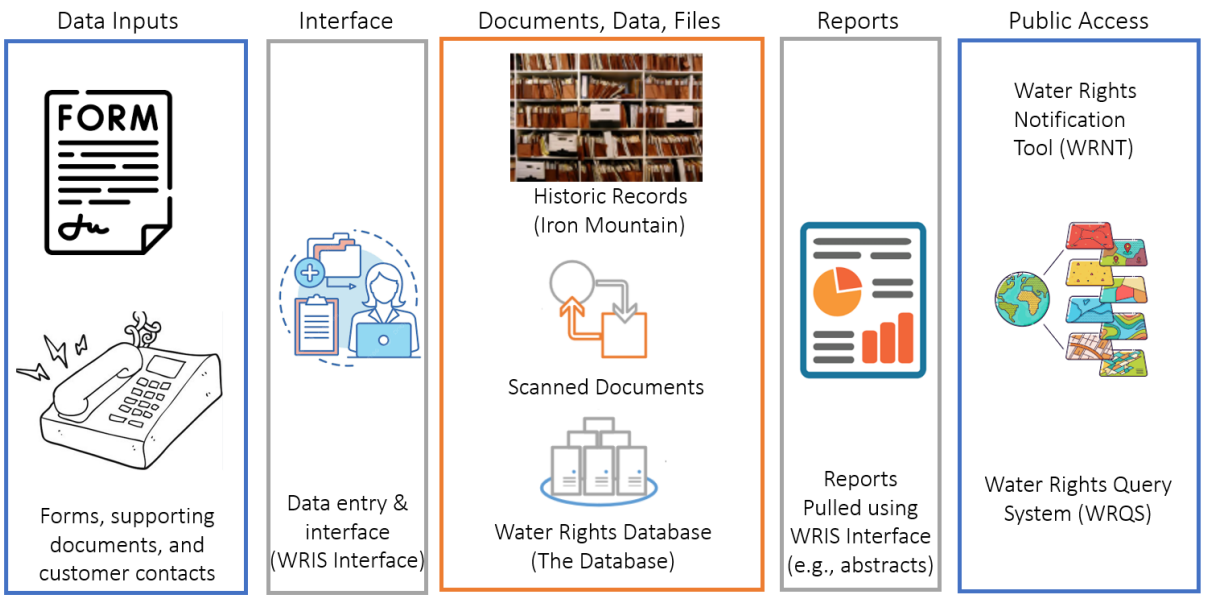
Water Rights Information System (WRIS)

Requests & Documentation



Water Rights Information System (WRIS) and Adjudication: Stakeholder Questions and Roadmap for Implementation

Content: Each tab in this binder summarizes the concerns identified by stakeholders, provides documents relevant to the question asked, and actions that may need to be taken. A detailed list of concerns & stakeholder priorities is provided below.

Tab 1: Raw Data (forms and phone calls)
Tab 2: Data Interface & Database
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Tab 4: Water Court Reports & Needs
Tab 5: Water Right Query System (WRQS)
Tab 6: Adjudication Process

If concerns are not identified in this table, please reach out to DNRC directly:

- WRQS: DNRCMTWATERRIGHTSINFO@MT.GOV
- Adjudication: Todd Netto (tnetto@mt.gov)
- Public information requests: KarenDe Herman (kdherman@mt.gov) or OPIR website (https://opir.mt.gov/)
- Scanning questions: WATERRIGHTS@MT.GOV
- Other Water Division concerns: Trevor Watson (trevor.watson2@mt.gov) and Anna Pakenham Stevenson (anna.pakenhamstevenson@mt.gov)

Stakeholder List of Priorities

	Priority Challenges and Timelines to Address		
	0-6 months	6 months- 3 years	3-5 years
Abby	I thought when I agreed to be on this subgroup that my role was as a feedback partner to DNRC as it worked through these questions/concerns, since I use the database daily, and for a multitude of purposes. I am still happy to serve in that limited role, as needed and requested from DNRC. However, I am not a technical expert, nor do I work for DNRC, so I cannot possibly know all the internal workings of the DNRC database nor what is feasible/not feasible. Fundamentally, I disagree that I should be telling DNRC how to prioritize these challenges. DNRC's work on these challenges should be dictated by DNRC's own technical realities, the agency's budget for resources (both financial and people). Asking me to tell DNRC how to prioritize its work is, to me, the equivalent of asking me to tell the Water Court (or any court) how to streamline their internal processes. That is not my role, even as a member of the stakeholder group. To that end, I am willing to provide discrete feedback on new processes or potential solutions, as requested by DNRC. I find DNRC is more than willing to seek feedback and incorporate it as appropriate for various topics. For now, my work as a stakeholder must stay focused on the Final Decree Transition piece of the Comprehensive Review, which has very real deadlines.		
Julie	Distinguish between issues related to adjudication/new approps policy and procedure and those related to the WRIS **(completed)** Commit to the goal of making the WRIS the official record of water rights in the state Layout a plan of steps that need to be taken to reach that goal. Share QA/QC plan with stakeholders as appropriate	Provide users a portal to report errors for stuff like missing pages in a scanned file, apparent typos on new approps documents… Make and execute a plan to locate and scan to the water right files all Water Court decision documents that are in the Water Court case files and not in the water right files. Plus, all large maps that weren't scanned. As an extension of the QA/QC plan, identify processes to correct errors in the water rights DB (eg, was it a keypunch error, an error created by Water Court decision documents, a new approps error…) Continue work on reports so none of them are living on someone's desktop and all produce the desired outcome. Develop process for reconciling permits and changes with historical water rights.	Incorporate a fully functional GIS system into the WRIS
Water Court	See Tab 4		
Krista	See Tab 5		

Detailed List of Stakeholder Questions and Concerns (2.14.2024):

1. Raw Data (forms and phone calls)

- Ownership changes:
  - Web based ownership updates
  - Owners being added or removed and no notice to owners
  - Web based ownership updates – process to ensure the person submitting the form is actually the owner of the water right?
  - Geocodes updated by DOR records, no notice
  - The postcards that go out to new owners/past owners(?) after an ownership update is processed are incredibly cryptic. Can we re-do these so that they are more understandable?

2. Data Interface & Database

- What systems are in place to ensure "new data" that is input is accurate - i.e. ditch names being added to an abstract. Second person reviews?
- No actual lock/security block of modifications to claims without approval from WC
- No tracking or report of modifications to water rights not ordered by the WC
- Data Security
  - Who can make changes to what and when can they do it? 2 person sign off? When/How are claimants involved?
  - Access to database from potential other litigants (i.e. tribal reserved water rights)
  - What firewalls exist to protect data integrity?
  - What protocols are in place to ensure that changes are not made unless the DNRC or its employee has the legal authority to do so?
  - How and when are claimants informed of any additions or subtractions made to their claim file or their abstract?
  - What systems are in place to ensure historically input data is accurate? Example is STR that are numbers that don't make sense.
  - Shifts in burden of proof when data added or entered isn't accurate.
- Process to clean up absent litigation? When, where how?
- What is the purpose of the WRIS?
- Who has access to the WRIS? Is their access different? Who owns the data that is in the WRIS? The claimant? Water right owner?
- What changes can legally be made by DNRC?
- What data are in the WRIS?
- Is the WRIS the centralized record? What is the definition of "centralized record system" and whose definition is it?
- What rules/statutes govern what must be in the WRIS? IF none, what policies (current and historically)? Do policies need to be developed that outline what must be included?
  - Can the "system of centralized records" contemplated in Art. IX, Sec. 3(4) include more than one database? Is it necessary, given the legacy issues with the WRIS that the "system of centralized records" be comprised of more than one database? How does this centralized record system integrate with the "present system of local records" referenced in Art. IX, Sec. 3(4)? Does it integrate?
  - Under what circumstances would the WRIS include anything other than what is defined in Water Rights Claims Examination Rule 2(a)(10) (which is limited to "the original, electronic, microfilm or scanned records of all claims of existing rights, permits, certificates, applications, ownership updates, and other documents filed with the department").

- Why is the information in the WRIS different from the information in the WRQS?
- What is the part of the record versus what is a reference or tool.
- Is WRIS accurate, complete, and timely? How can the WRIS be more accurate, complete, and timely moving forward? And how can the public facing WRQS reflect all that is in the WRIS (or if not possible, how can the WRQS clearly articulate what the public can see vs. what the public must request)? How can DNRC audit and then comprehensively and systematically address legacy issues with the WRIS and its prior databases? I think it unlikely we can work to address # 2 short of a fully funded audit from an independent auditor. What Data Quality Assurances are in the WRIS?
- How is the legacy issue addressed when these items may not actually be in the WRIS for some water rights? Are legacy issues identified and addressed? How? When?
- How has data been migrated to the current WRIS over time?
- Is there certainty that the WRIS contains ALL information from prior systems since the 1980s? What protocols and safeguards were in place in the 1980s to present? My understanding from the last stakeholder meeting is that there probably were not any. Now DNRC is working on quality control. This is great moving forward, but cannot fix or address issues from the past.

3. Scanned Documents (FileNet) & Historic Documents (Iron Mountain)

- Scanned docs are not organized, labeled properly, and not searchable
- Date that is provided on scanned document
- Scanning documents – quality assurances. Is someone double checking to make sure both sides of a page are scanned? Are the documents all legible?
- How to identify legacy issues and address them in a comprehensive and systematic way?
- Large maps- How/when will these be scanned.
- What is the policy that DNRC is following for retention? Is this different between adjudication and new appropriations and changes? Are the document owners contacted prior to destruction of their files?
- Additional data requested:
    - DNRC:
        - Every document related to every modification of a water right that has been made since that water right was filed in 1981. This will require an audit and addressing legacy issues.
        - Complete copies of ownership update filings, including all supporting documents (deeds, etc.)
        - For the compacts, are all documents relevant to that compact in the WRIS.
        - Administrative hearings- All documents from Administrative hearings process, especially evidence that was produced during a hearing and relied upon by the hearings officer as part of his/her decision, i.e. reference in proposal for decision, final order, etc
        - Legal availability search w/o court ordered volumes
    - Water Court:
        - Every single water court document relating to that water right since the 1980s.
        - This includes the transcripts of contested hearings from the 1980s to present. Does DNRC have a way to transcribe from cassette tape? In 2023 I have a case that has come up again because of legacy errors and I need the transcript of a 1980s hearing.
        - This includes all maps reviewed by DNRC in claims examination.
        - In theory, at final decree any terms from a historical decree should be incorporated into the findings of the Water Court, but this probably is not correct. Not all water rights have had to go through active adjudication in the Water Court if there were no objections or issue remarks.

- There are a lot of water rights that have been modified by the Water Court over the years that are missing information key to understanding the water right as it exists today. In particular, I am thinking of water rights that were subject to a stipulation, agreement or some other type of settlement arrangement that was adopted by the Court but where no copy of the settlement document was included in the water right file. Often, these settlement documents include details about modifications to the geographic components of the water right (POD, POU or Place of Storage), and/or details of subordination agreements or other aspects of the water right that are not readily captured by the elements listed on the water right abstract. The settlement documents may include maps that are critical to the understanding of where PODs, POUs and places of storage are located. Even a poorly made map can vastly improve the understanding of a water right (one of the reasons why the State required maps with the original claim filings). This is becoming more important as we move through the re-examination basins. While more recent Water Court cases are available through Full Court, the older ones are not. Our ask at this time is to identify water right files that need to be updated with information from the Water Court case files and to get copies of important documents scanned to the water right files. This may sound like looking for a few hundred needles within thousands of haystacks, but I have some suggestions for how to focus the effort.
- There are a number of water rights that contain informational remarks that reference a stipulation, agreement, etc. Mainly these will be found in the free-text remarks (not formatted remarks) so it would be necessary to search all the free-text remarks for the adjudication water rights for keywords like, 'stipulation', 'private agreement', 'settlement'... I recognize this is no small task. One approach could be to start with basins that are currently in the re-examination phase with a Preliminary decree soon to be issued or that has recently been issued. In my experience, these remarks were often placed when a stipulation addressed some agreement about sharing water, an unusual division of flow rate or volume, or subordination by one party or another. The contents of these agreements may have a direct impact on actions that can or cannot be taken in the next decree stage.
- Another way to search would be to look for water rights where either the POD, POU or Place of Storage has a flag that is set to 'Modified by Water Court'. Again, I recognize this is not a short list. It would make sense to start the search with the earliest basins to be decreed and that have not yet had a second decree issued.
- The result of these 2 steps would be a list of water rights that have a high potential to have documents that are saved in the Water Court case files but not in the water rights files. Beyond identifying this list, I suspect it would be a manual process to look at Water Master's reports for reference to settlement docs/stipulations/agreements that were not made part of the water right files.
- I will add that not every stipulation is critical to understanding a water right. However, if the goal is to get to a point where we can say with confidence that the WRIS is the official record of water rights in the state, we need to take this step. The number of instances where crucial information is saved in the Water Court case file out of reach of the water right owners and other members of the public, is higher than many people recognize. While there has been substantial discussion about "errors" in the WR Database, which is certainly an on-going issue that needs to be addressed, in my experience after having reviewed thousands of water right files, one of the biggest problems is the data gap that exists between the Water Court case files and the water right files

– I just came across this statement in a Master's Report saying document is available in full court, I want to point out how truly unacceptable this is.

- A - The claimants and any unrepresented parties in this case do not have access to the Court's Full Court Enterprise case management system and
- B - There is no guarantee that this reference will make any sense to anyone down the road when this system has changed for the third time… I cannot fathom why the Master would not have simply attached the settlement document to the Master's report.

- Water Court Orders
  - Only substantive orders? Who defines what a substantive order is?
  - Does this include going back and inputting historical data that is missing?
  - Moving forward how are water users to know that these exist and where to find them? Someone buys land 20 years from now - how do they know?
  - The WRIS does not consistently match court orders. Therefore, when DNRC does something like reexamination they are not complying with existing orders on water rights. The DNRC employee isn't even aware that an order exist.
- Case file
  - If intended to refer to the Water Court case file for a water right, then it needs to be all of the files (TPD, interlocutory, PD proceedings; proceedings for motions to amend, motions to correct, certification actions, etc.)
  - Water Court case files in the WRIS; whether the Water Court should be a "court of record" under MCA 3-1-102 if it's expected to be a repository for stipulations or other documents outside the scope what is filed in a case.
    - This question dovetails with the FDT work. Currently there is no "Water Court" defined in statute. There are water judges who are part of water divisions. See 3-7-101 et seq.
  - This may be possible looking forward from introduction of FullCourt, but this may not be possible looking backwards. Not all historical case files are scanned in.
  - Does this also include District Court records for water rights that were historically adjudicated and/or are being administered?
  - Does this also include Montana Supreme Court records for those water rights that have been addressed by the Supreme Court?
- Master's Reports
- Claim file
  - Is there a policy or definition of what is in a "claim file?"
  - Will DNRC go back and systematically scan in all the large maps/large files that were not originally scanned in? What about other missing information (not all claim files are complete, as noted above).
  - Will DNRC implement some type of QA to ensure that hand entered information is accurate
  - Will DNRC implement some type of QA to ensure that ALL documents are scanned?
  - Will DNRC implement some type of QA to ensure that all scanned documents historic and current are useable, readable, and complete?
  - Who controls what is added to a claim file? There are examples of non claim owners requesting the addition of information to someone else's claim file and it happening. How has this worked, how will it work?

        - All the aerial photos used by DNRC for the claims examination (usually just two photos) should be added to the claim file. I know they're big aerials stored at DNRC, but with 2023-24 technology, you would think they could figure out a way to scan those and upload them into a user-friendly format for each claim file.
    - District Court
        - Stipulations (with exhibits) – from Water Court cases only? From District Court? From Supreme Court? Recorded in Clerk & Recorder records, but never in a court file?
        - District Court orders on administration of water and enforcement actions. District Court documents and records related to administration of the water right
        - The "local" records referenced in Mont. Const. Art IX, Sec 3(4) that were the "present system of records" in place in 1972.
            - What are these?
            - District court records prior to 1972
            - Clerk and recorder records prior to 1972
            - Other records?

4. Water Court Reports & Needs

- Reports the WC relies on change or break with no notice to the WC, often causing inconsistencies, report errors, and delays
    - Objection List
    - Notice (several issues)
    - Abstracts
    - Indexes (missing type of historical right)
- Inconsistencies between reports run by DNRC OIT vs. what is available to WC in database
- Programming changes that alter water rights decreed or modifications ordered by the WC, with no notice to the WC; 4000 character limitation

5. Water Right Query System (WRQS)

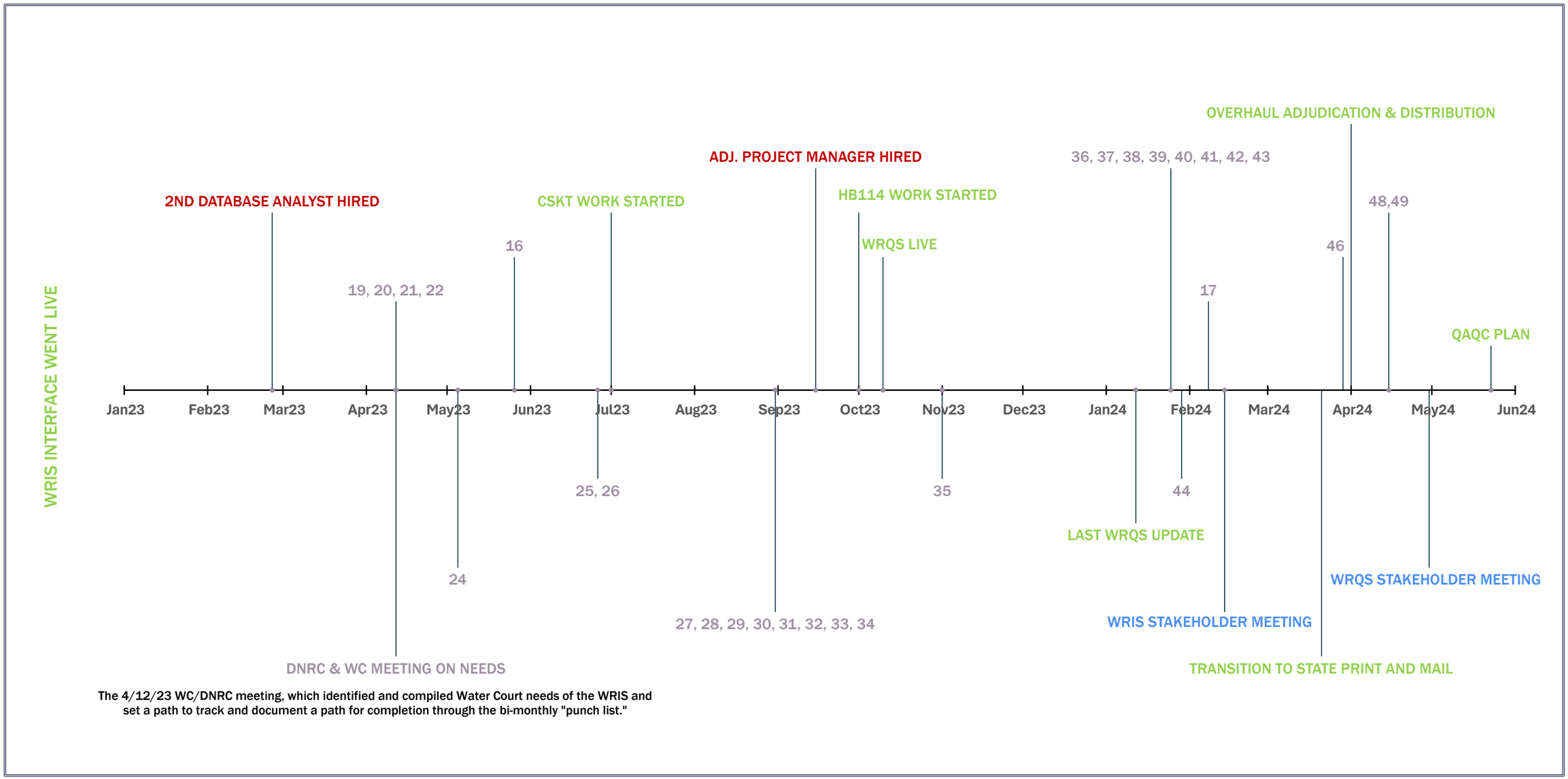
- What is the purpose of the WRQS
- Consistency of information and ability to recreate searches:
    - The magnitude of this concern/problem is unknown primarily because there are legacy problems with the information contained in the WRIS that new software cannot fix or even begin to address unless and until an audit is done of the entire database. Output in the WRQS is only as good as the input.
    - Not all water right records are the same. I cannot easily predict what information I will be able to retrieve from a particular water right file beyond the very basics (i.e. abstracts and, hopefully, at least part of the original statement of claim). I have had instances where entire statements of claim files are missing. This means each search of a water right is unique and not repeatable.
    - There does not always exist a paper trail in the claim file system (at least in the public view version) that links changes or modifications to elements of water rights. This is particularly true when looking at past records.
- Unused claim number - what does this mean? If it's unused then why/how does it exist?
- "Associated" water rights - there are cases where water rights are considered "associated" i.e. share same POD but other than that have no relationship; The use of this term needs to be made clear and defined so that water users understand.
- Place of Use search

  - It is not possible to use the aliquot search function with confidence. For example, if I put the W2 in as the search term, this search does not also pull anything described in the SW or NW (even though both of those descriptions are subsets of the W2). It only pulls water rights that use the W2 as the description. There is no warning in the system about this, which means users may falsely believe they have done a comprehensive search when, most of the time, they have not. This has always been a problem and is still a problem.
  - Geocodes are still a problem.
- Point of Diversion search
  - Same issues as above.
- What defines the parameters of a "General Abstract" produced by a WRQS query? Why are there only general abstracts and not the most current decree abstract?
  - More helpful than a "general abstract" would be for the public to also be able to see the versions listed with dates. Similar to a title abstract for a property. This would be a quick way to understand the history of the water right.
- Final decree abstracts
  - The ability to access these abstracts in a timely manner for issues such as due diligence on a land sale is critical.
  - Final decree abstracts in WRIS must match the water final decree abstracts.
  - Current Final Decree abstracts are not available to the public through the query system
  - Inconsistency with abstracts between WC orders (post decree) and query system
- Versions and operating authority. Under what circumstances or authority would the most recent version of a water right abstract not be pulled in the WRQS?
  - From the public facing system, there is no way to be sure the most recent version is the "general abstract" that is pulled. Also, there are many abstracts with the warning that the abstract being viewed is not the "most recent operating version" but there are no details as to why.
  - How is a water user supposed to understand what a "more current operating authority" is?
  - What version of the water right is pulled in the WRQS?

6. **Adjudication Process**

- Timing of claimant contact letters and when the basin is closed. Only chance to object to the change.
- In certain basins (Basin 41U is example) elements of water rights that should not have been modified in re-examination were, despite parameters of re-exam order. There are claims for which the source was modified from a creek to a river despite prior court orders that were in the claim file which affirmed the source was, in fact, the creek. This appears to have depended on who the examiner was. Now parties have spent thousands of dollars to unwind the modification through the water court process. This is 2023. This has happened in other basins as well.
- Re-exam order is applied inconsistently. And during re-examination it appears that many examiners are not/did not look at the claim file & added issue remarks inconsistent with prior court orders from TPD or, sometimes re-added issue remarks that were expressly removed during TPD proceedings. This is causing water users to pay twice for the same work, with the burden of having to object to their own water rights. This is currently happening in Basin 41K. This is the present day, but has happened in the past too and in other basins (i.e. 43A had a lot of these issues also).
- Additionally, there are reexaminations occurring on claims that the court has held a case on and issued an order on and that court data isn't being considered.
- Claimant contact on changes to data?
  - Legacy claimant contact - can that be determined and added to claim files when it is missing?
  - Burden of proof shifts when data is added/changed on claim abstracts or through issue remarks this shifts the burden. Has this been discussed? How do claimants fix it before the basin is closed and goes to the water court.

- What is timeline for claimant contact? What can occur as the result of claimant contact?
- How do claimants correct errors from original input, changes made subsequently by DNRC (ownership, ditch, POD, etc) without having to litigate? (i.e. reexamination)
- What happened to all the GIS data that was generated during the original examination of basins with the WR Mapper? Could we use these data as a jumping off point to have real GIS representation of geographic water right info?



The 4/12/23 WC/DNRC meeting, which identified and compiled Water Court needs of the WRIS and set a path to track and document a path for completion through the bi-monthly "punch list."

Summary of DNRC Water Rights Information System Contracting (as of 3/29/2024)

Contract work	Costs	Description	Status
Trident Discovery	$602,278	DNRC Database code, business rules and process identification, oracle reports, etc. Understanding all WC work, reports, needed functionality.	Complete
Report ID and Development	$1,143,055	121 Oracle reports to convert to SSRS identified, not all were finished during this time, just the ones that were necessary for deployment. Build stories for development work.	Complete
Trident Build	$2,605,865	Application functionality, screens and report pulling mechanisms, additional reports.	Complete
Enhancements, additional WC and DNRC reports and general O&M	$1,536,000	Work identified or continued to be built after deployment. This includes reports not finalized in initial phase, reports that needed necessary modifications requested by WC and/or DNRC (Final Decree Report Package for WC, Contract for Deeds, report dates, other modifications as requested). Mostly completed.	Ongoing
Water Court Punchlist specific	$75,000	List identified in Punchlist; work is currently underway. Sara and Susan (RESPEC BA) have started story sessions for first two reports and have meetings scheduled for additional work. These funds are contracted but are largely unspent at this time.	Ongoing
CSKT Discovery	$50,000	Understanding all CSKT functionality and story development for work.	Complete
CSKT	$417,250	CSKT Trident build (application, reports, etc.). The CSKT build is coming along as scheduled, access to the system is scheduled for mid-summer. This work is funded by HB10 funding specific to CSKT.	Ongoing
WRQS Discovery	$20,000	Proof of concept for WRQS- exploring legacy platform, meeting with staff, story building	Complete
WRQS	$178,999	Building WRQS application and O&M. MVP was complete 10/7/2023, O&M afterwards. The system is operational, and we are receiving little to no actionable feedback for improvements. We continue to work on the remaining requests for enhanced functionality.	Ongoing
CSKT WRQS match	$30,000	Building WRQS application and O&M. MVP was complete 10/7/2023, O&M afterwards. The system is operational, and we are receiving little to no actionable feedback for improvements. We continue to work on the remaining requests for enhanced functionality.	Ongoing
Adjudication Business Process Analysis	$50,000	Internal analysis of adjudication process and procedure work. This was a great success and DNRC is using the analysis to improve all adjudication workflows and procedure documents.	Complete
DBA Business Process Analysis	$28,000	Work with database analyst to fully understand Oracle coding present in the database for clarity and succession planning.	Ongoing
Legislative Audit QA/QC support	$25,500	Technical support for DNRC OIT QA/QC plan development. The plan is due in April, this contract is marginally spent and may not be fully realized.	Ongoing
HB114 related work	$74,000	All enhancements needed for HB114 implementation. This work is nearly finished.	Ongoing
Total REPEC Contract Budget	**$6,835,947**		

Water Rights Information System (WRIS) and Adjudication: Stakeholder Questions and Roadmap for Implementation

TAB 1: Raw Data (forms and phone calls)

Concerns	DNRC Actions and Associated Documents	Next steps and timelines (if blank- DNRC is not aware of any additional actions needed)
Raw Data (forms and phone calls)		
– What is the process for ownership changes?	– 2023.10.19 Online Address Update with DNRC	
– Enhanced communications and outreach		DNRC is evaluating and implementing an outreach strategy associated with Water Rights in 2024/2025 through the Planning Implementation and Communications Bureau.

If concerns are not identified in this table, please reach out to DNRC directly:

- Public information requests: KarenDe Herman (kdherman@mt.gov) or OPIR website (https://opir.mt.gov/)
- Other Water Division concerns: Trevor Watson (trevor.watson2@mt.gov) and Anna Pakenham Stevenson (anna.pakenhamstevenson@mt.gov)

From:	Irwin, Kristi
To:	Krista Evans
Cc:	Pieske, Shawna; Pakenham Stevenson, Anna; Ward, Nathaniel; Scharf, Mallory
Subject:	RE: [EXTERNAL] Re: Online Address Update with DNRC
Date:	Thursday, October 19, 2023 9:52:31 AM
Attachments:	image001.png

Krista,

When we receive the online address change forms, we update the address information for the water right owner(s) as well as phone numbers and email addresses if provided. The address update is completed by DNRC staff. It is not an automated service. DNRC also ensures that the address is updated to USPS standards using the USPS website. Once DNRC staff have entered the new address, an Address Correction Form associated with each Customer ID number is then returned via email or US Postal Service to acknowledge the address change. Our correspondence indicates that the address for all water rights associated with the Customer ID(s) has been changed. All water rights for the Customer ID(s) are listed on the form.

The online Address Change Form we receive via email and the Address Correction Form indicating old and new addresses and all water rights pertaining to the Customer ID are added to the scanned water rights file.

We checked in with DEQ and DOR and it sounds like our process for updating addresses is very similar to their processes.

Please let me know if we can assist you further.

Thank you,

Kristi Irwin| Compliance Technician
Water Rights Bureau
Montana Department of Natural Resources and Conservation
1424 9th Ave, Helena, MT 59601
DESK: 406-444-6671 **EMAIL**: kristi.irwin@mt.gov
Website | **Facebook** | **X (Twitter)** | **Instagram**
How did we do? Let us know here: Feedback Survey

From: Krista Evans <blakecrk@gmail.com>
Sent: Friday, October 13, 2023 9:31 AM
To: Irwin, Kristi <Kristi.Irwin@mt.gov>
Cc: Pieske, Shawna <Shawna.Pieske@mt.gov>; Pakenham Stevenson, Anna <Anna.PakenhamStevenson@mt.gov>
Subject: [EXTERNAL] Re: Online Address Update with DNRC

Kristi --

I was just testing how the addresses are updated. Can you explain how the process works so that I can have a better understanding. To be open and honest, I'm worried that the form can be used by anyone to make changes to the mailing address for any water right and I wanted to test the system. I wanted to understand

how it worked. If I had put something else in the box would the address have been changed automatically, do you reach out to the water right owner through an email or other address that isn't part of the form submission? Trying to gain a better understanding so that I can provide informed feedback on the process.

Thanks.

