drill System which is scheduled to be available to well drillers via the Internet. This will provide well drillers the opportunity to look up information regarding well drilling and well driller licensing. Currently, well drillers must wait to receive notification by mail or call in for this information.

What improvements have been made and/or are currently underway to link water right records and property Ownership Records?

Several projects have been undertaken to image claim documents and water right documents. To date, approximately 228,000 claim related documents and 370,000 water right supporting documents have been imaged and are being stored in a digital format. However, digital imaging of water right records is incomplete and the images are viewable only by Ecology staff on a very limited basis. The design and maintenance of water right imaging systems is currently not funded.

Many of the state's 39 counties currently have active geographic information systems that are capable of directly linking property ownership information to mapped tax parcels. Access to the digital county parcel data and its associated property ownership information by Ecology has been accomplished on a limited basis primarily in the Central Regional Office of Ecology. This access has been facilitated due to the water right mapping that has taken place in the Central Region and has greatly increased the efficiency of Ecology staff as well as reduced the time spent by county personnel researching ownership information for Ecology.

What improvements have been made and/or are currently underway for the REET System?

The Department of Revenue adopted a rule in 1994 that clarified that the real estate excise tax applied to the sale of water rights. It provides that a real estate excise tax affidavit must be completed for the transfer of water rights whether or not a taxable sale has occurred. The law currently provides for the counties to process the real estate excise tax affidavit.

PROPOSED SYSTEM IMPROVEMENTS, INCLUDING LONG-TERM SERVICE VIEW

Department of Ecology and Counties - Water right and Property ownership records

Phased implementation of an integrated geographic information system including water right Place of Use and Point of Diversion/Point of Withdrawal is recommended to improve the administration of water rights and water right information and facilitate the integration of this information with real property ownership records.

The phased implementation would begin with the mapping of some state water rights as Phase I. Phase I would lapse over one biennium. Lessons learned would provide feedback to insure success of Phase II.

As additional funding becomes available, the full project, or Phase II, could begin. Phase II would add the imaging component to replace mapping of water rights from paper copies, with mapping of water rights from images of water rights documents. This would increase the efficiency of the mapping process. Phase II would also add the Geographic Information System component which enables the state water rights and county property ownership information to be connected.

1. Ecology to image and maintain images of the water right documents; this facilitates mapping of the spatial attribute of the water rights and provides improved access to water right information by the public, county governments, local governments, and other interested parties once the images are made available on the Internet.

2. The counties to provide Ecology regularly scheduled downloads of their digital tax parcel data and associated property ownership information; this would greatly facilitate water right mapping and increase both county and Ecology staff efficiency.

3. Ecology to refine water right mapping standards, map, and maintain the spatial attributes (place of water use and point of diversion and/or withdrawal) of the water rights.

4. Ecology to provide an index linking water right documents to county parcels if so requested by the counties; this is easily accomplished once the GIS is in place.

5. Ecology to update water right records when water rights are transferred and notify the Department of Revenue.

6. Ecology to maintain the geographic information system and update spatial changes to the water rights as they occur.

7. Ecology to develop Internet access to the information systems.

8. Ecology to clean and update the spatial and tabular attributes of the water rights in order to better coincide with current property ownership information and property boundaries. (This may require some type of administrative authority from the legislature.)

Department of Revenue - Administration of the REET

The law currently provides for the counties to process the real estate excise tax affidavit.

When water rights are transferred separate from the land, the study proposes that the Department of Revenue (the Department) be the central point for identifying whether the transfer is a taxable transfer and for providing taxpayers with notice. These types of water right transfers are complex. Taxability is difficult to determine and other issues may arise that the Department is best able to resolve. With fewer than two hundred such applications in a year, the Department felt it would be in the best position to perform these tasks rather than coordinate with 39 counties. However, counties would still be responsible for processing the real estate excise tax affidavit and collecting the tax.

