

WATER COURT TECHNOLOGY WHITE PAPER

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Preface

The concept for this paper was launched over a summer lunch with Beth McLaughlin, the Supreme Court Administrator. We were discussing the University of Montana Study on the Future of Water in Montana with me concurring with the Study's call for improved water right record systems – adding that the Water Court had not been able to take advantage of the Judicial Branch's enterprise approach for court case management systems because of the Water Court's unique case flow and dependency on the Department of Natural Resources central water rights database for many core processes.

I offered to write this White Paper on Water Court Technology thinking my prior experience as the former Director of Court Technology for the Judicial Branch coupled with several years working on water right related projects with my husband, Jim Gilman, the former DNRC Water Adjudication Bureau Chief, might offer some insight on areas for water right record improvement and water court case processing. Attachment C provides a list of data sources and material referenced in writing this paper.

I met briefly with Chief Water Judge Russell McElyea and his interest in the paper was clear – identify proven court technologies to make water court case processing more efficient and improve access to water court records.

I met with Water Court staff to review high level business processes and was provided substantial background information from Sandy Palakovich the Water Court Administrator. It is clear the Water Court staff share Judge McElyea's enthusiasm and vision for improving case management in the court.

I spoke with Lisa Mader, Chief Information Officer, for the Judicial Branch. Lisa asked that the White Paper be sufficiently comprehensive for Court Technology Program staff to gain a better understanding of water right record systems, processes and technology needs.

This paper outlines four key strategies:

1. Ideas for collaborative information technology strategic planning between the Judicial Branch and the Executive Branch.
2. Ideas for Improving the quality (accuracy, timeliness and completeness) of water right records.
3. Ideas for Improving the efficiency of Water Court case processing and access to water court case records using proven court technologies
4. Ideas to Increase the utility of water right records by facilitating a one-stop-shop for water right records in the State of Montana.

Purpose and Introduction

“Appropriators of water ought not to be subjected to the expense of protecting their rights. That is a duty of the government and should be paid for by public taxation. It is the only way in which impartial justice can be assured. Leaving the ownership of streams to be fought over in courts and titles of water to be established in ordinary suits at law has never resulted in the creation of satisfactory conditions and never will. As it is now, the same issues are tried over and over again. Each decision, instead of being a step forward final settlement, too often creates new issues which in turn have to be litigated. The suit of one canal company against another company may settle the rights of these companies as against each other, but it settles nothing with respect to other appropriations not made parties to the litigation, and the whole controversy may be opened at any moment.” **Elwood Mead – 1902.**

The focus of this report is to recommend technologies to assist the Water Court in more efficient case processing and to make Water Court records more accessible. However, the centralized water right record system (Appendix A) maintained by the Department of Natural Resources and Conservation (DNRC) is integral to the Water Court’s adjudication of claims and its duties to assist District Courts in the enforcement of Water Court decrees.

The DNRC and Water Court share responsibility for the quality of records in the centralized record system.

This paper proposes four strategies to make case processing in the general adjudication more efficient and improve the efficacy of all water right records.

Strategy 1: Strategic planning and the Identification of funding sources for integrated water right system development, support and maintenance.

Strategy 2: Improve the quality (accuracy, timeliness, completeness) of water right records.

Strategy 3: Improve the efficiency of Water Court case processing by implementing proven court case management technologies.

Strategy 4: Increase the utility of water right records by facilitating a one-stop-shop for water right records in the State of Montana as recommended in the 2014 University of Montana School of Law, Land Use & Natural Resources Clinic Report.

Background

Article IX, Section 3 of the 1972 Montana constitution recognized all existing water rights and envisioned a single responsible entity for the administration, control and regulation of water rights and a central record system for water rights. In 1973, the legislature enacted the *Water Use Act* and assigned these duties to the Department of Natural Resources (DNRC). The process originally envisioned by the legislature called for existing claims to be filed with district courts under order of the Attorney General with technical assistance provided by the DNRC. The process proved problematic and in 1979 (SB76) the legislature created the Montana Water Court to coordinate with DNRC the expeditious adjudication of claims and the issuance of preliminary decrees for any water right claim of beneficial use occurring before July 1, 1973 – a process often referred to as the “general adjudication.”

The general adjudication was initiated by order of the Montana Supreme Court and has proceeded under rules adopted by the Supreme Court. The general adjudication is advancing toward final decrees. There were 220,202 pre-1973 claims filed during the claim filing period. As of July 2015 there were 186,178 active pre-1973 claims. Simply put – only 85% of the original pre-1973 claims filed are active today. Further, less than 1% of water cases adjudicated in the Water Court require a formal adjudicatory hearing i.e., 99% of the cases are resolved through settlement conferences and stipulation.

Completing the general adjudication of pre-1973 water right claims remains a top priority for the State of Montana. The Water Court estimate to issue the remaining decrees is July 1, 2028.

The Water Court relies on the DNRC's central water rights record system for many of its core business processes including summary report preparation, decree production and publication, objection tracking, case docketing and the production of tabulations and maps in certified cases and decree enforcements. The unique case flow of water court cases and the Water Courts' dependency on the DNRC's central record system has limited the ability of the Water Court to take advantage of modern court case management technologies.

The DNRC central water rights record system is arguably one of the most important systems maintained by the State of Montana. The current water rights database was developed in the late 1990's and populated with converted data from a highly coded 1970's IDMS mainframe database. The system was designed to support the general adjudication of pre-1973 water rights and post-1973 changes and new appropriations of water as authorized under the Water Use Act. The system has undergone extensive incremental development adding functionality not part of the original design, e.g., interfaces to support public access to water right records through the State Library's Water Information System (WIS) portal and the DNRC departmental website; interfaces to geospatial tools for the production of water right maps; interfaces to support electronic ownership updates from the Department of Revenue's Orion property database, connections to the DNRC electronic document management system, and extensions to produce the tabulations needed for the enforcement of Water Court decrees.

In 2014 the Montana Supreme Court commissioned the University of Montana School of Law, Land Use & Natural Resources Clinic, to report on various aspects of Montana water rights including how the legal system works today, how Montana compares to other States and ideas for Montana's future. One recommendation was a "call to establish a central records group to identify strategies to improve the quality of water right records with the ultimate goal of creating a "one-stop-shop" to determine a water right – a "living decree." In October 2015 members of the Water Court's Water Adjudication Advisory Committee were asked to comment on the report. Committee members were unanimous in their support of efforts to improve the quality and availability of all water right records.

Strategy 1: Strategic Planning and the Identification of funding sources for integrated water right system development, support and maintenance.

In 2001¹ the Montana legislature passed the Montana Information Technology Act (2-17-505, MCA). MITA reorganized responsibilities for information technology management in the State including establishing the position of Chief Information Officer within the Department of Administration to oversee IT policy development and procurements in the Executive Branch; requires agencies and all Branches of government to maintain a strategic information technology plan; and, provides a mechanism for qualifying projects to procure long range information technology funds for priority multi-year projects with oversight from the Executive Branch's Chief Information Officer. The strategic information technology plans typically span a period of five years and are updated every two years. The next strategic planning cycle will occur in 2016.

It is imperative the information technology requirements for water right systems find a permanent place in the information technology strategic plans of the Judicial Branch and the DNRC. Ideally, the plan would be a comprehensive and collaborative effort providing a clear and credible direction for an integrated water right records system.