Krista
Krista Lee Evans
Blake Creek Project Management, Inc.
PO Box 7325
Helena, MT 59604
(406) 439-2215

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On Fri, Oct 13, 2023 at 7:56 AM Irwin, Kristi <Kristi.Irwin@mt.gov> wrote:

> Good morning:
>
> We received your online address update form for Blake Creek Enterprises LLC. In the comments, the word "test" was entered. Please advise if the address should be updated to 915 Elizabeth St, Helena, MT, 59601.
>
> Thank you,
>
> **Kristi Irwin**| Compliance Technician
> Water Rights Bureau
> Montana Department of Natural Resources and Conservation
> 1424 9th Ave, Helena, MT 59601
> **DESK:** 406-444-6671 **EMAIL**: kristi.irwin@mt.gov
> **Website** | **Facebook** [facebook.com]| **X (Twitter** [twitter.com]**)** | **Instagram** [instagram.com]
> **How did we do? Let us know here: Feedback Survey** [forms.office.com]

Water Rights Information System (WRIS) and Adjudication: Stakeholder Questions and Roadmap for Implementation

TAB 2: Data Interface & Database

Concerns	DNRC Actions and Associated Documents	Next steps and timelines (if blank- DNRC is not aware of any additional actions needed)
Data Interface & Database		
– What data are in the WRIS and who owns it? – What changes can legally be made by DNRC? – How can the WRIS be more accurate, complete, and timely moving forward? – How can the DNRC systematically address legacy issues with the WRIS? – How has data been migrated to the current WRIS over time and with what certainty? – What is the process to clean up data absent litigation?	– 2024.04.30 QA/QC plan for the Audit	DNRC 2025 legislative request
– What data quality systems are in place to ensure data input are accurate and data integrity?	– 2024.03.29 QAQC summary	
– When do you need to do a public records request for water right documents?	– 2024.03.30 Stakeholder questions and concerns about the DNRC WRIS and WRQS database- next steps.pdf	
– What is the part of the record versus what is a reference or tool? – What is the definition of "centralized record system", whose definition is it, need policy?	– Elements of the water rights (i.e., (a) the priority date; source of supply, point of diversion, means of diversion, period of diversion, flow rate, volume, acreage, purpose, place of use, period of use, storage capacity, and storage location) are part of the record, references and tools are information supporting the elements and the administration of water. – No definition is outlined in statute or rule.	
– How are modifications to the data tracked?		DNRC 2025 legislative request

If concerns are not identified in this table, please reach out to DNRC directly:

- Adjudication: Todd Netto (tnetto@mt.gov)
- Public information requests: KarenDe Herman (kdherman@mt.gov) or OPIR website (https://opir.mt.gov/)
- Other Water Division concerns: Trevor Watson (trevor.watson2@mt.gov) and Anna Pakenham Stevenson (anna.pakenhamstevenson@mt.gov)

Data Quality Management Plan

for the

Water Rights Information System

Version 1.0

Montana Department of Natural Resources and Conservation
Water Resources Division

April 2024

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Section 1 – Introduction

1.1 – Background of Water Right Data

The Montana Department of Natural Resources and Conservation (DNRC) created the Water Rights Information System (WRIS) to enable the administration of the Montana Water Use Act under Title 85: Chapter 2, Montana Codes Annotated (MCA). The WRIS is the authoritative source and repository for all water rights information in Montana. This information includes original paper copies, digitally scanned records, and tabular data integrated with geospatial data to form a comprehensive and intelligent data storage, analytics, and distribution platform widely used by DNRC employees, the Montana Water Court, water rights owners, and external stakeholders. *(For additional information on the history of water rights in Montana and the evolution of the systems that became what we know today as the WRIS, see Appendix 4.2 – History of Water Rights in Montana and the WRIS).*

"WRIS" refers to the system as a whole and is comprised of several components, the primary of which are:

- **WRIS Database (WRIS-DB)** – the DNRC's publication-level enterprise built on the Oracle platform, comprised of tabular and GIS data. As of March 2024, the WRIS-DB contains 399,483 active water rights records linked to 211,741 unique customer records and 146,086 unique addresses.
- **WRIS User Interface (WRIS-UI)—**The graphical user interface built in Java allows users to interact with and modify the data in the database.
- **FileNet** – A file storage and management service hosted by SITSD that serves scanned documents and images.
- *(For a comprehensive list of WRIS elements, see **Appendix 4.3**)*

This document outlines the Data Quality Management Plan (DQMP), including past activities and proposed future initiatives, and provides a framework for assessing, documenting, and improving WRIS data quality management practices.

1.2 – What is Data Quality?

Data Quality refers to the state of qualitative or quantitative pieces of information. Data is considered high-quality if fit for its intended use in operations, decision-making, and planning. Data is also regarded as high-quality if it correctly represents the real-world construct it refers to or models. Table 1 lists dimensions of data quality that are evaluated and improved upon in this iterative DQMP.

Table 1. Data Quality Dimensions

Data Quality Dimension	Description
Accuracy	The level of correctness and precision of data, indicating how closely it reflects the true and intended values or characteristics it is meant to represent.
Consistency	The degree of uniformity and coherence across different datasets or within a particular dataset, ensuring there is no conflicting or contradictory information.
Completeness	The measure of how well data captures and represents all relevant information, without any missing or incomplete values.
Timeliness	The relevance and freshness of data, indicating how up-to-date and current it is.
Uniqueness	The degree to which data is distinct and free from any duplicates, ensuring there is only one instance of each piece of information.
Validity	How well data conforms to predefined rules, constraints, or standards, ensuring its reliability and compliance with specified requirements.

1.3 – How Good is Good Enough?

No dataset will ever be flawless for every data quality dimension element. Improving data quality may mean more detailed data collection, more frequent updating, independent validation processes, and sophisticated error-checking procedures. These measures come with resources and costs for improvement. Determining the appropriate level of data quality requires judgment about how good is good enough given how the data will be used and the risk associated with error. This DQMP establishes a framework to define, monitor, and improve the quality of data in the WRIS. It outlines the processes, roles, and tools needed to ensure data is accurate, complete, consistent, and reliable to support effective decision-making and business objectives while considering the costs of these efforts.

Section 2 – Data Quality Management Plan

This DQMP describes the specific steps taken to ensure the quality and fitness of use of the WRIS managed under the Water Resources Division (WRD) within the Montana DNRC. The plan is divided into the following sections that are necessary to ensure data quality in the WRIS:

- 2.1 Version Control and References
- 2.2 Data Quality Objectives
- 2.3 Current State Assessment
- 2.4 Quality Improvement Strategies
- 2.5 Tracking and Reporting

2.1 - Version Control and References

This section documents the version history of this DQMP (table 2) and its primary contributors (table 3). It also contains a list of other external documents that are either a part of this DQMP or play a role in how data is entered into the system, examples include the data dictionary, policies, guidelines, manuals, or other similar content (table 3 and 4).

Table 2. DQMP Version

Version	Date	Summary of Work
1.0	*04.30.2024*	*Baseline version*

Table 3. DQMP Primary Contributors

Name	Business Unit Name and District/Division	Email	Phone
Chris Kuntz	Systems Architect/OIT	chris.kuntz@mt.gov	406.444-5756
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Table 4. Supporting Documentation

Document	Link/Location	Comments
Data Dictionary	See Appendix 4.5	The data dictionary of the WRIS-DB details each data element, its relative importance to the record, any constraints on input, where the data is collected, and who owns the data element. *(Note: while DNRC owns all public records maintained by the department (MCA 2-6-1013), ownership in this context describes who has the legal authority to modify that data element*.)
Manuals for New Appropriations; Adjudication; Data, Quality & Standards Programs	See Appendix 4.8	See Appendix 4.8 for full manual names and date revised.

2.2 – Data Quality Objectives

This section documents the intended purposes of the dataset(s) covered under this plan and establishes data quality objectives to achieve these purposes.

Dimension Thresholds and Targets

Table 5 below lists the proposed metrics and standards for determining the overall quality of the WRIS data. It is important to note that these targets and thresholds are long-term goals and initial estimations based on other industry targets. Values are subject to change based on the results of further data analysis and will require the cooperation of all stakeholders to achieve and maintain.

Table 5. Current Data Quality Management Practices

Metric	Target	Threshold	Explanation	Method	Identification of Concerns
Accuracy	98% accuracy	Below 95% requires immediate attention	An accuracy level of 98% is generally considered high enough for most business decisions and reflects a strong alignment with true values. A threshold of 95% ensures early detection of significant deviations that could impact decision-making.	Use data validation checks against authoritative external databases or benchmarks to assess accuracy. Implement automated scripts that compare input data with these known correct values.	Set up alerts for mismatches exceeding a 2% error rate. Regularly review error logs and audit reports that highlight discrepancies. Accuracy targets may vary by element and data source.
Completeness	99% completeness	Below 97% requires review	Completeness close to 100% is critical. A target of 99% allows for minor unavoidable data gaps while maintaining integrity. The 97% threshold prompts early investigation into systemic issues causing data omissions.	Run completeness checks by verifying that all mandatory fields in the database are populated.	Generate completeness reports and visualize them using dashboards that highlight data sets with more than 3% missing fields, prompting further investigation.
Consistency	100% consistency	Any inconsistency requires investigation	Any detected inconsistency is a serious issue and should be addressed immediately to maintain trust in data systems.	Perform cross-database or cross-system checks using automated testing tools to ensure that the same data points across different	Any inconsistency detected should trigger an automatic review process and be logged for corrective action.

				systems are consistent.	
Timeliness	TBD based on process and end user.	TBD based on process and end user.	TBD based on process and end user.	TBD based on process and end user.	TBD based on process and end user.
Validity	99% of data entries must be valid	Below 95% validity triggers corrective actions	A high validity rate is crucial for operational effectiveness and compliance with business rules. Setting the threshold at 95% helps in maintaining system integrity and identifying rule deviations early.	Use rule-based validation scripts that automatically scan data entries for deviations from predefined criteria such as format, range, and logical rules.	Regular reports that summarize the percentage of data failing validity checks, with detailed error descriptions for entries falling below the 95% validity threshold.
Uniqueness	Less than 0.1% duplicate records	More than 0.5% duplicates require immediate clean-up	Duplicates should be minimal to ensure data reliability. A target of 0.1% is strict but necessary for accurate reporting and analysis. A threshold of 0.5% ensures that duplicate data does not accumulate to a level that impacts data analytics or customer experience.	Apply deduplication tools or database queries to identify duplicate records.	Generate duplicate reports and use data visualizations to display areas with a duplication rate higher than 0.5%, indicating the need for immediate clean-up.

2.3. Current State Assessment

This section documents the current level of data quality and the procedures for data quality control and quality assurance. The DNRC has always worked to ensure data quality. Historically, analysis has been largely ad-hoc, addressing corrections as they were discovered while

addressing legacy issues. This DQMP formalizes a more modern, systematic approach that can be implemented over time.

Data Dictionary

Developed as a core part of this DQMP, the Data Dictionary of the Water Right Database is the result of a large, multi-program effort to create a data model of the water rights database, which is a foundational document for creating and implementing the DQMP. One of the primary purposes is to define the scope of what is a water right record, how many data elements make up a water right record, the current structure of a water right record, constraints, owners, priority for improvement, and source of the data. It provides detailed information on each data element in the database and will be continuously updated. For more information, see Appendix 4.5.

Data Constraints

Many data elements within the WRIS-DB have defined constraints that limit what data can be entered into those elements. These constraints reduce data input errors by creating a method or rule shaping how the data should be captured or what is considered valid data. Three different types of constraints are used:

- **Database constraints**: Logic or a business rule programmed into the database so only data meeting defined criteria can be saved. An example of this type of constraint is the format of the date data element, where the value must be a valid date. Database constraints also include database triggers. Database triggers are system-driven, automated actions that create data values. Examples are “Created Date,” “Created By,” and “Modified By” to track when a record was added and by whom.
- **Application constraints:** Logic or a business rule programmed into the WRIS application code. This constraint shapes what information can be input into a data field within the WRIS-UI. An example of this type of constraint is making a data field in the user interface a mandatory field that requires information to be input before moving to the next step of the business process.
- **Manual constraints:** A process or a business rule defined in the physical manuals used by personnel when entering data into the WRIS-UI. An example of this type of constraint is the manual defining what data the user needs to enter a free text remark data field based on the process the user completes.

Of the 1,585 individual data elements that make up a complete water right, 63% have at least one constraint configured. DNRC is adding constraints to the 85 elements identified as “high-impact” and owned by the DNRC and to all other elements over time (see table 11).

Two hundred fifty-six data elements are owned by organizations external to DNRC that will be reviewed as phase two due to the additional time and effort to coordinate with the external organizations, which include Water Court, Department of Revenue, and Office of Administrative Hearings. This effort will also include determining if there is an existing process to modify these data elements and, if not, collaborate with these organizations to create one. To see these elements and ownership information, see the Data Dictionary, referenced in Appendix 4.5.

Current Data Quality Management Practices

Improving policies and processes has been a focus in the ongoing effort to improve the overall quality of data in the WRIS. Table 6 lists a helpful subset of current practices. For more and additional details, refer to Appendix 4.3.

Table 6. Current Data Quality Management Practices

Practice	Who Does it	When is it Done
Maintain program manuals	Program Staff	Updated as needed based on feedback from staff, applicants, and stakeholders. Regular update schedule to be implemented 2025.
Identify and report data anomalies	Stakeholders and Program Staff	Data anomalies are reported as they are identified when staff and stakeholders are using the WRIS.
Review the data dictionary	WRIS System Analysts	Periodically reviewed based upon the amount of change that is implemented into the WRIS.
Review WRIS-DB constraints	WRIS System Analysts	Periodically reviewed based upon the amount of change that is implemented into the WRIS or if broadly impacting data anomalies are reported.
Review WRIS-UI constraints	Contracted Software Developers	Periodically reviewed based upon the amount of change that is implemented into the WRIS or if broadly impacting data anomalies are reported.
Multiple reviews of water right versions by program staff	Regional & Central Office staff (NA, ADJ, DQS)	Before issuance, at least one trained staff will review the work of the staff that created the water right version to ensure consistent coding and implementation of manuals.

Current Data Quality

Water Rights data is currently being analyzed against the metrics and targets in this DQMP to determine the initial level of data quality. Following that, a gap analysis will be done, and improvement efforts will be prioritized. Table 7 below will be updated as this effort progresses.

Table 7. Current Data Quality Assessment

Data Quality Dimension	Current State	Comments
Accuracy	*TBD*	
Completeness	*TBD*	
Consistency	*TBD*	
Timeliness	*TBD*	
Validity	*TBD*	
Uniqueness	*TBD*	

2.4 – Quality Improvement Strategies

This section documents current sources of errors and strategies for improving data quality and preventing future errors.

Current Sources of Errors

Data inaccuracies in the WRIS-DB may exist for several reasons, including legacy data migration, inaccurate incoming data from outside sources, lack of constraints on data elements, high staff turnover, outdated user manuals, and limited knowledge of owners' water rights. The DNRC actively manages these risks by collaborating with external partners, adding constraints to data elements, updating manuals, and revising business processes. Table 8 summarizes the primary sources of data error, how errors occur, and possible solutions to improve data quality.

Table 8. Current Sources of Error

Source of Error	How Errors Occur(ed)	Possible Improvements
Incoming data from counties, DOR, and MT Bureau of Mines and Geology	Transfer processes not always performed correctly or incoming data is inaccurate.	Collaborate with external partners on ways to improve incoming data.
No constraints on some data elements	Data may be left blank, or mis-keyed.	Add constraints to remaining data elements.
High turnover among staff	Lack of experience leads to inconsistent interpretation of manuals.	Maintain training materials and standardized onboarding processes.

Legacy imported data	During initial centralization, incoming data had to be accepted "prima facie," regardless of accuracy.	Continue to address this through Adjudication Program Examination and Reexamination processes.
Incomplete or outdated manuals	Manuals did not have a regular revision schedule and important information in policy documents.	Continue to revise manuals on a regular schedule and ensure content is comprehensive.
Water right owners may lack knowledge of their water rights and mechanisms to report errors	Forms filled out on behalf of owner by title company. Lack of exposure to water rights educational materials. Correction and error reporting inefficiencies.	Continue title company outreach, training material development and dissemination, and initiate outreach campaigns. Make address updates more efficient by online portal. WRQS provides data transparency and a means to communicate via email inaccurate data. WRNT supplies email notifications to subscribers. Subscribers contact DNRC if data errors are identified.

Data Quality Improvement Strategies

There are two primary types of data quality improvement strategies that we are focusing on:

- Identifying and fixing DNRC data entry errors with proper water right holder notification
- Preventing future data quality issues from occurring by addressing existing sources of error

Table 9 summarizes actions that will be taken to continue improving and ensuring high data quality.

Table 9. Planned Data Quality Management Practices

Practice	Who Does it	When is it Done	Notes
Targeted outreach to water users to review their water right information for accuracy	DNRC	Select outreach efforts	DNRC outreach push in 2024/25
Corrections to individual water right data elements	Consultants, attorneys, and water right holders	Continuously	Subscribers of WRNT can contact DRNC via email or phone call

Develop and run data validation scripts based on business rules	WRD Systems Analysts	Integrate checks to be performed monthly to confirm data is in compliance. All non-compliant data will be corrected within 10 working days.	Provide live, internal dashboards showing status of data and lists of records requiring correction or investigation.
Assess the data sources	System Managers, Systems Analysts, GIS staff, and external data partners	Periodically, following the update frequency of the individual datasets involved.	Each dataset is different, requiring its own assessment, update frequency, and associated workflows.
Review and analyze the data dictionary	Systems Analysts, Program Staff, and application developers	Annually	Ensure all data elements are accounted for. Track deleted and inactive elements.
Assess manual constraints	Program Staff	Periodically, as manuals are revised, after an initial assessment of all existing manuals.	Ensure manuals are effective constraints on relevant data elements.
Identify & implement new manual constraints	Systems Analysts & Program Staff	As needed	Following creation of a new data element or manual, manual constraints should be documented in the data dictionary.
Identify & implement database constraints	Systems Analysts	As needed	New data elements must have database constraints detailed in the Data Dictionary.
Identify & implement application constraints	Systems Analysts, Business Analysts, Application Developers	As needed	Application constraints often result from combined efforts involving the WRIS-DB & WRIS-UI, requiring consultation from the program, systems analysts, and application developers.

Expanded/Enhanced GIS Datasets & Functionality	Systems Analysts, Program Staff, GIS Staff, & System Manager	Continuously	Input from DNRC employees, WPIC, Stakeholders, Water Right Owners, and Consultants collectively influence creation of new GIS datasets, applications, & workflows.
Customer Portal	Systems Analysts, Program Staff, GIS Staff, & System Manager	Continuously	Online Form submission, map-making capabilities, and digital payment provide additional QA/QC opportunities and streamline submissions.
Improve auditing and change tracking of records in database	Systems analysts		Capture deleted and modified records in separate WRIS-DB tables to track changes while identifying who created/modified the record, and when. This will retain all data modifications and deletions, creating a searchable temporal archive.

Data Standards

Data standards govern how data are managed, used, formatted, defined, and structured. Due to the large number of data elements, standards for the water rights record may be broken out to be efficiently managed. The complete water rights record can be divided into three subcategories with three data standards.

- Information about the water right, such as physical location, type, decree status, use type, etc. These values must be accurate, complete, unique, and valid. Accuracy is tested by comparing input sources (citizens, DNRC Water Rights Programs, Water Court). Completeness is tested internal to the system (no null values in required fields).

Uniqueness is tested internally in the system (no duplicates, multi-name not managed). Validity is tested internally by the system (data conforms with existing business rules and data logic).

- Information about who owns the water right, such as if the owner is a person or organization, name(s), delegated representatives, and the date ownership of the water right was established. These values must be accurate, complete, timely, unique, and valid. Accuracy is tested compared to the input source (DOR Orion Information System, DNRC Ownership Update Form No. 608, 641, 642, and 643). Completeness is tested internal to the system (no null values in required fields). Timeliness is tested to compare to the input source (DOR Orion Information System). Uniqueness is tested internally in the system (no duplicates, multi-name not managed). Validity is tested internally by the system (data conforms with existing business rules and data logic).
- Information about the address of the owner of the water right, such as county, city, zip code, state, country, and if the address is valid with the United States Postal Service (USPS). These values must be accurate, complete, and valid. Accuracy is tested against the input source (DOR Orion Information System; DNRC Ownership Update Form No. 608, 641, 642, and 643; and DNRC Water Rights Address Change Form). Completeness is tested internal to the system (no null values in required fields). Validity is tested against an external system (Federal USPS).

Continuous Improvement

The “data quality lifecycle” refers to a continuous improvement process that will be used to ensure the long-term quality of the water rights database. The data quality management life cycle can be broken down into three stages, as seen in Figure 1.

- Stage 1: Analyze the data. This will include defining “quality” data using data standards, determining how it is created, who owns it, and what can be changed after it is created. At the end of the analysis stage, the scope and makeup of the data will be known.
- Stage 2: Improve the data to comply with the data standards. How this is done depends on how the data is created and the ability to change it after it is created. The most care needs to be taken at this stage when the data will be modified.
- Stage 3: Monitor the improvements made to the data and create reporting tools that enable verification that the changes were successful and that the data is now meeting or exceeding data standards.

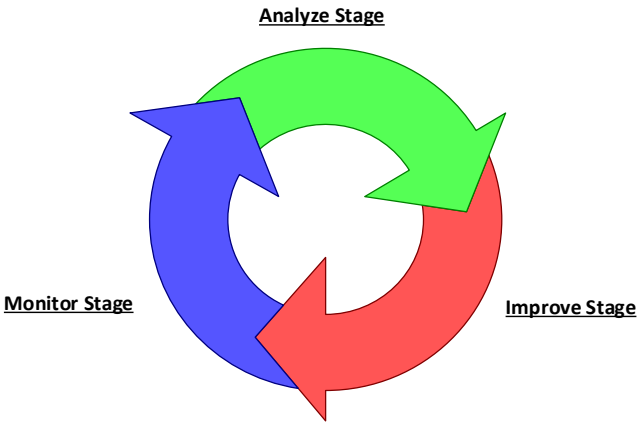


Figure 1. Stages of Data Quality Lifecycle

2.5 – Tracking and Reporting

Tracking

Table 10 outlines the steps the DNRC will take to implement this DQMP. Again, this list is not exhaustive and will be modified and improved as new insights are discovered. It is intended to be a roadmap to guide activities as they are currently prioritized.

Table 10. Proposed DQMP Implementation Plan

Step	Lead	Target Completion
Define what elements make up a "complete" water right and which are supplemental	Program Staff, WRIS Systems Analysts	December 2024
Identify the logic required to determine state of data related to six dimensions in Table 1	WRIS System Manager, Records Unit, & WRIS Systems Analysts	December 2024
Run data analysis to determine current state of the six dimensions in Table 1	WRIS System Manager, Records Unit, & WRIS Systems Analysts	June 2025
Create constraints for the remaining 85 high-priority elements	System Manager, Program Staff, Systems Analysts, and Application Developers	December 2024
Assess existing manual constraints & identify areas for improvement	Program Staff (ADJ, NA, DQS)	December 2024

Create new manual constraints	Program Staff (ADJ, NA, DQS)	December 2025
Initiate outreach campaign for legacy data	Program Staff (PIC, ADJ, NA, DQS)	December 2025
Evaluate metrics and standards	WRIS Systems Analysts	December 2025
Statistical Analyses based on metrics and standards	WRIS Systems Analysts	December 2026
Reevaluation of DQMP	All	December 2027

Reporting

The DNRC will provide an annual progress report to summarize the status of data quality initiatives, highlight achievements and challenges, and outline the next steps. The progress report will include:

- Year-over-year comparisons of data quality metrics
- In-depth review of major data quality issues and their root causes
- Recommendations for updating the DQMP based on lessons learned
- Updated metrics for each data quality dimension
- Progress on implementing the steps in the DQMP Implementation Plan (Table 10)

The DNRC will also explore creating a public-facing version of the annual report to share high-level data quality achievements with external stakeholders and demonstrate the DNRC's commitment to data excellence and facilitate feedback and suggestions for improvement. By formalizing the reporting processes outlined above, the DNRC can establish a robust framework for tracking, communicating, and continuously improving data quality management practices over time. Regular reporting will help ensure that data quality remains a top priority and that issues are identified and addressed in a timely manner.

Section 3 – Summary

In the early stages of implementing the Montana Water Use Act, the department did not have a data quality strategy and received data in a variety of formats with unknown data quality. Since then, the department has worked to increase the quality of water rights data. The momentum towards improved data quality has increased over time, resulting in this DQMP. Implementing the Data Quality and Management Plan will make DNRC processes, workflows, and analyses more efficient. This will result in improved customer service while helping inform and drive policy and overall water administration in Montana. Its implementation and continued stakeholder collaboration will ensure we provide accurate, discernable, and obtainable water rights data for our constituents.

Key points from the DQMP include:

1. The plan establishes data quality objectives across six dimensions: accuracy, consistency, completeness, timeliness, uniqueness, and validity. Specific metrics, targets, and thresholds are defined for each dimension.
2. A thorough assessment of the current state of data quality management practices is provided, including the development of a detailed Data Dictionary, an analysis of existing data constraints, and identification of current sources of data errors.
3. The DQMP outlines a range of quality improvement strategies, such as targeted outreach to water users, continuous data corrections, implementation of data validation scripts, and regular reviews of the Data Dictionary and data constraints.
4. Data standards are being developed to efficiently manage the large number of data elements, focusing on information about the water right itself, ownership details, and owner address information.
5. The plan emphasizes a continuous improvement approach, following a three-stage data quality lifecycle of analyzing, improving, and monitoring data quality.
6. A proposed implementation plan with specific steps, responsible parties, and target completion dates is included to guide the execution of the DQMP.
7. The DNRC will formalize future reporting processes to measure and monitor progress against the DQMP, including procedures for analyzing data anomalies, conducting root cause analysis, and providing regular progress reports.

Overall, the DQMP represents a significant effort by the DNRC to systematically assess, document, and improve data quality management practices for the WRIS, ensuring that this critical information resource remains accurate, reliable, and fit-for-purpose.

Section 4 – Appendixes

4.1 – Water Rights Glossary of Terms

Application: A computer program, typically used by end-users, to complete tasks that are not related to the operation of the computer. The applications referenced in this report include the WRIS, WRQS, WRNT, Converge, and Forge.

Data Element: A data element is a discrete piece of information that makes up the full record. For example, the first name of the water right owner is a single data element. Another way to think of a data element is to think of a single data field on a form or the WRIS UI. See 4.6 – Appendix of the Water Rights Database Data Relationship Diagrams for a general overview of the categories of water right data elements.

Data Quality (DQ): Data quality refers to the state of qualitative or quantitative pieces of information. There are many definitions of data quality, but data is generally considered high quality if it is "fit for [its] intended uses in operations, decision making and planning". Moreover, data is deemed of high quality if it correctly represents the real-world construct to which it refers. Furthermore, apart from these definitions, as the number of data sources increases, the question of internal data consistency becomes significant, regardless of fitness for use for any particular external purpose. People's views on data quality can often be in disagreement, even when discussing the same set of data used for the same purpose. When this is the case, data governance is used to form agreed upon definitions and standards for data quality. In such cases, data cleansing, including standardization, may be required in order to ensure data quality.

Data Standards: Data Standards refer to the documented method used to organize, format, structure and manage the data for use across organizations so that all users of the data have a common, shared understanding of it.

DNRC: Department of Natural Resources and Conservation for the State of Montana.

FileNet: IBM FileNet Content Manager is a flexible, full-featured content management solution that DOA SITSD hosts for DNRC to use to store and retrieve electronic documents by Water Rights Stakeholders. Also referred to as “scanned docs” by personnel that uses the WRIS.

Geospatial Data: Geospatial data is spatial data that is organized in a database to represent objects defined in a geometric space, such as points, lines and polygons. Tabular attribute data is linked to a physical location.

GIS (Geographic Information System): A computer system consisting of hardware, software, databases, servers, and people to form a spatial platform that creates, manages, analyzes, and maps all types of data.

Quality Assurance (QA): Data quality assurance is the process of data profiling to discover inconsistencies and other anomalies in the data, as well as performing data cleansing activities (e.g. removing outliers, missing data interpolation) to improve the data quality.

Quality Control (QC): Data quality control is the process of controlling the usage of data for an application or a process. This process is performed both before and after a Data Quality Assurance (QA) process, which consists of discovery of data inconsistency and correction.

Tabular Data: Tabular data is data that is organized in a database table with defined rows and columns.

Water Right Form: Document used to capture information for use in processing new or changed water right records (https://dnrc.mt.gov/Water-Resources/Water-Rights/Apply-for-Water-Rights/Application-Forms-Guidance-Documents)

Water Right Notification Tool (WRNT): Public-facing web application providing water right information via email to subscribers. Email alerts are sent when any application within the selected parameters reaches key milestones in DNRC's review process.

Water Rights Information System (WRIS): The Water Rights Information System is the defined information technology that DNRC maintains and uses to store and process the electronic and paper-based water rights records.

Water Rights Query System (WRQS): Public-facing GIS web mapping application providing detailed information about Montana water rights.

WRIS Database (WRIS-DB) – The DNRC's publication-level enterprise built on the Oracle platform and is comprised of tabular and GIS Data.

WRIS User Interface (WRIS-UI) – The graphical user interface built in Java that serves as the way users interact with and modify the data in the database.

4.2 – History of Water Rights in Montana and the WRIS

On December 20, 1971, the Department of Natural Resources and Conservation (DNRC) was created by the authority of Governor Forrest H. Anderson. Prior to this, the Board of Natural Resources administered Montana water rights. Water that falls within the boundaries of the state of Montana is the property of the state, for the use of its people. People holding water rights do not own the water; instead, they have the right to use the water. Montana uses the prior appropriation doctrine, "first in time, first in right" to determine who has a particular water right. Basically, the first one to put the water from a particular source to beneficial use is the one who gets the first right to use the water from that source.

During the 1972 Montana Constitutional Convention, all previous water rights were incorporated into the new Montana Constitution and the importance of an improved system of recordkeeping and regulations for water rights was identified. The result was the creation of a system of centralized records.

The initial Water Rights Information System (WRIS) from 1973 to 1977 consisted of index cards and pins on a map depicting water rights locations. Cards and pins were replaced with a sequential flat file, storing one record per water right on tape. In 1978, it became a network database residing on the mainframe, referred to as the Integrated Data Management System (IDMS), based on Cobal and Culprit computer programming languages, supporting code sheets transcribed to punch cards loaded by batch processes. From 1990 to 2001, processing moved to the online forms interface. Starting in 1999, 'The Conversion' project began on Oracle WR1, and went into production in December of 2001, resulting in the WRIS Database. The WRD Record Unit started scanning water right files in 2005. All past water right files are scanned, resulting in 425,000 scanned images in the collection.

The WRIS was created to provide the critical functionality necessary to enable the DNRC to administer the Montana Water Use Act under Title 85: Chapter 2, Montana Codes Annotated. The WRIS is the authoritative source and repository for all water rights information in Montana. This information includes original paper copies, digitally scanned records, and tabular data integrated with geospatial data to form a comprehensive and intelligent data storage, analytics, and distribution platform widely used by DNRC employees, the Montana Water Court, water rights owners, and external stakeholders.

As of March 2024, the WRIS database contains 399,483 active water rights records. These active water rights records are linked to 211,741 unique customer records, and these unique customer records are linked to 146,086 unique addresses. The WRIS database is dynamic, with new water

rights records added each year. Figure 2 below shows a breakdown of the 62,995 new water rights records added to the WRIS database over the last ten years.

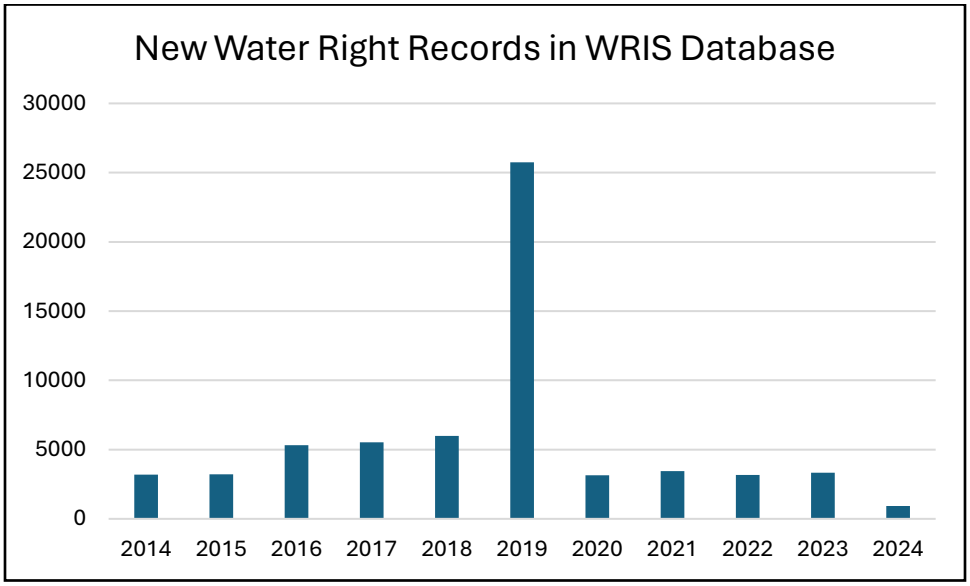


Figure 2. New Water Right Records Added to the WRIS, 2014-2024
***Note: Due to the HB110 filing deadline in 2019 a large volume of water rights was submitted.*

What is the WRIS

The WRIS Database is the DNRC's publication-level enterprise database and is the core component of the WRIS. The WRIS Database is built on the Oracle platform and is comprised of two schemas: Tabular Data and GIS Data. The WRIS Database provides live information used in the WRIS Interface and Water Right Notification Tool (WRNT). The WRIS Database both consumes data from and pushes data to the Department of Revenue (DOR) for DOR Ownership Updates and accepts data from the DNRC Trust Land Management System for Fee Letter receipts. Initial data entry and data changes are performed in the WRIS Interface by DNRC and Water Court staff, writing data to the WRIS Database using the WRIS interface.