Department of Revenue recommends that the Legislature consider legislation to centralize within the Department all REET processing in instances when water rights are transferred separate from the land. This option would relieve the county from this responsibility. Instead, the Department

would determine taxability, provide taxpayers with notice, process REET affidavits, and collect the tax from these sellers. Currently, the Department centrally processes REET affidavits when transfers are made of the controlling interest in a corporation or partnership that owns real property. One reason the Department processes these affidavits is because of the complexity of the transactions. For the same reason, the Department could assume the same responsibilities for this limited type of water right transfer. The Department believes that its current staff could handle the added volume of these transactions without additional funding.

Exemptions

There are several instances when taxing the transfer of water rights separate from the land may be a disincentive for policies the legislature is pursuing and/or result in a substantial increase in administrative costs.

Department of Revenue recommends that the legislature consider exempting these transfers of water rights from the real estate excise tax. These transfers are:

a.) Transfers from a private landowner to the state trust waters;
b.) Transfers or consolidations of water rights from individuals or individual water systems to private or municipal water systems or irrigation districts;
c.) Assignment of water permits from individuals to water systems;
d.) Assignments of water permits from individuals to irrigation districts;
e.) Assignments of water permits from a private water system to a government water system;
f.) Assignments of water permits from a private water system to an irrigation district and
g.) Unperfected (inchoate) ground water rights transferred separate from the land.

These transfers generally involve the receipt of water rights by a government entity that will use the water rights for a public purpose. The state and local governments will be forced to pay more for these rights at a time when funds are scarce. Also, the tax may deter individuals from becoming part of public water systems or irrigation districts, and thus encouraging a less economic use of this resource.

Additionally, in those cases when the transfer is an exchange of water rights for participation in a larger water system and involve no cash, the Department may have difficulty valuing the transfer. External stakeholders also expressed concern about the difficulty of valuing these water right transfers not attached to the sale of property. Revenue is currently unaware of any market for purchasing exempt wells and has no authority to obtain cost information from the owner to provide a valuation based upon the initial cost of these wells. The same valuation problems would apply for water rights on irrigated lands.

Department of Ecology and Department of Revenue – Ecology notifies Revenue

The Department of Revenue needs to be notified by Ecology of potential sales transactions involving the transfer of water rights that may occur without the sale of the land to which the water right is appurtenant. Ecology has identified six distinct points in its water resources

program administrative procedures when notice could be provided to the Department of Revenue.

1. When a water right owner first files an application with Ecology to change the place of use of a water right or to consolidate water.

2. When Ecology receives an application filed with a Water Conservancy Board to change the place of use of a water right or to consolidate water rights.

3. When Ecology approves an application to change the place of use of a water right or to consolidate water rights.

4. When Ecology receives notice that the Water Conservancy Board has approved an application to change the place of use of a water right or to consolidate water rights.

5. When Ecology receives an application for change to consolidate permit exempt water uses under RCW 90.44.105.

6. When Ecology receives assignments of permits (and possibly applications) authorizing the development of a privately owned water supply system, or of authorization to change any aspect of a privately owned water supply system. In this context, a privately owned water supply system is any private supply system in which the ownership interest of the distribution system is separate from the ownership of the place of use, such as in the case for a privately owned domestic water supply system.

The Department of Revenue intends to establish a procedure that provides notice of potential future tax liability to sellers of water rights and then at the appropriate time issue a notice of taxes due to the seller of a water right.

How can Ecology fulfill these needs?

Ecology can satisfy the Department of Revenue request for information by adopting the following:

The Application for Change/Transfer of a Water Right should be modified to add a notation to the box located in the upper left hand portion of page one of the application forms provided for the applicant to indicate that a change in place of use is being proposed. The notation should direct the applicant to a new portion of the application instructions. The new portion of the instructions, provided by the Department of Revenue, would direct the applicant to contact the Department of Revenue to determine whether the seller will incur a tax liability. This instruction would not provide detail regarding state tax requirements but would merely provide contact information.

The Progress Sheet used for application files should be modified so that the application file can be flagged as being of interest to the Department of Revenue.

When an application for change in the place of use for a water right or for consolidating water rights is filed with Ecology or is received from a conservancy board, or an assignment of an application or permit is filed, a copy of the document is provided to the designated Department of Revenue office.

