

# Water Rights, Water Quality & Water Solutions 💋 in the West

In This Issue:
Adjudication Evidence1
Water Flooding Risk Management 8
Water Conflicts & Ethics13
Water Briefs 18
Calendar 23
<b>Upcoming Stories:</b>
Texas & the US / Mexico Water Treaties
Washington State Water Legislation
Klamath Basin Updates
& More!

## 📖 ADJUDICATION & HISTORICAL USE 🚿

GATHERING AND PRESERVING EVIDENCE OF HISTORICAL USE

MONTANA'S STATEWIDE ADJUDICATION OF WATER RIGHTS

by Abigail R. Brown, Farve & Brown Law, PLLC (Helena, MT)

## Introduction

The State of Montana is in its fourth decade of adjudicating existing water rights, which are loosely defined as those water rights with priority dates prior to July 1, 1973. Therefore, when litigating the elements of a water right in the Montana Water Court, water right claimants — and those individuals objecting to water rights — must produce evidence of pre-1973 water use sufficient to defend or challenge the existing water rights that are at issue. As the years stretch further back from July 1, 1973, the scarcity of witnesses with personal knowledge of water use increases and documentary evidence (much of which is still not digitalized) is further lost, tossed out, or buried under mounting years of more recent records. Nonetheless, the adjudication must go on if Montana is to have a centralized and well-defined record of water rights.

As water rights adjudication occurs across Montana and new practitioners (whether as new attorneys or seasoned practitioners who find themselves encountering water law issues more frequently), the field demands a certain knowledge of available sources or historical evidence. This article examines best practices for gathering and preserving historical evidence of Montana water right claims.

## Brief History of Litigating Montana Water Right Claims

Like many western states, Montana has followed the Prior Appropriation Doctrine, or "first in time, first in right," to administer the use of her waters since territorial times. Until 1972, Montana determined who had the right to use Montana's waters, and for what purposes those waters might be used, in two ways: 1) simply diverting the water and putting it to beneficial use (a "use right"); or 2) filing a Notice of Appropriation at the appropriate county courthouse pursuant to applicable statutory procedures (a "filed right"). Before Montana's adjudication began, when a water use dispute arose on a particular water source that called into question the characteristics of certain water rights, the water users litigated the dispute in the local state trial court. The resulting district court decrees gave rise to what are now known as "decreed rights." From territorial times through 1972, there was no centralized record keeping system for water rights in Montana. Instead, records of water use were either nonexistent (use rights), dutifully filed away in the county's clerk and recorder's office (filed rights) or, if a particular water right was called into question and litigated, then records of the right might also be found in the local district court clerk's offices ("decreed rights").

	In 1972 Montana held a constitutional convention and, on March 22, 1972, a new constitution was
Ilistanias1	ratified by Montanans. The 1972 Constitution recognized and confirmed "all existing rights to the use of
Historical	any waters for any useful or beneficial purpose." Mont. Const., Art. IX, Section 3(1) (1972). In 1973, the
Use	Montana Legislature passed the Water Use Act (Act) which was intended to clarify water right ownership
	and use in Montana provide a process for identifying and quantifying "all existing water rights" that were
•••• • • • • •	recognized by the 1972 Constitution and implement a permit system for new appropriations of water
Water Use Act	The Act defines an "existing right" or "existing water right" as "a right to the use of water that would
	he protected under the law as it existed prior to July 1 1073. The term includes "federal non Indian and
"Existing Right"	Indian reserved water rights created under folderal law and water rights created under state law." Mont
	Code Ann. 8 85.2-102(12). The Act did not disrupt or alter the fundamental concepts of Montana water
	law or the Drior Appropriation Doctring. Instead, the Act created a procedure to begin quantifying all
	claims to water use before July 1, 1073. For water users originating on or after July 1, 1073, the evolusive
	method to obtain a new water right appropriation in Montana, or change the elements of an existing water
Permits	right was to solute a parmit or authorization from the Montane, of Change due control of Natural Descutives and
	Conservation (DNDC). See Mont Code Ann 88 85.2.201 at see (naw appropriation). Mont Code Ann 8
	85-2-402 (change authorizations)
Adiation	To respond to the ambitious and daunting question of how Montana could quantify and determine
Adjudication	the elements of all claims for "existing water rights" the Act created a special statewide process called
	"adjudication" Mont Code Ann & 85-2-212 Remember that the adjudication encompassed all claims
	to water made from territorial times until July 1 1973. For a more detailed discussion of the history of
	Montana's water adjudication see Ted I Doney's Montana Water Law Handbook 120-134 (State Bar of
	Montana Oct 1981) Originally the DNRC was tasked with adjudication of water rights and commenced
	its work in 1974 in the Powder River basin in southeastern Montana However after six years the
	Legislature decided that process was too costly and slow. Therefore, the 1979 Montana Legislature
Water Court	created a specialized trial court, the Montana Water Court (Water Court), to implement and oversee the
	adjudication. Doney. pp. 120.
	The Water Court has exclusive jurisdiction to determine the elements of existing water rights. Mont.
	Code Ann. §§ 3-7-501, 85-2-216. The Water Court's mission is "to expedite and facilitate the statewide
	adjudication of over 219,000 state law-based water rights (generally rights with a pre-July 1973 priority
	date) and Indian and Federal reserved water right claims." See the Montana Water Court website at http://
	courts.mt.gov/courts/water. Currently, the Water Court determines and interprets existing water rights using
	a hydrologic basin-by-hydrologic basin approach.
Claims Filed	The Act required statements of claim for existing water rights to be filed on or before April 30, 1982.
	Mont. Code Ann. 85-2-221. To be a valid statement of claim, the filing had to include the statutory filing
The Weter Dame 4	requirements outlined in Mont. Code Ann. § 85-2-224, which included evidence supporting the claimed
Ine water keport	elements of the water right (priority date, source, points of diversion, places of use, purpose, and quantity
(ISSN 1940-110A)	of water used). By statute, a timely filed, valid statement of claim is prima facie proof of its contents.
Envirotech Publications Inc	Mont. Code Ann. § 85-2-227. Editor's Note: "prima facie" proof is considered sufficient "on its face" unless
260 North Polk Street	substantial contradictory evidence is presented. See Statement of Claim section below for more about the
Eugene, OR 97402	impact of "prima facie proof."

The Montana Legislature anticipated Montana's statewide adjudication of existing water rights would span about 15 years. The State of Montana is now halfway through its fourth decade of water adjudication. *See* The University of Montana School of Law's Land Use & Natural Resources Clinic's *Water Rights in Montana: How our Legal System Works Today, How Montana Compares to Other States, and Idea for Montana's Future*, p. 7 (Spring 2014)(available at http://courts.mt.gov/portals/113/water/UM\_WaterRightsStudy.pdf). The current target completion date for final decrees in all hydrological basins is 2028. *Id.*, at 7.

While the timeline of the adjudication of existing rights has stretched some 30 years past its originally contemplated completion date, the definition of an "existing water right" has remained intact. Current practitioners in the Water Court are litigating the elements of "a right to the use of water that would be protected under the law as it existed prior to July 1, 1973." Mont. Code Ann. § 85-2-102(12). To make their clients' case (for or against) the claimed elements of an existing water right, current Water Court practitioners are faced with the formidable task of gathering evidence to prove how and where particular water rights were exercised prior to July 1, 1973.

The chief value of a water right is largely determined by the seniority of its priority date. Given that the Territory of Montana was established May 26, 1864, coming up with evidence of first use can be a formidable undertaking. There was no centralized recording system for water rights in Montana prior to 1973. Many eye-witnesses to pre-1973 water use are deceased. Therefore, researching and gathering historical evidence of water use requires practitioners to have working knowledge of a variety of sources of evidence.

The burden of proof varies from case-to-case, but usually it is the litigant challenging the veracity of the elements of a statement of claim who has this burden. As noted, a properly filed statement of claim is prima facie proof of its contents. Rule 19, W.R.Adj.R. (Citing Mont. Code Ann. § 85-2-227). However,

website: www.TheWaterReport.com Subscription Rates: \$299 per year Multiple subscription rates

available.