The WRIS Database also serves geospatial data to the internal DNRC CONVERG and FORGE GIS web map applications. Internal-DNRC editing workflows in FORGE support late claims and exempt claims by placing points depicting Points of Diversion or drawing areas for Places of Use via the map interface. These edits are location-based and stored separately from the tabular data.

The WRIS Database also provides geospatial data download packages supplied to and made discoverable by the Montana State Library (MSL) GIS Data List and Water Data Exchange (WaDE) Program. External Data Requests submitted by the Water Court and outside stakeholders are also exported on a case-by-case basis from the Production Database. A nightly copy of the WRIS Database to the External Report Database feeds geospatial and tabular data to the DNRC Water

Rights Query System (WRQS). The WRQS only supports viewing, querying, and tabular data exports; no editing occurs in the DRNC WRQS.

The DNRC Records Unit scans physical hardcopy documents to digital format including Water Right Forms, maps, receipts, change authorizations, and other Water Right-related documentation to be stored in FileNet. Hyperlinked uniform resource locators (URLs) point to these records organized by Water Right Number and Water Right Type, enabling digital access to internal DNRC employees and external stakeholders. The URLs are stored within the WRIS Database tabular data and included in the geospatial mapping services that feed the WRQS, CONVERG, and FORGE GIS map applications, including the tabular data serving the WRIS Interface (see Appendix 4.9 – Appendix of the Water Rights Database Secondary Use Diagram).

4.3 – Additional information on existing WRIS QA/QC processes by program

Internally, DNRC has implemented various actions in WRD programs to improve the quality of data entered in the WRIS. The following list, which is not exhaustive, details several of these initiatives broken out by program.

New Appropriations:

- Each water right version entered in the database by Regional Office staff is reviewed by another staff member before issuance to ensure it was entered in the database correctly.
- Program staff in the Central Office do an additional review of permit and change authorization coding, while reviewing Preliminary Determination documents, to ensure consistency with guidance and standardization of coding across the state. This review process was established to correct inconsistent and incorrect coding of water right versions that occurred because of staff inexperience, outdated or incomplete guidance, and region-specific approaches to processing complex permit and change water right forms.
- Each Preliminary Determination document written in a Regional Office is reviewed by Program staff in Central Office prior to being delivered to the Applicant. This review for consistency in policy application, document structure, and document formatting promotes consistent policy application, which leads to consistent water right versions for permits and change authorizations.
- The New Appropriations Program has developed a reference table of formatted remarks and of database events and has placed the tables in the 602 manual and permit/change manuals respectively. These reference tables foster consistency in the database.

- New Appropriations Program manuals were integrated into the Permit and Change Manuals, allowing for one comprehensive and consistent place for criteria assessment procedures. Prior to this, they were incomplete, and policies were found in various policy documents, which led to inconsistent criteria assessment and unrecorded procedures.
- New Appropriations Program provided training to improve data quality include the following. All New Appropriations Specialists, Hydro-Specialists, Regional Manager, and Water Sciences Groundwater Hydrologists (50+ total people) gathered in Helena for a 3-day training on the new processes and procedures involved in HB 114. This was done to train staff on the new process, as well as to ensure they are implementing it consistently and have the resources they need to be successful. The trainings also helped to coordinate efforts between New Appropriations Program, Regional Offices, and Water Sciences Bureau.
- New Appropriations Staff organized a statewide survey to assess adequacy of the HB 114 training and the need for ongoing sessions on certain topics. Biweekly calls were held for 12 weeks after the initial training, with highlighted topics presented based on survey results. The training follow-up calls ensure staff are clear on elements of the changed process, keep staff up to date on new developments, and keep HB 114 information fresh in their minds.

Data Quality & Standards Program (*established to focus on enhancing water rights data quality. Numerous projects that this program has initiated, assumed responsibility for, or contributes to, will increase the quality of data inputs to the WRIS*.)

- Revising the Ownership Update Manual, DOR Spreadsheet content within the Ownership Update Manual, and the Splits and Severs Procedural Guidance.
- They have also created Improved Procedural Guidance for processing DOR Spreadsheets and training materials for ownership updates, forms, splits, and severs.
- Improvements to the customer data including an overhaul of returned mail processes (more up-to-date addresses/Contact data) and procedural guidance (how to correctly maintain Contact data).
- They have also created Standard Operating Procedures for various contact lists (for example, Standards lists) and customer training materials.
- The Data Quality & Standards Program has updated and added to existing procedural guidance for and are developing trainings on geocodes.
- The Data Quality & Standards program is creating a “Core Manual” for foundational information that is common to both adjudication and new appropriations related functions. Version 1 of the Core Manual will be completed in 2024 but will be updated on an ongoing basis.

The Adjudication Program:

- The Adjudication Program reviewed the procedures and manuals/guides for the Reexamination/Examination process. The Program had a business analysis from RESPEC that was contracted to work with staff for several months reviewing what was functional or dysfunctional. The Water Rights Division also hired a temporary Special Water Processes Manager to work with the business analyst to take what was identified by this review and then revamp DNRC Adjudication processes that are more updated and streamlined. All Adjudication staff were involved in the review of current processes which resulted in the creation of a new, updated Reexamination Manual and Examination manual. Adjudication worked with the Montana Water Court to clarify orders and review the new manuals' content. This collaboration resulted in a streamlined examination process that is easier for Specialists to find and retrieve information.
- Adjudication Program staff were trained in where to find the manuals and other documentation to complete reexamination and examination work. Training started out with the basics and expanded to more details of specific tasks and procedures. Staff gave feedback and more information was either added to, refined, or removed from the manuals. Specialists were trained alongside their regional managers, Bureau Chief, and supervisors.
- The Adjudication Program was reorganized to increase efficiency in identifying and correcting errors with higher precision. A Post-Examination and Distribution program was separated out with the responsibilities to be more streamlined and in line with the Water Court Orders as the current guidance was outdated, incomplete and unclear to staff. Part of the program's responsibility is to Quality Check (QC) the Adjudication Program's work which adds an extra layer of checks from a different set of "eyes."
- The Post-Examination and Distribution program will be responsible for reviewing and completing checks for the reexamination work, which lessens the load for the Adjudication Program's Quality Control Coordinator so this position can concentrate on examination work.
- The Adjudication Program developed and implemented RACI chart requirements (responsible, accountable, collaborate, and inform) for the HB110 and SB355 Claims Examination Guidelines Manual, the Reexamination Manual 2024, and the Post Examination & Distribution. These charts lay out how staff interact, communicate, and what role they play in each specific task they are involved in with the adjudication processes. Charts give a clear line of who they need to go to with questions and a clear path to everyone who needs to be in communication.
- All of adjudication's Standard Operating Procedural documents have been reviewed and updated. Many have been condensed and the process has been streamlined.

4.4 – Understanding legacy issues and opportunities to improve data quality

Identifying opportunities for improvement requires understanding the origin of water rights data, constraints on the data when entered, and the architecture of the WRIS.

During early implementation of the Montana Water Use Act, water right owners submitted statements of claims and counties submitted information about existing filed claims that needed to be integrated into a centralized records system. This information was submitted to DNRC in physical format with no defined data quality standards. This information varied considerably; ranging from formatted forms provided by counties to hand drawn maps submitted by water rights owners. At the time of the integration of information into a centralized records system the department accepted information as prima facie; correct until proven otherwise. The department did not modify the submission to improve data quality. The information was recorded as it was submitted.

Since that time the Department of Natural Resources and Conservation has worked with stakeholders to improve the data quality as opportunities occurred. DNRC Water Resources Division (WRD) leadership regularly attend the Water Policy Interim Committee (WPIC) and WPIC/Water Right Stakeholder working group meetings, which provide opportunities for feedback, comments, and requests for improvements focused on the WRIS-UI, WRQS, decree processes, and scanned document workflows, enabling collaboration amongst interested parties and prioritize suggested enhancements. Of note, DNRC WRD held a Stakeholder meeting mid-February 2024 that identified and prioritized concerns and possible data inconsistencies related to various reports, General Abstracts, and search results obtained from the WRQS and WRIS-UI. The About Page of the WRQS contains a table detailing suggestions/requests for enhancements, their implementation status, solution, and anticipated completion dates pertinent to the WRQS.

Legacy data quality issues cannot be addressed by better data input practices moving forward and instead will be addressed by a process to identify and correct them. This entails identifying issues like incomplete records, inaccurate values, mismatched formats, or outdated information. DNRC can then correct the data while coordinating with the data quality teams working with the appropriate entities to determine the proper resolution for corrections if they are not within DNRC's current authority.

Legacy data issues in the WRIS are caused by the maturation of the recording and use of water right information, as well as errors during data entry or inaccurate information in the water right file. Data elements that are currently mandatory information were not present when older water rights were recorded causing some water right records to be incomplete. As water right records

have gone through the adjudication process, this missing data was identified and DNRC worked to rectify the missing data so that each water right record was complete. The Adjudication and New Appropriations Programs have several processes to identify data entry errors and inaccurate information. This includes the New Appropriations Program verification process and the Adjudication Program Quality Control Coordinator.

The ability to correct legacy data quality issues is partially constrained by statutes and rules governing how and when a water right record can be altered. Some water right records cannot be immediately corrected as they require sufficient authority and processes for making any alterations. Decreed water right versions are locked to any DNRC staff from making alterations by any process outside of the Water Court's jurisdiction. Water right owners and objectors may initiate a Water Court process to amend decreed versions up to a certain point in the adjudication process. Water right versions under the jurisdiction of the New Appropriations Program vary in their ability to be altered. Errors found in the versions for Provisional Permits and Change Authorizations can generally be corrected by the department, at the request of the water right owner and with sufficient documentation, if the correction does not alter what was presented during the public notice process or approved during the verification process. Similarly, the department can correct errors found in Groundwater Certificates and Stockwater Permits at the request of a water right owner and with sufficient documentation. For data quality issues that cannot be corrected as errors, water right owners can initiate the change authorization process to rectify data found on the water right record with actual conditions on the ground. Change authorizations, however, must meet the criteria of issuance. During the verification process for Provisional Permits and Change Authorizations, the department can alter water right records to reflect what the applicant certifies, and the department verifies, as perfected with a Project Completion Notice.

DNRC is going to conduct targeted outreach to water right owners in 2024-2025 to increase water rights owners better understand their water rights and help identify and correct legacy data quality issues. The department will conduct an email campaign annually targeting all unique owners of active or severed water rights for which the department has an email address and one mail campaign annually to a subset of all unique owners of active or severed water rights, with a goal of the mail campaign reaching all unique owners every five years. The campaign materials will contain a copy of the abstracts for the most recent active versions of their water right. Additionally, a pamphlet describing how to read the abstract, how to check it for errors, and the existing processes by which errors may be corrected. The department can use their existing authority and processes to correct the identified errors. The department will track the number of water right owners targeted by the outreach campaigns, the number of change authorizations or corrections that arise because of the campaigns, and the costs associated with the campaigns to refine the

process as needed to ensure efficient use of funds, program capacity to process the change authorizations or corrections that result from the campaign, and maximum data quality benefit. The decree process already utilizes a process whereby review abstracts are sent to all parties of the decree. Enhancing water right owner involvement will hasten the process of identifying legacy data quality issues. By engaging water right owners, the process to rectify errors will also be faster because most options to alter data currently within the authority of the department require initiation by the water right owner.

4.5 – Water Rights Database Data Dictionary

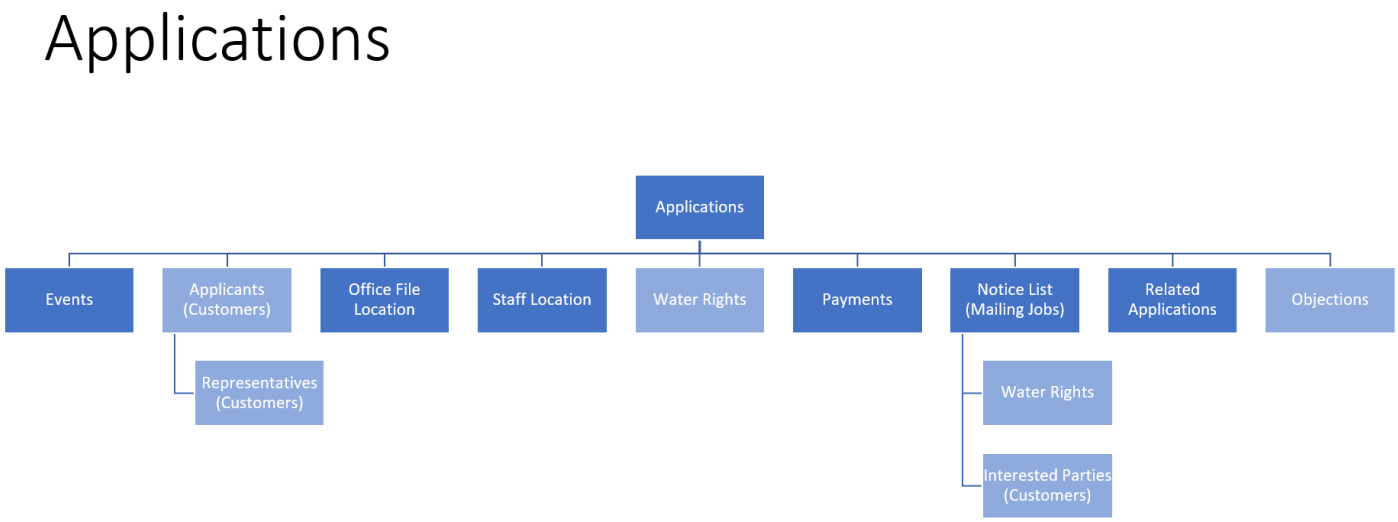
The Data Dictionary is the output from the work done to create a data model of the water rights database. The Data Dictionary should be looked at as the refined summary of the data model, and it is a foundational document for creating and implementing the Data Quality Management Plan (DQMP). One of the primary purposes is to define the scope of what is a water right record, how many data elements make up a water right record and the current structure of a water right record. Every data element is listed in the Data Dictionary and there are key columns of data that shape the DQMP. These key columns are broken out below, with a brief description of the columns.

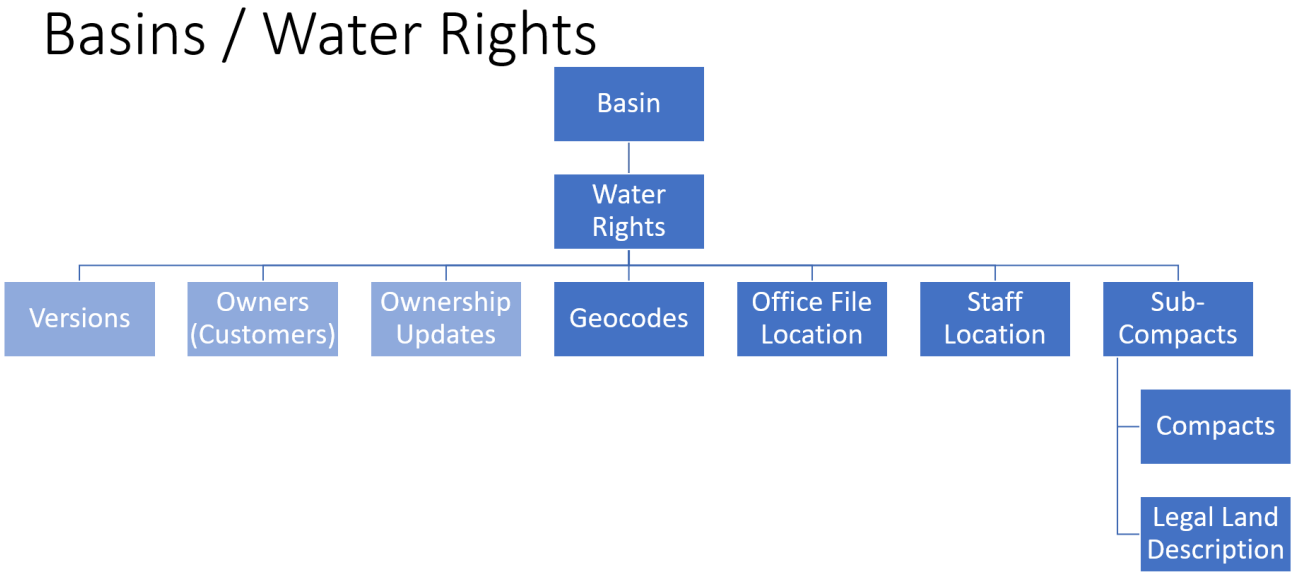
- Constraint columns (DB, APP, MAN): These columns allow DNRC to identify data elements that do not have any method or rule shaping how the data should be captured or what is considered valid data. This information will allow DNRC to target those data elements for review and if necessary, implement a constraint.
- Data Owner column: This column allows DNRC to identify data elements that DNRC has the authority to change, and where DNRC needs to start working with external partners to implement a change management process for those data elements.
- Data Impact column: This column allows DNRC to identify data elements that need to be first in the queue for review and improvements, as these data elements with HIGH impact are critical to managing water records.
- Data Source column: This column allows DNRC to identify data elements that come from external sources. For data elements with external data sources, DNRC can start working with the external organizations to develop common data quality standards to improve the quality of data that is inputted to the WRIS.

Refer to the spreadsheet labeled **WRIS LEG Audit Recommendation 01 - DQMP Data Dictionary.xlsx** to view the data dictionary.

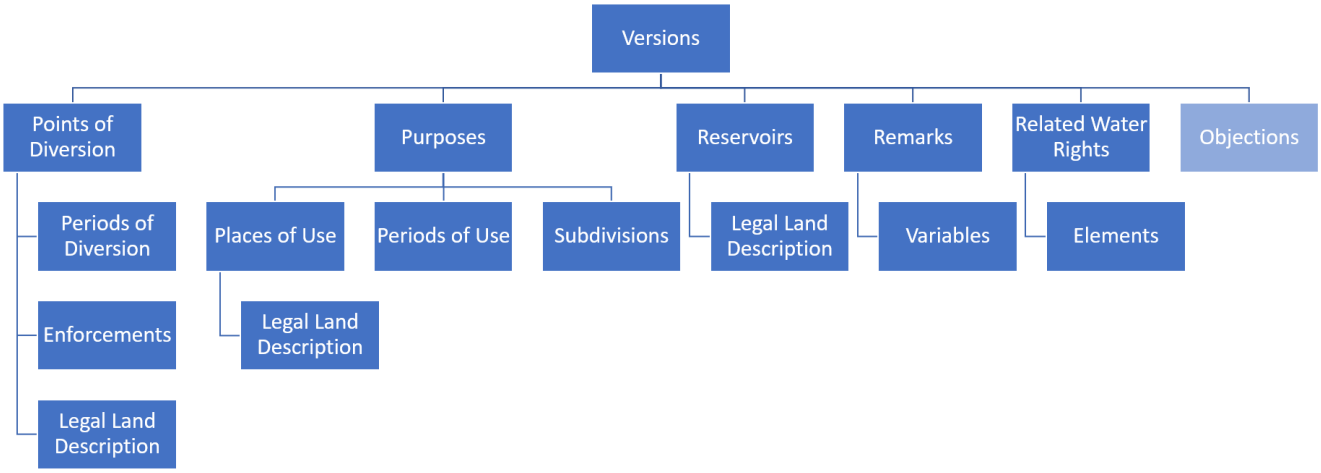
4.6 – Appendix of the Water Rights Database Data Relationship Diagrams

Lighter colored boxes indicate an additional break out of a data relationship. For this appendix, "application" refers to the WRIS database entry for a Water Right Form (i.e., an application submitted for a water right).