If an application for change in the place of use for a water right or for consolidating water rights is approved, the Department of Revenue is notified of that approval. The notification should be a copy of the Report of Findings/Examination.

This procedure assumes that assignments will result in acceptance and/or approval.

IMPLEMENTATION COSTS AND ESTIMATED COST SAVINGS

Cost estimates are based on water right and claim mapping completed by the Central Regional office of Ecology, Thurston County, and Whatcom County PUD. The mapping was done to assist with watershed planning as called for in RCW 90.82.

Both Thurston and Whatcom Counties eliminated or reduced the mapping of "post-code" claims. Post-code claims were defined by Thurston and Whatcom Counties as those claims with a "date of first water use" later than the surface and groundwater codes.

Both counties also eliminated "Short Form" claims that were assumed to represent water that is possibly being used under the groundwater permit exemption. Whatcom County estimated that approximately 90 percent of the total claims in WRIA 1 can be categorized as post-code and/or "Short "Form" claims. A large proportion of the time required to map water rights and claims is due to the large number of claims that are currently on record with Ecology.

A large percentage of post-code claims may be resolved through the adjudication process or legislative action authorizing an administrative body to make decisions on the validity of post-code/short form claims.

The following cost estimates are based on the FTE Time analysis summarized in Table 3, Appendix B. Table 3 figures are based on mapping completed by the Central Regional Office of Ecology, Thurston County, and Whatcom County PUD. A more detailed cost breakdown can be found in Appendix B.

1. Phase I, Pilot:

Estimated cost for the pilot, Phase I: $601, 352.
Duration: 2 years.
Scope: Using four FTE's, begin mapping water rights at each regional office. Using one FTE, begin integrating completed maps into a Geographic Information System.

2. Phase II, Image Water Right Documents, Map All State Water Rights, Integrate with Counties:

Estimated cost: $5,971,332.00.
Duration: 6 years.
Scope: Complete imaging system for all state water right documents. Map all water rights. Integrate state water rights with county real property information.

Efficiencies

Property ownership information is currently being accessed by Ecology personnel through site visits or phone inquiries to the county offices. On a limited basis, property ownership information is also being accessed via Internet and GIS systems. Current property ownership research methods are inefficient in terms of staff time and thus costly to both the counties and Ecology. An estimate of Ecology staff time spent obtaining current property ownership follows.

Ecology Staff Function	FTE Hours/Month	FTE Hours/Year
Metering related correspondence (i.e. Orders)	160	*1,920*
Drought related correspondence	160	*1,920*
Permit processing	168	*2,016*
Permit maintenance	80	*960*
Compliance	60	*720*
Totals	**628**	**7,536**

The hours estimated for metering and drought related correspondence is assumed to be representative of any notification for proposed action required by Ecology. Examples include but are not limited to instream flow regulation and adjudication service of summons. The hours estimated above are a recurring cost using the current research methods. The time saved would result in efficiencies and cost avoidance resulting in less time required through automated access vs. manual processes for obtaining this information.

FINDINGS

Water right ownership or water use related to specific property is not directly associated with property ownership for assessing property tax by the county. County assessors do not collect or maintain information regarding either. If the water right is recorded, the county auditor maintains the records regarding the water rights. However, these records are generally indexed and maintained by Grantor/Grantee name. For counties with GIS in place, the systems and related information are not maintained within the same county department.

All but seven counties do not currently have or are budgeted to have the information technology infrastructure required to integrate with the proposed Ecology integration project. A risk in the

ongoing success of this effort is closely connected with the counties ability to fund and support their GIS infrastructure and mapping functions. If these functions are eliminated or not adequately funded at the local level, the objective of connecting with counties to improve water right administration information may be compromised.

The committee recognizes that integrating water rights ownership information with real property ownership records does not address the need to ground-truth the information. For example, a water right once identified with an agricultural purpose of use may now be a subdivision. The committee felt that this issue was outside the scope of this study.