Editors: David Light

David Moon

Phone: 541/ 343-8504

Cellular: 541/ 517-5608

Fax: 541/ 683-8279

email:

thewaterreport@yahoo.com

Postmaster: Please send address corrections to The Water Report, 260 North Polk Street, Eugene, OR 97402

Copyright© 2018 Envirotech Publications, Incorporated

a claimant may have the burden of proof if they file an objection to their own water right claim or if they must resolve "issue remarks" pursuant to Mont. Code Ann. § 85-2-247 and -248. See Dry Creek Decision, Historical In re Dembauch, Case 43D-172, 2007 Mont. Water LEXIS 1, \*6-8 (Water Ct. Dec. 28, 2007). Use "Issue remarks" are added to water rights by the DNRC during their claims examination to call attention to information in a statement of claim that is unclear or contradicted by other data. For example, a claimant might have inadvertently provided the wrong legal description for her diversion that places it "Issue Remarks" in the middle of the field rather than on the source. The DNRC would place an issue remark on the claim flagging the "point of diversion" element as an element that must be clarified during adjudication. Thus, once the claim is brought into the Water Court adjudication, the owner of this water right claim will be required to provide the Water Court with evidence of the correct location and legal description of the point of diversion, regardless of whether any other party objects to that water right. To officially modify an element of a water right claim, the issue must be raised during the adjudication Objectives either by objection (objection from another water user or by objecting to your own water right) or by an "issue remark." Therefore, while a water user may object to his or her own water right claim for a variety of strategic reasons, water users most often object to their own water rights to correct mistakes or omissions made during the initial claim filing period. For example, the initial statement of claim may have omitted a portion of the irrigated acres that are clearly irrigated by a particular water right, resulting in the maximum acres listed on the water right being too low. To correct this omission, the water user would object to Claimant's their own claim, specifically to the element of "maximum acres/place of use." During the Water Court Objection adjudication of this claim, even though it is her own claim, the water user would be required to prove by a preponderance of the evidence that the historically irrigated acres include the omitted acres identified in the objection. "Historical" Use in Water Rights Adjudication Cases Because the Montana Water Court is tasked with adjudicating the pre-July 1, 1973 uses of water rights, historical water use in Montana is generally that use which pre-dates July 1, 1973. However, post-July 1, 1973 evidence may be relevant in some Montana Water Court cases. Evidence of post-July 1, 1973 water **Beneficial Use** use is admissible in Water Court proceedings under the fundamental tenants of the Prior Appropriation Doctrine. Actual beneficial use is still the basis, measure, and limit of a water right. A water right claim

Abandonment or Expansion





Copyright© 2018 Envirotech Publications; Reproduction without permission strictly prohibited.

Historical Use	There is ongoing debate and policy discussions on whether final decrees under the adjudication will be outdated the moment they are issued. This debate arises from the fact that Montana is adjudicating rights as they existed on July 1, 1973, not as they currently exist. However, these proceedings are adhering to the current law in Montana. The majority of Water Court cases are concerned with determining the accuracy
Final Decree Impact	of the elements of water right as they existed prior to July 1, 1973. How far the case progresses through the litigation process, and whether the matter gets settled in advance of an evidentiary hearing, is often a function of the caliber of the historical evidence presented.
	Historical Evidence for Water Court Proceedings
	EVIDENCE TYPES & AVAILABLE SOURCES
	The following is a list of types and sources of evidence that can be gathered to show historical use of existing water rights in the Montana adjudication. The list is illustrative, not exhaustive. Each piece of historical evidence presented in a Water Court case gives a "snapshot in time" of the use of a water right.
	The full picture of actual use, patterns of use, and extent of use of a water right is determined after review of all the available evidence
Prima Facie	Statements of Claim. Prima Facie Proof
	As noted share, a properly and timely field statement of alaim, as amended is prime facia proof of its
Proot	contents until issuance of the final decree. Rule 19, W.R.Adj.R. (citing Mont. Code Ann. § 85-2-227(1). Statements of claim are the packet of documents filed by claimants prior to April 30, 1982, that demonstrate
	the underlying basis for the existing water right. (See Figure 1 for an example of the claim form filed in
	1981 for Claim 40G 34844-00, the claim at issue in <i>In re Sage Creek Basin</i> , Case 40G-2.)
	A prima facie claim "meets the minimum threshold of evidence necessary to establish the facts alleged
	and shifts the burden of production to an objector to overcome that threshold. The burden of persuasion
Burden of Proof	remains ultimately with the claimant to prove up a water right. Section 26-1-402, MCA. Without evidence
	to the contrary, the prima facie status may satisfy a claimant's burden." Memorandum Opinion, Sage Creek
	Basin, Case 40G-2, 1997 Mont. Water LEXIS 1, 18 (Mont. Water Ct, Mar. 11, 1997). A claim's prima facie
	status must be overcome by a preponderance of the evidence. See id., p. 19.

Figu	re 1
Form No. 785 R280       #0.6       STATEMENT OF CLAIM FOR EXISTING WATER RIGHTS       DCT 1 3 1981         HIL       STOCK WATER       MONTANA D.N.R.C.         NOTANA D.N.R.C.       MONTANA D.N.R.C.         1. Owner of Water Right       RAMBO GRAIN & CATTLE /       Fest         1. Owner of Water Right       RAMBO GRAIN & CATTLE /       Model Intal         Co-Owner or Other       Last       Fest       Model Intal         Address       Box 112       Last       Fest       Model Intal         City       Gildford,       State       Montana       Zip Code       59525         Home Phone No.       376-2033       Business Phone No.       Model Intal       Model Intal         2. Person completing form       Bosch, Kuhr, Dugdale / Warner, Martin & Kaze /       Model Intal       Model Intal	8. Place of use:       County Hill
Address       P. O. Box 152         City       Havre,       State       Montana       Zip Code_59501         Home Phone No.       Business Phone No.       265-6706         3. Use:       If Stock water       4. Source of Water:       (Check Only One)         Image:       Spring       Name       Stream         Vell       Name       Tributary of Big Sandy Creek         Image:       Stream       Stream	12. Check one:          Decreed Water Right           Priority date or date of first use             83 Filed Appropriation Right         Discrete Priority date or date of first use           1 June / 18 / 1898             Use Water Right           Use Water Right           1 June / 18 / 1898             13. Attach copies of the Decree, Record of Filing or Proof of Use Right.           14. Attach copies of aerial photographs, U.S. Geological Survey maps or such other documents necessary to show point of diversion, place of use, place of storage, and conveyance facilities.               Statement signed by claimant.
Tributary of Stream Reservoir Name Stream Tributary of 5. Point of Diversion: County Hill	STATE OF MONTANA ) County of <u>Hill</u> , <u>Arthur Rambo, as President of Rambo</u> /awing been duly swom, depose and say that I, being of lenal ace and being the claimant of this claim of existing water (right, and the person whose name
ADDENDUM     Lot	is signed to it as the claimant, know the contents of this claim and that the matters and things stated there are true and correct.           RAMBO GBAIN & CATURE         BY:X       BY:X         BY:X       CHERNER         By:X       Arthur Rambo, President         Subscribed and sworn before me, this       7th         day of       October       19.81
7. 10tal number of livestock served: 160 Type: X 160_cattle 	Avain Pools for the State of Montgle         Residing at       Havre, Montana         My Commission expires       May 14, 1984

Copyright© 2018 Envirotech Publications; Reproduction without permission strictly prohibited.