Collaborative Information Technology Strategic Planning

A comprehensive strategic information technology plan for the Water Court and the central water right records system should address the following areas:

General Adjudication

- The plan should include a records management plan as required in HB 123 (2015) including a strategy for the collection, storage and retrieval of historical water right records.
- The plan should identify the technical resources needed to maintain and enhance the systems used in general adjudication processes (claims examination, summary report preparation and review, decree issuance, objection processing and case processing) through final decree and DNRC's ultimate issuance of certificates of water rights for the decreed claims.
- The plan should include a strategy to enhance the on-line tools available for claimants and claimant representatives to review claims and cases involved in the general adjudication.
- The plan should identify a strategy to systematically track, generate and report the statutory benchmarks and reporting requirements to the Water Policy Interim Committee. 85-2-281, MCA.
- The plan should quantify the efficiencies and return on investment for Water Court electronic case management, electronic document management, electronic filing and access to Water Court case records and the on-line sharing of significant water court decisions and how to implement these technologies with minimal disruption to case participants and the Court (**see Strategy 3**).

¹ The current water rights database predates the passage of the MITA.

Centralized System for Water Right Records

- The plan should include the DNRC’s definition of and strategic vision for the constitutionally mandated centralized record system and its alignment to the State Water Plan².
- The plan should identify specific goals and objectives to improve the accuracy, timeliness and completeness of records within the central records system and a strategy for process unification among DNRC’s central and regional offices (**see Strategy 2**).
- The plan should include an integration reference architecture inventorying key systems that interface with the centralized system not under the management control of the DNRC, e.g., DOR’s Orion System, the State Library’s Water Information System, and Montana Court case management and electronic filing systems to ultimately support a one-stop-shop for water records (**see Strategy 4**). *Note information technology strategic plans for these interfacing systems must be tracked and accommodated within the strategic plan.*

Water Distribution and Enforcement

Water distribution and enforcement present several complex strategic issues. A brief background is in order. Montana district courts supervise the distribution of water among all appropriators. 85-2-406, MCA. This supervisory authority includes the supervision of all water commissioners appointed prior or subsequent to July 1, 1973 and general supervision over irrigation districts. 85-7-104, MCA. In addition, the district court is the proper jurisdiction for general water disputes.

In 2015 eighty-two (82) decrees were under an enforcement action in 10 judicial districts.

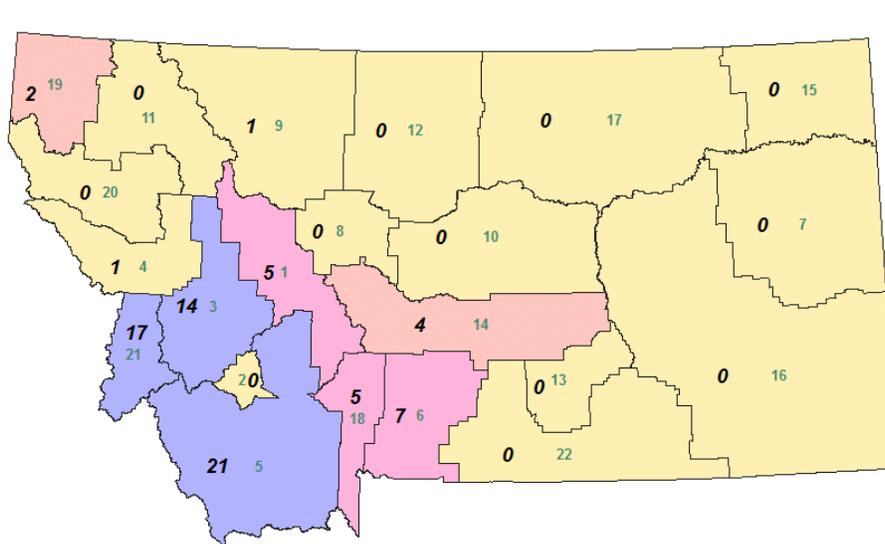
Judicial District	Historical District Court Decrees Currently Enforced	Water Court Decrees Currently Enforced
1	3	2
3	3	11
4		1
5	13	8
6		7
9	1	
14		4
18		5
19		2
21	12	5
22		6
Total Actions	32	51
Single Judge District		

² The State Water Plan is compiled by the DNRC as required by 85-1-101, MCA.

The table is significant for three reasons. First, petitions to enforce a Water Court decree correlate to a historical decree, i.e., of the fifty-one (51) Water Court decree enforcements active today only two (2) can't be linked at least in part to a historical decree³.

Second, only 11 of 22 judicial districts are actively involved in decree enforcements (Water Court or Historical District Court decree). Montana's history of water development and water management is rich. In those areas where the development and distribution of water could be managed by the formation of an irrigation district, federal water project, or state water project water users opted for the most efficient means to manage water development and distribution within a localized area. For outliers, a decree (historical decree or Water Court decree) by petition to a district court is the only mechanism available to ensure water is distributed in a fair and equitable manner. This process requires 15% of decreed water users on the source to file a petition with the District Court every year and the petitioners must be willing to fund the cost of a court appointed water commissioner to oversee the distribution of water during the season.

Third, of the 11 judicial districts involved in administering water decrees – seven (7) are single judge districts. All but one judicial districts currently supervising historical decrees also supervise water court decrees in the district. The historical decrees being enforced in these judicial districts are typically because the general adjudication in these basins is not complete. The following map illustrates this point – the map joins 2015 historical decrees with 2015 Water Court decree enforcements. The larger number represents decrees enforced – the smaller number identifies the Judicial District.



³ Emigrant Creek in Park County (JD6) is a Water Court Decree enforcement action based exclusively on filed and use rights and the Tongue River enforcement project is based on the Montana-Wyoming Compact of 1955.

The Water Court has published a [Guide](#) for District Court judges on the enforcement of Water Court decrees detailing the process for the enforcement of a Water Court decree and how it differs from a historical (pre-1973) district court decree. The most significant difference is that tabulations provided by the Water Court to district courts include water court decreed rights and post-1973 changes and permits from the DNRC central record system.

The DNRC, Attorney General and County Attorneys share enforcement responsibilities under the Montana Water Use Act. 85-2-114, MCA. Enforcement actions are initiated by petitioning the District Court supervising the distribution of water on a given source for an order to regulate, cease and desist, or provide injunctive relief on specific water use violations.

- The strategic plan must identify the technical resources, limitations, and future information technology requirements needed to support the entities involved in the enforcement and distribution of water in the State of Montana.

Identification of funding sources for an integrated water right system development, support and maintenance.

The [Judicial Branch Information Strategic Plan](#) is crafted by the Montana Supreme Court's Commission on Technology. The Commission is chaired by the Hon. Justice Mike Wheat. The Hon. Judge Randall Spaulding represents District Court Judges. The Supreme Court established the Commission on Technology in 2002 to address the many information technology challenges facing the Montana Judicial Branch. The Judicial Branch has worked diligently to build a court technology program based on the Commission approved goals and objectives identified in the plan and finding creative ways to fund technology initiatives through grants, one-time-only funding and long range IT funding proposals supplemented with general appropriations for on-going maintenance and support. The Court Automation Surcharge, 3-1-117, MCA, helps to off-set these costs.

The DNRC's 2014 [Information Technology Strategic Plan](#) identified the following high risk areas for the DNRC Office of Information Technology:

- Difficulty hiring and retaining qualified, experienced technical staff.
- Lack of a predictable funding source for OIT reduces ability to effectively perform long term strategic planning and risk management.
- State IT policies, directives, or projects that supersede program objectives or divert agency IT resources from effectively supporting program mandates or operational priorities.
- Program reliance on undocumented, unsupported, and/or nonstandard custom software applications, frequently implemented without adequate internal technical advice and support.
- Reliance on aging hardware and software systems presents increased risk of service disruption, data loss, and security compromise.
- Insufficient network bandwidth to DNRC field and unit offices hinders agency objectives with respect to consolidation of services, backup and recovery objectives, disaster recovery and continuity of service program development, and development of new information systems needed to meet agency and program goals and objectives.