RECOMMENDATIONS

In light of the current revenue forecast and resulting budget deficit, Ecology recommends that a "pilot" (Phase I) be funded at a cost of $601,352.00. This would allow Ecology to begin mapping the State's water rights. As additional funding becomes available, the full project, or Phase II, could begin. Phase II would lapse over six years and cost $5,971,932.00. Phase II would add the imaging component to replace mapping of water rights from paper copies, with mapping of water rights from images of water rights documents. This would increase the efficiency of the mapping process. Phase II would also add the Geographic Information System component which enables the state water rights and county property ownership information to be connected.

Depending on the standard established for the level of accuracy from a multi-use digitized property parcel system and a GIS, costs may range from $20.00 to $58.00 per parcel. Snohomish County has 241,772 real property parcels and has spent $6.5million to compile their parcel base.

However, counties expressed concerns as they are currently experiencing significant budget constraints. Even with funding provided through state grants, there are issues related to their current capacities and their need to focus on core functions. Also there may be equity issues for those counties that have already made the investments and thus will be ineligible for state grants for development costs.

The proposal moves Ecology and the counties towards the goal of improving the administration of water right records held by the agency and the vision of a water management system. The proposed phased implementation reduces the risks associated with larger projects and is fiscally more realistic. Counties are currently experiencing significant budget constraints and therefore expressed an interest in working within their current infrastructure. They did not feel that they were positioned to assume any new funded or unfunded work. A phased implementation allows for inclusion of those counties that are currently not positioned to participate, but may be interested in taking part in the future. These counties can be scheduled for implementation towards the latter part of Phase II. Although the counties currently do not have the resources to support any new work, it is possible that they may elect to take advantage of state sponsored grants as economic conditions improve. Further, in some of these counties, a manual process may ultimately be the most practical solution.

Appendix A.

List of Water Resource Inventory Areas (WRIA)

WRIA Number	WRIA Name	WRIA Number	WRIA Name
1	Nooksack	32	Walla Walla
2	San Juan	33	Lower Snake
3	Lower Skagit / Samish	34	Palouse
4	Upper Skagit	35	Middle Snake
5	Stillaguamish	36	Esquatzel Coulee
6	Island	37	Lower Yakima
7	Snohomish	38	Naches
8	Cedar-Sammamish	39	Upper Yakima
9	Duwamish-Green	40	Alkali-Squilchuck
10	Puyallup-White	41	Lower Crab
11	Nisqually	42	Grand Coulee
12	Chambers-Clover	43	Upper Crab-Wilson
13	Deschutes	44	Moses Coulee
14	Kennedy-Goldsborough	45	Wenatchee
15	Kitsap	46	Entiat
16	Skokomish-Dosewallips	47	Chelan
17	Quilcene-Snow	48	Methow
18	Elwah-Dungeness	49	Okanogan
19	Lyre-Hoko	50	Foster
20	Soleduc	51	Nespelem
21	Queets-Quinault	52	Sanpoil
22	Lower Chehalis	53	Lower Lake Roosevelt
23	Upper Chehalis	54	Lower Spokane
24	Willapa	55	Little Spokane
25	Grays-Elokoman	56	Hangman
26	Cowlitz	57	Middle Spokane
27	Lewis	58	Middle Lake Roosevelt
28	Salmon-Washougal	59	Colville
29	Wind-White Salmon	60	Kettle
30	Klickitat	61	Upper Lake Roosevelt
31	Rock-Glade	62	Pend Oreille

Appendix B.

Table 1.
Project Costs Summary

One Time Costs	**Average Yearly Costs**	**Project Total**
Imaging Project - 3 Years (Phase 1)	$592,444.05	$1,777,332
Mapping Project - 5 Years Scenario	$838,919.92	$4,194,600
Mapping Project - 11 Year Scenario	$409,866.09	$4,508,527
Mapping Project - 17 Year Scenario	$264,911.96	$4,503,503
On Going Costs		
Mapping (GIS) Maintenance	$300,676	