	Water Resource Survey Mans and Field Notes
Historical	The Water Resource Survey (WRS) is a "comprehensive county by county assessment of Montana's
THStorical	historical water use" based on data collected and published from 1943 through 1965 by the State Engineers
Use	Office and from 1966 through 1971 by the Water Conservation Board. Links to the survey books and field
	notes are available from the DNRC at:
Survey Maps	http://dnrc.mt.gov/divisions/water/water-rights/records-unit/survey-books.
	information at face value, absent contrary evidence. See Dry Creek Decision. In ra Dambauch, Case
	43D-172 2007 Mont Water LEXIS 1 *8-13 (Water Ct. Dec. 28, 2007) However, these materials can be
	overcome by other evidence. They are not infallible and are not always the best evidence of the historical
	use of a water right. Quigley v. Avista Corp., Case 76F-75, 2016 Mont. Water LEXIS 32, *15-16 (Water Ct.
	Apr. 22, 2016).
"Filed Rights"	Notices of Appropriation
Thea Rights	These notices are the basis for "filed rights" in Montana and can be found in the county clerk
	and recorder's office of the county where the land to which the Water right is appurtenant is located.
	Regarding Admissibility of Notices of Appropriation and Burdens of Proof. In re Danreuther Ranches
	Case 410-209, pp. 14 (Mont. Water Ct., Jan. 31, 2013): "Ancient documents such as Notices of
	Appropriation should be screened using the modern rules of evidence and, if admitted, given whatever
Claim Elements	weight they deserve." (A copy of the decision is available from the Montana Water Court website at http://
	courts.mt.gov/Portals/113/water/41O-209.pdf). Thus, if a Notice appears defective or is missing specific
	information as to certain elements, defects or omissions go to the weight of the evidence — they do not
	effect the Notice's admissibility. For additional discussion of evidentiary weight of historical Notices of
	Appropriation see also Order Amending and Partiany Adopting Master's Report as Amended, <i>In Persos</i> et al. Case 76HE-580 (Mont. Water Ct. Jan. 31, 2013) at http://courts.mt.gov/Portals/113/water/76HE-580
	pdf). See Figure 2 for an example of a Notice of Appropriation.
	Historical District Court Decrees
"Decreed Rights"	These state court decrees form the basis for "decreed rights" and originate from disputes between
Ŭ	specific parties on discrete stretches of a watercourse. Many historical district court decrees were not
	comprehensive adjudications of an entire stream. These decrees are housed in the office of the district
	court clerk for the particular judicial district in which the decree was issued.
	Elauro 2 Book C of Miscl., page 149
	156802
	256802 Alsow Views hereby publish and declare to all when is
	256802 Relson Views hereby publish and declare to all whom it may concern that I have claim and shiped in that
	Relson Views hereby publish and declare to all whom it may concern that is hereby claim and appropriate for the use
	Relson View Revely publish and declare to all whom'd may concern that is kenty claim and appropriate for the see of my any heirs and sepresulatives the trates of the flaton Rever or to much the series of the trates of the flaton
	256802 Relson Views hereby publish and declare to all whom it may concern that is hereby claim and appropriate for the use of myself my heirs and depresentations the traters of the Sectors Review or so much thereof as may be needed or required by me
	256802 Relson View Reneby publish and declare to all whom it may concern that is hereby claim and appropriate for the use of my self my heirs and depresentatives the traters of the Petore Rever or so much thereof as enery be needed or required by me or my appresentatives preirigating and agriculture perforces.
	256802 Relson Views hereby publish and declare to all whom'd may concern that is hereby claim and appropriate for the we of my and my heirs and depresentatives the trater of the Eleton Rever or so much thereof as may be needed or required by me or my appresentatives for enrighting and agriculture fourfoces. And I do alas claim the free and unobstructed use of
	156802 Relson Views hereby publish and declare to all whom'd may concern that al hereby claim and appropriate for the one of my act my heirs and depresentatives the trates of the eleton their or so much thereof as may be needed or required by me to my appresentatives pringating and agriculture performes. and I do also claim the free and unobstructed use of Said Stream and the channel theory from its source or sources;
	256802 Relson Receip hereby publish and declare to all whom'd may concern that is hereby claim and appropriate for the see of my set my heirs and depresentations the traters of the Beton twice or so much thereof as every be needed or required by me trong appresentations for irrigating and agriculture perfores. and I do also claim the free and unobstructed use of Said Stream and the channel thereof form ito source or sources if preserves for down as to my rauch thereon for the purpose of
	256802 Relson View Revely publish and declare to all whom it may concern that is hereby claim and appropriate for the we of my aif my heirs and sepresentatives the traters of the flaton Rever or to much thereof as may be needed or required by me or my aifresentatives preinigating and agri culture purposes. And I do also claim the free and unobstructed use of Said Striam and the channel thereof from its source or sources is necessary as for down as to my ranch thereon for the purpose of after or floating of tender, wood, or logs for which object and
	256802 Relson Views hereby publish and declare to all whom it may concern that is hereby claim and appropriate for the we of my aif my heirs and depresentatives the trater of the fletone Rever or so much thereof as may be needed or required by me or my appresentatives for enrighting and agriculture fourfoces. And & do also claim the free and unobstructed use of Sain Stream and the channel thereof form ito source or sources if mensary as far down as to my ranch thereon for the purpose of afters or floating of timber wood, or logs for which object and mainford an about to construct a boom for receiving as learner
	2 Relson Views hereby publish and declare to all whom it may concern that is hereby claim and appropriate for the one of my any heirs and depresentatives the trates of the telton their or so much thereof as may be needed or required by me or my representatives pringating and agriculture perforces. And I do also claim the free and unobstructed use of bain Stream and the channel thereof from its source of sources if necessary as for down as to my ranch thereon for the purpose of his info and about to construct a boom for the purpose of the same i and notice is hereby given that and amonda
	Sulson lieup hereby publish and declare to all whom it may concern that is hereby claim and appropriate for the me quy set my heirs and depresentatives the trates of the fectors diver or so much thereof as every be needed or required by me trong appresentatives preirigating and agricultures purposes. And & do also claim the free and unobstructure of laid Stream and the channel thereof from its source or sources of necessary as for down as to my ranch thereon for the purpose of after or for this of timber wood or logs for which object and the same ' and notice is hereby given that any down of the same ' and motice is hereby given that any down of the same ' and notice is hereby given that any down of
	256802 Delson Rever hereby publish and declare to all whom'd may concern that is hereby claim and appropriate furthere of my alf my heirs and depresentations the trates of the leton Rever or so much thereof as energy be needed or required by me to my appresentations preinigation and agriculture purposes. And & do also claim the free and unobstructure our of Sain Stream and the channel thereof from its source or sources if neuseary as for down as to my rauch thereon for the purpose of afters or floating of tember wood or logs for which object and mainfel am about to construct a boom for receiving as seems the same i and notice is hereby given that any down day boom or booms or other their places in the bail of them at my place of panch aforesaide by my laces in the bail of the or my after on the other they places in the bail of the or my place of panch aforesaide by my laces in the bail of the or my place of panch aforesaide by a la white the bails of the or of the or the or the or the or of the or the or the or of the or the or of the or the or of the or the or the or of the or the or the or of the or the or the or of the or the or of the or the or the or of the or the or to the or the or of the or the or the or of the or of the or of the or the or of the or the or of the or the or of the or the or of the
	Solow Receip hereby publish and declare to all whom'd may concern that so hereby claim and appropriate for the use of my any heirs and depresentatives the trater of the leton Revier or so much thereof as may be needed or required by me or my apresentatives pringating and agriculture purposes. And & do also claim the free and unobstructure or sources of said Stream and the channel thereof form its source or sources of necessary as fur down as to my ranch thereon for the purpose of after or for a time of timber, wood or logs for which object and the same ' and notice is hereby given that any down of the same ' and notice is hereby given that any down of form or booms or other thing places in the land the pre-passage of auch wood or timber a so to obstruct the free passage of and wood or timber a source in the land the pre-passage of
	Subson lieup hereby publish and declare to all whom it may concern that is hereby publish and declare to all whom it may concern that is hereby claim and appropriate for the use of my alf my heirs and depresentations of the fectors there or so much thereof as may be needed or required by ne or my appresentations for impating and agriculture for forces. And & do also claim the free and unobstructed use of said Stream and the channel thereof for its source or source ag precessary as for down as to my sanch thereon for the purpose of nation or floating of timber wood or logs for which object and mainted and about to construct a boom for receiving as beening the same ' and motion is hereby given that any domortan the same ' and motion is hereby given that any domortan for one or booms or other theirs placed in the line fitter at my file is rauch aforestaide be as to obstruct the prepassage of furth wood or timber as & may desire to float or nage the receiving in
	156802 Relson Receip hereby publish and declare to all show it may concern that I hereby claim and appropriate for the use of ungal my heirs and defore untatives the trates of the Velow their or so much thereof as may be needed or required by me to my appresentatives for enighting and agriculture for forces. And I do also claim the free and unobstructure or sources if laid I the and the channel thereof from its source or sources if uccessary as for down as to my ranch thereon for the purpose of afters or floating of timber wood or logs for which object and the same ' and note in is hereby given that any domondand the same ' and note in is hereby given that any domondand to own or booms or other thing places in the bird steerer my place or rauch aforestaide be as to obstruct the free passage of such wood or timber as I may desire to float or raft therein in a during an information of erry rights hereby and herein ac
	256802 Deleon Receip hereby publish and declare to all whom it may concern that I hereby claim and appropriate furtheres of ingacy my heirs and defore suitations the trates of the Retorn Review to so much thereof as energy be needed or required by race to my appresentations for encypting and agriculture for forces. And D do also Claim the free and unoto the trates of laid Stream and the channel theory form its source of source of afters or floating of timber wood or logs for which object and the same i and notice is hereby given that any domostand to the source of the channel theory for the purpose of the same i and notice is hereby given that any domostand the same is a for strengthing in the line theory of autor of the theorem of the server of the form of the form of the same is and notice is hereby given that any domostand the same is and notice is hereby given that any domostand the same is a forestaide by as to obstruct the free passage of auch wood or timber of Source to float or raft thereing in a demost an infringement of erry right, hereby and herein ac- guired in purchases of the laws and custan of the source of the demost of the server right, hereby and herein ac- guired in purchases of the laws and custan of the thereing and autor is purchased of erry right, hereby and herein ac-
	256802 Relson Viewy hereby publish and declare to all whom it may concern that I have gelain and appropriate for the we quing sig my heirs and depresentatives the trates of the letons there is omnih theory as may be needed or required by me to my appresentatives pringating and agriculture purposes. And do also claim the free and unototrated use of laid theam and the channel thereof form its source of sources pring as fordown as to my ranch thereon for the purpose of after or floating of tember wood, or logs for which object and the dame i and notice is hereby given that any damonda the lace i and notice is hereby given that any damonda boom or booms or other thing places in the bird term on the ment place of care the change of the birth of the prepassage of the lace i and notice is hereby given that any damonda to an about to construct a bog in the fore passage of the lace is and notice is hereby given that any damonda to all the action of the thing places in the bird term of the prepassage of auch wood or timber a & may desire to float or nogh thereing and for in printeness of the laws and customs of montana guind in pursuing of the laws and customs of montana desired in further any the laws and customs of montana
	256802 Relson Viewy hereby publish and declare to all whom it may concern that I have gelain and appropriate for the we quing sig my heirs and depresentatives the trates of the letons theirs as much the org as may be needed or required by me to my appresentatives pringating and agriculture purposes. And do also claim the free and unototrated use of laid the and the channel thereof form its source of sources pring as fordown as to my ranch thereon for the purpose of after or floating of tember wood, or logs for which object and the dame i and notice is hereby given that any damonda to boom or booms or other thing places in the bird there my place or cauch afore this places in the bird term of the dame of the theory of the bird to be the and the formation of the dame of the theory of the bird the bird term of the formation the dame of the theory of the bird the bird term of the formation the dame of the terms of the bird the bird terms of the formation the dame of the terms of the bird to be the terms of the formation of the dame of the terms of the bird to be the terms of the formation of the dame of the terms of the bird to be the terms of the formation of the dame of the terms of the bird to be the terms of the formation of the dame of the terms of the bird to be the terms of the formation of the dame of the terms of the laws and customs of formation describer of the terms of the laws and customs of formation describer of the striker on the terms of the laws of the terms of the terms of the dame of the laws and customs of the dame of the dame of the terms of the laws and customs of formation as describer of the laws and customs of the day of the dame of the laws and customs of the day of the dame of the laws and customs of the day of the dame of the terms of the laws and customs of the terms of the day of the dame of the terms of the laws and custom of the terms of
	256802 Delson Reins hereby publish and declare to all whom it may comment that is heneby claim and appropriate for the me gring and present at is pringating and appropriate for the second there or so much there of as may be needed or required by me to my appresent at us pringating and agriculture purposes. And & do also claim the free and unobstructure use of lain Striam and the channel thereof form its some or some if neusary as for down as to my ranch there on for the purpose of afters or for at us of tember wood, or logs for which object and the same ' and not in is hereby given that any damonta, the same ' and not in is hereby given that any damonta, the same ' and not in is hereby given that any damonta, to one or booms or other thing places in the to reach any place or couch afore tailed as to obtain the the purpose of damonta at a so the thing places in the there of the more of the same ' and not in is hereby given that any damonta to boom or booms or other thing places in the top a soft there are place or couch afore tailed to as to obtain the top of particular to demote or timber as & may desire to float or noght there are guired an infringement of any right hereby and here are guired in purposed of the laws and custom of montaine describer of the laws and custom of montaine describer of the soft on the soft on the soft of the soft
	256802 Relacultery hereby publish and declare to all when it may concern that is hereby claim and appropriate furthere driver or so much there as any be needed or required to me the inter or so much there as any be needed or required to me to only apprecentations principating and agriculture for forest. And & do also claim the free and unobstructed on security prices as for down as to my sauch thereon for the purpose of a filling or floating of tender wood or logs for which object and the dame is and the construct a boom that any down of neines of an about to construct a boom that any down on the dame is and that there is the fore and the fore and the same is an about to construct a boom that any down or the dame or other thing places in the bird fore as there and the analy fore the solution to float or raps thereing in have or down or other thing right, hereby and herein as a function or booms or other they right, hereby and hereing of the dame an appreciated to any right, hereby and hereing of the dame of a many of the laws and custom of montane dente wood or timber a & may describe the float or raps thereing in h denned an appreciated on y fauld custom of the fore of the second to the sould or timber a & may describe float or raps thereing in h denned an appreciated on y fauld custom of the second dented an appreciated on y fauld custom of the second hereby and the second or timber a second of the second of
	256802 Delson lever hereby publish and declare to all other is may concern that I have claim and appropriate furthere gray set only heirs and depresentations the trates of the lettors there a so much there gas may be needed or required by me to may apprecentatives principating and agriculture performents and I do also claim the free and unobstructed use of bains therean and the channel thereof from its source of sources and I do also claim the free and unobstructed use of bains therean and the channel thereof from its source of sources afters or floatury of tender wood or logs for which object and hereings of an about to construct a boom for the purpose of the same ' and not ice is hereby given that any domostand the same ' and not ice is hereby given that any domostand the same ' and not ice is hereby given that any domostand the same ' and not ice is hereby given that any domostand the same ' and mate in is hereby given that any domostand the same of the theory places in the ford or affet thereing and and an appresence of plant or aget thereing and boom or booms or other their places in the ford or aget thereing and for the same an appresence of plant or aget thereing and and and an appresence of plant or aget thereing and boom of the laws and custom of the laws and custom of the same guined on function as I may derive to plant or aget thereing and bound an appresence of the laws and custom of the stars dense of plant on a stars of the laws and custom of the stars dense of the law and stars of the laws and custom of the stars dense of the law and stars of the laws and custom of the stars dense of the law and stars of the law of the stars of the stars dense of the law and stars of the law of the stars of the stars dense of the law and stars of the law of the law of the stars of the stars dense of the law of the law of the law of the stars of the law of the law of the stars of t