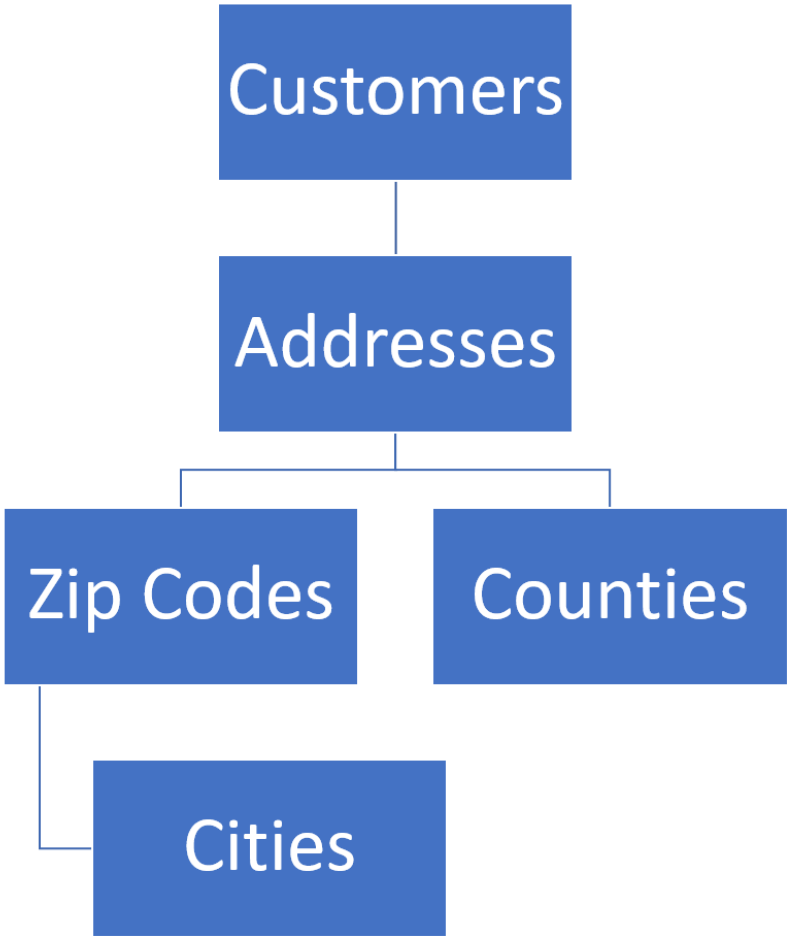




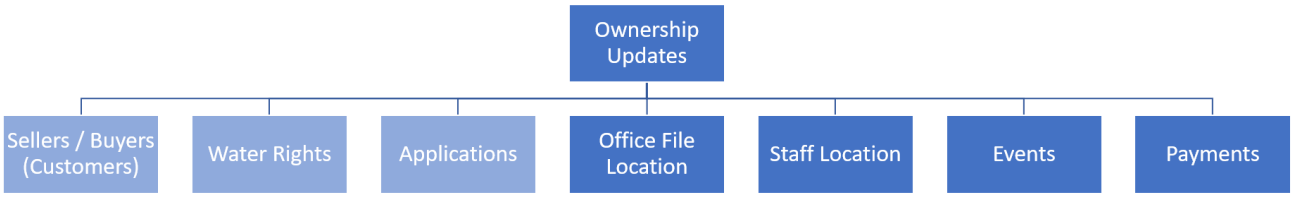
Water Right Versions



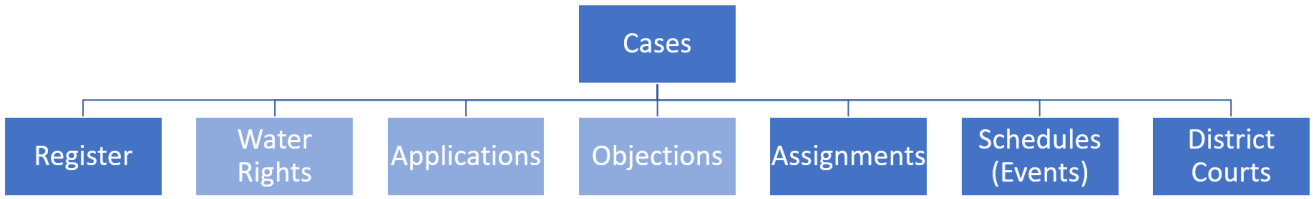
Customers



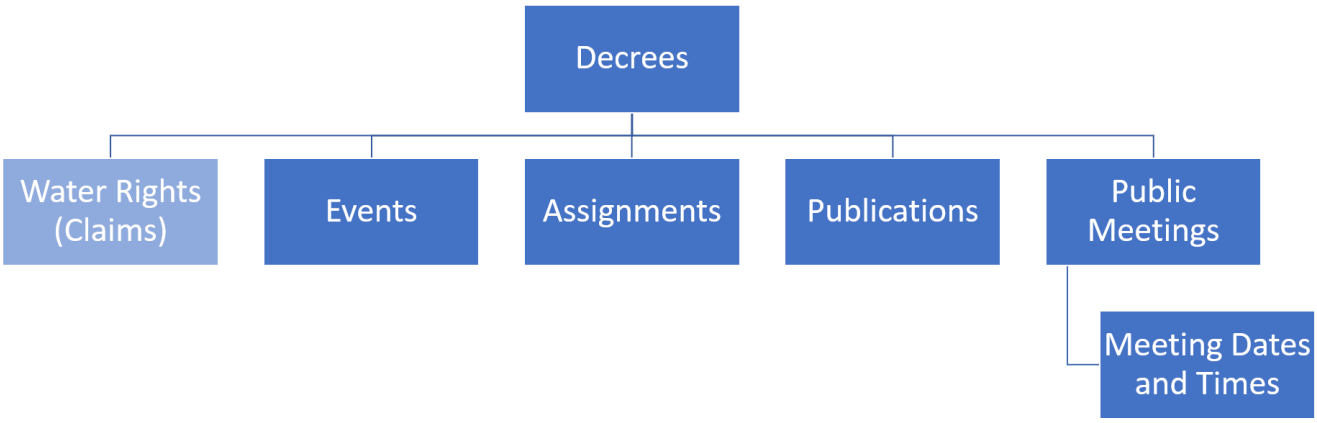
Ownership Updates



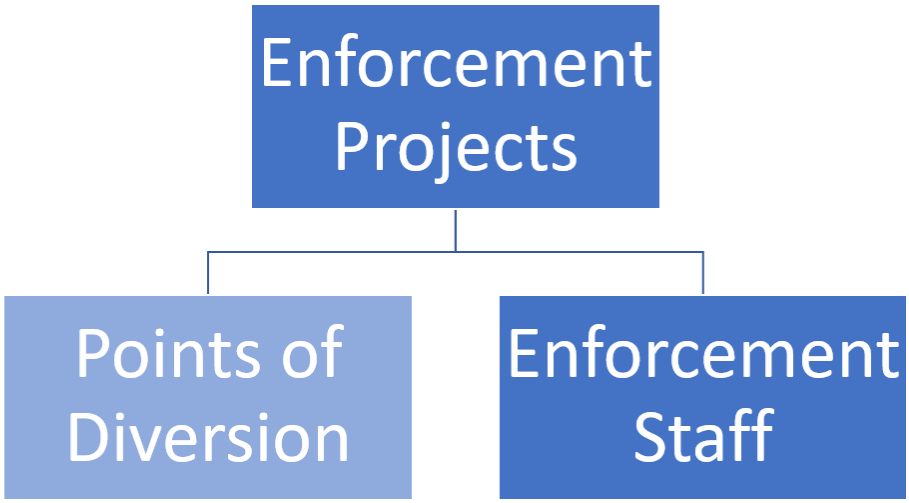
Cases / Hearings



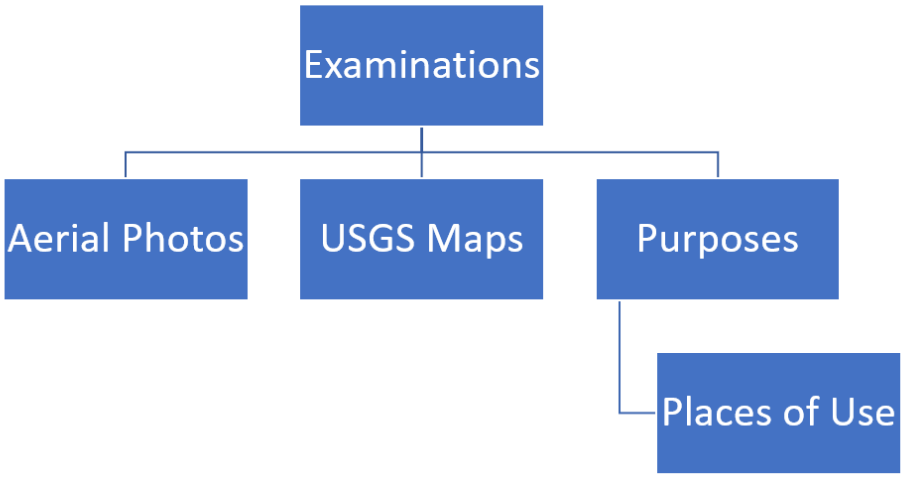
Decrees



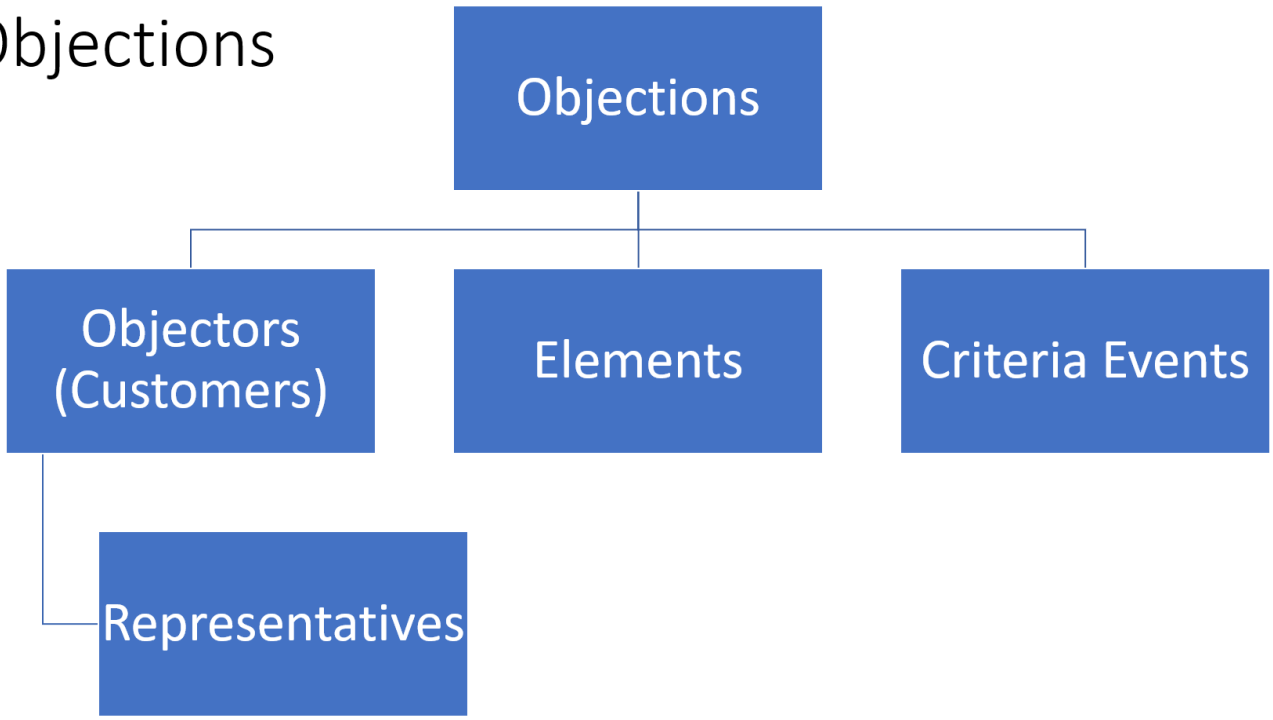
Enforcement Projects

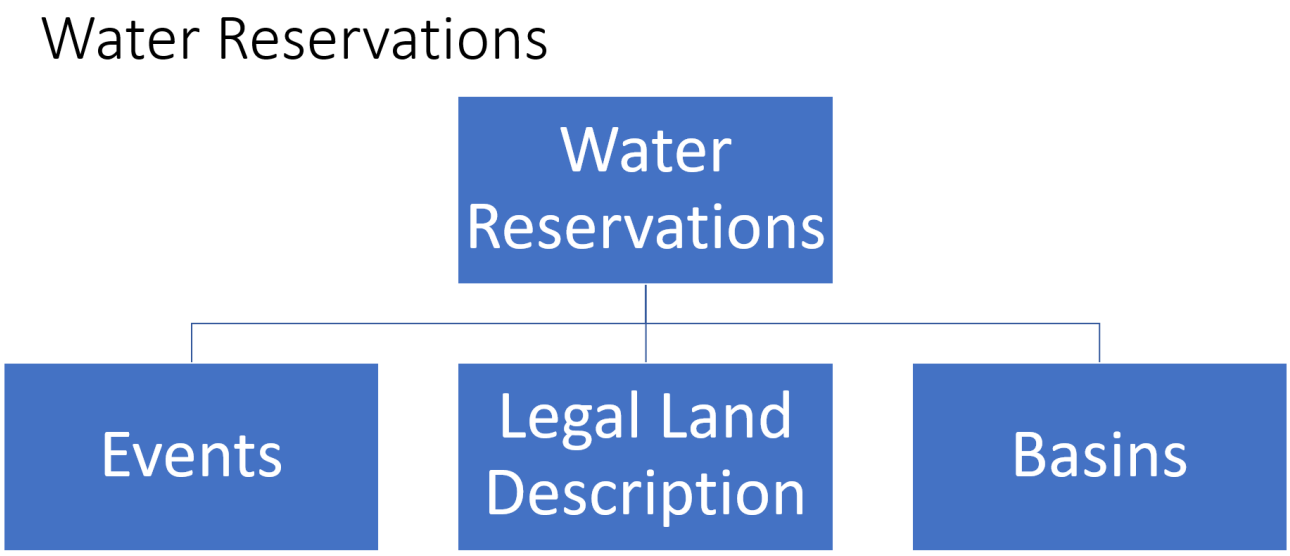


Examinations

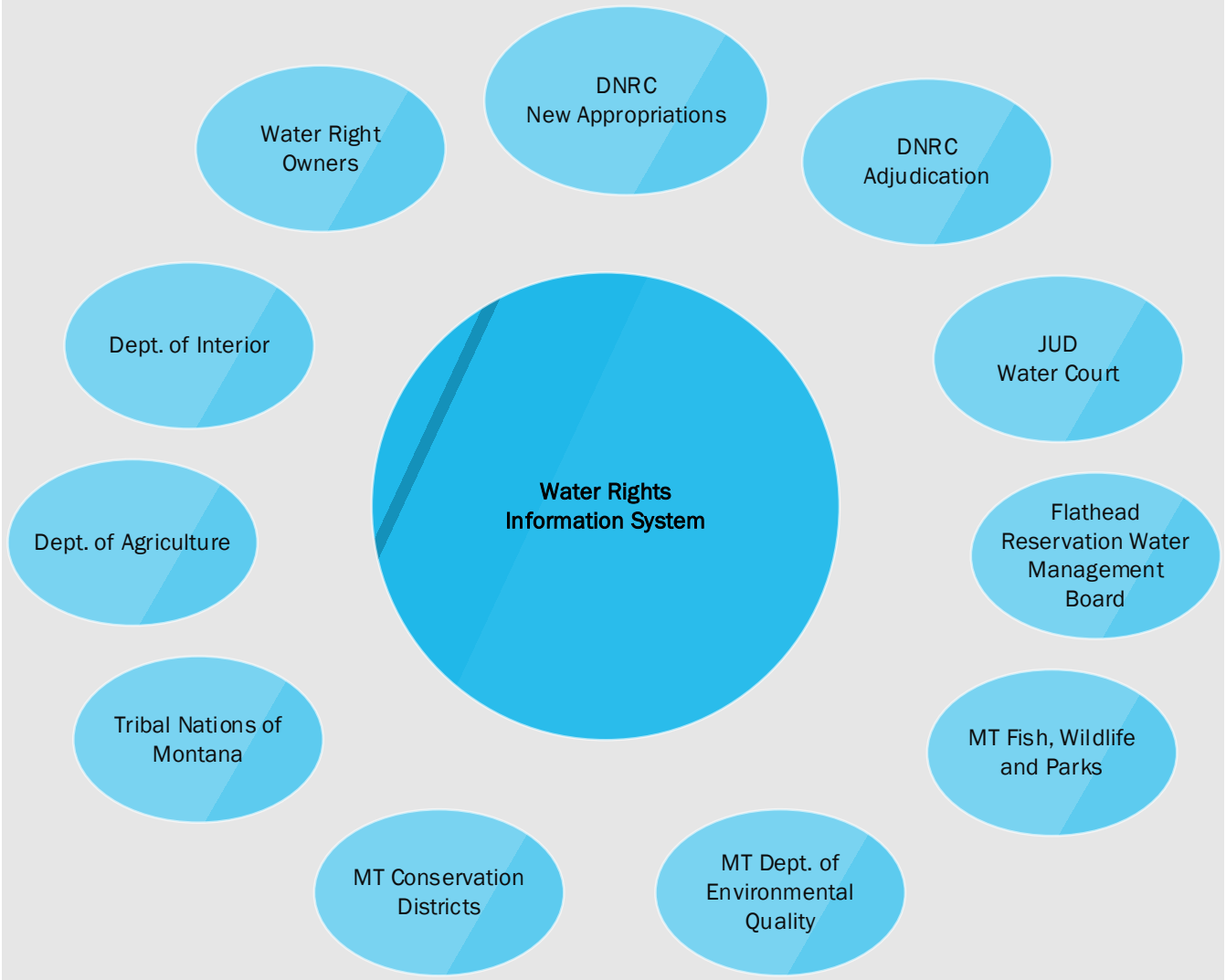


Objections





4.7 – Appendix of the Water Rights Stakeholder Diagram


DNRC
New Appropriations
Water Right
Owners
DNRC
Adjudication
Dept. of Interior
JUD
Water Court
Water Rights
Information System
Dept. of Agriculture
Flathead
Reservation Water
Management
Board
Tribal Nations of
Montana
MT Fish, Wildlife
and Parks
MT Conservation
Districts
MT Dept. of
Environmental
Quality

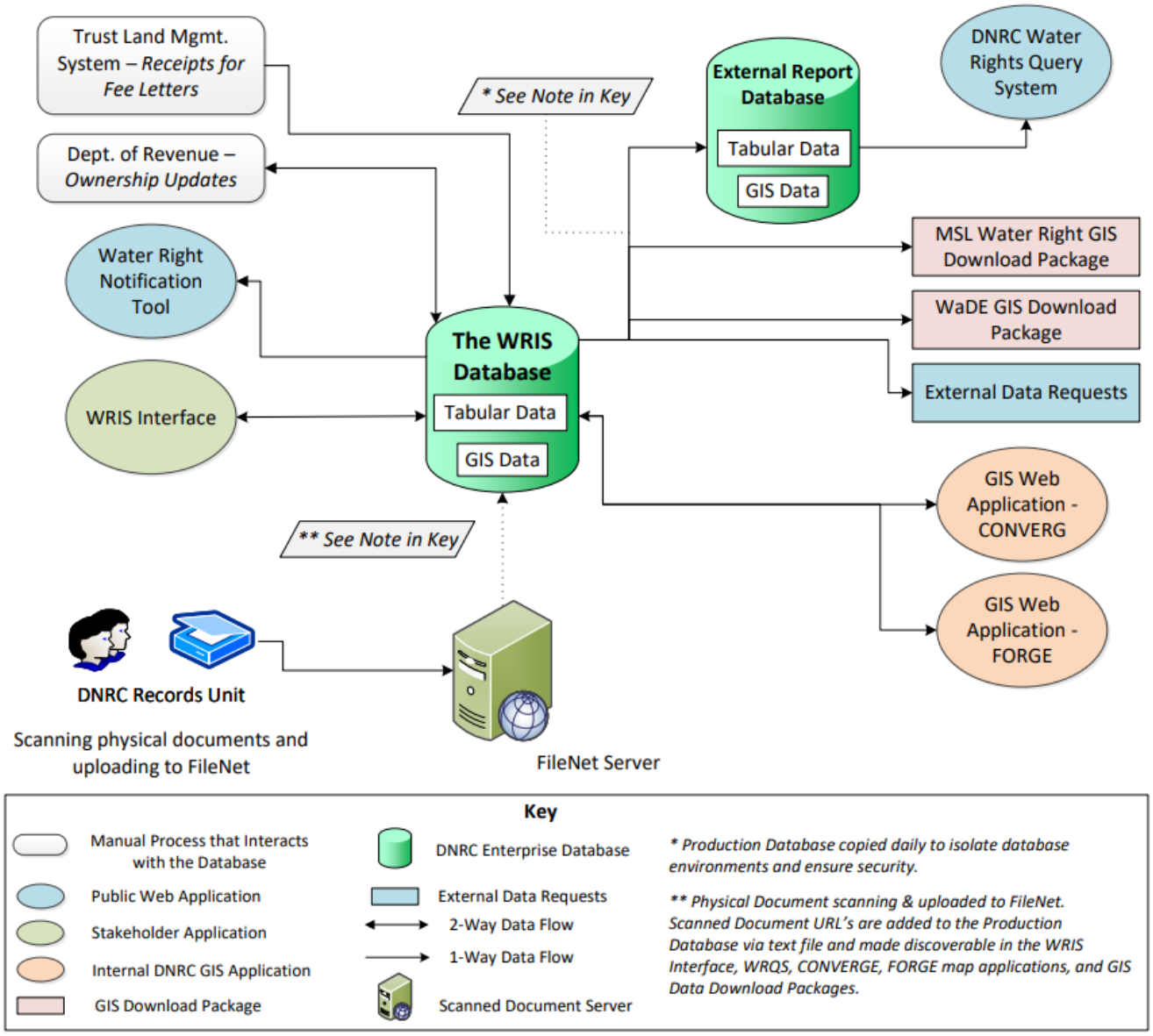
4.8 – Appendix of the Manual Constraints

Table 13. Manuals

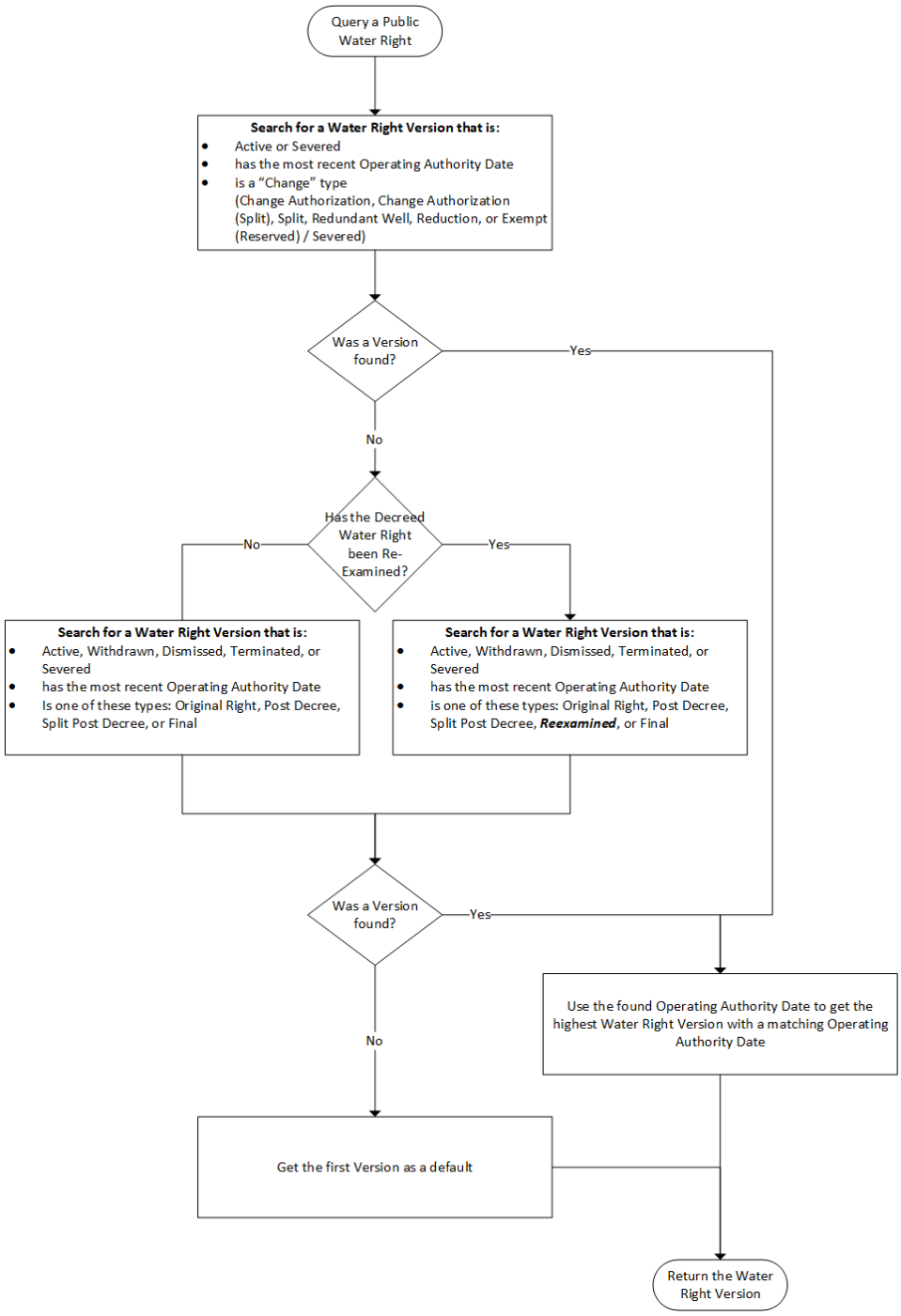
Title	Revised	Program	Form
248 SOP 2024	2024	ADJ	248
650 Guidance Document	2018	NA	650
Application Fee Entry	2018	NA	600, 606 (legacy)
Change Application Manual	2024	NA	606, 606-CD, 606-ST
Change Authorization Project & Conversion Guide	2002	NA	n/a: converted 606
Changes for Non-Filed Water Projects Instructions	2011	NA	606, 634
Coding for Converting a Change Application	2009	NA	n/a: converted 606
Combined Appropriation Guidance	2022	NA	602
DNRC Ownership Update: Divided Interest Form 641 Guidelines	2009	DQS	641
Exempt Claims (HB110 & SB355) Guidelines 2024	2024	ADJ	n/a: exempt claim examination
Form 634 Processing/Database Entry	2014	NA	634
Form 637 How to Reinstate Permits and Change Authorizations	2011	NA	637
Form 642 Exempt (Reserved)/Severed Decreed WRs Database Entry	2012	DQS	642
Form 642 Exempt (Reserved)/Severed NA Database Entry	2012	DQS	642
Form 642 Exempt (Reserved)/Severed Pre-Decree Adjudication Database Entry	unknown	DQS	642
Form 646 Correct and Complete Review	2011	NA	646
Form 651 Petition to Modify Permit or Change Application	2014	NA	651
Initial Entry for Form 635	2013	NA	635
Instream Flow Application Checklist for Form 638	2023	NA	638
Instructions Form 652- Petition to Create Stream Depletion Zone	2013	NA	652
Instructions K Rights aka 62-73 Ground Water Record	2015	NA	n/a: clean-up of GW filings at County
Memo Re: Replacement PODs (MCA 85-2-402(18))	2012	NA	644
New Appropriation Database Entry: Form 641 Divided Interest	2020	DQS	641

Notice of Completion of Ground Water Development Form 602 Processing Instruction Manual	2023	NA	602
Owner Name/Address Standardization	2018	DQS	n/a: customer name and address
Ownership Update Procedures Post SB55	2021	DQS	608
Permit Application Manual	2024	NA	600
Processing Corrections	unknown	NA	625
Processing Instructions Request to Reduce a Groundwater Certificate	2015	NA	602
Regional Office Processing Instructions Notice of Renewal (Form 626)	2023	NA	626
Regional Office Processing Instructions Notice of Replacement POD (Form 644)	2009	NA	644
Review Instructions Form 607 Application for Extension of Time	2013	NA	607
Reexamination Manual 2024	2024	ADJ	n/a: claim reexamination
Split Wizard Tip Sheet	2023	DQS	641, 642, 643
Termination Procedure Guidance	2023	NA	600, 602, 605, 606, 627
USFS 638 Application Basin Assignments	2022	NA	638
Verification/Certification Procedures	2020	NA	617, 618
Water Right Ownership Update Guidance Document (Administrative Policy 14)	2020	DQS	608
Water Rights Stockwater Permit Process Application for Completed Stockwater Pit or Reservoir Form 605 processing Instructions	2020	NA	605
What is a Converted Terminate?	2014	NA	n/a: converted terminates

4.9 – Appendix of the Water Rights Database Secondary Use Diagram



4.10 – Appendix of the Water Rights Public Version Process Flow Diagram



DRNC Water Division- Overview of QAQC processes in place as of March 2024 (Process, Guidance, Training, Technology)

Program	Process	Description	Reason	Status
Adjudication	Streamlined the examination process.	We overhauled our guidance material and started providing more consistent training staff.	Our existing guidance was outdated and not specific to current practices.	Usable, Still fine tuning.
Adjudication	Overhauled and streamlined the reexamination process.	We reworked the processes to be more inline with the Water Court Orders, established a more streamlined order of operation, overhauled out guidance material, and started providing more consistent training staff.	Our existing guidance was outdated, incomplete, wrong, and unclear.	Usable, Still fine tuning.
Adjudication	Overhauled and streamlined the summary report process	We reworked the processes to be more inline with the Water Court Orders, established a more streamlined order of operation, overhauled out guidance material, and started providing more consistent training staff.	Our existing guidance was outdated, incomplete, wrong, and unclear.	Usable, but still a work in Progress.
Adjudication	Defined what "Process Complete" means for all processes.	These definitions are being worked into the appropriate guidance documents.	Order of Operation wasn't clearly defined. More than half the items on the Water Courts list of places we could improve were directly related to Order of Operation.	Usable, Still fine tuning.
Adjudication	Built a "Post-Examination and Distribution" Program.	Part of this program's responsibility is to QC the Adjudication Program's work.	Moving everything into an arcgis Project.	This is rapidly improving/moving work in progress.
Adjudication	Overhauled the responsibilities of the Adjudication QC Coordinators role.	We are working on ways to increase efficiency, identify and correct errors with higher precision. The Post-Exam program is absorbing responsibilities this position previously held so that this position can focus more efforts into QC'ing staffs work.	Appropriate roles and responsibilities	Usable, but still a work in Progress.
Adjudication	Overhauled the responsibilities of the Adjudication Program Supervisors role.	We are working on ways to increase efficiency, identify and correct errors with higher precision. The Post-Exam program is absorbing responsibilities this position previously held so that this position can focus more efforts into managing the examination and reexamination processes.	Appropriate roles and responsibilities	Usable, but still a work in Progress.
New Appropriations	Central Office Review of Preliminary Determination Documents	Each Preliminary Determination document written in a Regional Office is reviewed by Program staff in Central Office prior to being delivered to the Applicant.	Review for consistency in policy application, document structure/formatting, etc.	Process has been in place for at least 5+ years.

Program	Guidance	Description	Reason	Status
Adjudication	Overhauled Exempt Claims Examination Manual	This Overhauled Manual supplements an existing guidance Manual.	Our guidance was outdated and not specific to our current procedures. The previous guidance was last updated in 2013. That's the same year SB335 passed, 4 years before HB110 was passed, and 7 years before our first Interlocutory Decree.	Usable, Still fine tuning.
Adjudication	Overhauled Reexamination Manual	This Overhauled Manual replaces the previous guidance Manual on this process.	Our guidance was outdated, inconsistent with Water Court Orders, missing procedures, and written in very vague terms. The Previous guidance was last updated in 2019 but unclear to what actually was updated between then and 2012 when it was first written.	Usable, Still fine tuning.
Adjudication	Overhauled Summary Report sops	This Overhauled Standard Operating Procedural document replaces all existing documentation and practices.	Our existing guidance was outdated in that all of it predated the entire Reexam Process (2012), therefore 2-5 different documents made at different times, and none of those documents were stored in the same place.	In progress. Half finished.
Adjudication	Adjudication Process Flow Charts (Various Formats)	These document outlines the order of operation of the entire processes at a high level.	Lack of clarity on Order of Operations. RESPC built what we were doing.	Usable, Still fine tuning.
Adjudication	Process Specific Flow Charts on Order of Operation (Figma Chart)	This document outlines the order of operation of specific tasks within individual processes.	Lack of clarity on Order of Operations. RESPC built what we were doing.	Usable, Still fine tuning.
Adjudication	ADJ Program Layout Roles Responsibilities Communication	This document outlines the roles, responsibilities, and communication channels of each position at a program-wide level.	Clearly define roles and responsibilities.	Continuously Updated.
Adjudication	Documented Process Roles and Responsibilities (RACI Charts)	There are four documents that outline the roles, responsibilities, and communication channels of each position at a process-wide level. There is one for Exam, Reexam, Summary Reports, & Post Decree right now.	Same as above, but more detailed and targeted approach explain and document roles and responsibilities.	Usable, Still fine tuning.
New Appropriations	Reference Table of Formatted Remarks in 602 Manual	A table in the 602 Manual describes when to apply certain remarks to new Groundwater Certificate, for example if the water right is a combined appropriation.	Foster consistency in database entry.	Guidance in place.
New Appropriations	Reference Table of Application Events in Permit and Change Manual	A table in the Permit and Change Manuals describes who should add which database application events at various steps in the process.	Foster consistency in database entry.	Guidance in place.
New Appropriations	Full Suite of Template Letters Available for HB 114 Process	Program staff created a set of nine template letters for regional office staff to send to applicants throughout the application process.	Consistent use of template letters ensures applicants are getting consistent, adequate communication about the status of their application and the next steps in the process.	Guidance in place.

Program	Trainings	Description	Reason	Status
Adjudication	ADJ Processes Overview - Form Acceptance to Final Decree at a 10,000-foot-high level.	This training focused on basic concepts and outlined the order of operation of the Adjudication process.	Train staff on order of operation and roles, responsibilities, and requirements.	Done (1/25 - Teams - All ADJ Staff) Recoded for Future Use
Adjudication	Claim Examination Process beginning to end at a 1,000-foot-high level.	This training focused on the Statues, Rules, Water Court Orders, Policies, and Procedures that direct the Claims Examination Process.	Same as above. Different Topic.	Done (1/30 - Teams - All ADJ Staff) Recoded for Future Use
Adjudication	Reexamination Process beginning to end at a 1,000-foot-high level.	This training focused on the Statues, Rules, Water Court Orders, Policies, and Procedures that direct the Claims Reexamination Process.	Same as above. Different Topic.	Done (2/1 - Teams - All ADJ Staff) Recoded for Future Use
Adjudication	Post-Examination Process beginning to end at a 1,000-foot-high level.	This training focused on the Statues, Rules, Water Court Orders, Policies, and Procedures that direct process after claims have been examined and reexamined.	Same as above. Different Topic.	Done (2/6 - Teams - All ADJ Staff) Recoded for Future Use
Adjudication	Regional Managers Training, Questions, & Planning Meeting	"Trainers training Trainers."	Understood processes and refined the RACI Charts as Group.	Done (2/8 & 2/9 In person - Helena)
Adjudication	Examination Overhaul Training	This training focused on the process changes associated with the Overhauled Exempt Claims Examination Manual.	Ensure staff understood what was "new" in the Exam Manual.	Done (2/22 Teams - All ADJ Staff)
Adjudication	Reexamination Overhaul Training	This training focused on the process changes associated with the Overhauled Reexamination Manual.	Ensure staff understood what was "new" in the Exam Manual.	Done (2/23 Teams - All ADJ Staff)
Adjudication	Regional Office Visit and process overview training	Roles and Responsibilities (RACI Charts) and the Process Specific Flow Charts for Examination and Reexamination.	Ensure staff understood the program's process workflow (order of operations) and make sure everyone understood everyone's roles and responsibilities in the Program.	Done (2/26 Missoula-Kalispell; 3/1 Helena-Lewistown; 3/12 Bozeman-Billings; 3/18 Havre-Glasgow)
New Appropriations	Statewide Training on HB 114 Process	All New Appropriations Specialists, Hydro-Specialists, Regional Manager, and Water Sciences Groundwater Hydrologists (50+ total people) gathered in Helena for a 3-day training on the new processes and procedures involved in HB 114.	Train staff in the new process, ensure they are implementing it consistently and have the resources they need to be successful. Coordinate efforts between New Appropriations Program, Regional Offices, and Water Sciences Bureau.	3-day training held in November 2023
New Appropriations	HB 114 Training Follow-Up Calls	New Appropriations Staff organized a statewide survey to assess adequacy of the HB 114 training and the need for ongoing sessions on certain topics. Biweekly calls were held for 12 weeks after the initial training, with highlighted topics presented based on survey results.	Ensure staff are clear on elements of the changed process, keep staff up to date on new developments, keep HB 114 information fresh in their minds.	Follow-up calls tooks place in December 2023 - February 2024.

Program	Technology	Description	Reason	Status
All	Design Standard	Users of the Trident application must be authenticated State of Montana-ordained, networked users that possess valid database/application logins using a DNRC OIT-defined network ID, i.e. Active Directory credentials.	For all features, everyone can see everything, meaning if you can perform an action/hit a button, that will be enabled, usually by a dark blue circle with enclosed white icon. If a button is grayed out, you cannot perform that action, but all users can see menus, buttons, etc. It is setup this way so if a user needs to perform a certain action due to a new or modified job duty, permissions can be altered to gain or remove access/functionality efficiently and effectively. Combinations of database, application, roles, and business manual/procedural processes exist that control WRIS workflows and functionality, control access, and collectively assure data quality.	Done. More details in the April Audit QAQC plan
All	Roles	Roles are permissions-based that define privileges, application access, and ability to perform certain workflows based on occupation and employer. After logging into the Trident application, these roles are automatically applied.	Defines what pieces of the Trident application (e.g., which data) the user has access to. Combinations of database, application, roles, and business manual/procedural processes exist that control WRIS workflows and functionality, control access, and collectively assure data quality.	Done. More details in the April Audit QAQC plan
All	Database constraints	Approximately 520 database constraints exist in the Water Rights database. These include primary key, foreign key, and unique constraints, based on columns stored in tables in the database. Primary keys specify that each constrained column's values must uniquely identify each row. Foreign keys' values match values of a column in another table and enforce referential integrity. Combinations of these constraints exist in the database.	Database constraints are rules in the database that help maintain the integrity and consistency of the data. Combinations of database, application, roles, and business manual/procedural processes exist that control WRIS workflows and functionality, control access, and collectively assure data quality.	Done. More details in the April Audit QAQC plan
All	API/Application constraints	The Application Programming Interface (API) allows for communication between the Water Right Database and the WRIS/Trident application. Approximately 180 API constraints exist in the Trident application, ranging from water right versions, legal land descriptions, mailing lists, reservoirs, splits & severs, etc. One example is only one related right element of each type can be added to a related water right when inserting values into a related right.	The API also provides security and governance. Combinations of database, application, roles, and business manual/procedural processes exist that control WRIS workflows and functionality, control access, and collectively assure data quality.	Done. More details in the April Audit QAQC plan

From:	Pakenham Stevenson, Anna
To:	Abby Brown; McElyea, Russ; Watson, Trevor; Powell, Chris; Krista Evans <blakecrk@gmail.com>; Brown, Stephen; Calkins, Sara; Merritt, Julie; Walsh, Kenneth; clayton; Sales, Walt; Walt Sales; Ward, Nathaniel; Stump, Christopher; Welborn, Jeff; Carter, Bob; Cohenour, Jill
Cc:	Stokes, Heather; Milligan, Valisa; Brown, Stephen; Calkins, Sara; Kaster, Amanda; Netto, Todd
Subject:	RE: Stakeholder questions and concerns about the DNRC WRIS and WRQS database- next steps
Date:	Friday, March 29, 2024 4:02:00 PM
Attachments:	2024 Water Division Digital Filing Process and Procedures.pdf image001.png image002.png 2024.03.29 QAQC summary.pdf 2024.03.29_RESPEC Contract Summary.pdf

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Hello members of WPIC, stakeholders interested in the WRIS, and Water Court,

We wanted to follow up with you on a few DNRC action items:

1. **WRIS-Scanned documents:**
    - Share the policies and procedures for scanned documentation (see attached)
2. **WRIS- database & Trident:**
    - Identify quality assurance in place today (see attached; detailed analysis in the April Audit QAQC plan)
3. **Water Rights Query system:**
    - Please send any concerns about the WRQS to DNRCMTWATERRIGHTINFO@MT.GOV this is the place that we track work needed. If it is not on the list, we are not aware of the problem and cannot fix it.
4. **Reports:**
    - Summary of contracting costs (see attached)
5. **Adjudication procedures:**
    - Share 2024 Examination and Reexamination manuals associated with the DNRC adjudication overhaul (see DNRC https://dnrc.mt.gov/Water-Resources/Water-Rights/adjudication-pages/page)
    - Request to extend claimant contact period from 30 to 60 days (completed)
    - We have restarted delivering of summary reports after DNRC and the Water Court agreed to pause the process to increase the quality of the work product.
        - 76L, 76LJ, and 41J were delivered this week
        - 43QJ and 76G will be delivered in early April
6. **OPIR and water rights records- what is the policy (discussed at WPIC):**
    - Water right records are a part of DNRC ordinary course business. DNRC considers the water right record to include existing water rights, permits, certificates, claims of existing rights, applications and other documents filed with the DNRC (MCA, 85-2-112)
    - Any water right records requests (for their own or someone else's), scanned documents or data within the database, shall be obtained through the WRQS
    - If constituent has a problem accessing these data, WRD staff in the regional or central office will assist.
    - For water right records that are not available in the WRQS, i.e., historic paper documents that haven't been scanned or need to be rescanned, these requests will be made to the records unit to scan and make available through WRQS.

Rep. Walsh and I spoke and there will be a WPIC WRIS subcommittee in early May, therefore we will not be convening a working group before then. If you would still like DNRC to understand your priorities, this document is still available for your input (thank you Julie and Abby): LINK [docs.google.com]. We will continue to send updates and documents to stakeholders as they become available.

If you have comments or feedback on any of these documents that you would like the Department to address, please reach out to me directly.

Very best,
Anna

Anna Pakenham Stevenson| Administrator
Water Resources Division

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How did we do? Let us know here: Feedback Survey

From: Abby Brown <abbybrown@parsonsbehle.com>
Sent: Monday, March 18, 2024 11:58 AM
To: McElyea, Russ <RMcElyea@mt.gov>; Pakenham Stevenson, Anna <Anna.PakenhamStevenson@mt.gov>; Watson, Trevor <Trevor.Watson2@mt.gov>; Powell, Chris <Christopher.Powell@mt.gov>; Krista Evans <blakecrk@gmail.com> <blakecrk@gmail.com>; Brown, Stephen <Stephen.Brown@mt.gov>; Calkins, Sara <Sara.Calkins@mt.gov>; Merritt, Julie <jmerritt@wgmgroup.com>; Walsh, Kenneth <Kenneth.Walsh@legmt.gov>; clayton <clayton@montanatu.org>; Sales, Walt <Walt.Sales@legmt.gov>; Walt Sales <salesranch@gmail.com>; Ward, Nathaniel <NWard@mt.gov>; Stump, Christopher <Christopher.Stump@mt.gov>; Welborn, Jeff <Jeff.Welborn@legmt.gov>; Carter, Bob <Bob.Carter@legmt.gov>; Cohenour, Jill <Jill.Cohenour@legmt.gov>
Cc: Stokes, Heather <heather.stokes@mso.umt.edu>; Milligan, Valisa <Valisa.Milligan2@mt.gov>; Brown, Stephen <Stephen.Brown@mt.gov>; Calkins, Sara <Sara.Calkins@mt.gov>
Subject: [EXTERNAL] RE: Stakeholder questions and concerns about the DNRC WRIS and WRQS database-next steps

All,

I put a summary of my comments in the Google Doc, but am adding here because my comments did not really respond to the questions posed. Also, I am stepping back from further work on this subgroup and want to provide context for that decision.