Table 2.
Imaging Costs

Imaging (Phase I)							
			Year 1	**Year 2**	**Year 3**		**Project Total**
FTE Cost	FTEs	Yearly Cost	$224,036	$224,036	$77,094		
Information Technology Application Specialist (ITAS)5	1	$77,094	$77,094	$77,094	$77,094		
ITAS5	1	$77,094	$77,094	$77,094			
ITAS4	1	$69,847	$69,847	$69,847			
Hardware			$122,000				
Software			$55,000				
Contract					$550,000		
Yearly Total			**$625,072**	**$448,072**	**$704,188**		**$1,777,332**

Table 3.
Time Estimate for Mapping (All State) Water Right Documents Based on FTE Assignment

FTE's	Map Days	Certificates	Permits	Claims	Totals
		Mapping Yrs.	Mapping Yrs.	Mapping Yrs.	Mapping Yrs.
1	240	16.8	1.2	67.3	85.3
2	480	8.4	0.6	33.6	42.7
5	1200	3.4	0.2	13.5	17.1
8	1920	2.1	0.2	8.4	10.7
10	2400	1.7	0.1	6.7	8.5
12	2880	1.4	0.1	5.6	7.1
14	3360	1.2	0.1	4.8	6.1
16	3840	1.1	0.1	4.2	5.3
18	4320	0.9	0.1	3.7	4.7
20	4800	0.8	0.1	3.4	4.3

Table 4.
Mapping Costs (All State) – 5 Year Scenario

Mapping - 16FTEs/5 Yr. Scenario					
Class	**No of FTEs**				
ITAS5	1				
Cartographer (CART)2	4				
CART1	11				
Year	**FTE Cost**	**Hardware**	**Software**	**Contract**	**Yearly Cost**
1	$818,420	$52,500	$15,000		$885,920
2	$818,420				$818,420
3	$818,420				$818,420
4	$818,420				$818,420
5	$818,420			$35,000	$853,420
Totals	**$4,092,100**	**$52,500**	**$15,000**	**$35,000**	
Project Total	**$4,194,600**				

Table 5.
Mapping Costs (All State) – 11 Year Scenario

Mapping - 8FTEs/11 Yr. Scenario					
Class	**No of FTEs**				
ITAS4	1				
CART1	7				
Year	**FTE Cost**	**Hardware**	**Software**	**Contract**	**Yearly Cost**
1	$399,321	$28,000	$8,000		$435,321
2	$399,321				$399,321
3	$399,321				$399,321
4	$399,321				$399,321
5	$399,321				$399,321
6	$399,321	$35,000	$10,000		$444,321
7	$399,321				$399,321
8	$399,321				$399,321
9	$399,321				$399,321
10	$399,321				$399,321
11	$399,321			$35,000	$434,321
Totals	**$4,392,527**	**$63,000**	**$18,000**	**$35,000**	
Project Total	**$4,508,527**				

Table 6.
Mapping Costs (All State) – 17 Year Scenario

Mapping - 5FTEs/17 Yr. Scenario					
Class	**No of FTEs**				
ITAS4	1				
CART1	4				
Year	**FTE Cost**	**Hardware**	**Software**	**Contract**	**Yearly Cost**
1	$258,118	$17,500	$5,000		$280,618
2	$258,118				$258,118
3	$258,118				$258,118
4	$258,118				$258,118
5	$258,118				$258,118
6	$258,118	$20,000	$6,000		$284,118
7	$258,118				$258,118
8	$258,118				$258,118
9	$258,118				$258,118
10	$258,118				$258,118
11	$258,118				$258,118
12	$258,118	$25,000	$7,000		$290,118
13	$258,118				$258,118
14	$258,118				$258,118
15	$258,118				$258,118
16	$258,118				$258,118
17	$258,118			$35,000	$293,118
Totals	**$4,388,003**	**$62,500**	**$18,000**	**$35,000**	
Project Total	**$4,503,503**				

Table 7.
Ongoing Maintenance Costs

Ongoing Maintenance Costs		
Class	**No of FTEs**	
ITAS5 (or GIS Analyst)	1	
CART2	4	
Year	**FTE Cost**	**Biennium Cost**
1	$300,676	
2	$300,676	$601,353