	Pleadings, exhibits, trial testimony transcripts, and other documents filed in the court's records may be
Historical	of only limited evidentiary value at a hearing. For example, in <i>Quigley</i> , Case 76F-75, FOF 18 (discussing
Lico	Hill v. Merrimac, 211 Mont. 479, 687 P.2d 59 (1984)), the court found that statements in pleadings may be
Use	used against the pleader but may not be used to advance the pleader's case because they are self-serving
Court Records	statements.
	Most streams in Montana do not have active water commissioners to regulate water use. On those
Water	streams with court-appointed water commissioners, some are administering instorical decrees and some
Commissioner	are related to administration of historical decrees are usually housed in the office of the clerk of the district
Records	court sometimes in the same case file as the historical decree. The water commissioner records that are
	related to administration of portions of Water Court decrees are either in the clerk of district court's office
	and/or kept by DNRC. These records can be helpful to determine actual historical use (and patterns of use)
	of existing water rights.
	GLO Survey Plats and Field Notes, Patents, and Maps
	The Government Land Office (GLO) of the US Bureau of Land Management (BLM) has records
GLO Database	and electronic images of millions of Federal land title records issued between 1788 and the present. This
	searchable database is useful to look at historical patterns of land ownership in specific areas and also
	to compare those records with Notices of Appropriation or information in historical decrees. The GLO
	records are found at https://glorecords.blm.gov/default.aspx.
	Aerial Photographs
	Historical aerial photographs are available for a variety of years and are used to identify patterns
	of imgated acteage during different years, the condition of imgation initiastructure over time, and other geographical features of a particular property. Generally, to be admissible at an evidentiary hearing, aerial
T ( 1477)	photograph interpretation must be done by a qualified expert witness. Interpreting and opining on an aerial
Expert Witness	photograph's support (or lack of support) for irrigation of a certain place of use is typically viewed as a
	scientific and technical endeavor for which training, education, and experience is helpful to the trier of fact.
	See M. R. Evid. 702 to 705, In re Burnell Ditch Co., Case 41F-20, 2000 Mont. Water LEXIS 5, *11 (Water
	Ct. May 30, 2000), where the court stated that expert testimony would have been helpful to interpret the
	acres irrigated as indicated by a claimant on an aerial photograph.
Irrigator's	As noted below, a farmer's irrigation experience "on the ground" is preferable to expert opinion
Experience	regarding aerial photograph interpretation. See Musselshell River/Roundup Basin, Case 40A-30, 1992
-	Mont. Water LEXIS 11, 14, (Mont. Water Ct. Apr. 20, 1992) (citing Worden v. Alexander, 108 Mont. 208,
	90 P.2d 160, 16 (1939)).
	Various Property Records
Homestead	of documents that have been used in Water Court proceedings include: Homestead Documents: Deeds and
Documents	Mortgages: See In re Rall Case WC-96-2 1997 Mont Water I FXIS 2 *11 (Water Ct Sent 10 1997).
	"The deeds conveying land and water rights have obvious significance in establishing privity of title
	intent, and place of use." Other recorded documents, such as easements, conveyance system maintenance
	agreements, and tax records, may also be useful. In the Order Rejecting Stipulation and Order for Field
	Investigation, Dana Ranch Co. v. State AG, Case 2017 Mont. Water LEXIS 13, *17 (Mont. Water Ct. June
	9, 2017), the Water Court noted that listing tax records as a source of information can be used to support a
	claim.
	Newspaper Articles, History Book Excerpts, Testimony by Historians, Meat Market Ledgers
	These types of historical evidence are diverse and dependent on the actual historical use of a water
	right. See In re Danreuther Ranches, Case 410-209, * 10-11.
	These records
Personal	over generations, or the water users' personal documents or diary entries. Many times, water users do not
Documents	consider these types of personal documents important or relevant to water right matters and will not offer
	them without being specifically asked. However, these types of documents and records are often extremely
	helpful in piecing together historical water use practices or identifying potential witnesses.
	Examples of farm records include:
	Pocketbook notes or diary entries regarding moving stock and irrigation practices
Program	• Federal conservation program agreements (the period of nonuse in compliance with a federal candidate
Agreements	conservation agreement does not count towards a period of abandonment per Mont. Code Ann. §
Ŭ	85-2-404(3))
	• Records of irrigation equipment purchases/repairs (demonstrating use of water rights through
	maintenance of conveyance systems)
	• Ranch employee records (when was an irrigator on the payroll and for how long)