During the 2015 legislature the DNRC advanced a proposal for \$70,000 for water rights database improvements:

“The legislature adopted \$70,000 in state special revenue as a one-time-only expenditure to integrate new technologies into the existing water rights database and to capture data online which would allow water measurement reports to be submitted online and in turn be automatically used by the database.”

The absence of a specific technology budget and predictable funding source for the centralized record system and water court technologies to fund regular system upgrades and maintenance is a significant problem.

Technology Note: In October 2015 the Department of Administration’s Information Technology Service Division procured an electronic content management system (Lexmark’s Perception) to replace the State’s current electronic content management system (FileNet). This procurement is significant for two reasons. First, both DNRC and the Water Court use FileNet to manage electronic records – DNRC’s scanned water right documents (general adjudication and new appropriations) and the Water Court’s Significant Case Search. The migration of these applications to the new platform is targeted for 2016. Second, the procurement establishes a technical standard for electronic content management for the Executive Branch, i.e., any new initiative by DNRC in the enterprise content management area will use this new state standard technology.

Strategy 2: Improve the quality (accuracy, timeliness, completeness) of water right records.

The quality of a record system can be measured by the accuracy, timeliness and completeness of its records. Activities to improve the quality of water right records support all uses of the records including property right protections, adjudication, change processing, distribution and enforcement, water management, new appropriations and policy development. Chief issues with the accuracy, timeliness and completeness of water right records are discussed in this section.

A common underlying theme for many of the issues addressed in this strategy are how changes and new appropriations are managed and ultimately represented in the central records system. The DNRC should consider adopting case processing measures similar to those used by courts nationwide – specifically:

Case Clearance: How many change/permit applications have been received during a measured interval of time (monthly, quarterly, yearly) – and how many change/permit applications have been closed? This measure identifies potential resource shortages.

Age of Case: How old (measured in days) are outstanding new appropriations and change applications? This measure highlights specific cases closing in on statutory time frames for case resolution.

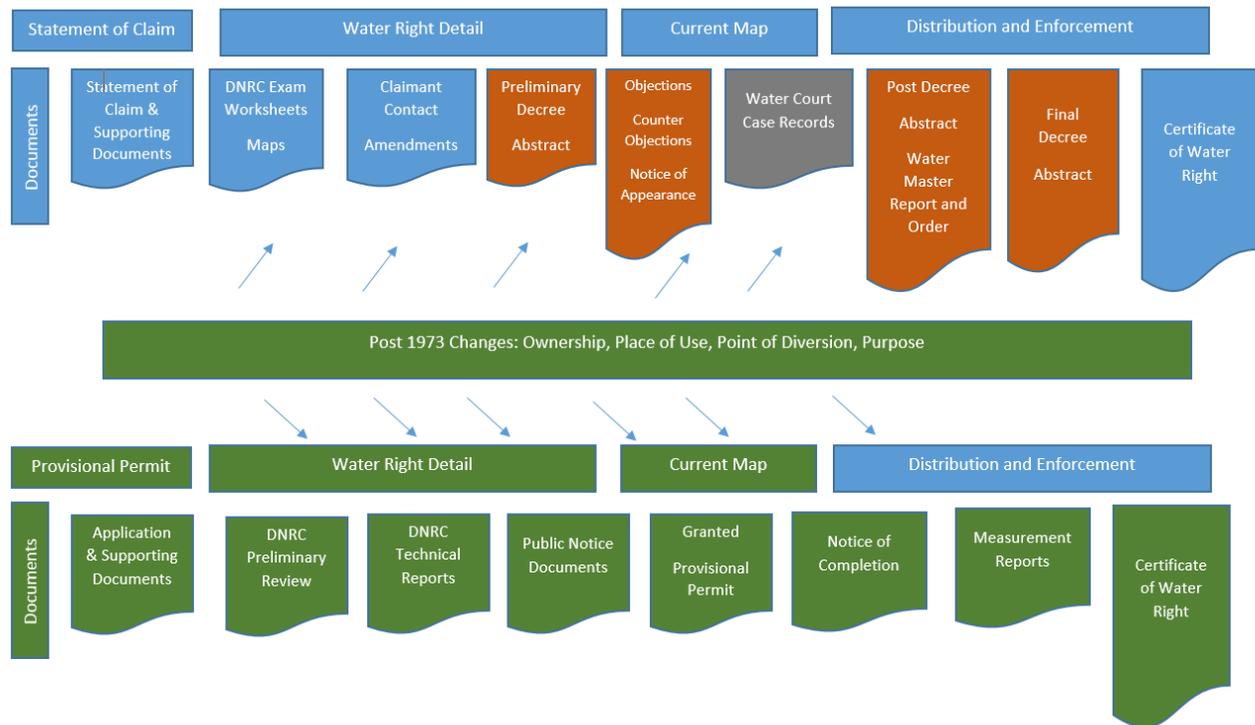
Time to Disposition and Manner of Disposition: How long do permits and changes take to process? This measure requires tracking the type of change or application and the manner of disposition – information valuable to water right holders and policy makers.

That said, the current water right database was designed to support the general adjudication and any new appropriations (post-1973) of water. The system makes extensive use of ‘versions’ of the record to produce abstracts representing a single point in time, i.e., original right, post-decree, change authorization, etc. In addition, the water rights database provides the technical layer for many of the Water Court’s core business processes. Once water cases have been created the general adjudication of pre-1973 water rights is predominately a paper-based proceeding. The paper claim files are the official court record used by the Water Court to adjudicate objections to claims and issues raised by the DNRC adjudication staff during the examination of the claim. Although this paper intensive process introduces inefficiencies for the Water Court and Water Court case participants, it doesn’t prohibit or diminish Water Court decisions in the general adjudication, i.e., the Water Court is able to maneuver the vagaries in tabular data to resolve disputes and define the characteristics of the water right.

The bifurcation that exists between pre-1973 and post-1973 rights create challenges in presenting water right information. The water right record diagram on the following page illustrates this point. Statements of Claim are a common pre-1973 right and Provisional Permits are a common post-1973 right. The green bar illustrates the frequent changes that occur on water right records.

The diagram is color coded. The documents and records in blue are generally maintained by the DNRC adjudication staff, the documents and records in green are generally maintained by the DNRC new appropriations staff, the documents in red are produced by the Water court staff and become a permanent part of the DNRC case file, the gray represents Water Court case records maintained exclusively by the Water Court and do not become part of the central record system.

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As noted, this section of the paper targets activities to improve the quality of records. The analysis is based on water right information publicly available through the Water Court website, the DNRC website and the State Library’s Water Information System. Distinctions between pre and post 1973 rights are set aside for the purpose of providing clarity to water right holders and potential owners of water rights.

Activities to Improve Record Accuracy, Timeliness and Completeness of Water Right Records

RESEARCH AND EXTEND THE DATA STRUCTURE OF THE CENTRAL WATER RIGHTS DATABASE TO MORE ACCURATELY REPRESENT THE WATER RIGHT, THE STATUS OF THE WATER RIGHT IN THE ADJUDICATION PROCESS, AND STATUTORY OR POLICY CHANGES NOT ANTICIPATED IN THE ORIGINAL DESIGN OF THE SYSTEM.

1. Research, refine and extend the data structure for major surface water right holders.

“The existence of unused and overstated claims in the DNRC water rights database may hinder new development in some basins by making water legally unavailable for use.” [Montana State Water Plan 2015.](#)

The very data structure of the Water Rights database contributes to this perception, particularly, as it represents the legal status and complex combined rights of irrigation districts, compacts, conservation districts (water reservations), state and federal water projects, municipalities, and multi-user water consortiums (mutual ditch companies, canal companies, regional water systems, multi-purpose water companies, etc.). These entities are the principal surface water right record holders in Montana and follow the historical evolution of water development, water policy and water management in the State. These entities administer water resources under unique operating principles and statutory authority.