First, my work as a stakeholder must stay focused on the Final Decree Transition piece of the Comprehensive Review, where there is a lot to still get done in the next year. Like all of you, I have limited time, and that work in the main Comp Review feels like a much higher priority. Second, when I agreed to be on this, I thought that my role was as a feedback partner to DNRC as it worked through these database questions/concerns, since I use the database daily and for a multitude of purposes. I am still happy to serve in that limited role, as needed and requested from DNRC.

Second, and more fundamentally, I disagree that I should be on any kind of committee tasked with telling DNRC how to prioritize these database challenges that have existed for as long as I have been in this field of work. While I am a daily database user, I am not a technical expert, nor do I work for DNRC. Thus, I cannot possibly know all the internal workings of the DNRC database nor what is technologically feasible/not feasible. My opinion is that DNRC's workload and timelines to address these challenges should be dictated by DNRC's technical realities in combination with DNRC's realistic budget for necessary resources (financial, time, and people). Asking me, a member of the private sector, to tell DNRC how to prioritize its work when I don't fully know DNRC's internal processes is, to my mind, the equivalent of asking me as a private attorney to tell a court how to

streamline its internal processes. That should not be my role, even as a member of the stakeholder group.

To that end, I am still willing to provide discrete feedback on new processes or potential solutions to database challenges, as requested by DNRC. I already serve in this role sometimes because, in my experience, DNRC is more than willing to seek feedback when needed and incorporate that feedback as appropriate for various topics. An example of that was during our February meeting when we discussed removing general abstracts, Nate provided an update on reexamination procedures, and it was determined to allow 60 days for claimant contact after decree issuance. I recognize none of those were small asks and I appreciate that implementing each might take some time.

Please let me know if I can serve in a more limited role providing discrete feedback should the need arise. Otherwise, I will see most of you during the big Comp Review meetings.

Best,

Abby

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From: McElyea, Russ <RMcElyea@mt.gov>
Sent: Monday, March 18, 2024 10:16 AM
To: Pakenham Stevenson, Anna <Anna.PakenhamStevenson@mt.gov>; Watson, Trevor <Trevor.Watson2@mt.gov>; Powell, Chris <Christopher.Powell@mt.gov>; Krista Evans <blakecrk@gmail.com> <blakecrk@gmail.com>; Abby Brown <abbybrown@parsonsbehle.com>; Brown, Stephen <Stephen.Brown@mt.gov>; Calkins, Sara <Sara.Calkins@mt.gov>; Merritt, Julie <jmerritt@wgmgroup.com>; Walsh, Kenneth <Kenneth.Walsh@legmt.gov>; clayton <clayton@montanatu.org>; Sales, Walt <Walt.Sales@legmt.gov>; Walt Sales <salesranch@gmail.com>; Ward, Nathaniel <NWard@mt.gov>; Stump, Christopher <Christopher.Stump@mt.gov>; Welborn, Jeff <Jeff.Welborn@legmt.gov>; Carter, Bob <Bob.Carter@legmt.gov>; Cohenour, Jill <Jill.Cohenour@legmt.gov>
Cc: Stokes, Heather <heather.stokes@mso.umt.edu>; Milligan, Valisa <Valisa.Milligan2@mt.gov>; Brown, Stephen <Stephen.Brown@mt.gov>; Calkins, Sara <Sara.Calkins@mt.gov>

Subject: RE: Stakeholder questions and concerns about the DNRC WRIS and WRQS database- next steps

All

This agenda is premature until the committee agrees on what the problems are how to address them in priority.

Additionally, the water court will not attend meetings run by an outside facilitator. That will make this process more cumbersome and less efficient.

Russ McElyea
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406 577 7754
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From: Pakenham Stevenson, Anna <Anna.PakenhamStevenson@mt.gov>
Sent: Saturday, March 16, 2024 7:56 PM
To: Watson, Trevor <Trevor.Watson2@mt.gov>; Powell, Chris <Christopher.Powell@mt.gov>; Krista Evans <blakecrk@gmail.com> <blakecrk@gmail.com>; Abby Brown <abbybrown@parsonsbehle.com> <abbybrown@parsonsbehle.com>; Brown, Stephen <Stephen.Brown@mt.gov>; Calkins, Sara <Sara.Calkins@mt.gov>; McElyea, Russ <RMcElyea@mt.gov>; Merritt, Julie <jmerritt@wgmgroup.com>; Walsh, Kenneth <Kenneth.Walsh@legmt.gov>; clayton <clayton@montanatu.org>; Sales, Walt <Walt.Sales@legmt.gov>; Walt Sales <salesranch@gmail.com>; Ward, Nathaniel <NWard@mt.gov>; Stump, Christopher <Christopher.Stump@mt.gov>; Welborn, Jeff <Jeff.Welborn@legmt.gov>; Carter, Bob <Bob.Carter@legmt.gov>; Cohenour, Jill <Jill.Cohenour@legmt.gov>
Cc: Stokes, Heather <heather.stokes@mso.umt.edu>; Milligan, Valisa <Valisa.Milligan2@mt.gov>
Subject: Stakeholder questions and concerns about the DNRC WRIS and WRQS database- next steps

Hello all,
DNRC appreciates the time you took to identify your concerns of the WRIS, WRQS, DNRC documentation and adjudication processes. After speaking with Rep Walsh and Senator Sales, here are the next steps for this working group:

1. A gentle reminder to please refine your concerns list into priorities by **March 29th** LINK [docs.google.com]
2. DNRC via Valisa will be reaching out to you for setting meeting dates in April (24th, 25th, 26th or 29th)
3. We will focus future meetings on specific topics and your priorities.

We are proposing the following future agendas based on when we will have documents ready for the Audit, these agendas can and will evolve with the discussion and as priorities are identified:

- April (focus on scanned documents):
  - Discussion on priorities and plan to accomplish
  - DNRC scanned documents & document retention policy review
  - Additional scanned documents needed & priorities
- June (focus on WRIS QA/QC)
  - Review and feedback on of the DNRC WRIS QAQC plan
  - Other high priority item discussion

- August (focus on abstracts & WRQS)
    - Touch base on the adjudication overhaul by DNRC, are there still concerns that are not resolved?
    - High priority item discussion

Below is the list of DNRC action items from the 2/14/2024 meeting and 3/4/2024 meeting of WPIC and approximate timeline for dissemination:

- **Water Rights Query System- abstracts:**
    - Evaluate the technological needs to modify/remove the general abstract; clarify what is a version; pull the final decree and change abstracts together (ongoing)
- **WRIS-Scanned documents:**
    - Share the policies and procedures for scanned documentation (for April meeting)
- **WRIS- database & Trident:**
    - Share the QA/QC plan associated with the Legislative Audit (end of April).
    - Identify quality assurance in place today (summary ASAP, detail with the QAQC plan at end of April).
    - HB10 costs and actions taken (end of March)
- **Reports:**
    - List of Water Court Requests (punch list) and actions taken (end of March)
- **Adjudication procedures:**
    - Circle back in 6 months post DNRC adjudication process overhaul to check in on progress made and if the concerns have been resolved (August discussion).
    - Change the claimant contact period from 30 days to 60 days (completed)

In addition to this group, we are going to have Heather Stokes join us as a facilitator of this discussion and we will be inviting the other members of the WPIC subcommittee to join if they desire.
Again, thank you for the feedback and taking the time to work with DNRC to improve these processes and systems.

Anna

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How did we do? Let us know here: Feedback Survey

Water Rights Information System (WRIS) and Adjudication: Stakeholder Questions and Roadmap for Implementation

TAB 3: Scanned Documents & Historic Documents

Concerns	DNRC Actions and Associated Documents	Next steps and timelines (if blank- DNRC is not aware of any additional actions needed)
Scanned Documents (FileNet) & Historic Documents (Iron Mountain)		
– What is the policy that DNRC is following for retention? What are the quality assurances for scanning documents?	– 2024.03.29 Water Division Digital Filing Process and Procedures	
– Scanned docs are not organized, labeled properly, and not searchable. – How to identify legacy scanning and labeling issues and address them in a comprehensive and systematic way? – Large maps- how/when will these be scanned.	– DNRC increased the labeling options for all documents scanned since August 2023, not historic documents. DNRC collaborated with WC on appropriate naming for their documents. – Scanned documents are organized by date for all water rights and viewable using the WRQS. Scanned documents are searchable by water right using WRQS. – When requested by the public, staff will pull and scan all large documents that have not been previously scanned or need to be rescanned.	2025 Legislative Request to update historic labeling. 2025 timeline to develop more functionality in scanned documents. Records program will scan all maps and other documents as they are identified.
– Additional documents to be included in the scanned documents: DNRC, Water Court, Office of Administrative Hearings, District Court.		Stakeholder discussion & any implementation on priorities in 2025.

If concerns are not identified in this table, please reach out to DNRC directly:

- Public information requests: KarenDe Herman (kdherman@mt.gov) or OPIR website (https://opir.mt.gov/)
- Scanning questions: WATERRIGHTS@MT.GOV
- Other Water Division concerns: Trevor Watson (trevor.watson2@mt.gov) and Anna Pakenham Stevenson (anna.pakenhamstevenson@mt.gov)

Overview of DNRC Water Division Digital Filing Process and Procedures

Overview

DNRC, as an executive branch agency, shall manage public records according to the provisions of Title 2, chapter 6, part 11, and the rules and guidelines established by the secretary of state (SOS), the state records committee (SRC), and the Montana Historical Society (MCA 2-6-1012, MCA 2-6-1103). Water rights documents in Montana are considered public record which means public information that is: a) fixed in any medium and is retrievable in usable form for future reference; and b) designated for retention by the state records committee, judicial branch, legislative branch, or local government records committee (MCA 2-6-1002).

The SRC is composed of five members representing executive branch agencies (MCA 2-6-1107). The committee includes the attorney general, legislative auditor, secretary of state, Montana historical society, and the department of administration (MCA 2-6-1107).

DNRC owns all public records maintained by the department (MCA 2-6-1013). With this responsibility, it is DNRC's role to review and make recommendations to the SRC regarding minimal retentions for all copies of public records within the agency. It is also DNRC's responsibility to minimize duplication of records (MCA 2-6-1013). DNRC has its own records management policy for the purpose of managing records in accordance with the applicable state and federal records and information management regulation and requirements (attached).

Digital transition

DNRC has long known the cost of doing paper heavy business is expensive. Paper filings and storage cost the Water Resources Division upward of $80,000 dollars annually. The Water Resources Records program started investigating what it would take to reduce the rate of accumulating paper records in late 2021 with the announcement of the Governor's "going digital initiative," Covid-19 making Iron Mountain inaccessible for numerous months, and a roof collapse at Iron Mountain in 2019 that could have ruined numerous hard files.

The Water Resources Records Program Manager sought guidance from the SOS and the SRC on how best to accomplish a digital transition. In November 2021, DNRC was informed by the SOS that the SRC voted to remove the data migration approval process from Administrative Rule. This was done to remove as much restriction from digitizing records and disposing of hard copy records to facilitate such plans. Removing this from rule removes any formal process to deem digital records the "official record." It did provide some cautions about quality of scans, data content management, and record recall; however, we feel these have been mitigated through equipment upgrades, training, and procedures. The outcome of this was that hard copy records, that have no historical value, could be disposed of once digitized as a non-record duplicate. This is only for non-historic documents, all historic documents (adjudication files) will continue to be maintained.

Another reason to reduce our reliance on paper and shift to a more digital platform was to ensure file integrity while making the information retrievable per MCA 2-6-1002. It has been a long-standing practice for the department to offer up the "hard copy" of files with little to no verification as to where the file is, how it is stored, if it was checked back in in its entirety and without new additions, and possible damage that may occur that could render the file unusable. This is unacceptable when protection of the master copy is required. Making the digital copy the official copy, something that no longer has a formal process, the electronic master file is protected using a password protected, contracted file storage platform (FileNet). Using FileNet DNRC can serve out the use copy with no concern that it will diminish the integrity of the master file.

As part of the digital transition and to ensure quality images for permanent storage, DNRC equipped all stations with quality scanners to meet the national standard for scans at 300 dots per inch (DPI), established a protocol and provided trainings on scanning (Appendix 2), quality control and assurances measures, and digital transfer for safe uploading and storage procedures.

Pilot:

In August of 2023, DNRC piloted a digital scanning project using a few New Appropriation forms with two regional offices. The offices were provided procedures on 8/14/2023 on scanning and transferring digital copies of the forms versus the previous protocol of mailing them to Helena. During this time, we solicited feedback for technical issues and ideas for improvement before broadening the scope. In October of 2023, we moved to all regional offices and included more New Appropriation forms. This process is outlined in the "Digital Transfer of Records" document. Staff scanning the hard copy are required to QA/QC the document, name the document as instructed, and send it to the records program. Once it is transferred to the records program, it is again looked at for quality and correct naming before upload. The staff that scanned the document then verified that the document has been uploaded to the correct water right. The latest procedure document was shared 12/05/2023 (attached), we continue to solicit feedback from staff on ways we can make it clearer.

For ease of transferring large documents, DNRC established a group of shared folders for each individual regional office and central office program. Access to these files is protected and only Records staff can pull documents from the files to be uploaded to FileNet. The transfer to FileNet occurs automatically after all the QA/QCs have been finished and the document placed in the upload file by records staff. This ensures the chain of custody is known throughout the entire process from scanning to QA/QC, to logging it into FileNet as the master copy.

As part of this process, we also increased the number of identification labels for scanned documents in FileNet (digital storage platform). Before the change, only two file labels were available (File, Update to File). This was not useful when looking for specific scanned documents, we increased the labeling by 10, with a combined total of 12 labels. This change went into effect in August and has not been implemented for previously uploaded files.

In September of 2023, DNRC destroyed 106 new appropriation file boxes that contained duplicate records with no historical value. The Water Resources Records Program Manager confirmed that all files had been scanned, uploaded to FileNet, and logged as Digital Storage prior to removal.

Last, the Water Resources Division updated our records management retention schedule policy for water rights with the State Record Committee on November 15, 2023 (attached). The new schedule recognizes digital storage as the official record and provides more clarity to document retention for new appropriation and adjudication documents.

State of Montana
Department of Natural Resources and Conservation

Records Management

Document Type: Policy	**Issuing Authority: DNRC**	**First Issued: 11/10/11**
Number: P-DNRC-OP-5	**References: Title 2, Chapter 6, MCA; MOM Volume 1-0800**	**Effective Date: 06/07/19**
Approval Signature: /s/ John Tubbs, Director		**Last Revised: 06/07/19**

Policy Purpose: The purpose of this policy is to manage Department of Natural Resources and Conservation (DNRC) records in accordance with applicable state and federal records and information management regulations and requirements.

I. Definitions

A. **Record**: (2-6-1002, MCA) Public information that is: (a) fixed in any medium and is retrievable in usable form for future reference. Records regardless of media include, but are not limited to:
   1. something made or received by DNRC to document the transaction of official business;
   2. a written act or record of the acts of DNRC; or
   3. something designated for retention in DNRC record retention schedules.
   4. **The following are not records**: documents that are for reference purposes only; preliminary drafts; messages and routing slips; preprinted forms; and superseded publications.

B. **Records Manager**: Designated employee within the Director's Office who is responsible, in conjunction with the RMI Team, for coordinating the efficient and effective management of the agency's public records and information pursuant to 2-6-1002, MCA.

C. **Records Management and Imaging (RMI) Team**: DNRC records manager and representatives from each division who are responsible for overseeing the DNRC records management program.

II. Policy Objectives

A. To guide strategic management of DNRC's records in order to:
   1. protect the integrity and availability of business-critical information and historical documents;
   2. facilitate access to necessary information by DNRC personnel, employees of other state, local, tribal, or federal government organizations, and the citizens of Montana;
   3. reduce operating and storage costs; and
   4. facilitate DNRC's compliance with retention obligations which may be broader and more extensive than statutory and regulatory obligations.

III. Department Procedures

A. Department Responsibilities

1. Leadership is ultimately responsible for directing records management activities within DNRC. They will:
    a. monitor the information and records-related activities of those department personnel and third parties under their supervision; and
    b. enforce the provisions of this policy, DNRC records retention schedules, and any implementing procedures.
2. All DNRC personnel will:
    a. complete annual records training;
    b. be aware of, and adhere to, retention schedules that apply to their areas of work; and
    c. take steps to protect records in their possession.

B. Records Manager Responsibilities

1. The records manager is the chair of the RMI Team, and is responsible for:
    a. maintaining a record of all the department's existing records retention schedules with the assistance of the RMI Team;
    b. providing orientation materials for new employees and annual records training for all employees;
    c. assisting with records disposition for offboarding and transitioning employees.
2. The records manager shall serve in a rotating capacity on the State Records Committee. (2-6-1108, MCA)

C. RMI Team Responsibilities

1. The RMI Team is responsible for:
    c. determining the type of electronic records management system(s) that will best support the needs of the agency as a whole;
    d. integrating any records produced through methods including, but not limited to electronic and social media, into records management plans; and
    e. yearly review of this policy.
2. Division records facilitators have the following responsibilities:
    a. maintain the record retention schedules, records profiles, and records inventories for their individual divisions;
    b. submit final, approved copies of all retention schedules to the records manager;
    c. assist programs in safeguarding the integrity of records containing sensitive or confidential information throughout their periods of retention and disposition;
    d. assist the records manager and programs in identifying the location of public records in both onsite and off-site storage;
    e. coordinate with the rest of the RMI Team to collectively manage DNRC records.

History: NEW: 11/10/11 (Originally #3-0801). AMD: 06/07/19

Digital Records Procedures (last updated on 12/05/2023)

DNRC is planning on going from a paper filing system to a fully digital filing system. This system will eventually be done using electronic forms system, but that is yet to be developed. Currently, DNRC sends all paper filing from regional offices to the Central Office for filing and retention. This process requires multiple prints and scans and requires mailing which ends with physical storage at a central location in Helena, MT. The paper, mailing, and interfiling is a considerable cost for the department.

High Level Plan and Timeline:

- Implement Digital transfer from all offices to Records (7/17/2023).
    - 602s, 605s, 625s, ownership Updates, Return Mail, and Address change forms, Request to reduce, other forms as staff want to try them with approval from Records Program. We are not doing permits currently.
- Move fully digital with digital form entry (2024)

Process as discussed:

- Processing 602s, Ownership Updates, Return Mail, and Address Change forms
    - Advantages to the new Process:
        - Don't have to create a file folder
        - Less mailing costs to the RO
        - Less paper accumulation in all offices
        - Uploads viewable within 48 hours.
    - Things you need to know about your Copier (Appendix A):
        - It must scan 300 dpi or better.
        - You must know how to email scanned documents to yourself from the copier.
        - You must know how to lighten or darken a document on the photo copier.
    - Scan Protocol (all of this can be programmed on your printer):
        - Scan documents on photocopier (300-600 dpi preferred; Appendix A). 600 dpi may make file too large to email.
        - Scan single sided if document is single sided. If it is two-sided, make sure you scan two-sided (Appendix A). You can preset your program to scan two-sided and delete the blank pages in Adobe. You can include mixed sizes. That does not affect the quality of the scanned documentation.
        - If there is a specific order to scan, make sure you follow it (Appendix B).
        - Scan in color only.
        - QC documents and Scan product.
            - Orient the pages as they should appear. Save updated copy if adjusted.

- Check for correct water right number, correct basin, clarity, no social security numbers, no bank account information, no Realty Transfer Certificate information. Typically, this includes the purchase price, seller, buyer, etc.
- Remove all blank pages from the scanned document using Adobe.

- Name scanned documents with the **exact** naming conventions using the corresponding file index (Appendix C) as shown below in the example:
  - **The ^^^ are not place holders, they are called "ticks" and need to be typed in as they are shown in the examples. (Shift 6 on the keyboard).**
  - If extension exists:
    - Water Right type^basin^water right number^extension^^.pdf
  - If extension does not exists:
    - Water Right type^basin^water right number^^^.pdf
  - Examples of how the naming convention should look:
    - FILE^GROUND WATER CERTIFICATE^41B^30156136^^^.pdf
    - OWNERSHIP UPDATE^GROUND WATER CERTIFICATE^41B^30156136^^^.pdf
    - OWNERSHIP UPDATE^GROUND WATER CERTIFICATE^41B^2473^00^^.pdf
    - UPDATE TO FILE^GROUND WATER CERTIFICATE^41B^30156136^^^.pdf
    - ADJUDICATION UPDATE^STATEMENT OF CLAIM^41B^2473^00^^.pdf
    - ADJUDICATION UPDATE^STATEMENT OF CLAIM ^41B^30156136^^^.pdf
      - Last two are specific examples for exam and reexam documents.

- On Nov. 1st, there will be no more emailing, we have shared drives set up for each office. After scanning, move documents into your appropriate shared file for your office (R: Drive). Once the record is taken out of the folder by Records staff, you know your file has been uploaded and will be viewable within 48 hours.
  - RO_Billings
  - RO_Bozeman
  - RO_Glasgow
  - RO_Havre
  - RO_Helena
  - RO_Kalispell
  - RO_Lewistown
  - RO_Missoula
  - WRB_Helena
- Single water right – scan and place document in your offices shared folder.
- Multiple water rights changed by ownership update:
  - 1-5 water rights: RO staff creates PDF for each water right (PDFs should all contain full 608 packet), place in your offices shared folder.

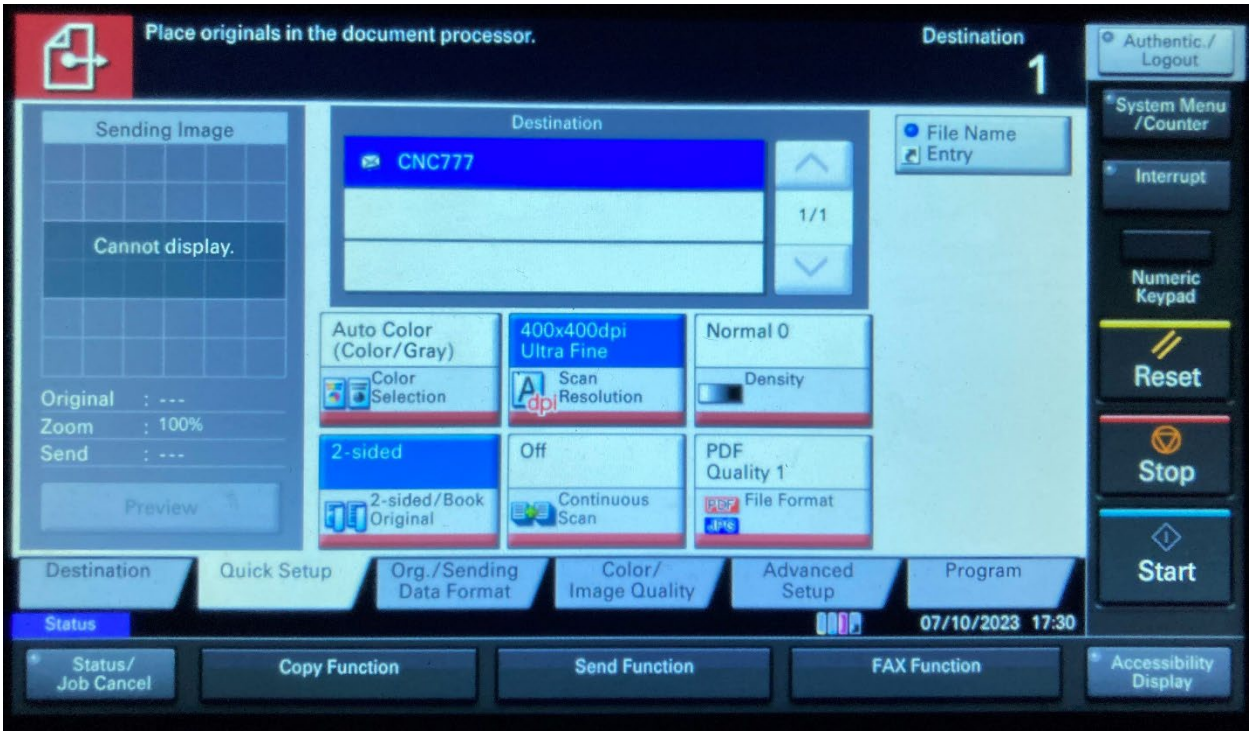
        - 6+ water rights: RO staff creates a single PDF and places in shared folder with the OUID # as the name: 608_OUID#(fill in the number)_Ownership Update.
            - Records will work with Dave as needed to rename PDFs and upload (again all PDFs will contain full 608 packet). RO staff need not concern themselves with this step.
        - When scanning gets back to RO staff that the files have been uploaded, RO staff need to go in and QA/QC the scan uploaded to the lowest Statement of Claim water right #
            - Staff only need to QA/QC the one uploaded scan – if there's any issue found in the future about the file not being uploaded to all rights, we will be confident that the scan lives correctly with the lowest water right # and can reattach and upload to other rights as needed.

    - **Log as Digital Storage for File Location in Trident,** if what you are entering requires a file location to be identified.
    - Recycle paper after 30 days (once it has been verified to be loaded in scan documents, indicating that the file is correctly loaded and fully backed up).
    - The regional office will no longer be notified by DNR WRD Records once the document has been loaded to FileNet. If the file is removed from the shared file, it was uploaded and will be viewable within 48 hours.
    - For anything that doesn't fit this description, is unique, or you feel may need extra attention by Records, please reach out to Records for resolution before sending. The process may be the same, but with a different name to provide warning to Records that something else needs to take place.
- Processing Permit Applications and Changes
    - Continue process status quo.
    - We will start a pilot process with one region to see if we can reliably transfer these larger files and keep QA/QC levels where they need to be.

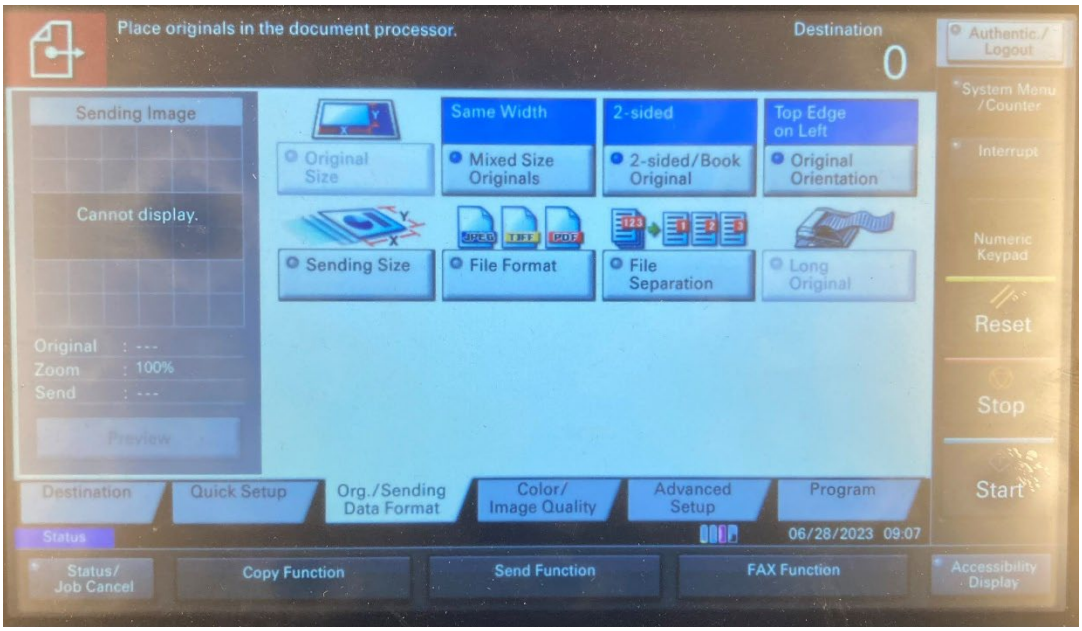
Appendix A:

Copier Settings

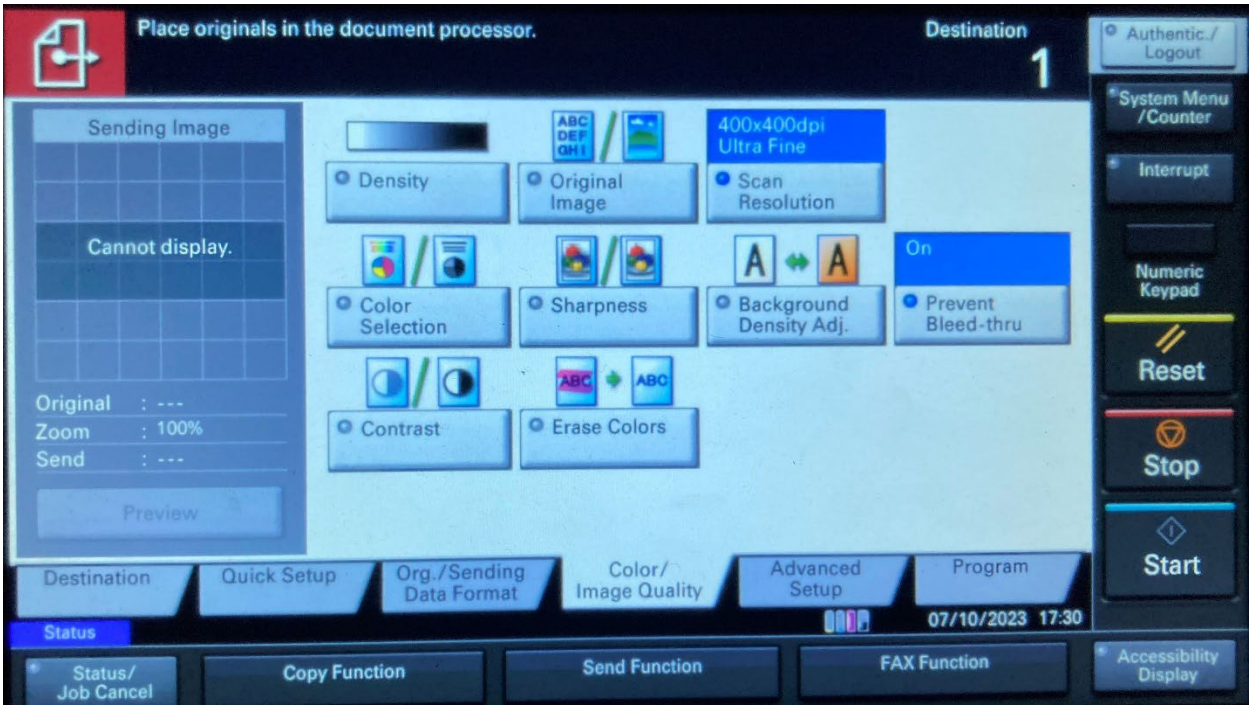
To find Dots Per Inch (DPI) setting on your copier and scanning 1 side or two:



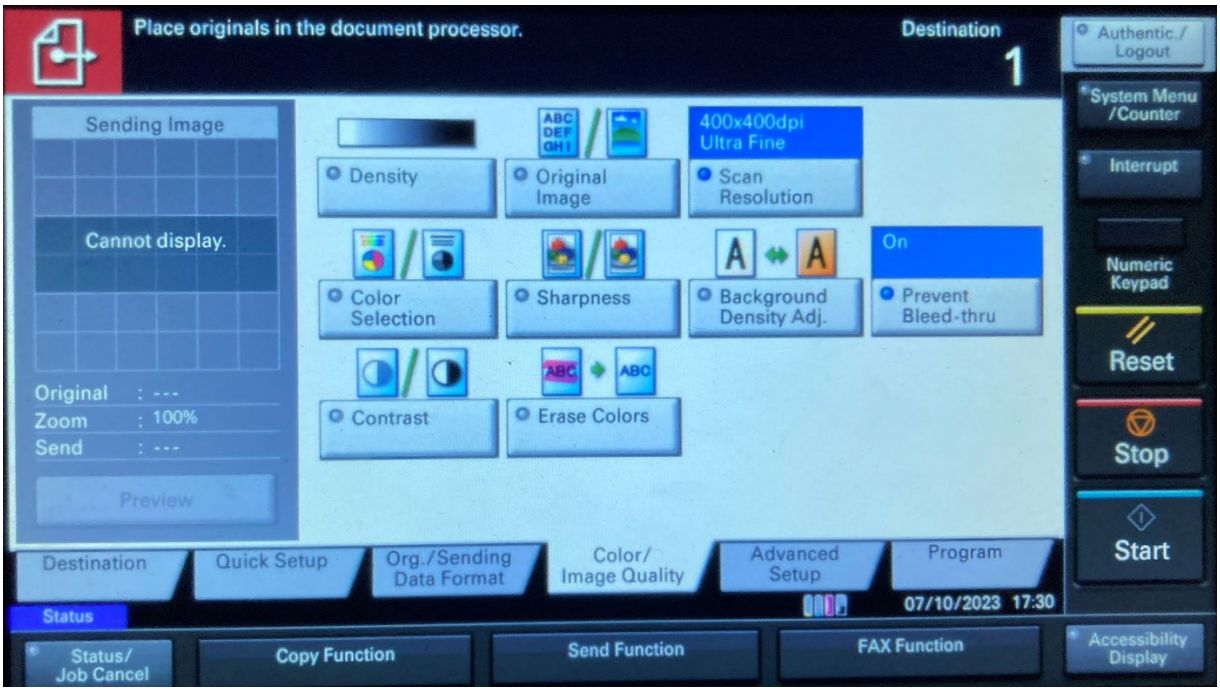
Scanning different sizes of paper. (8.5x11, 8.5x14, 11x14)



Color and shading qualities:



Other options you may find useful for better document quality:


Place originals in the document processor.
Destination
1
Authentic./ Logout
System Menu /Counter
Interrupt
Numeric Keypad
Reset
Stop
Start
Sending Image
Cannot display.
Original : ---
Zoom : 100%
Send : ---
Preview
Density
Original Image
400x400dpi Ultra Fine
Scan Resolution
Color Selection
Sharpness
Background Density Adj.
On
Prevent Bleed-thru
Contrast
Erase Colors
Destination
Quick Setup
Org./Sending Data Format
Color/ Image Quality
Advanced Setup
Program
07/10/2023 17:30
Status
Status/ Job Cancel
Copy Function
Send Function
FAX Function
Accessibility Display

Finally, to save time, create a program for each of your office's staff members. This should enable them to scan documents more quickly and easily.