Historical Use	Similar types of business records are useful if the water right in question is owned by an entity such as an irrigation district, water users' association, ditch company or cooperative, local government, municipality, or some other type of entity that holds existing water rights.
"Historical Knowledge"	Individuals with "historical knowledge" who can speak to the actual use of a water right prior to 1973 are becoming much harder to find. Existing water rights are adjudicated as of their use on July 1, 1973, which was 45 years ago. The deadline for claims filing was April 30, 1982, which was 36 years ago. By
Opinion Testimony	<ul> <li>way of an example, a 60-year old today was only 16 years old in 1973.</li> <li>To gather and preserve historical witness testimony that will be admissible at an evidentiary hearing, a practitioner must keep in mind basic rules of evidence. Lay witnesses must have personal knowledge per M.R. Evid. 602, and may offer opinion testimony if the opinion is "rationally based on the perception of</li> </ul>
"Lay Experts"	the witness" and "helpful to a clear understanding of the witness' testimony or the determination of a fact in issue." <i>See</i> M.R. Evid. 701. Farmers can be considered "lay experts" whose testimony may be accorded greater weight than expert's opinion testimony since the farmer can speak to practice and experience. <i>See Musselshell River/Roundup Basin</i> Case 40A-30, 1992 Mont Water LEXIS 11, 14. (Mont Water Ct
	Apr. 20, 1992)(citing <i>Worden v. Alexander</i> , 108 Mont. 208, 90 P.2d 160, 16 (1939)). However, personal knowledge of use of a water right usually must be something more than seeing water in a ditch or recalling what one was told by parents or grandparents about water use. Practitioners must consider whether the testimony is an exception to the hearsay rule. <i>See</i> M.R. Evid.
Hearsay Rule (Personal	801 to 806. For example, M.R. Evid. 803 provides a laundry list of statements and documents that are not excluded by the hearsay rule, even if the declarant is available as a witness. Included in that list, and relevant to Water Court adjudication cases are: statements in documents that are more than 20 years
Knowledge)	old (ancient documents exception); public records and reports (or absence of a public record or entry); and recorded recollections. Thus, while the testifying witness might not be old enough to have personal knowledge of how a water right was exercised prior to July 1, 1973, that witness may be able to provide testimony about his parents or grandparents use of the water right by testifying as to recorded entries of the water right's use in (public) water commissioner records or the history of a water right as recounted in pre-July 1, 1973 deeds or other recorded documents.
Depositions	Lay witness testimony regarding historical use of existing water rights is becoming more scarce with each passing year. The Water Court Adjudication Rules and the Montana Rules of Civil Procedure allow for, and describe the process by which, parties may petition the Court to take depositions to perpetuate testimony. Rule 28, W.R.Adj.R. and M. R. Civ. P. 27. Depositions may be used as evidence in Water Court hearings in accordance with M. R. Civ. P. 32. <i>See In re Dembauch</i> , Case 43D-172, p. 17.
	<b>Conclusion</b> The evidentiary sources identified in this article are by no means exhaustive of the types of historical evidence that may be relevant and probative in Montana Water Court adjudication proceedings. As Montana's water rights adjudication continues into the future, Montana water law practitioners must continue to cultivate, develop, and refine their uses of sources or historical evidence available to the practitioner.
	For Additional Information: Abigail Brown, Farve & Brown Law, 406/ 457-5494 or abby@favrebrownlaw.com
	Montana Water Court website: http://courts.mt.gov/courts/water/ DNRC Water Adjudication website: http://dnrc.mt.gov/divisions/water/adjudication
Abigail R. Brown is a	co-founder of Farve & Brown Law, PLLC, and manages the firm's Helena, Montana location. Abby's

Abigan R. Brown is a co-lounder of Parve & Brown Law, PLLC, and manages the infinits Helena, Montana location. Abby s legal practice specializes in water law, representing a wide range of clients from across Montana in Water Court adjudication cases, state district court water enforcement proceedings, and the due diligence phase of ranch real estate transactions. Prior to attending law school, Abby received a B.S. in Education and Social Policy from Northwestern University in Evanston, Illinois and later developed her interest in water-related issues during her service as a volunteer in the United States Peace Corps (Malawi). After living overseas, Abby made her way to Montana to study mediation and cross-cultural conflict resolution and, ultimately, earned a J.D. with Honors from the School of Law at University of Montana in Missoula, Montana. Abby served as a clerk for the Honorable Patricia O. Cotter of the Montana Supreme Court before entering private practice as a water rights attorney. In keeping with her core belief in public service, Abby currently serves as the Chair-Elect of the State Bar of Montana's new Water Law Section, Co-Chair of Montana's Access to Justice Commission's Standing Committee for Self-Represented Litigants, and the Board President for the Community Mediation Center.