To illustrate this point, consider Irrigation Districts.

The first irrigation district laws in Montana were passed in 1907. The laws placed the power to create districts and the authority to control bond issues in the hands of district courts as it remains today. These irrigation districts are public entities audited by the Department of Administration. The irrigation districts are managed by a board who oversee water distribution within the district. Changes in place of use are made by petitioning the supervising district court and include providing public notice of the change. The Department of Administration audits 54 of these public irrigation districts. The list of irrigation districts maintained by the Department of Administration doesn't match the list of irrigation districts in the DNRC water rights database. An irrigation district designation in the DNRC database is based on the type of form used at the time of filing. Appendix B provides a list of Irrigation Districts audited by the Department of Administration with water right details from the DNRC database (originally filed as either a statement of claim or irrigation district). These Irrigation Districts irrigate 699,545 acres in Montana – according to the 2012 USDA Agricultural Census Montana had a total of 1,903,019 irrigated acres – approximately 37% of irrigated acres in Montana are under the supervision of an Irrigation District. Only five (5) change authorizations have been recorded in the DNRC water rights database for irrigation district claims suggesting the water rights database neither reflects current Irrigation District water use nor the legal authority under which a district operates. It's interesting to note DNRC is a water right holder on numerous irrigation district water rights with a priority date of 1/1/0001 – yet, another indicator the database does not accurately represent irrigation district rights.

Irrigation Districts are one of many in the category of multi-user water groups. A thoughtful analysis and restructuring of how records are represented for these major water entities would do much to improve the accuracy and utility of Montana water right records.

2. An adjudication status code could be added to historical rights to indicate where a claim is in the adjudication process.

The data structure for statements of claim could be improved by adding an adjudication status code. The problem is it's not immediately clear where a specific claim is in the adjudication process.

Two elements would be needed. The first is a basin status code to indicate the status of the basin in the general adjudication. The possible values:

- a. Final Decree
- b. Not Decreed
- c. Preliminary or Temporary Decree – Pending Re-Examination
- d. Under Re-Examination
- e. Decreed – Objection/Counter Objection/Notice of Intent to Appear Open
- f. Decree - Active

The second is an active claim status. If the Water Court is actively working on a basin decree it means the period for objections, counter objections and notices of intent to appear has expired. The claims in the active basin decree will be in one of six possible states:

- a. A decreed claim with no outstanding objections, no intent to appear and no DNRC issues.
- b. A decreed claim with DNRC issues and no objections or intent to appear.
- c. A decreed claim with objections or a notice of intent to appear and DNRC issues.
- d. A decreed claim with objections and no DNRC issues.

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- e. A decreed claim under review on motion of the Water Court.
- f. An adjudicated Claim (claim resolved through Water Court action)

It's possible to determine the status of a post decree claim by manually reviewing the abstract and public notices associated with the basin decree, however, this status could also be system generated providing important insight on the efficacy of the claim. Specifically,

- If included on the general abstract water right holders and potential purchasers could use the simple WIS water right search to determine the status of the claim in the adjudication.
- The status could be used to trigger a notice to the court of an ownership update to a claim in an active adjudication status (see 2, 3, 4 and 5 above).
- The status could enhance existing Water Court case processing measures by systematically generating the percentage of claims complete in a single basin, multiple basins or all basins.

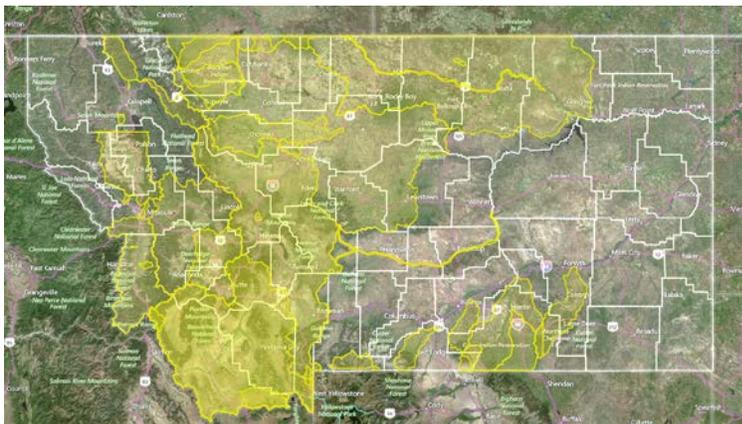
For Example:

Basin	Total Claims	Non-Disputed Claims (1)	Claims to Resolve (2+3+4)	Post Decree Claims (Adjudicated Claims)	Percent Complete (Non-Disputed Claims + Adjudicated Claims)
nnA	1000	400	400	200	60%

Note: During the resolution of objections and issues and the Water Court orders a change to the claim DNRC staff updates the record and the version of the changed claim is set to "Post Decree". This version is particularly important because it represents an adjudicated claim. In order to achieve an accurate representation of the status the Water Court would need to instruct DNRC to set the version to "Post Decree" on an adjudicated claim even if no changes were made by the Court in the proceeding. Further, in the WIS presentation of abstracts systems consideration must be given to the abstract presented if a post decree version and a subsequent change authorization version exist.

3. Research, review and extend the data structure as necessary to support changes occurring in statute, administrative rule or policy change.

The following map shows areas of the State of Montana (yellow) currently closed to new appropriations of water by statute, order of the Supreme Court, administrative rule, or Compact.



Any new appropriation of water in a closed basin must be approved by DNRC either under statutory provisions exempt from the permitting process or by legally acquiring existing rights and, if necessary, changing the underlying characteristics of the right (purpose, point(s) of diversion, place(s) of use) through the DNRC change process. The most valuable water rights in the State of Montana are the historic rights being adjudicated in the Water Court.

The design of the Water Rights database predates many of the basin closures and statutory changes, administrative rules and policies changes applicable to water development and use in closed basins. For example, one trend in closed basins is to use historic claims to mitigate new appropriations of water, i.e., provisional permits are issued conditionally using mitigation water determined to be available under an existing historic right. There appears to be a systemic problem in how the database represents water right changes under these circumstances. See 41P 30068903 – the permit places a condition of surface water mitigation from the historic right, but the specific historic right is not identified or cross referenced. It's also important to note that at the time this permit was issued the basin had not been decreed by the Water Court.

EVALUATE CURRENT CHANGE AND NEW APPROPRIATION ADMINISTRATIVE RULES, POLICIES, AND FEES TO DETERMINE THE IMPACT ON RECORD QUALITY; PROVIDE DETAILED AND TIMELY INFORMATION ON CHANGES AND NEW APPROPRIATIONS.

Changes in water right records occur daily because of realty transfers, the on-going adjudication of claims, district court orders affecting water rights, post-1973 changes to existing rights, new appropriations of water and acts of mother nature where excess water permanently change historical patterns of flow and extended periods of drought create the appearance of abandonment. Strategies to improve the accuracy, timeliness and completeness of records in the water right central records system must include establishing policies and procedures to encourage the timely filing of changes and ensure changes are reflected in the central system as quickly as possible.

1. The cost and complexity of the change process to decreed water rights discourages water right holders from applying for changes diminishing the quality of water right records.

The DNRC has processed and issued change authorizations for 3,061 of the 186,178 historical active claims (less than 2%). It's not known how many change applications have been submitted that were denied by DNRC or withdrawn by the applicant, however, it's reasonable to believe a substantial number of on the ground changes occur and the owner of the right simply opts not to pursue a change application.

Here are several reasons why this may occur.