Appendix B:

Scanning order for 602s and 608s

602

Certificate

Work Copy

Original Copy

Well Log

Owner Provided Info (map, COS, etc.)

Correspondence

Deeds

Property Record Card (first two pages)

Cadastral Map

Associated WR Flag (if applicable)

Associated Abstract(s)

608

608 Form

Acknowledgement of Ownership Update

Deed

First 2 pages of Property Record Card (this is for large parcels because if they split out, you may have to research previous COSs)

Appendix C:

Indexes for Scanned Documents:

The old indexes were 'file' and 'update to file,' we need to provide more options for users to better navigate the scanned documents and find what they are looking for. The options are listed below (1-13) and the subscripts provide examples of what you should put under these index titles. There will still be an 'update to file' index, this is not to be used as a junk drawer. All files that have a specific index need to be named and filed accordingly.

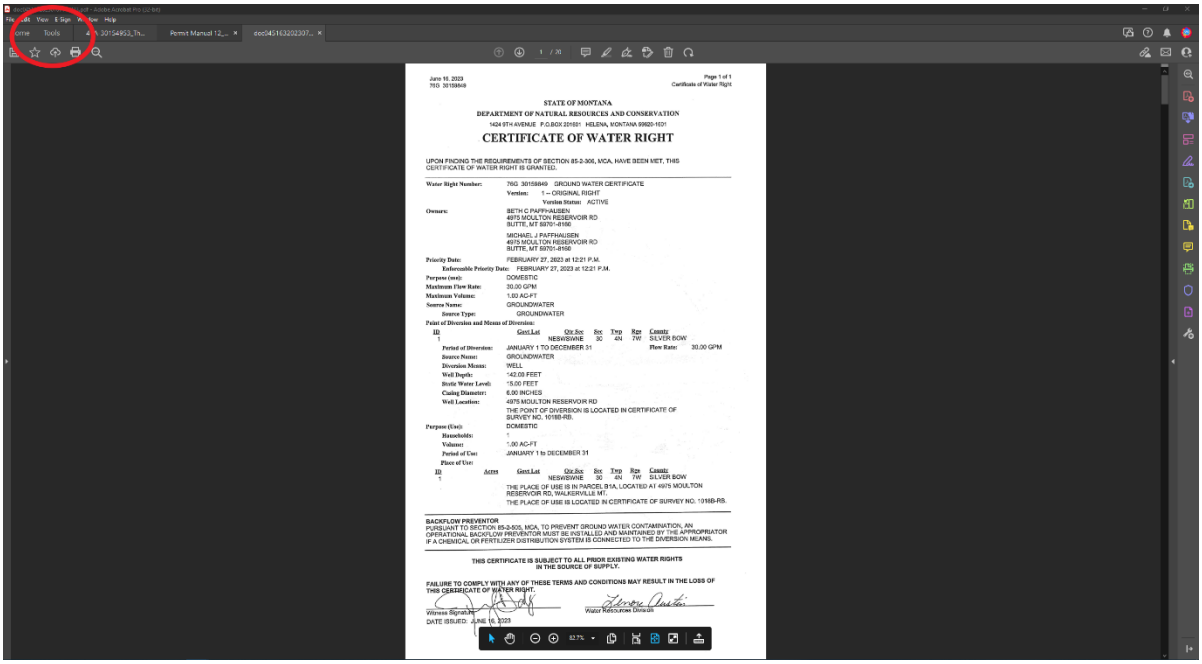
1. File
    a. Claim
    b. NA water right filing.
2. Project Completion
    a. Extension of Time Updates
    b. Verification
    c. Notice of Completion
3. Deactivation Update
    a. Withdrawal Form
    b. Expiration processing documents
        i. Expiration of temporary water right
        ii. Missed Project Completion Notice Deadline
    c. Denial of extension request
    d. Hearings Order
        i. Dismissal by Water Court
        ii. Withdrawal processed by Water Court
        iii. Revocation by Hearings Unit
    e. Terminations/Revocations/Cancellation/Dismissals
4. Renewal
    a. Form 626 renewal of temporary water right change and all processing documents
    b. Temporary change reissuance
5. Water Measurement
    a. Water measurement condition reporting – WM series forms
    b. Site Visit/Site Visit Investigation, if water measurement included and if added to water right file
6. Water Court Document
    a. Post Decree
    b. Temporary Decree
    c. Temp Preliminary Decree
    d. Preliminary Decree
    e. Returned Mail Certification
    f. Case/Reports
    g. Misc Updates
    h. Orders
    i. Final Decree
    j. Abstract
    k. Cover letter
7. Ground Water Controlled Area

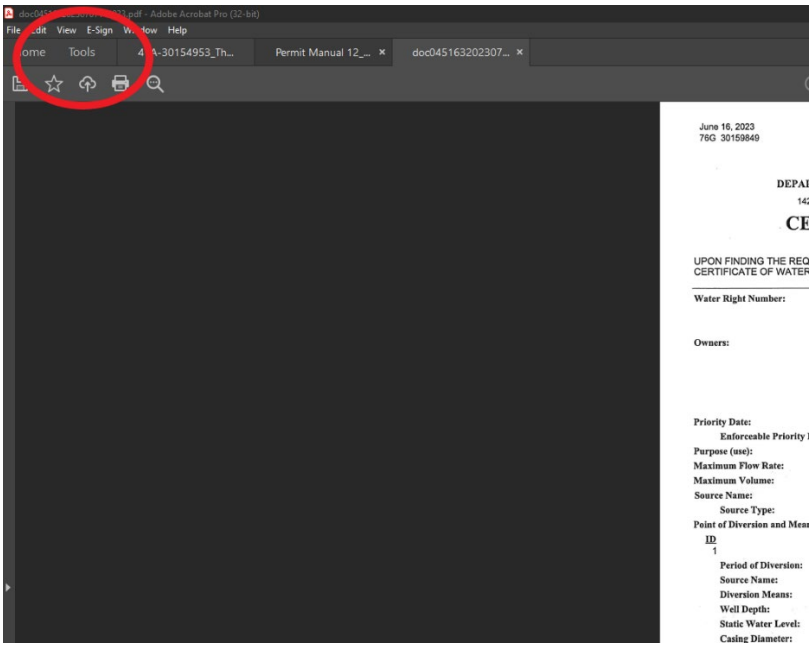
8. Adjudication Update
    a. Review Abstract/ claim exam
    b. Claimant contact
9. Ownership Update
10. Splits and Severs
11. Correction
    a. Form 625 Correction request form and processing documents
    b. Reissuance of water right certificates and processing documents based on a correction to an element
        i. Letter/email/owner request documentation
        ii. LODR – DOR update error correction – reissuance documentation via database auto-processing
    c. DOES NOT include temporary change renewal processing or projection completion notice processing documents
12. Update to file
    a. Water Court Return Mail updates
    b. Returned mail (misc mailings)
    c. All others that don't fully fit in another index
    d. Must not be used for anything that has a designated Index

Organizing Document and Removing Blank Pages

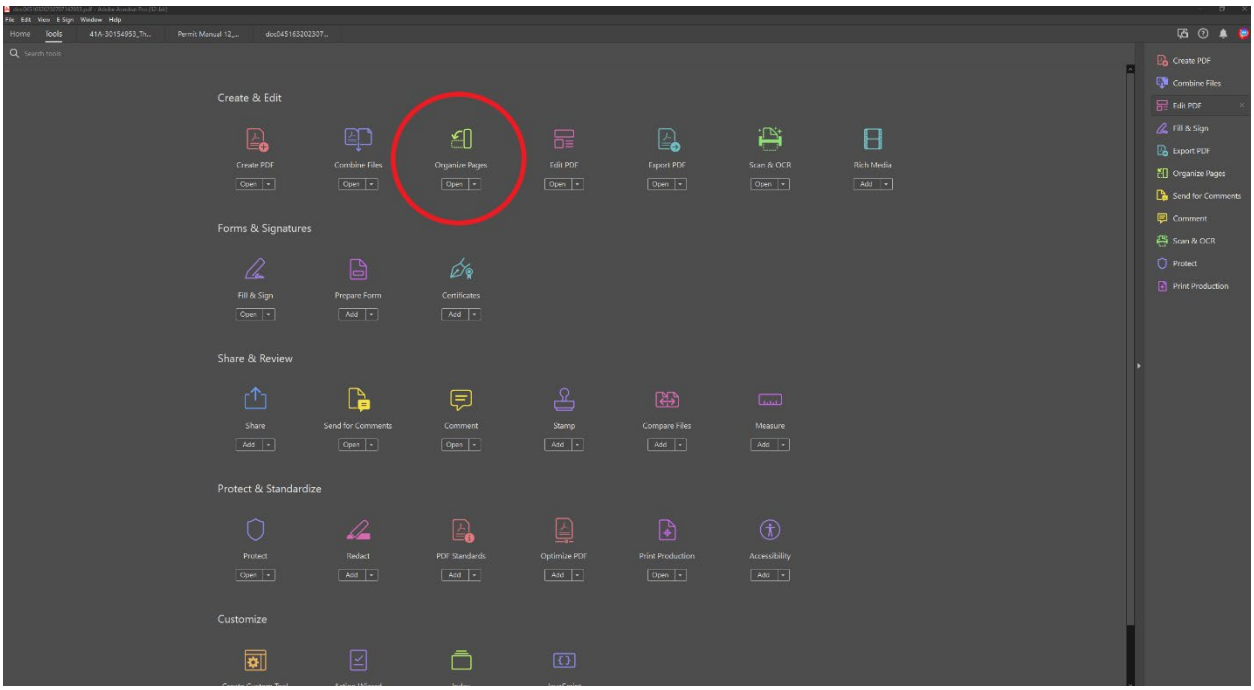
When you first open the scanned document in Adobe Pro it'll open to the base view where you can inspect the document for scanning errors.

My scan looks good, but I need to remove the blank pages. To do so, first click the tools box in the upper left corner.

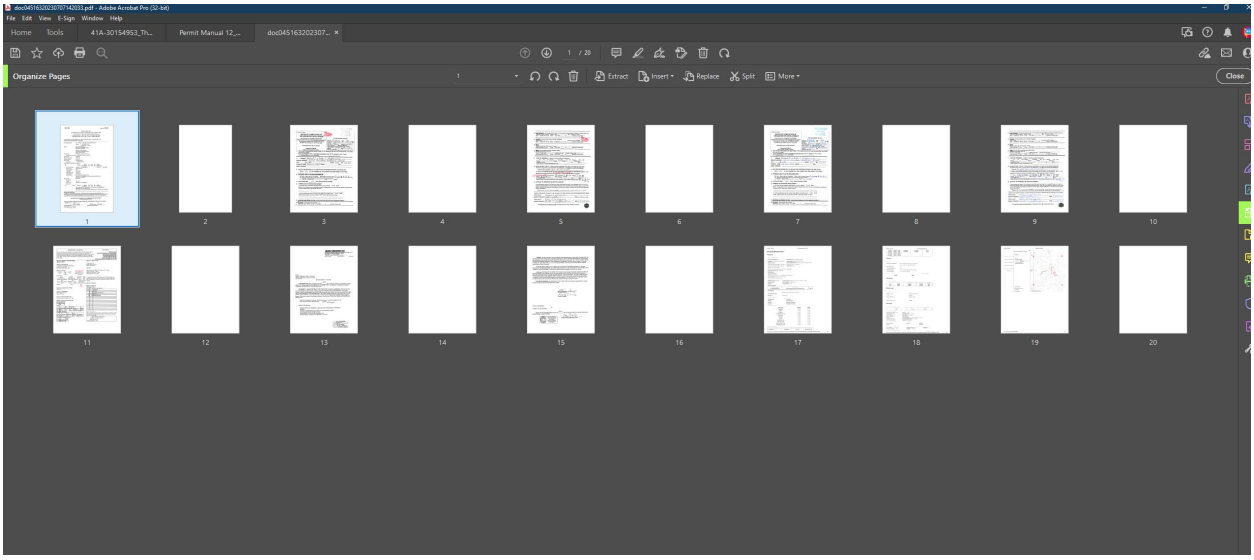




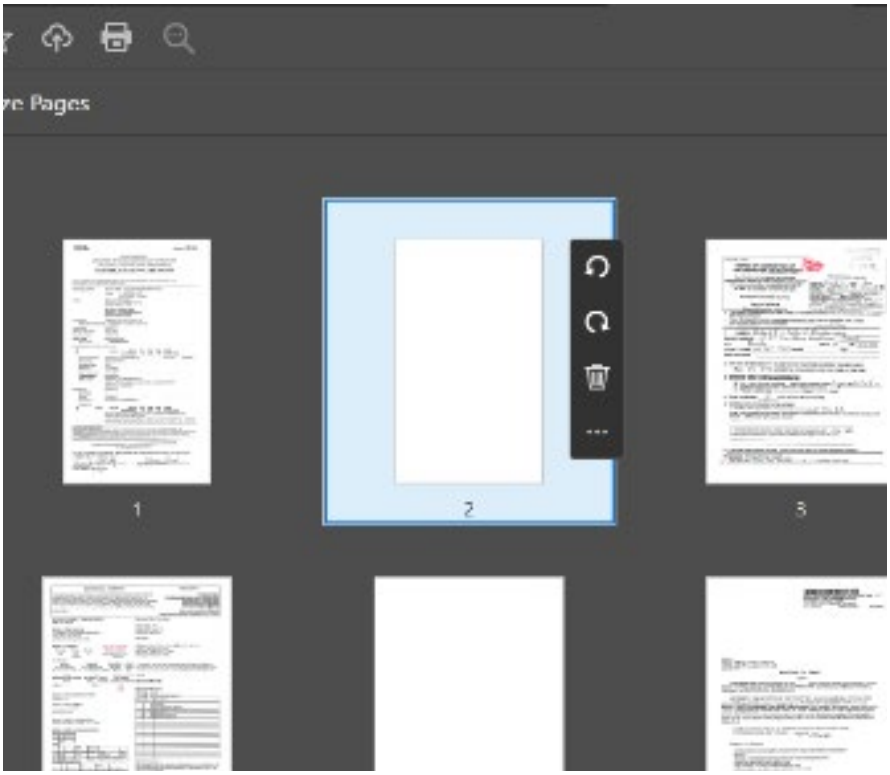
This will take you to the tools pane. It's encouraged that you explore this window as there are some powerful options available to you including doc signing, editing, document cleaning, and combining files (more on that below). After you're familiar with this software's capabilities, open the "Organize Pages" tool.



It should open your current document with all the pages laid out.

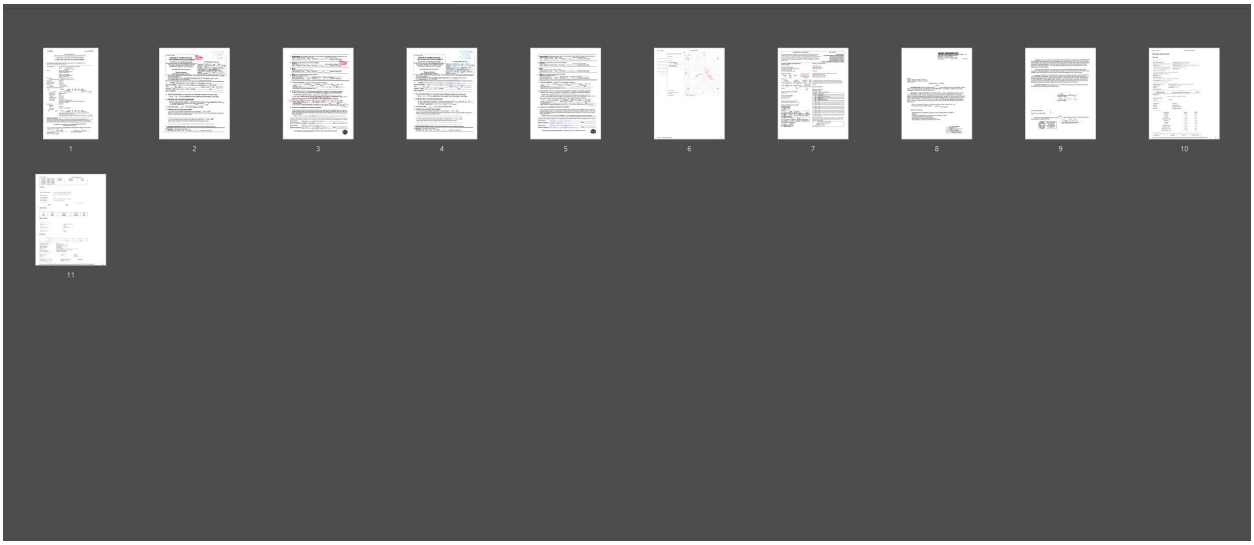


You'll notice that when you hover over a page there are options to rotate or delete it.

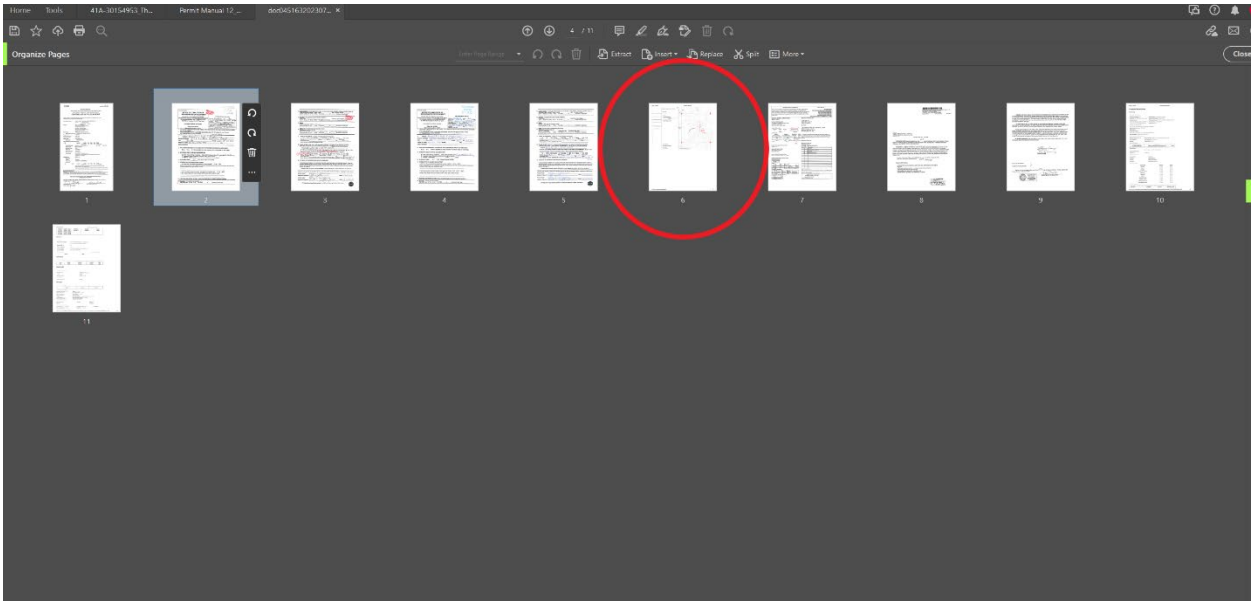


Rotate any maps/documents as needed, then delete all the blank pages.

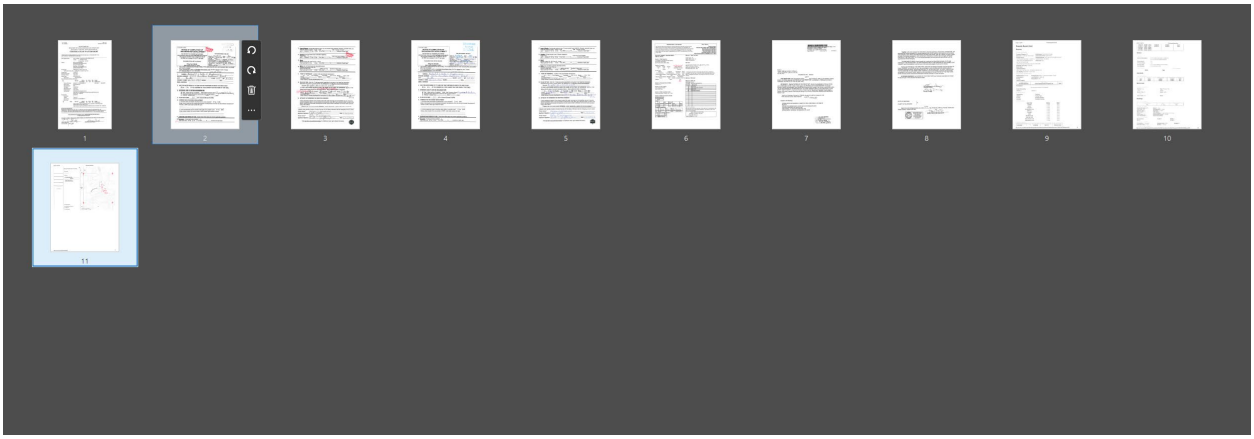
After all blank pages are gone, it should look like this:



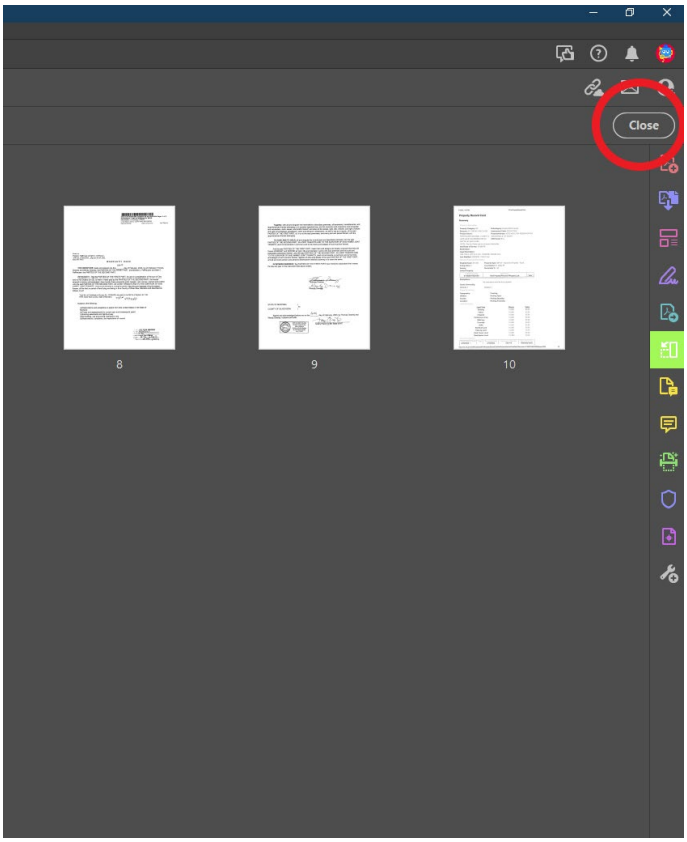
Oh no, it looks like I made a mistake when I scanned the folder in, the map ended up in the middle of the document rather than the end where we want it.



Luckly, this is a simple fix, just drag and drop the misplaced pages into their correct spot.



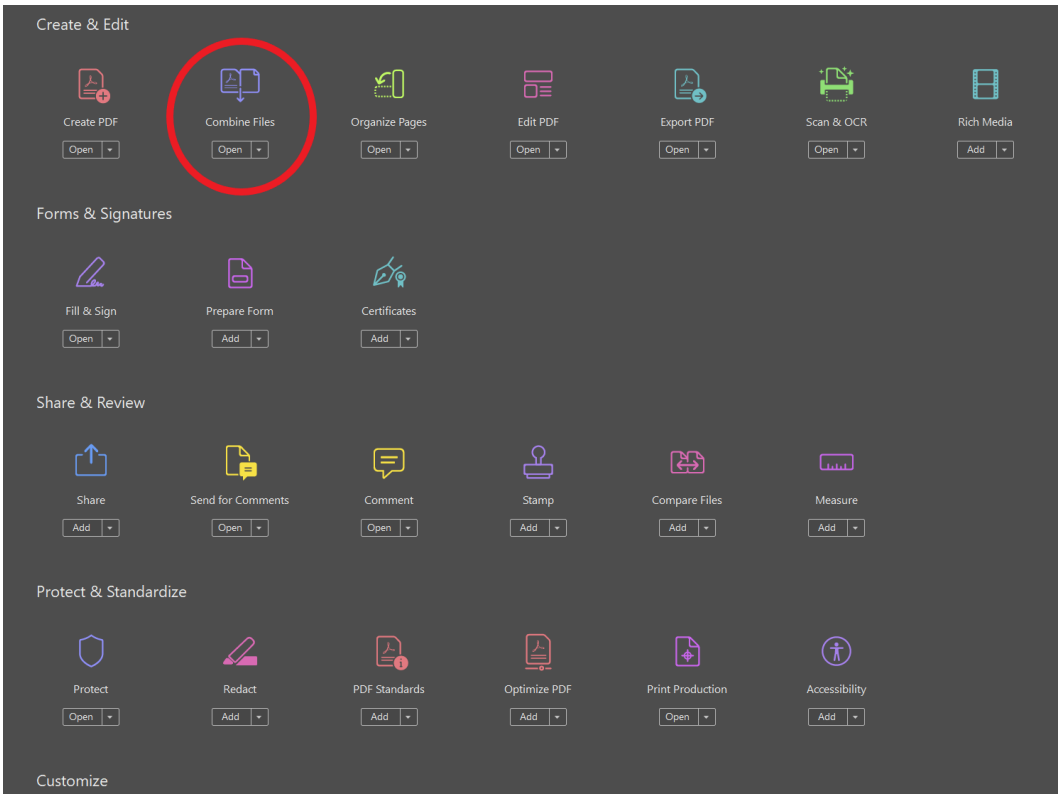
That's looking much better. Now close out of the "Organize Pages" tool using the button in the upper right corner:



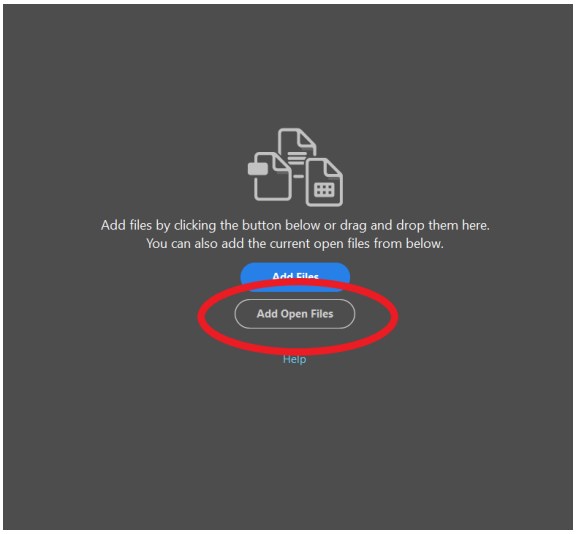
You should be all set to save the PDF in the required format and send it to your office's respective Records email.

Combining PDFS

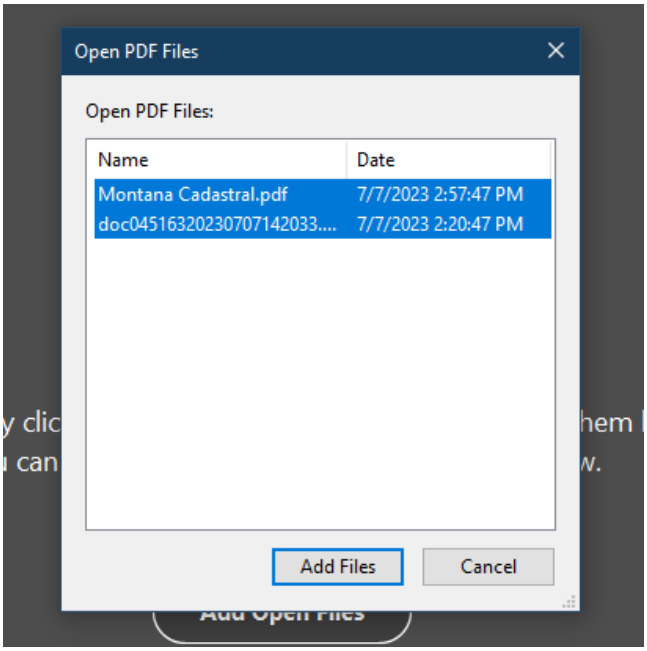
You might find it more efficient to merge PDFs rather than print them out then scan them in. Luckly merging PDFs is very simple in Adobe Pro. Open the tools tab again, but this time, instead of opening the “Organize Pages” tool, open the “Combine Files” tool.



Now it’ll ask if you would like to add files (using the file browser) or combined files that you already have open. Since I have the two documents I want to merge open, I’ll pick the latter.