Flooding Risk Management States Vary Traditional Tort Claims	<ul> <li>3) Reasonable Use Rule The third rule is the "Reasonable Use Rule." Under the reasonable use rule, courts look at each case individually to determine whether a developer acted reasonably. This rule melds traditional notions of reasonableness in action, sometimes alongside a more traditional negligence standard, and essentially operates a balancing test. It is easy to see how the specific facts are paramount in determining what is and is not reasonable in each case. Consequently, the reasonable use rule does not provide exact guidance for any attorney examining a specific issue for a client. Each of these doctrines has adherents among the different states. In determining which system is followed in a given state, it is important to look to the most current law. A court may overturn prior precedent if it determines current facts and circumstances dictate adoption of a different rule. Nevada, for example, adopted the civil law rule in 1885 (<i>see Boynon v. Longley</i>, 19 Nev. 69, 6 Pac. 437 (1885)), but in 1980 found the doctrine poorly suited to modern development needs and instead adopted the reasonable use rule. <i>County of Clark v. Powers</i>, 96 Nev. 497, 611 P.2d. 1072 (1980). In addition to these three theories of liability, the common law also provides potential recovery for damage caused by diverted surface waters under traditional tort claims, such as negligence, trespass, and nuisance.</li></ul>	
	State Laws	
Local Authorities Stormwater	Just as courts can overrule their own decisions, state legislatures can pre-empt, overrule, clarify, and codify common law principles. In the case of drainage laws, however, most states seem inclined to exercise their powers by delegating the responsibility for managing drainage issues to local authorities (e.g. counties or drainage districts) through local codes and ordinances. An exception is the responsibility for managing stormwater runoff under authority delegated by the federal Environmental Protection Agency (EPA) for enforcement of relevant provisions of the Clean Water Act, discussed below. Some states have enacted laws parallel to the Clean Water Act for stormwater management, and administer these laws through their environmental protection agencies.	
	Local Laws and Ordinances	
Planning Codes	Most control over new development and drainage management is exercised by local jurisdictions through building and planning codes. In agricultural areas, control commonly occurs through specially	
Within State Variances	created drainage districts. The delegation by states of this responsibility to local authorities is not illogical — the rigor and complexity of these rules is generally dictated by local geography and demographics. Accordingly, even within the same state, requirements for drainage control and alteration can vary widely from one location to another. Another variability is the weight given to local laws: some states retain absolute power to pre-empt local laws, while others recognize "home rule" and give primacy to local	
Conflicting Law	Further complexity arises where adherence to local laws is not necessarily a guarantee of immunity against a common law claim. In <i>County of Clark v. Powers</i> , the Nevada case cited above, landowners pursued claims of trespass, nuisance, and inverse condemnation against private developers and the County, where development that had occurred pursuant to the County's Master Plan resulted in flooding of their properties. Plaintiffs settled with the private developers, but continued to trial against the County. The trial court awarded a judgment in favor of plaintiffs against the County, a decision upheld by the Nevada Supreme Court. The case illustrates the possibility of running afoul of the common law, despite following local laws, particularly in "reasonable use" jurisdictions.	
	40% Evapotranspiration 30% Evapotranspiration	
	10%       10%         Runoff       10%         25% shallow       25% deep         infiltration       25% deep         Natural Ground Cover       75%-100% Impervious Cover	

Source: EPA 2007

	Federal Laws
Flooding Risk	Two significant bodies of federal law must be considered in the context of surface water control; 1) the Clean Water Act, 33 U.S.C. A.§§ 1251 et seq. (CWA), and regulations promulgated under this Act; and 2) the National Flood Insurance Act of 1968, as amended, together with The Flood Disaster Protection Act of
Management	1973, as amended, 42 U.S.C. 4001 et. seq., and their successors and implementing regulations.
0	The Clean Water Act
	Section 404 of the CWA is one of the most controversial of Federal environmental laws. This Section of the CWA was primarily intended to protect wetlands — not only because of wetlands' significance in
Wetlands	the preservation of ecologic diversity, but also because of their direct practical values such as flood control.
Protection	Section 404 requires a permit issued by US Army Corps of Engineers (Army Corps) for the discharge of dredged or fill material to "Waters of the United States" or "jurisdictional waters."
<b>T 1 1 1</b>	The CWA uses the term "Navigable Waters" to define the scope of its jurisdiction of the CWA, but "Navigable Waters" have nothing to do with navigability in the literal game. The term is defined in the
Jurisdiction	CWA as "Waters of the United States, including the territorial seas." Section 502(7). The definition
	of "Waters of the United States" is found in regulations implementing the CWA. Waters of the United
	States include: interstate waters and generally waters used in connection with interstate commerce; and
	impoundments, tributaries, and wetlands adjacent to such waters (see 40 CFR 122.2).
	Relying on the Commerce Clause of the US Constitution, these definitions have been construed very broadly by most courts. Many "jurisdictional" waters are located on private lands and are often remote
	tributaries and ephemeral drainages without obvious characteristics of wetlands or waterways. Alteration
CWA	of natural drainages in connection with surface water management may trigger permitting requirements
Section 404	under CWA Section 404. Determining whether jurisdictional waters may be present in the area of a
Permit	proposed development can require specialized expertise and can be very time consuming. Significant
	required. The process of obtaining a permit is also complex and time consuming, and in some cases,
	permits may not be issued at all — thus preventing a development project from moving forward. Such
	conflicts have led to a considerable volume of litigation over the definition of "navigable waters" as well
"Regulatory	(A "regulatory taking" may occur when a regulation is determined to place an unreasonable burden on
Taking"	a private property, entitling the owner to "just compensation" for the loss of use of value under the Fifth
-	Amendment.)
	In 2006, the US Supreme Court considered the definition of "navigable waters" in the consolidated
	see Bleichfeld et al. TWR #24: Bricker. TWR #29: Walston. TWR #30). The Court did not reach a majority
	position, but issued five separate conflicting decisions. Justice Kennedy issued a separate opinion, stating
"Navigable	that wetlands would be waters of the United States "if the wetlands, either alone or in combination with
Water"	similarly situated lands in the region, significantly affect the chemical, physical, and biological integrity
Ruling	together with the plurality opinion issued by Justice Scalia, is viewed as setting a standard appropriate for
0	agency guidance. EPA and the Army Corps issued guidances in 2007 and 2008 attempting to clarify the
	application of the <i>Rapanos</i> ruling, relying primarily on Justice Kennedy's decision ( <i>see</i> MacDougal, <i>TWR</i>
	#4/; Iani & Kade, <i>IWR</i> #69; Gelardi & Glick, <i>IWR</i> #8/; Atecio & Glick, <i>IWR</i> #149). These guidances remained controversial and were replaced by a rule issued by the Obama
MOTUC D.1.	administration in 2015 ( <i>Clean Water Rule: Definition of "Waters of the United States</i> ," 80 Fed. Reg. 37,054
WOTUS Kule	(June 29, 2015) (2015 Rule). The 2015 Rule was viewed by many as significantly increasing the scope
	of jurisdictional waters and was immediately challenged. North Dakota, joined by twelve other states,
	Successfully obtained a preliminary injunction against enforcement of the Rule in rederal district court (see Moon $TWR \#139$ ). This was followed by a nationwide injunction against the Rule issued by the Sixth
	Circuit.
	On January 22, 2018, the United States Supreme Court unanimously ruled that review of the Rule
January 2018	must be taken by district courts rather than directly by the courts of appeal. <i>National Association of</i>
Supreme Court	Court's nationwide injunction As a result states are faced with inconsistent positions on the Rule with
Ruling	some facing its enforcement, and others still relying on the North Dakota district court injunction and
	currently operating under the 2007 and 2008 guidances. Suffice it to say that it is seldom safe to assume a
	natural drainage or wetland is not a jurisdictional water, even it is miles from a recognizable stream, since
	statement).