- The cost of an application to change a historic claim is \$900.00 reduced to \$700.00 if the applicant participates in a pre-meeting with DNRC staff. If the applicant on a pre-1973 claim is requesting a change to both an irrigation and a non-irrigation claim two separate applications are required – it is common for historical rights to include an irrigation claim and a stock claim for the same appropriation, whereas, Provisional Permits allow multiple uses for the same right. DNRC does not provide details on the number of applications prepared and submitted by attorneys, consultants, hydrologists or engineering firms, but, based on a cursory review of applications, the percentage is high, exponentially increasing the cost of the application.
- By administrative rule DNRC requires change applicants of historic claims to describe the historic use prior to July 1, 1973 and specifically excludes Water Court approved stipulations and Master Reports as sufficient proof of the existence or extent of historical use (see ARM 36.12.1902 Change Application – Historic Use.). Consequently, the applicant must produce evidence of historical use that extends beyond the rigorous processes used in the Supreme Court rules for examination of pre-1973 claims and general adjudication proceedings. A water right in a post

decree status in the DNRC database has been examined by DNRC adjudication staff, has had systematic error checks and standards applied according to Rules adopted by the Montana Supreme Court, undergone numerous contacts with the claimant in an attempt to clarify and appropriately amend the claim, has been reviewed by a Water Master during summary report review, has been publicly noticed throughout the Basin(s), and if objections or issues were raised formally adjudicated by the Water Court – very few governmental records undergo this level of review for accuracy and completeness or are so widely public noticed including any post-1973 DNRC issued provisional permit, reservation or certificate.

- The applicant is required to calculate historic consumptive use by volume. DNRC rules suggests alternatives for this calculation, however, DNRC has officially adopted a standard methodology for calculating historic consumptive use and a non-rules based methodology to calculate contemporaneous (post 1973) historic diverted volume. The result will always be an increase in consumptive use and an adverse effect determination by DNRC for a pre-1973 surface water irrigation claim. This is because the DNRC methodology assumes irrigation methods are more efficient post 1973 than pre 1973. It doesn't matter if the method of irrigation hasn't changed. The percentage of on-farm efficiency gain is determined by the county of place of use (a political rather than hydrological boundary). Note: In early December 2015 the DNRC issued a policy directive in an attempt to rectify some of the problems in DNRC's method for calculating historic consumptive volume and use, however, the practical application of the new policy is not clear.

2. Improve the timeliness of scanned water right files.

Changes to records in the water right database are made by DNRC central office staff and staff located in eight (8) DNRC Water Resource Division Regional Offices. The electronic document repository of claim and change files are maintained by the central records unit. There can be significant delays between the time a change is made to the database and when the underlying documents are available for viewing through the electronic records management system.

The State of Montana's migration from FileNet to the Perceptive enterprise content management system is a great opportunity to re-think and re-design the electronic records management system. Specifically, a re-design that supports the electronic indexing and filing of documents into the file system without the need to manually index and scan the documents would greatly improve the timeliness of the records.

Note the selection of the Perceptive software was spearheaded by the Department of Justice and the Department of Labor and Industry in their efforts to adopt a records management strategy that supports multiple field and regional offices.

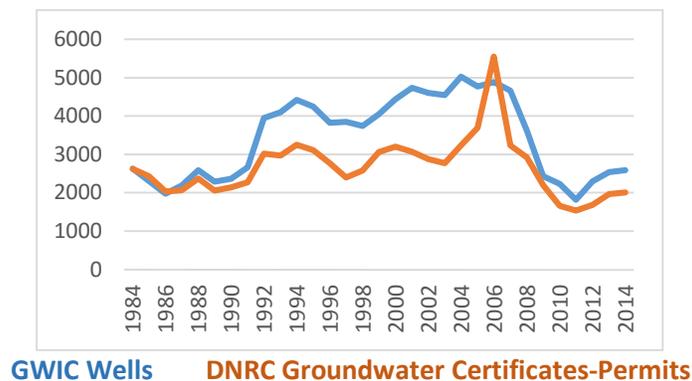
3. Improve the Ownership Update Process

A water right is appurtenant to the land on which it is used and transfers upon a change of ownership unless specifically severed. Outdated ownership information has been a chronic problem in the centralized system for water rights since its inception, e.g., in 2005 the HB22 billing process revealed that over 30% of the ownership records were outdated. In 2007 the Montana legislature enacted legislation (HB39) to revise the water right ownership update process, requiring DNRC and the Department of Revenue (DOR) to coordinate water right ownership updates based on property transfers and increasing penalties for failure to update water right records with DNRC.

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The Orion system is parcel centric with each parcel assigned a geocode. A single parcel may be appurtenant to one, more than one, or no water right. Since 2010 the DNRC staff have validated over 37,966 geocodes involved in realty transfers impacting 89,757 water right records⁴.

In addition, the following graph shows the number of new GWIC wells completed with a purpose requiring a certificate or permit and the number of groundwater certificates and permits issued by DNRC between 1984-2014. The data suggests the passage of HB39 has improved ownership records and awareness.



Updating ownership records in the water right central database based on realty transfer certificates received by the Department of Revenue is the most efficient and reasonable method to maintain accurate and timely ownership records for water rights.

A number of concerns have been raised about the ownership update process and how water right holders receive notice of changes. A comprehensive audit and review is needed to identify gaps and improve the process.

⁴ DNRC Adjudication Status Report to WPIC (September 2015)

Strategy 3: Improve the efficiency of Water Court case processing and access to water court case records using proven court technologies

The Montana Water Court is working to complete the general adjudication by June 30, 2028. The principal activities over the next twelve years include:

- Coordinating with the DNRC the re-examination of 90,000+ claims in 44 basins.
- Issuing 134 decrees (interlocutory and final) for over 180,000 claims and the resolution of objections filed in conjunction with the decrees.
- Issuing decrees and resolving objections for two pending Compacts impacting 26 basins and resolving objections in seven (7) currently open Compacts.
- Resolving 32,000+ claims with DNRC examination issues in existing decrees.
- Supporting district courts in the enforcement of water court decrees and assisting in general water disputes where defining the characteristics of the underlying water rights is paramount to dispute resolution.

It's only reasonable the Montana Water Court be supported by contemporary proven court technologies. The Water Court is in need of a court case management system designed to support the unique case flow of the court; the Water Court is in need of an electronic document management system to capture, generate, index and store electronic records reducing the "paper tax" on resources resulting from the current paper intensive process; the Water Court is in need of an electronic filing system to allow objectors, counter objectors and interested parties to file with the court their interest in a claim and to electronically submit and review case filings through disposition without Water Court staff entering the information multiple times; the Water Court is in need of a system to systematically publish Water Court actions to a public portal providing transparency in the general adjudication; and, finally, the Water Court is in need of a system that can automatically track progress, benchmarks and work outstanding providing meaningful case processing measures to the Chief Water Judge, the Montana Supreme Court and the Montana legislature.

There are a number of excellent court case management systems on the market today that meet most of the above requirements. The next logical step, pending approval of the Supreme Court's Commission on Technology, is to issue a Request for Information (RFI) to assess leading court technology vendor qualifications and their ability to meet the Water Court's unique requirements. One goal of this section is to provide sufficient detail so a Request for Information (RFI) could be issued.