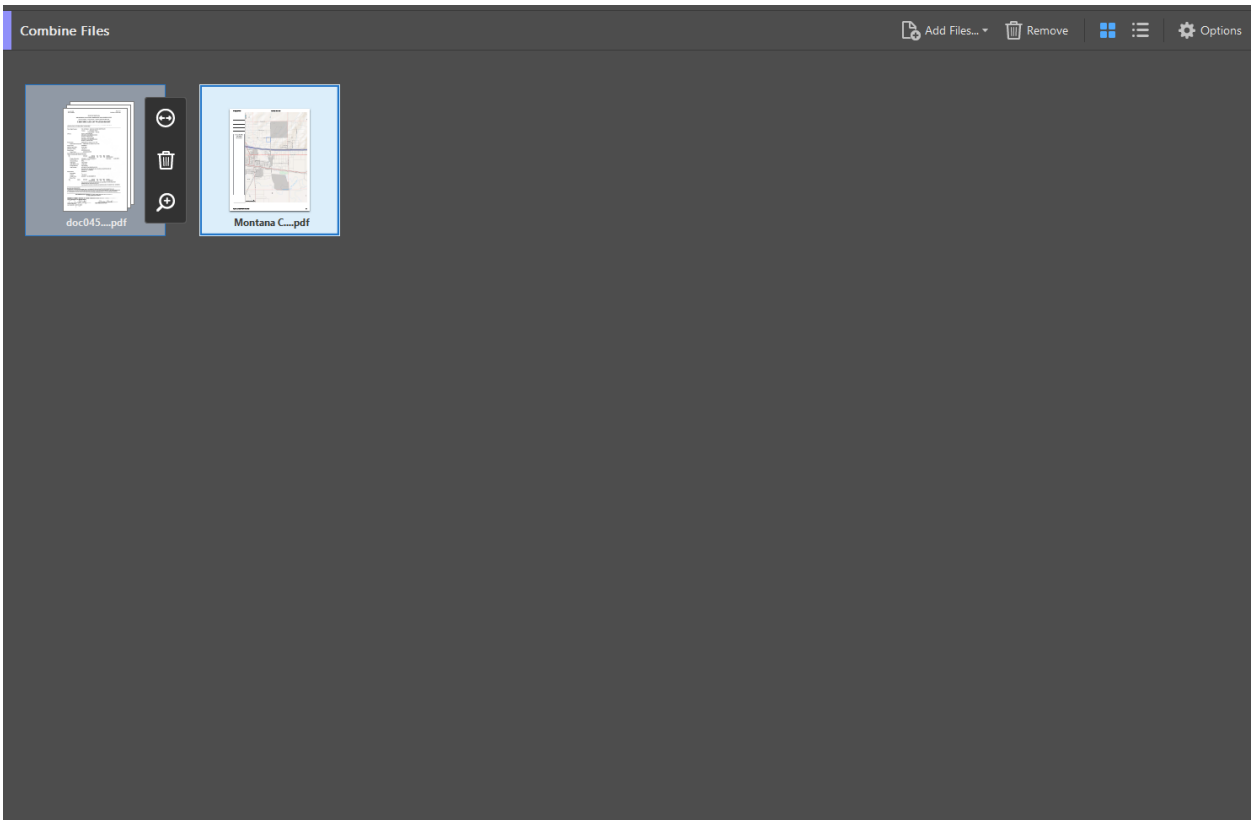


And select the two files I want to combine. And hit “Add Files”

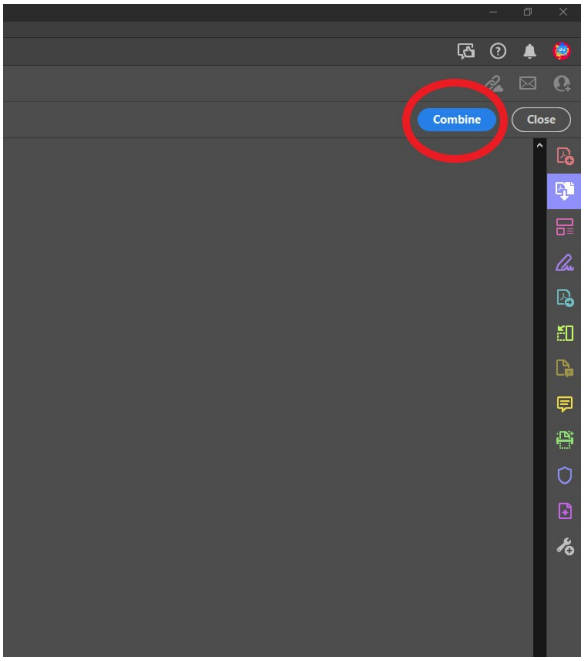


Now this page looks familiar. This looks (and functions) similar to the organize tool.

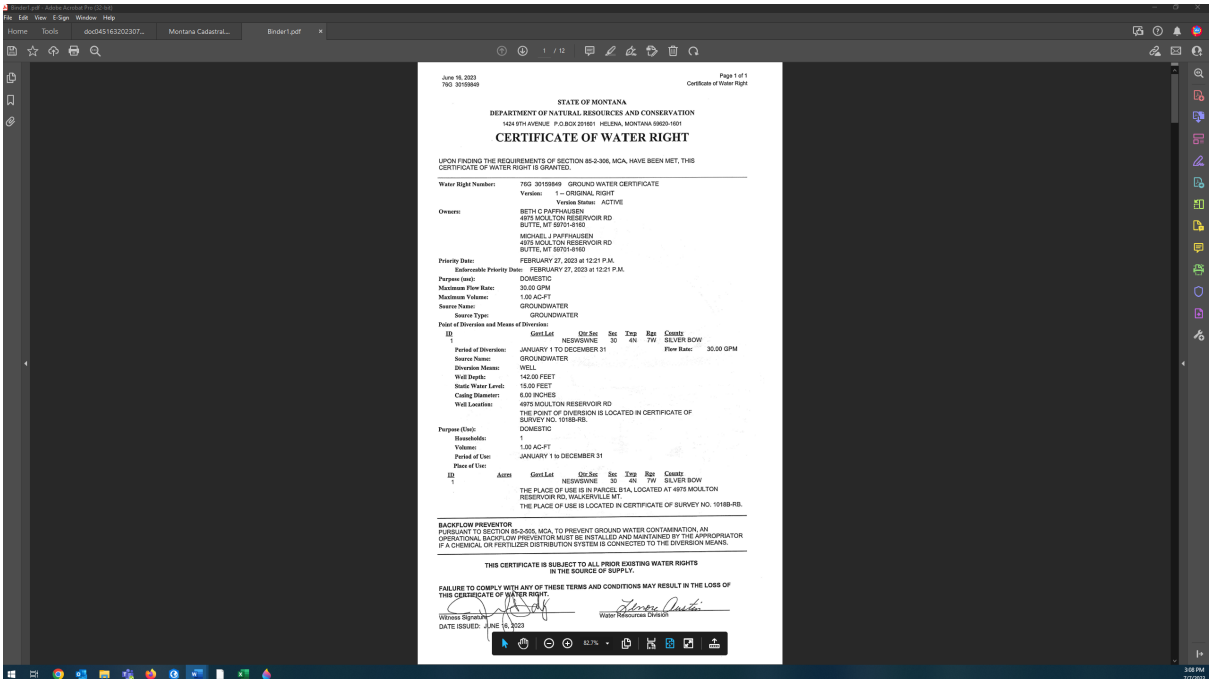
And again, it looks like I've managed to put my map in the wrong spot. Luckly for me, it's as easy as drag and drop.



Now that I'm happy with how this looks, I'll hit combined in the upper right corner.



Don’t forget to save the new document and rename the file. By default it will be named “Binder 1”



June 16, 2023
76G 30159849

Page 1 of 1
Certificate of Water Right

STATE OF MONTANA
DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION
1424 9TH AVENUE P.O.BOX 201601 HELENA, MONTANA 59620-1601

CERTIFICATE OF WATER RIGHT

UPON FINDING THE REQUIREMENTS OF SECTION 85-2-306, MCA, HAVE BEEN MET, THIS CERTIFICATE OF WATER RIGHT IS GRANTED.

Water Right Number: 76G 30159849 GROUND WATER CERTIFICATE
Version: 1 -- ORIGINAL RIGHT
Version Status: ACTIVE

Owners: BETH C PAFFHAUSEN
4975 MOULTON RESERVOIR RD
BUTTE, MT 59701-8160

MICHAEL J PAFFHAUSEN
4975 MOULTON RESERVOIR RD
BUTTE, MT 59701-8160

Priority Date: FEBRUARY 27, 2023 at 12:21 P.M.
Enforceable Priority Date: FEBRUARY 27, 2023 at 12:21 P.M.
Purpose (use): DOMESTIC
Maximum Flow Rate: 30.00 GPM
Maximum Volume: 1.00 AC-FT
Source Name: GROUNDWATER
Source Type: GROUNDWATER

Point of Diversion and Means of Diversion:

ID	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1		NESWSWNE	30	4N	7W	SILVER BOW

Period of Diversion: JANUARY 1 TO DECEMBER 31
Flow Rate: 30.00 GPM
Source Name: GROUNDWATER
Diversion Means: WELL
Well Depth: 142.00 FEET
Static Water Level: 15.00 FEET
Casing Diameter: 6.00 INCHES
Well Location: 4975 MOULTON RESERVOIR RD
THE POINT OF DIVERSION IS LOCATED IN CERTIFICATE OF SURVEY NO. 1018B-RB.

Purpose (Use): DOMESTIC
Households: 1
Volume: 1.00 AC-FT
Period of Use: JANUARY 1 to DECEMBER 31
Place of Use:

ID	Acres	Govt Lot	Qtr Sec	Sec	Twp	Rge	County
1			NESWSWNE	30	4N	7W	SILVER BOW

THE PLACE OF USE IS IN PARCEL B1A, LOCATED AT 4975 MOULTON RESERVOIR RD, WALKERVILLE MT.
THE PLACE OF USE IS LOCATED IN CERTIFICATE OF SURVEY NO. 1018B-RB.

BACKFLOW PREVENTOR
PURSUANT TO SECTION 85-2-505, MCA, TO PREVENT GROUND WATER CONTAMINATION, AN OPERATIONAL BACKFLOW PREVENTOR MUST BE INSTALLED AND MAINTAINED BY THE APPROPRIATOR IF A CHEMICAL OR FERTILIZER DISTRIBUTION SYSTEM IS CONNECTED TO THE DIVERSION MEANS.

THIS CERTIFICATE IS SUBJECT TO ALL PRIOR EXISTING WATER RIGHTS IN THE SOURCE OF SUPPLY.

FAILURE TO COMPLY WITH ANY OF THESE TERMS AND CONDITIONS MAY RESULT IN THE LOSS OF THIS CERTIFICATE OF WATER RIGHT.

Witness Signature
Water Resources Division

DATE ISSUED: JUNE 16, 2023

Great! Things are looking good and I’m ready to send this off to scanning!

DocuSign Envelope ID: 6746DBF3-0128-46DC-A9AB-1521A1383445

Montana Secretary of State
RECORDS AND INFORMATION MANAGEMENT
RM 3

RECORDS RETENTION SCHEDULE

☐ **New**

☒ **Modify**: Replaces Schedule Number 1

Schedule Number/Program Code	570634
Effective Date	11/14/2023
Total No. of Pages in This Schedule	1 of 1

Submitted By:
KarenDe Herman

Agency Name
Department of Natural Resources and Conservation

Program Name
Water Rights

Authorized Signature: **Date:**

In accordance with Sections 2-6-1109, MCA, a schedule of retention and destruction for the following records is hereby established. No records shall be retained, transferred, destroyed, or otherwise disposed of in violation of this schedule. The records covered by this schedule, unless deemed to have permanent value, shall upon expiration of the retention period be deemed to have no continuing use to the State of Montana. Unless otherwise specified in this schedule or unless the agency is aware of a pending case, claim or action; all records shall be destroyed within sixty (60) days after the period of retention set forth. This schedule becomes effective on the date recorded by the Records and Information Management Division in the above space. Prior to actual destruction of a Certificate of Records Disposal, RM-5 must be completed.

Approved by the Montana Historical Society:

Authorized Signature: DocuSigned by: Ricki Barstad A5064FF151AD4AC... Date: 11/14/2023

Approved by the Legislative Auditor:

Authorized Signature: DocuSigned by: Deborah Butler B23A7CE2584B40F... Date: 11/14/2023

Approved by the Department of Administration:

Authorized Signature: DocuSigned by: Yvette Englert 05E4351C4D31437... Date: 11/13/2023

Approved by the Attorney General:

Authorized Signature: DocuSigned by: LaRay Jenks E43803FE66594E2... Date: 11/13/2023

Approved by the Secretary of State:

Authorized Signature: DocuSigned by: Andy Ritter E521FD6AE6724D4... Date: 11/14/2023

Item Number	Form/ Report Number	Records Series Title (A Full Description of Each Item on Form RM-1 Must Accompany This Schedule)	Essential	How Retained		Retention (In Years)			Final Agency	State Record Committee
			Record	July-June	January-December	Office	Storage	Total	Disposition Toss/Shred/Delete	Disposition Requirements
1	NA	New Appropriations - Official Electronic	☒	☐	☒	30 days	100	100	Offer to State Archives - RM5 required	
1A	NA	New Appropriations - Historical Paper Pre-2023	☐	☐	☒	2 years	100	102	Offer to State Archives - if declined, agency must retain	
2	ADJ	Adjudication - Official Electronic	☒	☐	☒	30 days	100	100	Offer to State Archives - RM5 required	
2A	ADJ	Adjudication - Historical Paper Pre-2023	☐	☐	☒	2 years	100	102	Offer to State Archives - If declined, agency must retain	
			☐	☐	☐					
			☐	☐	☐					

The State Records Committee (SRC) has designated all records marked as "No RM5 Required" **will not require approval from the SRC prior to destruction**. If the 'Disposition' above lists "**Offer to State Archives**" **you must contact the Historical Society at 444-7427 or ASparks@mt.gov *before disposing.***

IF disapproved, refer to attached "Exception Report.

E-mail completed form to SOSRecords@mt.gov

DocuSign Envelope ID: 6746DBF3-0128-46DC-A9AB-1521A1383445

Item Number	Form/ Report Number	Records Series Title (A Full Description of Each Item on Form RM-1 Must Accompany This Schedule)	Essential	How Retained		Retention (In Years)			Final Agency	State Record Committee
			Record	July-June	January-December	Office	Storage	Total	Disposition Toss/Shred/Delete	Disposition Requirements
			☐	☐	☐					
			☐	☐	☐					
			☐	☐	☐					
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Item Number	Form/ Report Number	Records Series Title (A Full Description of Each Item on Form RM-1 Must Accompany This Schedule)	Essential	How Retained		Retention (In Years)			Final Agency	State Record Committee
			Record	July-June	January-December	Office	Storage	Total	Disposition Toss/Shred/Delete	Disposition Requirements
			☐	☐	☐					
			☐	☐	☐					
			☐	☐	☐					
			☐	☐	☐					
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The State Records Committee (SRC) has designated all records marked as “No RM5 Required” **will not require approval from the SRC prior to destruction**. If the ‘Disposition’ above lists “**Offer to State Archives**” **you must contact the Historical Society at 444-7427 or ASparks@mt.gov *before disposing.***

IF disapproved, refer to attached "Exception Report.

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Montana Secretary of State
Records and Information Management
RECORD SERIES PROFILE

RM 1

1. AGENCY CREATING RECORD
Agency Name:Dept of Natural Resources and Conservation
Program Name:Water Rights
Program Code:570634
Item Number of Series:2

2. RECORD SERIES TITLE
Adjudication - Official Electronic

3. AGENCY CONTACT
Name: KarenDe Herman E-mail : kdherman@mt.gov Phone: 406-444-5581

4. SERIES DESCRIPTION
Type: ☒ Legal ☐ Correspondence ☐ Financial ☐ Forms ☐ Medical ☐ Subject ☒ Other-Explain Water Rights

Format: ☐ Paper ☒ Electronic ☐ Both ☒ Other-Explain We currently have these in paper, electronic scanned document storage, and in the Water Rights Information System database.

Essential Record: ☒ Yes ☐ No

Content: Changes or updates to pre-1973 water rights.

5. LAWS OR POLICIES GOVERNING RETENTION:
85-2-101

6. RETENTION CYCLE
☒ Calendar Year
☐ Fiscal Year

7. RETENTION IN YEARS
(*Retention starts at End Event)*

Office: 30 days

Storage: 100

Total: 100

8. FINAL DISPOSITION
☐ Agency Archives
☐ Delete
☐ Image & Destroy
☐ Image & Retain
☐ Incinerate
☐ Microfilm & Destroy
☐ Microfilm & Retain
☒ Offer to Historical Society Archives
☐ Offer to State Library
☐ Shred as Classified
☐ Toss without Restriction
☐ Other: Explain

9. COMMENTS :
Adjudication changes and updates to files are captured in scanned documents and on the Water Right Information System database. The costs of filing and storage of the paper copy is expensive and unnecssary given the Legislative Audit found that the WRIS is more up to date and complete and that 95% of all water rights are scanned. In accordance with DNRC's migration plan, adjudication files will now be maintained electronically as the official files.

10. SIGNATURE OF PREPARER

Typed E-Signature and Title: KarenDe Herman, Records Manager

11. Date: 11/9/2023

Email Completed form to SOSRecords@mt.gov along with the RM3 Retention Schedule Form

DocuSign Envelope ID: 6746DBF3-0128-46DC-A9AB-1521A1383445

Montana Secretary of State
Records and Information Management
RECORD SERIES PROFILE

RM 1

1. AGENCY CREATING RECORD
Agency Name:Dept of Natural Resources and Conservation
Program Name:Water Rights
Program Code:570634
Item Number of Series:2A

2. RECORD SERIES TITLE
Adjudication - Historical paper pre-2023

3. AGENCY CONTACT
Name: KarenDe Herman E-mail : kdherman@mt.gov Phone: 406-444-5581

4. SERIES DESCRIPTION
Type: ☒ Legal ☐ Correspondence ☐ Financial ☐ Forms ☐ Medical ☐ Subject ☒ Other-Explain Water Rights

Format: ☒ Paper ☐ Electronic ☐ Both ☒ Other-Explain We currently have these in paper, electronic scanned document storage, and in the Water Rights Information System database.

Essential Record: ☒ Yes ☐ No

Content: Changes or updates to pre-1973 water rights.

5. LAWS OR POLICIES GOVERNING RETENTION:
85-2-101

6. RETENTION CYCLE
☒ Calendar Year
☐ Fiscal Year

7. RETENTION IN YEARS
(*Retention starts at End Event)*

Office: 2 years

Storage: 100

Total: 102

8. FINAL DISPOSITION
☐ Agency Archives
☐ Delete
☐ Image & Destroy
☐ Image & Retain
☐ Incinerate
☐ Microfilm & Destroy
☐ Microfilm & Retain
☒ Offer to Historical Society Archives
☐ Offer to State Library
☐ Shred as Classified
☒ Toss without Restriction
☐ Other: Explain

9. COMMENTS :
Adjudication changes and updates to files are captured in scanned documents and on the Water Right Information System database. The costs of filing and storage of the paper copy is expensive and unnecssary given the Legislative Audit found that the WRIS is more up to date and complete and that 95% of all water rights are scanned. These original historic water right files will remain in private contracted storage or be offered to the archives.

10. SIGNATURE OF PREPARER

Typed E-Signature and Title: KarenDe Herman, Records Manager

11. Date: 11/9/2023

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Montana Secretary of State
Records and Information Management
RECORD SERIES PROFILE

RM 1

1. AGENCY CREATING RECORD
Agency Name:Dept of Natural Resources and Conservation
Program Name:Water Rights
Program Code:570634
Item Number of Series:1

2. RECORD SERIES TITLE
New Appropriations - Official Electronic

3. AGENCY CONTACT
Name: KarenDe Herman E-mail : kdherman@mt.gov Phone: 406-444-5581

4. SERIES DESCRIPTION
Type: ☒ Legal ☐ Correspondence ☐ Financial ☐ Forms ☐ Medical ☐ Subject ☒ Other-Explain Water Rights

Format: ☒ Paper ☐ Electronic ☒ Both ☐ Other-Explain

Essential Record: ☒ Yes ☐ No

Content: Application for permit for new or additional water developments.

5. LAWS OR POLICIES GOVERNING RETENTION:
85-2-101

6. RETENTION CYCLE
☒ Calendar Year
☐ Fiscal Year

7. RETENTION IN YEARS
(*Retention starts at End Event)*

Office: 2

Storage: 100

Total: 102

8. FINAL DISPOSITION
☐ Agency Archives
☐ Delete
☐ Image & Destroy
☐ Image & Retain
☐ Incinerate
☐ Microfilm & Destroy
☐ Microfilm & Retain
☒ Offer to Historical Society Archives
☐ Offer to State Library
☐ Shred as Classified
☐ Toss without Restriction
☐ Other: Explain

9. COMMENTS :
Updates to and new applications for New Appropriation (post-1973) water rights are captured in scanned documents and on the Water Right Information System database. The costs of filing and storage of the paper copy is expensive and unnecssary given the Legislative Audit found that the WRIS is more up to date and complete and that 95% of all water rights are scanned. Scanned documents are stored permanently and held as uneditable master copies. This allows for the change designating the electronic record to be the official, essential record.

10. SIGNATURE OF PREPARER

Typed E-Signature and Title: KarenDe Herman, Records Manager

11. Date: 11/9/2023

Email Completed form to SOSRecords@mt.gov along with the RM3 Retention Schedule Form

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Montana Secretary of State
Records and Information Management
RECORD SERIES PROFILE

RM 1

1. AGENCY CREATING RECORD
Agency Name:
Program Name:Water Rights
Program Code:570634
Item Number of Series:1A

2. RECORD SERIES TITLE
New Appropriations - Historical paper pre-2023

3. AGENCY CONTACT
Name: KarenDe Herman E-mail : kdherman@mt.gov Phone: 406-444-5581

4. SERIES DESCRIPTION
Type: ☒ Legal ☐ Correspondence ☐ Financial ☐ Forms ☐ Medical ☐ Subject ☒ Other-Explain Water Rights

Format: ☐ Paper ☐ Electronic ☒ Both ☒ Other-Explain We currently have these in paper, electronic scanned document storage, and in the Water Rights Information System database.

Essential Record: ☒ Yes ☐ No

Content: Application for permit for new or additional water developments.

5. LAWS OR POLICIES GOVERNING RETENTION:
85-2-101

6. RETENTION CYCLE
☒ Calendar Year
☐ Fiscal Year

7. RETENTION IN YEARS
(*Retention starts at End Event)*

Office: 30 days

Storage: 100

Total: 100

8. FINAL DISPOSITION
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☐ Shred as Classified
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☐ Other: Explain

9. COMMENTS :
Updates to and new applications for New Appropriation (post-1973) water rights are captured in scanned documents and on the Water Right Information System database. The costs of filing and storage of the paper copy is expensive and unnecssary given the Legislative Audit found that the WRIS is more up to date and complete and that 95% of all water rights are scanned. Scanned documents are stored permanently and held as uneditable master copies. These original paper historic water right files will remain in private contracted storage or be offered to the archives.

10. SIGNATURE OF PREPARER

Typed E-Signature and Title: KarenDe Herman, Records Manager

11. Date: 11/9/23

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Water Rights Information System (WRIS) and Adjudication: Stakeholder Questions and Roadmap for Implementation

TAB 4: Water Court Reports & Needs

Concerns	DNRC Actions and Associated Documents	Next steps and timelines (if blank- DNRC is not aware of any additional actions needed)
Water Court Reports & Needs		
– Water Court concern that the enhancements they requested are not being met, or not met in a timely manner	– New Water Court punch list	DNRC will continue to work on and track all progress on comprehensive list of requests (WC punch list).

If concerns are not identified in this table, please reach out to DNRC directly:

- Other Water Division concerns: Trevor Watson (trevor.watson2@mt.gov) and Anna Pakenham Stevenson (anna.pakenhamstevenson@mt.gov)

5.17.2024 New Water Court Punchlist

	Water Court Request	Description	Notes	Status	Timeline for completion
Contractor					
1	Misc. Report- Claims by representative. In the test database, information is available, but not in report form.	Created Claims by Representative report story and the accompanying trigger story to run the report. Moved to ready for development on 4/17/24.	DNRC's Contractor will continue to build.	In progress	DNRC Contractor currently working on CSKT Interface build, but will fit these in as it can be. CSKT build is to be finalized in August. DNRC can provide all work here for WC in the interim. End 2024
2	Misc. Report- The ability to run a report showing claims by owner.	Susan met with Sara to discuss this request. Contractor will create a report and trigger story.	DNRC's Contractor will continue to build.	In progress	
3	Misc. Report- The ability to run a report identifying claims on a source.	Story development meetings with RESPEC and the Water Court are being set up.	DNRC's Contractor and WC to set up meetings.	In progress	
4	Misc. Report- Removal of remarks in bulk	Story development meetings with RESPEC and the Water Court are being set up.	DNRC's Contractor and WC to set up meetings.	In progress	
5	Misc. Report- Claims in closed cases but no operating authority dates	Contractor created story for report and trigger to run it, moved to ready for development on 4/16/2024.	DNRC's Contractor will continue to build.	In progress	
6	Misc. Report- Add/update elements associated with remarks and Run report of non-standard remarks	4/18/2023 meeting decided there is a need to evaluate more on process and work associated as the return on investment for the add/update may not be there (per Sara). Will re-evaluate later. The report may be done by creating own report or adding to all remarks report. More discussion is necessary to find best option. Contractor will write up a story for development once a direction is decided.	DNRC and WC agreed to combine these two asks and will continue to evaluate the add/update while working on a report for the non-standard remarks. The report was prioritized by WC.	In Progess	
DNRC WORK					
7	Scanned docs are not organized, labeled properly, and not searchable	Scanned documents are organized by date they were uploaded for all water rights and viewable using the WRQS. DNRC increased the labeling options for all documents scanned since August 2023, not historic documents at this time (2025 Legislative ask). WC picked the name for their documents within the options provided (Water Court Document). Scanned documents are searchable by water right using WRQS.	DNRC is aware more can be done with Scan docs and is working with SITSD for solutions. Water Court is providing a list of possible improvements. DNRC will continue consultation wth SITSD to see if things can be further improved.	In progress	TBD
8	The ability to make changes to decree issuance documents	There are very few documents that are still created from the database, however the ones that are need occasional alterations (CounterObj Notice and modified Notices).	DNRC needs to get a better understanding of this request. There is only one document that is still created from the database - the counter objection notice. Sara to send examples	In Progress	End of 2024
9	Create and run tabulation reports using the database	DNRC is improving the distribution workflow and products. Time is needed to evaluate whether the improvements resolve this request. DNRC and WC will evaluate this Fall.	WC and DNRC are committed to revisiting this in the fall of 2024.	To address this Fall	Fall of 2024
10	Inconsistency with abstracts between WC orders (post decree) and query system	Final Decrees versions are available on the WRQS as they existed on the date of issuance in pdf format in scanned documents. In October 2023, DNRC deployed the version table as requested by stakeholders. The WRQS currently pulls the general abstract, not the final decree abstract. The final decree is not available as a live report - only availble the day it was issued and doesn't reflect ownership changes.	Sara, Anna, and Trevor met about this and agree a long term solution needs to be found. DNRC is hosting a work session with users on 5/23/2024 to define needs of abstracts within the WRQS.	Stakeholder feedback	Stakenholder meeting on 5/23/2024 to better understand stakeholder needs; Comprehensive Wtaer Reivew will have policy recommendations for the 2025 session; no changes to the WRQS system on this until after 2025 Session.
11	Report of changes to claims in a decree, and tracking or reporting of modification to water rights in the database	System doesn't currently allow for this as described; no funding; audit recommendation. Added to the WC Punchlist 2025 Legislative Ask on 5/26/2023.	This is a priority for both WC and DNRC.	2025 legislative request	2025
Completed Work					
12	The ability to modify or archive issue and information remarks	This hasn't been an issue in a long time, plus the re-exam overhaul should reolve any remaining issues.	No work being done on this, capturing for awareness. WC agrees nothing needs to be done at this time.	Complete; included for awareness incase something changes.	
13	The ability to run a report showing any specific remarks	This should be resolved by having redundancy and less errors in general with re-exam overhaul.	No work being done on this, capturing for awareness. WC agrees nothing needs to be done at this time.	Complete; included for awareness incase something changes.	
14	Bulk add of operating authority dates	With the autopopulation of operating authority dates when closing a case, this should no longer be an issue.	No work being done on this, capturing for awareness. WC agrees nothing needs to be done at this time.	Complete; included for awareness incase something changes.	