	While the CWA can improve significant constraints on altering drainess notterns, in some
Flooding Risk Management Stormwater Control	while the CWA can impose significant <i>constraints</i> on altering drainage patterns, in some circumstances it also mandates the <i>control</i> of stormwater discharges. The CWA requires that industrial facilities, construction sites, and municipal separate storm sewer systems have plans in place to prevent pollution from being discharged with stormwater into jurisdictional waters. Permits are required by construction site operators that disturb one or more acres of land — or less than one acre but as part of a larger common plan of development that will ultimately disturb more than one acre — and that are engaged in construction of buildings or heavy and civil engineering construction. These activities are covered by a general stormwater discharge permit, effective in all ten EPA regions, which includes: requirements for erosion and sediment and pollutant prevention controls; and requirements for self-inspections, corrective actions, staff training, development of a stormwater <b>p</b> ollution <b>p</b> revention <b>p</b> lan (SWPPP), and permit conditions applicable to construction sites in specific states. Typically, states administer this general permit under delegated authority from the EPA and coverage under the permit can be obtained by filing a notice of intent and preparing a SWPPP.
Federal Flood Programs	<b>Federal Flood Insurance Programs</b> The National Flood Insurance Program (NFIP) was created by the National Flood Insurance Act of 1968, after flood insurance became widely unavailable from private insurers concerned over uneconomic risks ( <i>see</i> Clark & Lawrence, <i>TWR</i> #165). The NFIP was intended to transfer some of property owners' financial risk to the federal government in exchange for the participation of flood-prone communities in strategies to mitigate flood damage through building codes and other mitigation. Property owners living in a "participating community" — that is, a community at risk for significant flooding that has adopted flood may purchase for the participating through the participating community.
Flood Hazard Maps	The NFIP is administered by the Federal Emergency Management Agency (FEMA). FEMA's flood hazard maps are the basis of the NFIP regulations and flood insurance requirements. FEMA maintains and updates data through Flood Insurance Rate Maps (FIRMs) and risk assessments. FIRMs include statistical information such as data for river flow, storm tides, hydrologic/hydraulic analyses, and rainfall and topographic surveys to create the flood hazard maps that outline a community's flood risk areas. A common misperception is that floods covered by the NFIP occur only along rivers and streams. In fact, FEMA recognizes a flood zone that may appear to be high and dry and far from any watercourses,
Sheet Flow	<ul> <li>Including:</li> <li>Zone AO: River or stream flood hazard areas, and areas with a 1% or greater chance of shallow flooding each year, usually in the form of sheet flow, with an average depth ranging from 1 to 3 feet. These areas have a 26% chance of flooding over the life of a 30-year mortgage. Average flood depths derived from detailed analyses are shown within these zones. (emphasis added)</li> <li>Flooding from sheet flow is among the significant forms of flooding addressed in that article. See</li> <li>FEMA website at: https://www.fema.gov/zone-ao.</li> <li>The National Flood Insurance Act has been amended and affected by numerous subsequent federal acts</li> </ul>
Insurance Act Impacts	which are too complex to be summarized here. The NFIP is currently regarded by many as underfunded, the maps out-dated, and the program ineffective. Notwithstanding these criticisms, it is important to understand how the NFIP affects your location, as it may dictate whether flood insurance is mandatory, available, not available, affordable or not affordable. Like "jurisdictional waters," a federal flood zone may be far from obvious.
	LIABILITIES & RESPONSIBILITIES
	Given this complex array of laws, regulations, and standards governing liabilities and responsibilities, what is corporate counsel to do if faced with a surface water drainage issue — either on the side of the
Federal Law	"drainer" or the "drainee"? First he sensitive to the possible application of federal laws. Since most developers and engineers are
Application	accustomed to initiating projects at a local level, federal laws are often overlooked. Some engineers still
	believe that "navigable waters" must float a boat to be applicable.
	Counsel should become familiar with the rules established by the applicable jurisdiction. Obviously,
Fact	a single jurisdiction. An attorney should carefully research the cases from the jurisdiction locate any
Dependent	applicable statutes or regulations, evaluate the potential immunities that a developer may enjoy, and analyze any rights afforded to affected parties by law. Employing local coursel experienced in land use laws can
Local Counsel	be cost-effective in this regard. Counsel might rely upon the advice and expertise of local development professionals, including surveyors and civil engineers, who are generally charged with ensuring that the public at large is adequately and safely protected from the results of any development. In any event, a common sense analysis of the impact of development is always appropriate.

Flooding Risk Management

> Permitting Process

If your client or company will be affected by new development, taking a proactive approach to intervene in the permitting process in front of the local jurisdiction will establish a record early and may also eliminate potential harm by bringing any concerns to the forefront before any damage happens. If a specific drainage issue is spotted early in the development process, counsel should act to put the developer on notice immediately. In addition, counsel should review available insurance products to determine how damage from surface water drainage is treated. Many factors are in play, and it is important to recognize that specific circumstantial details might be factors in any court decision employing the standard used by that court.

## CONCLUSION

Flooding is costly. As weather patterns nationwide continue to change and the sprawl of development expands in both urban and rural areas, the issue of surface water liability will continue to play out in courtrooms nationwide. Corporate counsel can provide the front-line defense to protect their clients from damaging surface flow, or ensure that a client's development does not cause expensive damage to neighboring properties. Understanding all of the jurisdictional rules and related court decisions is crucial, and playing an active role to identify and prevent issues could keep a client from getting swept away by an unexpected dispute.

## For Additional Information:

SYLVIA HARRISON, McDonald Carano - Reno, 775/ 788-2000 or sharrison@McDonaldCarano.com CURT LEDFORD, McDonald Carano - Las Vegas, 702/ 873-4100 or cledford@McDonaldCarano.com

**Sylvia Harrison** joined the law firm of McDonald Carano in 1990 after graduating first in her law school class at the University of Montana. She became a partner in 1994. Ms. Harrison practices primarily in environmental, energy, and natural resources law, a natural evolution from her former career as a geologist. She earned her Ph.D. in geology in 1985 and was published widely in that area, but decided to pursue a legal career to further her commitment to integrating scientific knowledge with public interest. She serves as co-chair of the firm's energy, environment and natural resources practice.

**Curt Ledford**'s practice is focused on utility, cooperative, administrative, regulatory, corporate and real property law, NERC / WECC reliability, and general environmental matters affecting utilities. Prior to joining McDonald Carano as a Partner in the Energy & Natural Resources Group, Curt served as General Counsel for Valley Electric Association, Inc. (VEA), a Nevada non-profit cooperative utility that provides electric service to members in six counties throughout rural Nevada and California. He played a critical role in helping VEA become the first out-of-state utility to join the California ISO as a participating transmission owner in 2013, supporting the cooperative's mission to serve as a catalyst for renewable energy development in Nevada.



# Managing Stormwater in WASHINGTON

# March 7, 2018 | Tacoma

A Northwest Environmental Business Council Event / For information: www.washingtonstormwater.com

	CONFLICT RESOLUTION IN WASHINGTON
Water	THE PLACE FOR ETHICS
Conflicts	IN THE RESOLUTION OF <i>HIRST</i> AND OTHER WATER CONFLICTS IN WASHINGTON STATE
& Ethics	by Thomas M. Pors, Law Office of Thomas M. Pors (Seattle, WA)
	Introduction In 2017, legislative efforts in Washington State to restore groundwater availability after the Washington
	State Supreme Court's decision in <i>Whatcom County v. Hirst</i> resulted in a partisan deadlock that also sidelined the state's \$4 billion capital budget. [EDITORS' NOTE: The Washington Legislature passed what is referred to as the " <i>Hirst</i> fix" and Governor Jay Inslee signed Engrossed Substitute Senate Bill 6091 on January 19th (see Water Briefs, this issue of <i>TWR</i> ). <i>The Water Report</i> is planning on publishing an extended article about the <i>Hirst</i> fix in an upcoming issue.]
	<i>Foster</i> decisions, can be resolved using recognized ethical principles and shared community values. The ability to resolve a conflict ethically implies that to not resolve the conflict violates these same ethical
Polarizing Politics	principles. This principle is not just a challenge to state lawmakers and the stakeholders who lobby them, it is a comment on the current state of polarizing politics in our nation and state. In both the creation of this state's water resource conflicts and in the process of avoiding workable compromises, we have sacrificed community moral values and ignored ethical principles. Your author contends that in order to change course for the public good, we need to increase our collective awareness of the connection between water availability conflicts and these recognized athical values.
	This article seeks to explain the relevance of ethical principles to current water availability conflicts without promoting any particular solution, because solutions should be developed by the processes employing these principles.
	Legal Background
	THE <i>HIRST &amp; FOSTER</i> DECISIONS
	A short review of the Washington State Supreme Court's <i>Hirst</i> and <i>Foster</i> decisions — which have had the most impact on water availability in Washington — provides context for this article's theme.
Availability	Hirst The Hirst decision affects water availability in rural areas by requiring counties to protect surface
Impacts	waters and to independently determine whether groundwater from permit-exempt wells is "legally available" before issuing building permits or subdivision approvals under Washington State's Growth Management Act (GMA), Whatcom County y, W, Wash, Growth Mant, Hr'as Bd, 186 Wn 2d 648 (2016).
Instream	( <i>Hirst</i> ). The Washington Supreme Court previously determined that there is no "de minimus" impairment
Impairment	of minimum instream flow water rights, and that "any impact" whatever to closed streams is grounds for
	denial of groundwater permit applications. <i>Postema v. PCHB</i> , 142 Wn.2d 68; 11 P.3d 726 (2000). Because a water right application is not required for permit-exempt uses of groundwater, county decisions on building normite did not provide logal water quailability or impairment from permit exempt
Permit-Exempt Wells	wells, and counties relied on the Washington State Department of Ecology's (Ecology's) advice on whether such wells were regulated or not by Ecology's instream flow rules. In <i>Hirst</i> , Ecology advised Whatcom County and then the courts that permit exempt wells were not regulated by the Nooksack basin instream
Cumulativa	flow rule. However, over 1600 exempt wells in the basin undoubtedly had a cumulative impact on instream
Impacts	applications for new exempt wells. This proliferation of unregulated and unmitigated wells prompted a
Impueto	challenge by environmental organizations to Whatcom County under GMA. The Growth Management Hearings Board determined that Whatcom County's GMA Plan and
Failure to Protect	development regulations failed to protect groundwater and minimum instream flows. The Board decision
	was upheld by the Washington Supreme Court (Court or Supreme Court), despite Ecology's interpretation
	County, its interpretation of GMA is assumed to apply to other counties as well. The Yakama Tribe has
	already sued Okanogan County claiming that <i>Hirst</i> requires the county to protect instream flows in the
Counties'	Okanogan and Methow River basins from impairment by permit-exempt wells.
Actions	Since <i>Hirst</i> , some counties have adopted building permit moratoriums for new groundwater-based uses, and others are requiring permit applicants to prove that groundwater is legally available or will