Case Management/Electronic Document Management

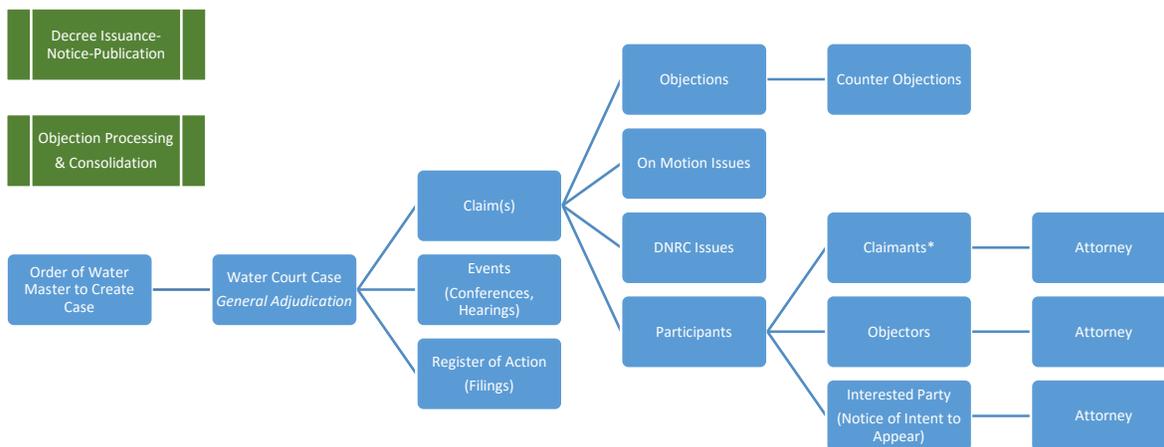
The Montana Water Court is a special district court statutorily created to expedite and facilitate the statewide general adjudication of state law-based water rights (generally rights with a pre-July 1973 priority date) and Indian and Federal reserved water rights claims. In addition, the court takes certified questions from district courts on local water disputes and provides district courts tabulations of water rights when a petition for enforcement of a Water Court decree is filed in a District Court. Appeals of Water Court decisions go to the Montana Supreme Court.

Resolving cases in the general adjudication and providing support to district courts on the enforcement of water court decrees are two primary areas of work for the Water Court.

WATER COURT TECHNOLOGY WHITE PAPER

UNIQUE CHARACTERISTICS OF WATER COURT CASE FLOW (GENERAL ADJUDICATION)

- This is a statewide general adjudication of water rights grouped and decreed by hydrological basin or sub-basin. There are eighty-eight (88) basins involved in the statewide adjudication.
- Water Court case processing starts with the Water Court issuance of a basin decree that includes abstracts of claims and indexes generated from the water rights system managed by the Department of Natural Resources and Conservation (DNRC). The first decrees were issued in the early 1980's and multiple manual and electronic systems have been used in Water Court decree and case processing over the years.
- Claimants in the basin are individually noticed and may file objections, counter-objections or a notice of intent to appear on claims published in the decree. Most claimants are self-represented and no fees are associated with the filings.
- The Water Master assigned to the basin reviews DNRC issues, objections and counter objections to determine the most logical case consolidation of claims. This determination is often based on common source, common issues, or common claimants.
- A water right case is created by order of a water master after she has consolidated objections filed by the claimant or other party(s), on the courts' own motion, and/or because of issues identified by DNRC claim examiners. Water Masters must have access to the DNRC claim file to adjudicate the case.
- The following diagram illustrates the basic general adjudication case structure. Note claimants may file an objection on their own claim.



- A case is closed when all objections, counter-objections and DNRC issues have been resolved and the Water Master has issued a Master's Report and the Water Judge an order adopting or amending the Master's Report – the disposition is sent to the DNRC so the water right record may be updated to reflect the actions of the Court. *99% of cases are resolved through settlement proceedings without a formal adjudicatory hearing.*

WATER COURT TECHNOLOGY WHITE PAPER

UNIQUE CHARACTERISTICS OF WATER COURT CASE FLOW (DECREE ENFORCEMENT AND WATER DISTRIBUTION)

- A water court basin decree or source tabulation is enforceable when all objections have been resolved by the Water Court.
- Water users petition a district court for the enforcement of a water court decree. The petitions are filed each year usually in early spring. Water users may not file a petition every year. The petitions are typically limited to a specific stream or reach of a water source.
- The Water Court provides information and tabulations to the District Court. The tabulations and maps are created by the DNRC. The tabulations include a list of all water rights on the petitioned stream or reach including new appropriations of water and changes to original water rights not reflected in the original decree, consequently, the tabulations are unique each enforcement year.
- The tabulations and maps are used by a district court appointed water commissioner to distribute the water.
- There were 51 Water Court enforcement actions in 2015.
- There were 117 historical decrees (pre-1973) indexed by the DNRC. In addition, there were 31 historical decrees (district court decrees) enforced in 2015. Historical decrees are enforced by petition of water users because there isn't an enforceable water court decree available or because the petitioning water users prefer distribution based on the historical decree. Historical decrees may continue to be enforced until final decrees are issued by the Water Court.

As statutorily provided in 85-2-243, MCA the Water Court receives substantial assistance from the DNRC central adjudication staff and DNRC staff located in 8 regional offices throughout the state. The case management system and underlying document management system must support an integration layer to the DNRC central records system (database and electronic record management system) and the ability to generate, track and record electronic correspondence that occurs between Water Court staff and DNRC staff.

Electronic Access to Water Court Records

Public electronic access to water court records is a priority for the Water Court. Currently, the [Water Court calendar](#), representing calendared events for twelve (12) water masters and two Water Judges making the Water Court the largest district court in the state, is available through the State of Montana's eCalendar application and significant decisions of the Water Court are available through the [Water Court's Significant Case Search](#) and LexisNexis. These systems all require manual input and are resource intensive to maintain.

A court case management system for the Water Court must have the ability to publish the Water court calendar and significant decisions of the Water Court to a public portal. In addition, the Water Court would be well-served by a case management system that supports a public docket similar to that of the Montana Supreme Court.

Water Court Case Processing Measures

The water court is required under 85-2-281, MCA to provide quarterly reports to the Water Policy Committee on the following:

- the progress of the adjudication on a basin-by-basin basis;
- the number of basins for which examination was completed during the reporting period;
- the number and type of decrees issued in the preceding year and in each quarter of the current year and an update on summary reports in review;
- the number of claims resolved each month in the preceding year;
- the percentage of claims resolved by basin, limited to basins under active review by the water court, after issuance of a decree and passage of the deadline of the notices of intent to appear; and compact status describing compacts approved by the water court and pending compacts;

The case management system must be capable of producing these reports on demand.

Electronic Filing

The Supreme Court Commission on Technology's strategic vision for electronic filing in Montana courts is a single portal to enable electronic filing in all courts, for all cases and all types of filers. E-Filing project documents are available for viewing at courts.mt.gov.

The benefits of the Montana Court's electronic filing portal include:

1. Secure 24x7 electronic filing and access to the court record from any location.
2. Electronic notice of service for registered users.
3. Reduces paper and physical storage requirements for the court.
4. Improves record quality.
5. Protects the court record from catastrophic events.
6. Provides standard features for all courts, cases types and filers.

The electronic filing system is voluntary for courts and court case participants.

There are two important pre-requisites to consider.

First, electronic filing requires a court case management and electronic document management system. The electronic filing portal is based on the [Oasis Legal XML standard](#) for court electronic filing⁵. Court case management vendors responding to an RFI should be familiar with the specification. The fact the electronic filing portal is a separate system interfacing with a court case management system allows flexibility in the choice of case and document management systems used by Montana courts while presenting a single, common interface for attorneys and self-represented litigants who may be participating in several cases in several courts at any given time.

⁵ The technical standard for Water Court case filings will need to be extended to support the electronic filing of objections, counter-objections and notices to appear that occur before the creation of a Water Court case.

Second, a major case advisory committee must define the unique case flow and filing requirements for the type of case being targeted for electronic filing. For example, the case flow for a child abuse and neglect case is very different than the case flow in a water right determination or dispute. The major case advisory group for water case e-filing would likely include representatives from the Water Court, District Court, DNRC, DOJ, a practicing water law attorney, and a water user group representative familiar with the general adjudication process. The work of the advisory committee typically takes 5-8 hours in a meeting facilitated by electronic filing staff from the Supreme Court's Office of the Court Administrator. The work product is a published technical specification for case type development within the electronic filing system.