5.17.2024 New Water Court Punchlist

Water Court Request		Description	Notes	Status	Timeline for completion
15	Reports the WC relies on change or break with no notice to the WC, often causing inconsistencies, report errors, and delays.	Reports creation start as story sessions to best understand what is needed; the WC participates in these when they are relevant to the WC. When they are built, the WC and DNRC test the reports before deployment. Last, once deployed the report is not changed unless a known issue is found, additional work is done and a redeployment happens. A break would occur when the WC tries to run the report by clicking on the "trigger." Triggers to reports can at times have issues if something else was worked on that has some relationship with the trigger. This happens because DNRC continues to work with the contractor to build out additional functionally internally and for the water court. This doesn't happen often, but if and when it does, DNRC works with the contractor to resolve it as fast as possible. Last – There are times when we have deployed reports and then they weren't used for numerous weeks to months, when they are used another issue may be found that wasn't identified or tested during the build. This is unfortunate and not what anyone wants to happen, but it does. When identified, DNRC and the contractor resolve the issue as fast as possible. We consistently work with the WC to test deployments and reports to ensure reports are generated correctly and meet their needs.	Today it is not an issue. The DNRC commits to prioritizing things that halt WC work and try to resolve issues manually or expidite contractor work to keep WC moving on work.	Complete; included for awareness incase something changes.	
16	Correct versioning problem	WC agreed to review once a final decree has been released and it is verified that it is fixed (this was language developed and agreed to by Sara and Trevor). Added to the WC Punchlist Past Issues Identified/No Current Work Identified on 5/26/2023.	This can't be tested until a final decree is issued. There is currently no work scheduled, DNRC and WC will monitor and address any unforseen issues if they arise as Final Decrees are issued. Both agree to work on this at that time.	Completed on 5/26/2023	
17	Programming changes that alter water rights decreed or modifications ordered by the WC, with no notice to the WC (e.g., 41M remarks)	This was not a programming change issue, it was a platform change issue that wasn't identified until recently. Remarks with over 4000 characters are being dropped from reports. There were 5 remarks of 1.5 million total remarks impacted. No language was changed, and this solution was approved by the WC.	Complete - DNRC agrees to better communicate any known issues or newly developed issues that may impact WC documents or work.	Completed on 2/8/2024	
18	Grant WC permissions immediately	DNRC updated all Water Court Permissions as requested and there are no current problems.		Completed by 2/1/2023	
19	Update internal DNRC permissions so water rights cannot be changed.	Internal permissions have been updated. This was discussed at the WC meeting held at DNRC 4/12/2023. Added to the WC Punchlist Past Issues Identified/No Current Work Identified on 5/26/2023. There has not been any identified issues on this in the past year.		Completed on 4/12/2023	
20	No one in the Department has authority to modify a water right decreed by the court.	DNRC has messaged, trained, and included this in new guidance documents. This was discussed at the WC meeting held at DNRC 4/12/2023. Added to the WC Punchlist Past Issues Identified/No Current Work Identified on 5/26/2023. No other modifications have been brought to our attention.		Completed on 4/12/2023	
21	Provide timely responses to WC requests and do it without modification.	DNRC have ensured staff are providing timely data without modification. This was discussed at the WC meeting held at DNRC 4/12/2023. Added to the WC Punchlist Past Issues Identified/No Current Work Identified on 5/26/2023.		Completed on 4/12/2023	
22	No actual lock/security block of modifications to claims without approval from WC	There are locks on basins when they hit an event that merits locking – the lock is based on permissions and the permissions only include WC staff and select DNRC staff. This was discussed at 4/12/23 meeting with the WC at DNRC. Added to the WC Punchlist Past Issues Identified/No Current Work Identified on 5/26/2023. Additional training and guidance for staff was provided regardless of locks after the meeting. Additional items may be identified in the QA/QC strategy (2025 ask for rebuild)		Completed on 4/12/2023	
23	Removal/deletion of versions created in error	Decision made by WC and DNRC to not proceed on 4/27/23, since there is potential to erase DNRC work. WC can delete post-decree created in error.		Completed on 4/27/23	
24	Interlocutory Decree Mailing Labels	Final Decree Package item complete and deployed on 5/05/23.		Completed on 5/5/2023	
25	Spreadsheets [reports] of info and issue remarks	DTFP-2136 Decree Issue and Information Remarks Excel Report SSRS Deployed 6/22/2023		Completed on 6/22/2023	
26	Objection Notice	Final Decree Package item complete and deployed on 6/26/23.		Completed on 6/26/2023	
27	Interlocutory Decree Mailing List	Final Decree Package item complete and deployed on 8/31/23.		Completed on 8/31/2023	
28	OWNINDX_FINAL.RDF	Final Decree Package item complete and deployed on 8/31/23.		Completed on 8/31/2023	
29	SRCINDX_FINAL.RDF	Final Decree Package item complete and deployed on 8/31/23.		Completed on 8/31/2023	

5.17.2024 New Water Court Punchlist

Water Court Request		Description	Notes	Status	Timeline for completion
30	WTDIDINDX_FINAL.RDF	Final Decree Package item complete and deployed on 8/31/23. This won't match the enforcement Index that was just created, but WC and DNRC don't see a current problem with this.		Completed on 8/31/2023	
31	Final Decree Mailing Labels	Final Decree Package item complete and deployed on 8/31/23.		Completed on 8/31/2023	
32	FINAL Decree Mailing List	Final Decree Package item complete and deployed on 8/31/23.		Completed on 8/31/2023	
33	POD Sorting Development	POD sorting rules deployed on 8/31/23 state no automatic sorting for any Water Court adjudication water rights (manual only if user has permissions). NA will still allow auto-sorting and have limited permissions only to NA water rights.		Completed on 8/31/2023	
34	Final Decree Tabulation	Included in the final decree package table above and deployed 8/31/2023.		Completed on 8/31/2023	
35	Remove “deceased” from addresses in the database.	Check box in interface disabled, DNRC cleaned database (11/1/2023). Added to the WC Punchlist Past Issues Identified/No Current Work Identified on 12/01/2023.		Completed on 11/1/2023	
36	Indexes (missing type of historical right)	The source index is a report that looks different for final decree and reports issued prior to final (historic right is on the pre-final, not on the final). For the pre-final report, it was noted that Historical Right wasn’t present during testing, therefore it was added back and was released for deployment 12/28/23. The December deployment was one of the large deployments DNRC has done and this report was missing. Once identified by the WC (1/16/24), we redeployed the report on (1/25/24). There were basins with the indexes missing historic rights online, DNRC corrected 3 basins prior to the objection deadline.		Completed on 1/25/2024	
37	Inconsistencies between reports run by DNRC OIT vs. what is available to WC in database	DNRC with the contractor is building out reports for all to use. When there have been differences, it is because prior to a standard report being built, to be used by all, it was coming from OIT oracle report builder. The reason for building reports was for one source where multiple users could access them. The release of the Decree Reports Package 1/25/2024 resolves this. No current examples or issues at this time.		Completed on 1/25/2024	
38	Run final decree abstracts /Run decree abstracts.	Additional time was required due to Contract for Deed reconfiguration (WC and DNRC request). Final Decree Package item complete and deployed on 1/25/2024.		Completed on 1/25/2024	
39	Counter Objection Notice	Final Decree Package item complete and deployed on 1/25/24.		Completed on 1/25/2024	
40	Decree Prelim/Interlocutory	Additional time was required due to Contract for Deed reconfiguration (WC and DNRC request). Final Decree Package item complete and deployed on 1/25/2024.		Completed on 1/25/2024	
41	Decree, Owners Copy Prelim/Interlocutory	Additional time was required due to Contract for Deed reconfiguration (WC and DNRC request). Final Decree Package item complete and deployed on 1/25/2024.		Completed on 1/25/2024	
42	Decree Final	Additional time was required due to Contract for Deed reconfiguration (WC and DNRC request). Final Decree Package item complete and deployed on 1/25/2024.		Completed on 1/25/2024	
43	Decree, Owners Copy Final Improvements	Additional time was required due to Contract for Deed reconfiguration (WC and DNRC request). Final Decree Package item complete and deployed on 1/25/2024.		Completed on 1/25/2024	
44	Counterobj notice	This issue was due to a server not being updated fully when the last deployment occurred. The issue was reported to DNRC on 1/26/24, resolved on 1/29/24.		Complete on 1/29/2024	
45	Transition to State Print and Mail	Successful trial run confirmed.		Completed on 3/21/2024	
46	Abstracts	One abstract that wasn’t rendering for the court – RESPEC has fixed, the water court approved, deployed on 3/29/2024.		Complete on 3/29/2024	
47	Discuss changes to claim exam and re-exam with court before changing guidebook, including updates to and creation of issue remarks.	DNRC finalized the new exam and re-exam procedures. On Dec. 18th Water Court provided comments and DNRC updates were posted to website on 4/1/2024.		Completed on 4/1/2024	
48	Misc. Report- Run report/spreadsheet of unique owners per basin	Unique owners per basin is available to the water court, validated by contractor and approved by the WC.		Complete on 4/15/2024	
49	Misc. Report- Report of claims by remark – Adjudication basin remarks reports	This was identified by RESPEC that the work was already done as a DNRC request and confirmed with WC on 4/15/2024. The reprot of claims by remarks meets the courts needs		Completed on 4/15/2024	

Water Rights Information System (WRIS) and Adjudication: Stakeholder Questions and Roadmap for Implementation

TAB 5: Water Right Query System (WRQS)

Concerns	DNRC Actions and Associated Documents	Next steps and timelines (if blank- DNRC is not aware of any additional actions needed)
Water Right Query System (WRQS)		
– Use and functionality of the WRQS – Consistency of information and ability to recreate searches	– Last update to the WRQS was 1/12/2024. – DNRC tracks all enhancement request and concerns at this website. – Blake Creek Project Management feedback	DNRC is hosting a work session with users of the WRQS May 23, 2024 to gather feedback.
– What defines the parameters of a "General Abstract"? Why are there only general abstracts and not the most current decree abstract? What Version being pulled?	– The General abstract is different than the Final Decree abstract. The WRQS has served a general abstract since 2001. The change version is pulled for the general abstract- final decrees are pre-1973 and changes are post- what is actively happening on the ground. – Aware that there are discrepancies between the change version and final decree. DNRC attempted to resolve this conflict in SB 72 (2023), which didn't pass. – DNRC and WC have agreed that without legislation no short-term option is feasible.	DNRC is hosting a work session with users of the WRQS May 23, 2024, to define needs of abstracts. DNRC Comprehensive Water Review stakeholder working group legislative concept.

If concerns are not identified in this table, please reach out to DNRC directly:

- WRQS: DNRCMTWATERRIGHTSINFO@MT.GOV
- Scanning questions: WATERRIGHTS@MT.GOV
- Other Water Division concerns: Trevor Watson (trevor.watson2@mt.gov) and Anna Pakenham Stevenson (anna.pakenhamstevenson@mt.gov)

WRQS requests from stakeholders (04/29/2024)

	Stakeholder Feedback	Solution	Completion Date
1	Can't enter a priority date before 1900	Dates after 1799 Enabled	10/4
2	Disclaimer Warning POD and POU are Based on Centroid of the Legal Land Description	Included in FAQs	10/4
3	Enable Selecting Different Basemaps	Added basemaps selector widget	10/4
4	Inactive Links on About Page	Activated links	10/4
5	Include PLSS Layer in Layers List	Added PLSS to Layer List	10/4
6	Missing Issue Remarks field	Added field	10/4
7	Missing Reservoir field	Added field	10/4
8	Missing Water Right Key field	Added field	10/4
9	Query Results Pop-Ups (Toasts) Do Not Disappear	Shortened time 'toast' popups	10/4
10	Selecting data in table interacts with the map	Map/table interaction	10/4
11	Source Search features not working	Fixed Bug	10/4
12	Source name Not Included in Results Table	Added Source Name to Results Table	10/12
13	Information/Example on how to Enter Water Right Number	Example added	10/16
14	Indian Reservation Base Map Layer	Creating Vector Tile Package	10/17
15	Reservoir Search in Lewis and Clark County Fails	Bug Identified	10/17
16	User Guide	Extend Scanned Docs Page	10/25
17	Can't select more than one parameter on WR status, WR type, County, Township, Range, Section	Add Ability to Multi-Select	11/3
18	Enforceable Priority Date - Eliminate Time Stamp	Remove Timestamp	11/3
19	Include Hydrology Vector Tile Package - source layer	Creating Vector Tile Package	11/3
20	Priority Date Formating Issues	excel format issue	11/3
21	Reduce Significant Digits for Max Acres and Volume to 2	Set Signifigant Digits to 2. Software limitation - no solution as of yet. significant digits can be reduced after download in excel.	11/3
22	No Change Authorization Scanned Documents	Added Change Authorization & Scanned Documents	11/3
23	Groundwater needs source name option	Looks similar to SW	11/3
24	Source name with an apostrophe doesn' t work	Fixed Bug	11/3
25	Include water rights with a status of PENDING	Added	11/22
26	Ability to Choose Versions Numbers	Build versions table	11/22
27	Include Historical Water Right Type, Place of Use (POU), Point of Diversion (POD), and TRS Aliquot Parts w/IDs in Results Table	Included in the Points of Diversion, Places of Use, and Reservoirs tables.	11/22
28	Missing Diversion Means, Period of Use/Diversion Fields from Results Table	Included in the Points of Diversion, Places of Use, and Reservoirs tables.	11/22

	Stakeholder Feedback	Solution	Completion Date
29	Export Individually by POU, POD, Reservoir, Versions	On the Table Page, users can select from the Results table, then go to the related tables and export those records.	11/22
30	Add a water right number column without the basin for sorting	Added Water Right ID Column	12/11
31	Expand Advanced Search functionality to include unmapped records	Added a fourth search option on the Advanced Search Page.	12/11
32	Remove Unused Adjudication Number	Removed Unused Adjudication Number from the WRQS Feature Service & Water Right Status in the app dropdown	12/10
33	Remove Converted Terminates	Removed Converted Terminates from the WRQS Feature Service & Water Right Status in the app dropdown.	12/12
34	Add Priority Date to Results Table & WRQS Feature Service	Added Priority Date	12/20
35	Header Explaining Unmapped Rights	Add verbiage to the Results Table detailing unmapped records	12/20
36	Slow abstract speed	Tune Reporting Server that general abstracts	In Progress
37	Remove Quarter Section from Legal Land Description Search	Removing Quarter Section Option to Reduce Confusion	In Progress
38	Enable Cumulative Export of Search Results including Results Table, Other Versions, Points of Diversion	Application Limitation - working with software platform provider to enable solution.	In Progress
39	Add Period of Use as Search Item to Advanced Search Tab	Adding Period of Use to Advanced Search Tab	In Progress
40	Identify coordinates of Water Rights from WRQS Map	Add Coordinates Widget to WRQS Map	In Progress
41	Create different columns to store Flow Rate units & values	Add columns to WRQS services to store those elements	In Progress
42	Phone-Sized Device Functionality	Identifying Development Cost & Time	In Progress
43	Include historic imagery (1979 & others from MT DNRC)	Adding available DNRC Imagery to Basemap Picker	Considering Feedback
44	Add definitions to the about page	Identify and detail definitions to include on About Page	Considering Feedback
45	Dropdown Detailing List of Compacts by Name	Create dropdown listing compacts by name on the Advanced Search tab.	Considering Feedback
46	Extend owner field to show the tribal entity	Considering Feedback	Considering Feedback
47	Links to other sites where POD and POU database files are located.	Considering Feedback	Considering Feedback

4.4.2024 Blake Creek Project Management Feedback (Legislative Audit comments not included)

	Blake Creek Request	Status	Notes	Request Date	Timeline for Completion
Water Rights Query System					
1	Abstract speeds	Currently being worked on by contractor	DNRC continues work to improve the rending speeds with the new report	11/17/2023	TBD
2	Warning on field that are literal (Quarter sections)	Currently being worked on by contractor	The S2,N2,W2, and E2 are literal options for QQ selections. The WRQS pulls directly from the database, not logic geospatially. A disclaimer is being added to this selection on the WRQS.	11/17/2023	August 2024
3	Show final decree status	Currently being worked on by contractor	Contractor will add another column with decree status identified.	11/17/2023	August 2024
4	Flow rate sort	Currently being worked on by contractor	Contractor will break apart flow column so it can be sorted.	11/17/2023	August 2024
5	Set a default of 'active' for the query	Currently being worked on by contractor	The user can select active only if they choose. DNRC would like more feedback from others on this.	11/17/2023	August 2024
6	"irrigation district" in WRQS not water rights	Need more feedback from all stakeholders before making changes- 5/23/2024 Work session	More transparency was identified in the stakeholder requests for the system, DNRC would like more feedback from others to determine whether these should be removed or not.	11/17/2023	
7	Water Right Type codes that aren't Water Rights should be removed			10/9/2023	
8	Exempt Notice (627)			11/17/2023	
9	Query system defaults to changed version of the claim			4/5/2024	
10	Improve types of queries (POD on a source, POU on a source, owner).			4/5/2023	
11	Type of water right claim			4/5/2023	
12	Drop down list of compacts requested			10/9/2023	
13	Extend Owner field to show tribal entity			10/9/2023	
14	Versions are not defined and not all included			4/5/2023	
15	Concerns with Priority Date searching prior to 1900.	Completed on 10/4/2023	DNRC fixed searching for pre-1900 priority dates, also making them sortable. This had already been identified and fixed prior to this request	10/5/2023	
16	User Guide	Completed on 10/25/2023	DNRC has a user guide located on the about page. We continue to take feedback for areas of improvement.	10/9/2023	
17	Exporting Files - need to export information on POD and POU	Completed on 11/22/2023	This is available in the Versions Table.	10/9/2023	
18	Other exporting of files: These export files do not include all elements of a water right.	Completed on 11/22/2023	This is available in the Versions Table.	10/9/2023	
19	Enforceable Priority Date sorting problems	Completed on 11/3/2023	DNRC fixed the formatting issues for enforceable priority date and priority date so they can be sorted.	10/9/2023	
20	Max acres volume numbers with multiple signification digits	Completed on 11/3/2023	Significant digits set to 2, most resolved. There is a problem with ESRI on this limiting it to 2 signification digits for some entries. Extra digits can be removed after exported to excel.	10/9/2023	
21	Unexpected results: Associated water rights	Completed on 10/17/2023	Associated water rights title was removed from the pop-up. This was an error by contractor and was removed shortly after deployment.	10/9/2023	
22	Reservoirs not working in Lewis and Clark County	Completed on 10/17/2023	DNRC contractor identified a bug causing this issue and resolved it. No current issues identified.	10/9/2023	
23	Unexpected results: Water Right 41M 162123 shows active - it should be dismissed	Completed on 10/10/2023	This was a data error, not WRQS. Once identified, it was corrected in the system.	10/9/2023	
24	Montana Reservation Base maps	Completed on 10/17/2023	DNRC added this to the map lists.	10/9/2023	
25	Exporting data - doesn't work as described in the user guide	Completed on 11/23/2024	Directions in the user guide properly explain how to export data. My notes have this as a Versions issue - the versions table was released 0n 11/22, the guidebook was updated shortly after.	11/17/2023	
26	Warning that the cadastral layer is not current	Completed on 11/23/2023	The cadastral layer is a vector tile, not live, for app speed. A date has been added to the tile for awareness.	11/17/2023	
27	Protracted blocks are not sections	No change needed.	More information was shared during the meeting on why there are 72 section number options in the system to account for protracted blocks (37-72). This is necessary for WR that fall in those protracted blocks and are recorded as such.	11/17/2023	
28	Reservoir query - map and table results don't match	Completed on 12/11/2023	The contractor was not pulling only reservoir data when selected, this bug was resolved.	11/17/2023	
29	Redundant Records - exempt notices	Completed on 4/18/2024	All exempt notices are now terminated after final review.	11/17/2023	
30	Provide meta data on map layers	Completed on 12/20/2023	Map layer meta data is available on the about page.	11/17/2023	
31	Only number of diversions, no info	Completed on 11/22/2023	The versions table provided on 11/22 has the diversion and POU information for all water rights and versions.	4/5/2024	
32	No detail on where within queried section the point of diversion is located	Completed on 11/22/2023	This is available via the map, in the versions table per water right, and can be found on the general abstract.	4/5/2024	
33	Provide links to other sites like the one referred to in comments of abstract 76L 30052722	No plans to implement	This may not work for DNRC as we have no control over the links and if they break, DNRC has to resolve them. Our current practice is to redirect where necessary.	10/9/2023	
34	Basic Search Functionality improvement - Example City of Helena	No plans to implement	The logic behind the query is to pull all like data so a comprehensive list is pulled, it can be exported and cut down afterwards.	10/9/2023	
35	Abstracts are different format	No plans to implement	The abstracts are now pulled as a SSRS report versus an Oracle Report.	10/9/2023	
36	Remove WR elements from general abstract for inactive water rights	No plans to implement	DNRC disagrees with this request. Interested in feedback from others using the system. The abstract shows the version status as dismissed, terminated, or withdrawn.	11/17/2023	
37	Version - operating Authority date (Exhibit 10) -doesn't match court ordered decree. - What is a more recent OA? - How do water users know what this is?	Comprehensive Water Review & legislative proposal	Comprehensive Water Review will address harmonizing provisional permits and changes with Final Decrees.	4/5/2023	2025
38	Court ordered changes to abstracts do not occur (Exhibit 10 and 11) - decreed version of water right not default - POD not updated - Flow rates not updated	Comprehensive Water Review & legislative proposal	Comprehensive Water Review will address harmonizing provisional permits and changes with Final Decrees.	4/5/2023	2025

4.4.2024 Blake Creek Project Management Feedback (Legislative Audit comments not included)

Scanned Documents					
39	Water rights with numbers starting in 30 - no scanned files available? -Reference to "as shown in deed" but no deed or other information available	More information needed and meeting requested	The problem isn't clear, water rights with numbers starting with 30 do have scan files available. More information is needed to properly address. DNRC has reached out for clarity.	4/5/2023	
40	"Scanned date" has no meaning as it relates to date of actual document (Exhibit 11 and 12).	In progress	DNRC is aware more can be done with Scan docs and is working with SITSD for solutions. Water Court is providing a list of possible improvements. DNRC will continue consultation with SITSD to see if things can be further improved.	4/5/2023	TBD
DNRC processes					
41	Exhibit 13 & 14 - Split/Severed Creates "New" Water. - When a water right is split and/or severed the resulting combination of parent and child right(s) flow rate exceed parent right original flow rate. (Exhibit 15) - Split/Sever versions are not available for both parent and child.	Issue corrected; long-term solution in process	DNRC has begun discussions with the Water Court to rectify challenges with splits and severs and these conversations need to continue. We are updating our splits and severs procedures, collaborating with the water court, to resolve this issue.	4/5/2023	TBD
42	Simple process to allow claimants to update ditch names and periods of diversion.	Long-term solution in process	DNRC is evaluating	11/17/2023	TBD

Water Rights Information System (WRIS) and Adjudication: Stakeholder Questions and Roadmap for Implementation

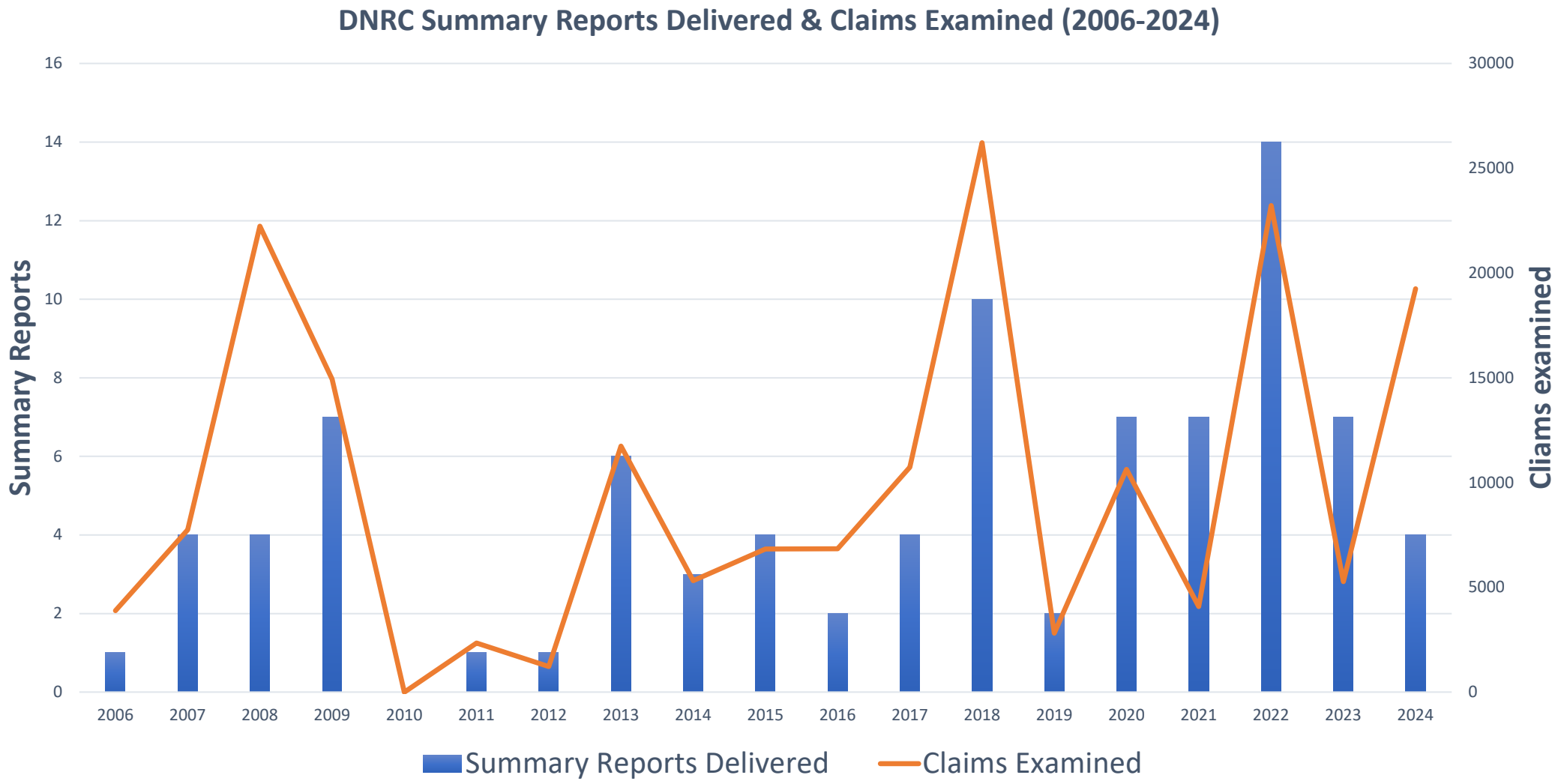
TAB 6: Adjudication process

Concerns	DNRC Actions and Associated Documents	Next steps and timelines (if blank- DNRC is not aware of any additional actions needed)
Adjudication Process		

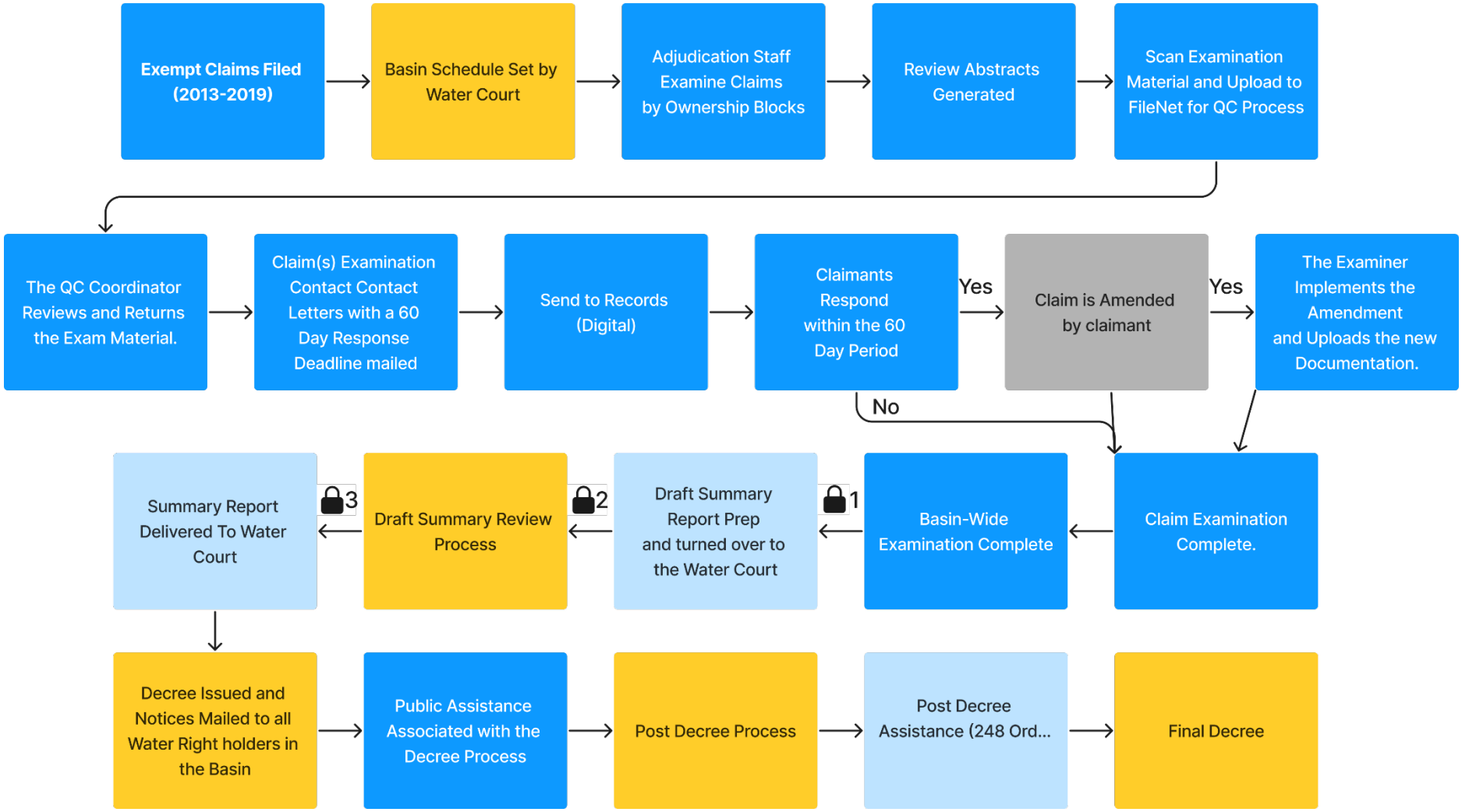
– Challenges with the adjudication process and the burden it places on water users
– Summary report challenges & consistency
	– Overhauled Adjudication Process and Manuals February 2024 (https://dnrc.mt.gov/Water-Resources/Water-Rights/Adjudication)
	– Extended claimant contact period (30 to 60 days) to allow more feedback from water right holders. March 2024.
	– Summary report delivery & claims examined (2006- 2024)
	– DNRC Adjudication Workflow
	– Summary reports (with overhaul) delivered in 2024:
	  – 76L
	  – 76LJ
	  – 41J
	  – 43QJ
	  – 76G (end of month)
		DNRC and Water Court will continue to collaborate on all adjudication needs and concerns raised by stakeholders informally as they arise and formally in our biweekly and monthly meetings.

If concerns are not identified in this table, please reach out to DNRC directly:

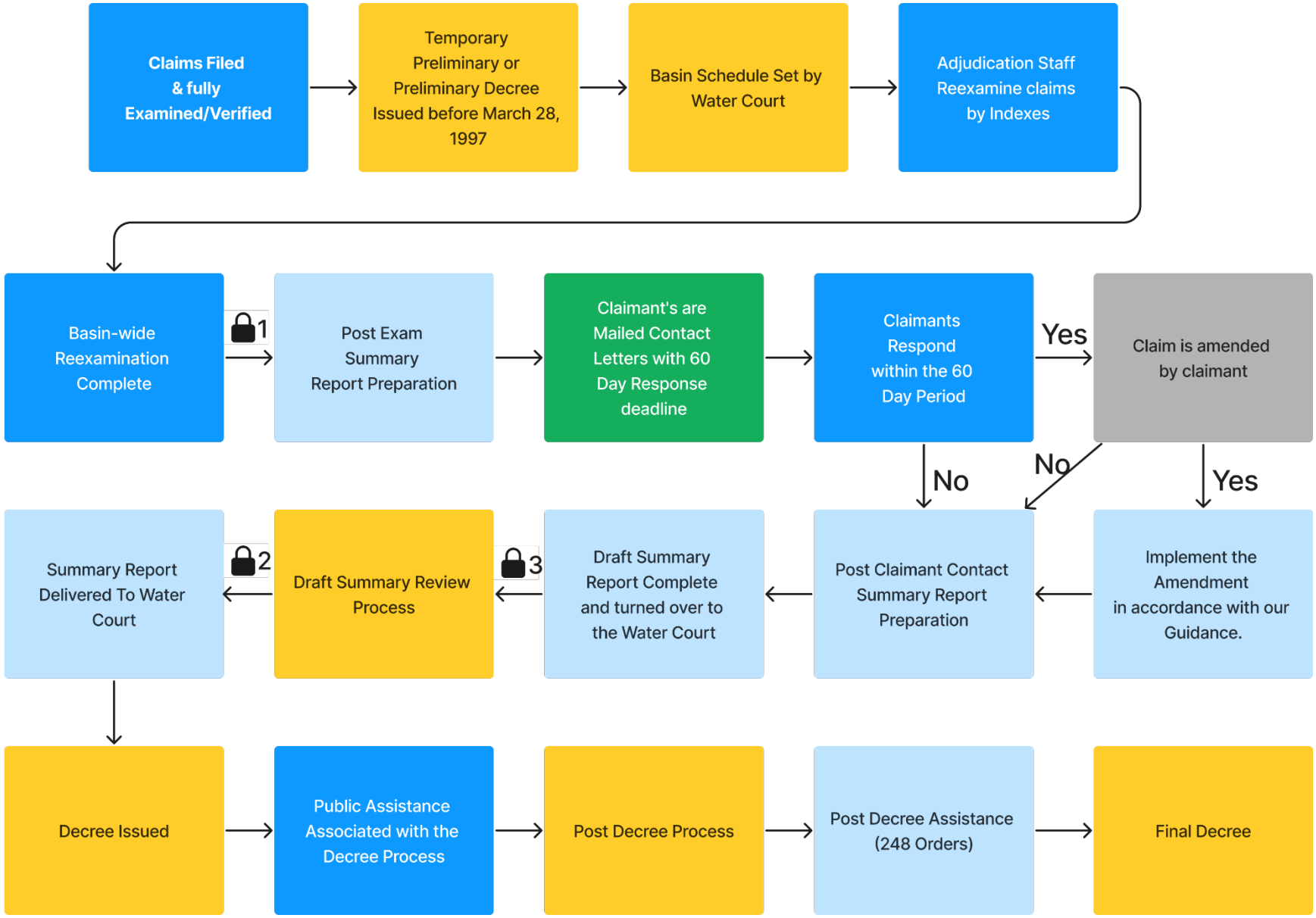
- Adjudication: Todd Netto (tnetto@mt.gov)
- Other Water Division concerns: Trevor Watson (trevor.watson2@mt.gov) and Anna Pakenham Stevenson (anna.pakenhamstevenson@mt.gov)
- Water Court concerns: Sara Calkins (Sara.Calkins@mt.gov)


DNRC Summary Reports Delivered & Claims Examined (2006-2024)
Summary Reports
Claims examined
16
14
12
10
8
6
4
2
0
30000
25000
20000
15000
10000
5000
0
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
Summary Reports Delivered
Claims Examined

Full Examination Process



Reexamination Process



Key

Adjudication Program

Post-Exam Program

Water Court

Claimant/Public Role

DNRC TPS

Adjudication Program Locked From Editing the Record.

Post Exam Program Limited Lock From Editing the Record.

DNRC Full Lock From Editing the Record.