The efficiencies to be gained by the Water Court and water court case participants through electronic filing are enormous.

- The general adjudication is a statewide adjudication -- every Montana citizen is directly or indirectly a participant in the adjudication.
- The objection forms, counter-objection forms, and notice of intent to appear are structured and well suited for electronic form filing.
- The majority of claims being adjudicated in the Water Court were filed by Montana farmers and ranchers, according to the 2012 USDA Agricultural Census, over 75% of Montana farmers and rancher have Internet access.
- Over 30% of the claims being adjudicated by the Water Court were filed by a local, state or federal entity.

Strategy 4: Increase the utility of water right records by facilitating a one-stop-shop for water right records in the State of Montana.

The University of Montana School of Law, Land Use & Natural Resources Clinic, reporting on various aspects of Montana water rights, cited an ultimate goal of creating a “one-stop-shop” to determine a water right – a “living decree.” The report does not provide a specific definition of a “living decree” or a “one-stop-shop.” This strategy addresses opportunities to increase the utility of water right records by offering ideas for a one-stop-shop for water right records in the State of Montana. Clearly, these ideas must be vetted by water right stakeholders.

It’s important to note that until final decree in the general adjudication and the issuance of certificates by DNRC for pre-1973 claims and post-1973 provisional permits all rights are subject to change in the general adjudication. MCA 85-2-236 and 85-2-313.

The Montana State Library provides public access to water right records through the Water Information System (WIS). The DNRC and Water Court websites link to the system. Simple searches are possible using water right number, owner or geocode. Advanced searches are possible using a variety of general and specific water right elements, e.g., county, type of right, basin, stream, etc. The result of the simple search presents the most current version of the abstract of the water right, a centroid map and links to documents relating to the right. The advanced search allows a download of all records in the set.

Achieving a one-stop-shop for determining the status of a water right begins with the presentation of water right information from the water right query system.

What can’t be determined through a current WIS search:

- **The status of the water right in the general adjudication or the decree abstract version of the right – the version used in the general adjudication of claims.**
 - Where to go: <http://dnrc.mt.gov/divisions/water/adjudication>
 - Where to go: <http://courts.mt.gov/water/activedecrees>
- **Active enforcement/distribution actions pertinent to the right.**
 - Where to go: <http://dnrc.mt.gov/divisions/water/adjudication/water-distribution>
- **Active change applications and the status of the application pertinent to the right.**
 - Where to go: <http://dnrc.mt.gov/divisions/water/water-rights> The DNRC Water Rights Bureau posts summaries of permit and change applications by County on their website. In order to determine the status of a permit or change application a different web page is accessed and a status query made using the unique change or permit number. Inquirers are provided with this information on potential status results: *“If “get status” is bringing up “null” for data, the pending application has either been issued or terminated, denied or revoked.”* In order to determine if a change or permit has been issued a separate query must be made using the WIS and queries made to review the abstract and change documents in the file. The abstract and change documents only reflect approved applications and it appears some DNRC regional offices store approved change documents in their office until a notice of completion is received – a process that may take years.
- **The most current non-centroid map of the place of use and points of diversion pertinent to the right. Noting that DNRC does not currently map post decree water rights.**

The following provides a concept for a process-driven framework for a one-stop-shop for water rights.

1. GENERAL ADJUDICATION

- a. Basin & Decree Status
 - i. Searchable Indexes to the decree abstract by Owner, Source, Issues, Water Right (Claims)
- b. Link to the forms used in the General Adjudication
- c. Link to MT Courts Electronic Filing Portal
- d. General Adjudication Benchmarks & Statistics
- e. Water Court Public Docket
- f. Water Court Significant Case Search
- g. Contact Information
- h. Water Right Search

2. NEW APPROPRIATIONS OF WATER

- a. Forms for a New Appropriation of Water
 - i. Groundwater
 - ii. Surface Water
- b. Closures
- c. Applications, Public Notice and Application Status for New Appropriations of Water
- d. Water Measurement Reports
- e. New Appropriation Rules
- f. New Appropriation Performance Measures and Statistics
- g. Guidelines
- h. Water Right Search

3. CHANGES TO EXISTING WATER RIGHTS

- a. Forms to Change to Existing Water Right
 - i. Groundwater
 - ii. Surface Water
- b. Applications, Public Notice and Application Status for Water Right Changes
- c. Water Measurement Reports
- d. Change in Appropriation Rules
- e. Change in Appropriation Performance Measures and Statistics
- f. Guidelines
- g. Water Right Search

4. COMPACTS

- a. Compacts and Compact Status
- b. Water Right Search

5. DISTRIBUTION AND ENFORCEMENT

- a. Water Right Dispute Resolution Procedures
- b. Current Distribution/Enforcement Actions
 - i. Tabulations
 - ii. Commissioner Distribution Reports
- c. Water Right Search

6. THE REFERENCE LIBRARY

- a. Historical Records

- i. Water Resource Surveys
 - 1. Water Resource Field Notes
 - 2. Water Resource Appropriations
 - 3. Water Resource Maps
 - 4. Water Resource Aerial Photographs
- ii. Water Reservations
- iii. Historical Decree Index
- iv. River mile index for the Missouri and Columbia River Basins
- v. Vested Groundwater Declarations
- vi. Link to Government Land Office Records
- vii. Link to the Library of Congress - Chronicling America
- viii. Montana Historical County Maps
- b. Supreme Court Water Right Opinions
- c. Montana Codes Annotate – Title 85
- d. USGS Gauging Stations
- e. Digital Atlas of Historical Aerial Photography
- f. County Clerk and Recorder Directory
- g. County Clerk of the District Court Directory
- h. DNRC Regional Office Directory
- i. Water Right Rules
 - i. Supreme Court Rules
 - ii. Department of Natural Resources Rules
- j. Publications and Reports
 - i. Water Rights in Montana
 - ii. Water Rights FAQ
 - iii. U of M Law School Study
 - iv. Ross Report
- k. Groundwater Information Center (GWIC)
- l. Water Right Search

Attachment A DNRC Centralized Water Rights Record System

The 2006 Montana Supreme Court's Water Right Claim Examination Rules provide a general definition of the centralized record system and a specific definition as it relates to the general adjudication.

"Centralized Record System" means the original, electronic, microfilm or scanned records of all claims of existing rights, permits, certificates, applications, and other documents filed with the Department.

RULE 3. CENTRALIZED RECORD SYSTEM

Rule 3(a). Maintaining records. The centralized record system for the adjudication is maintained by the department in three parts as follows:

- (1) numbered files of the original claim forms and documentation submitted by the claimant along with related materials added by the water court or the department;
- (2) a computer record system which is initially the claimed information as clarified by the department; and
- (3) a microfilm or scanned record of each numbered claim file.

Rule 3(b). Finding information. All water right information as claimed can be found in the claim file or microfilm or scanned records maintained by the department. Additionally, the claim files and the microfilm or scanned records will be updated to document each stage of the adjudication process.

Rule 3(c). Data. The data in the computer record system, initially the clarified claimed information, is used as the adjudication process advances to prepare the department's summary report and, ultimately, to produce the final decrees.

A more detailed definition of the DNRC centralized water rights record system is as follows.

1. A paper-based filing system that includes the original paper documents filed during the claim filing period, the paper product of the DNRC claim examination process (examination worksheets, maps, claimant correspondence, abstracts of water rights), Water Court records relating to the adjudication of the claim (objections, Masters Report and Order Adopting the Masters Report), ownership updates, approved water right change applications, any measurement reports required in the change process, DNRC technical reports relating to the change process and public notice documents. The paper claim file may be archived, in a Regional Office, the Adjudication Bureau, the Central DNRC Office or the Water Court.
2. An Oracle database that stores essential water right details including basin, a unique water right identifier, owner, the type of right, place(s) of use, point(s) of diversion, purpose, priority date, owner, etc. entered by DNRC staff. The database contains the tables, forms and reports needed by the DNRC and Water Court to manage the adjudication process of pre-1973 claims including decree processing, objection processing, electronic docketing of water court case activity, and tabulations for the enforcement of Water Court decrees. The tables, forms and reports needed by DNRC to manage applications for new appropriations of water and changes to existing rights. The database generates several versions of 'abstracts' of water rights to represent the water right at various stages in the process. This database system was deployed in 2000 replacing an IDMS mainframe system developed in the early 1970's.
3. A centralized electronic document management system that stores scanned copies of documents contained in the paper files (see 1 above).

4. A public facing portal through the Water Information System (WIS) managed by the Montana State Library providing public access to a current general abstract of water rights, a centroid map and links to the scanned documents in the electronic document management system (see 3 above).
5. The DNRC departmental website that follows the organizational structure of the Department.
 - a. Water Resources Division
 - i. Water Rights Bureau
 1. PDF rendered summaries of applications received in the regional offices for new appropriations and changes to water rights organized by county.
 2. A separate web page to determine the current status of applications for new appropriations and changes to water rights triggered by entering the unique identifier associated with the application.
 3. PDF rendered Hearings and decisions by DNRC on contested applications to change organized by county.
 4. Some historical records, e.g., the Water Resource Surveys provided by the Records Unit.
 - ii. Water Adjudication Bureau
 1. Statewide Adjudication Status Report organized by Basin. Selecting a specific basin provides detailed decree information including PDF rendered documents on findings, notices, objections, decree abstracts, and indexes by claim, owner and source.
 2. Current Water Distribution (enforcement) Projects organized by source. Selecting the source provides details for the distribution project including PDF rendered maps, indexes and other information needed by a Water Commissioner to administer water in accordance with the decree.

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<i>Irrigation District</i>	<i>County</i>	<i>Acres</i>	<i>Unique Acres</i>	<i>Basin</i>
<i>Petrolia Irrigation District</i>	Petroleum	4863	4863	40B
<i>Toston Irrigation District</i>	Broadwater	6311	6311	40I
<i>Malta Irrigation District</i>	Phillips	52083	52083	40J
<i>Alfalfa Irrigation District</i>	Blaine	23005	23005	40J
<i>Fort Belknap Irrigation District</i>	Blaine	23005		40J
<i>Harlem Irrigation District</i>	Blaine	12455	12455	40J
<i>Paradise Valley Irrigation District</i>	Blaine	11642	11642	40J
<i>Zurich Irrigation District</i>	Blaine	23005		40J
<i>Dodson Irrigation District</i>	Phillips	52083		40J
<i>Glasgow Irrigation District</i>	Valley	19481	19481	40O
<i>East Bench Irrigation District</i>	Beaverhead	28055	28055	41B
<i>West Bench Irrigation District</i>	Beaverhead			41C
<i>Helena Valley Irrigation District</i>	Lewis and Clark	22235	22235	41I
<i>Fort Shaw Irrigation District</i>	Cascade	14714	14714	41K
<i>Greenfields Irrigation District</i>	Teton	84694	84694	41K
<i>Tongue and Yellowstone River Irrigation District</i>	Custer	9589	9589	42C
<i>Buffalo Rapids Irrigation District 1</i>	Dawson	4692	4692	42K
<i>Hammond Irrigation District</i>	Rosebud	4080	4080	42KJ
<i>Hysham Irrigation District</i>	Treasure	9125	9125	42KJ
<i>Cartersville Irrigation District</i>	Rosebud	9745	9745	42KJ
<i>Yellowstone Irrigation District</i>	Treasure	9386	9386	42KJ
<i>Sidney Water Users Irrigation District</i>	Richland	6525	6525	42M
<i>Buffalo Rapids Irrigation District 2</i>	Prairie	3052	3052	42M
<i>Savage Irrigation District</i>	Richland	58640	58640	42M
<i>Lower Yellowstone No. 1 Irrigation District</i>	Richland	58640		42M
<i>Intake Irrigation District</i>	Richland	58640		42M
<i>Danford Irrigation District</i>	Yellowstone	1465	1465	43D
<i>Victory Irrigation District</i>	Yellowstone	3199	3199	43P
<i>Huntley Irrigation District</i>	Yellowstone	34948	34948	43Q
<i>Lockwood Irrigation District</i>	Yellowstone	2100	2100	43Q
<i>Glen Lake Irrigation District</i>	Lincoln	6719	6719	76D
<i>Flathead Joint Board of Control</i>	Lake	18393	18393	76F
<i>Frenchtown Irrigation District</i>	Missoula	4676	4676	76G
<i>Inton Irrigation District</i>	Missoula	810	810	76G
<i>Bitter Root Irrigation District</i>	Ravalli	16859	16859	76H
<i>Blodgett Creek Irrigation District</i>	Ravalli	1910	1910	76H
<i>Canyon Creek Irrigation District</i>	Ravalli	2176	2176	76H
<i>Charlos Heights Irrigation District</i>	Ravalli	993	993	76H
<i>Daly Ditches Irrigatio District</i>	Ravalli	10465	10465	76H
<i>Lomo Irrigation District</i>	Ravalli	1064	1064	76H
<i>Mill Creek Irrigation District</i>	Ravalli			76H
<i>Sunset Irrigation District</i>	Ravalli	2714	2714	76H
<i>Ward Irrigation District</i>	Ravalli	1441	1441	76H
<i>Flathead Joint Board of Control</i>	Lake	18393	18393	76L
<i>Mission Irrigation District</i>	Lake	139057	139057	76L
<i>Jocko Irrigation District</i>	Lake	18403	18403	76L
<i>Flathead Irrigation District</i>	Lake	17059	17059	76L
<i>Missoula Irrigation District</i>	Missoula	2329	2329	76M

Attachment B: Irrigation Districts

Attachment C: References

Data Sources for Analysis

- DNRC Basin Status Sheet
- Water Court Active Case List
- Water Court Compact Status List
- Extract of District Court Water Cases (2005-2015) – including distribution actions and general disputes.
- Extract of Water Right Records from the DNRC water rights database – duplicates removed.
- Extract from the Groundwater Information Center (GWIC) on new wells subject to permitting or certificate.
- Summary review of 178 active water right changes and applications published on the DNRC website.
- Pre-1973 Historical Decree Index published by the DNRC
- DNRC list of Basin closures, groundwater closures, and active decree distribution actions
- List of Irrigation districts audited by the Department of Administration

Reference Material

- Water Right Claim Examination Rules (2006)
- Water Right Adjudication Rules (Revisions 2006 and 2008)
- Green Fields of Montana, Stanley W. Howard
- U of M School of Law, Land Use & Natural Resources Clinic study on Montana’s Water Future and comments by the Water Courts’ Water Advisory Committee.
- DNRC Information Technology Strategic Plan – 2014
- Judicial Branch Information Technology Strategic Plan – 2015
- State Library Information Technology Strategic Plan – 2014
- Montana Water Court “Enforcement District Court Guide”
- USDA 2012 Agricultural Survey of Montana
- 2015 State Water Plan, DNRC
- Evaluation of Montana’s Water Rights Adjudication Process – 1988 (also called the “Ross Report”)
- DNRC Administrative Rules for New Appropriations and Changes to Water Rights (36.12)
- Department of Administration’s RFI for an Enterprise Content Management System, Vendor responses and Pilot Project Report – April 2015.