Water	not "impair" regulatory minimum flows and closed streams. This could add over \$10,000 to the cost of building a home yet still result in appeals and legal uncertainty for both property owners and counties. Some banks announced they will no longer issue mortgages in rural areas for properties with wells drilled	
Commens	after the <i>Hirst</i> decision.	
& Ethics	The problem with legal availability, however, logically extends to all properties with wells drilled after the adoption of minimum flow rules, beginning in the 1970s. This is because the Court's interpretation is that permit-exempt water supplies are interruptible if they are junior in priority date to a minimum instream flow, and thus not suitable for domestic water supply. This is significant, because without the Legislature	
"Legal Availability"	clarifying the nature of permit-exempt and instream flow water rights and resolving this interruptibility question, new cases could arise that would impact permitting for home expansion or replacement and interrupt financing or refinancing for hundreds of thousands of homes state-wide. [EDITOR'S NOTE: See the <i>Hirst</i> fix Water Brief, this <i>TWR</i> , for information regarding this point.] <i>Foster</i>	
	For urban and suburban areas with inadequate water for future growth, and for rural areas seeking	
Regional &	approval of new mitigation banks to deal with <i>Hirst</i> issues, an equally problematic Supreme Court decision is <i>Foster v. Dept. of Ecology and City of Yelm</i> , 184 Wn.2d 465 (2015). In <i>Foster</i> , the Court reversed a	
Out-of-Kind Mitigations	water right approval issued by Ecology for the City of Yelm, despite an extensive regional mitigation plan designed to offset impacts from a new municipal well on instream flows in the Deschutes and Nisqually Basins. The Court found that Ecology had no statutory authority to allow out-of-kind mitigation for "legal impacts" to instream flow water rights and interpreted Washington State's "overriding considerations of public interest" (OCPI) statute as applying only to temporary water uses. For additional details regarding <i>Foster</i> , see Moon, <i>TWR</i> #141.	
In-Kind	It is rare that year-round water for water mitigation is available to offset the impact of any groundwater use on regulated surface waters. As a result, the issuance of new municipal water rights and water rights changes, including the creation of mitigation banks to allow permit-exempt wells in rural areas, often depends on finding the un-findable: year-round water rights available to purchase for mitigation in all	
Issues	areas of a basin that are potentially impacted by a groundwater withdrawal. Expensive storage and engineered aquifer recharge options may be needed to offset small flow impacts that may not impede the environmental functions of regulated streams, instead of allowing habitat or aquatic function mitigation for impacts to habitat and other aquatic functions. These legal and financial uncertainties have caused communities like Sumner and Spanaway in Pierce County to suspend or abandon plans for new wells needed to provide safe and adequate water to the populations they serve. It also dramatically increases the costs for public water systems to upgrade aging water sources in order to provide safe and secure water to the public.	
	Ethics & Water Resources	
	ETHICAL PRINCIPLES THAT INFORM WATER RESOURCE CONFLICTS	
Commodity v.	Different ways of conceptualizing what water is and how human beings should use it have different ethical implications. Viewing water as a component of an ecosystem commons implicates principles of sufficiency/equity and proportionality, as explained below. Treating water as a commodity to be bought and sold, or as property to be controlled unilaterally, implicates human rights and social and environmental	
Resource	justice. For instance, the Prior Appropriation Doctrine establishes property rights in water, including	
	instream flow water rights, which can conflict with the basic human right to access drinking water. This	
	conflict occurs because the state's integration of instream flow protection into the Water Code and the Prior	
	Appropriation Doctrine utilize an ownership-based policy of exclusion, treating water as a commodity rather than a resource. In 2010, the human right to water was officially recognized by both the UN's General Assembly and the Human Rights Council.	
Ethical Values	Ethicist James Martin-Schramm presented four key ethical values as relevant to the resolution of water	
Etnical values	conflicts at a 2004 seminar sponsored by Seattle University School of Theology and the Center for Water and Ethics: <i>sustainability, sufficiency, participation,</i> and <i>solidarity.</i> The identification and exploration of these principles was based on decades of work by theologians and ethicists dealing with environmental	
	health and social justice issues. The object of an ethical negotiation or compromise relating to water	
	allocation is to incorporate these values in a meaningful discussion with the appropriate stakeholders.	
	EMPLOYING ETHICAL PRINCIPLES IN WATER ALLOCATION CONFLICT RESOLUTION Ethics is concerned with what human beings ought or ought not to do. Water resource conflicts have	
Vital Resources	been identified as a "metaphysical blindspot in ethics" — which is remarkable given that water is vital to all human endeavors and their effect on nature. As evidenced by the 2017 Legislature's failure to adopt a	
	<i>Hirst</i> fix or a capital budget through three extra sessions, water management is contentious and not easily accomplished in a top-down process.	

TAT	Stakeholder positions in a top down process are typically one-sided and issues are presented to
Water	than community concerns that deserve equal attention. Groundwater management and the effects of small
Conflicts	withdrawals on stream flow are also complex technically and subject to oversimplification or outright
& Fthics	misrepresentation by non-technical advocacy groups. Most legislators are not well educated on the
	technical side of water resources. With so many competing legislative objectives, they tend to default to
Default	favored constituent or caucus leadership positions rather than debate competing ideas or engage in conflict
Positions	resolution with affected parties.
1 051(10115	Ecology's centralized management of groundwater resources has failed to anticipate and avoid the
	prevailing judicial interpretations regarding water resource allocation and protection, including the agency's
Agency	anticipate the conflict between surface water protection and groundwater availability. Ecology has failed
Solutions?	thus far. to recognize that its rules are outdated and need substantial revision in light of new science and
	subsequent court decisions. Finally, Ecology has failed to draft or introduce any comprehensive solutions,
	despite facilitating a two-year stakeholder process to find specific solutions to rural water availability
	issues. See "Finding Rural Domestic Water Solutions While Protecting Instream Resources," Dept. of
	Ecology Publication 15-11-007 (August 2016); available at: https://fortress.wa.gov/ecy/publications/
	accuments/151100/.pdf. Stakenoider views were solicited by Ecology, but efforts were not made to
	The failure of state agencies and the Legislature to resolve water resource conflicts raises the question
Stakeholder	whether it may be appropriate to place the management of water in the hands of those who have a direct
Management	stake in that water's management. "Groundwater management should be in the hands of the stakeholders
	of the aquifer, under the supervision of the corresponding water authority. The stakeholders' participation
	has to be promoted bottom-up and not top-down." Llamas, Ramon. <i>Water and Ethics: Use of Groundwater</i> .
	France: UNESCO, 2004, p. 24.
	An ethical approach to resolving the state's water resource conflicts involves initiating a process with
	stakeholder representatives and other decision-makers rather than relying on tried and failed top-down
Bottom-Up	legislative or centralized management processes. The process used and persons invited to participate
Solutions	should also be guided by the same ethical values, which can be described as moral norms because they
	conform to our collective sense of a just society. This includes procedural and decision-making process
Development	public-private collaboration and partnership. These values can provide answers to such questions as who
Development	participates in the decision-making process and how a balance is determined between the needs of human
v. Conservation	development and the need to preserve our natural resources? This process could be used to resolve specific
Conservation	issues — such as legislatively adopted mitigation standards for groundwater applications affecting instream
	flows — for future water allocations on a watershed basis, or for individual conflicts.
	APPLYING ETHICAL PRINCIPLES WATER ALLOCATION PROBLEMS Sustainability: This value expresses concern for future generations and the planet emphasizing that
	an adequate and acceptable quality of life today must not jeopardize prospects for future generations.
Unique	Sustainability precludes short-sited emphasis on economic growth that harms ecological systems, but also
Watersheds	excludes long-term conservation efforts that ignore human needs and costs. (Schramm, <i>ibid</i> , at 260-61.)
	The balance between conservation and human access is different for each watershed and evolves over time,
	because watersheds have unique fisheries and recreational assets and communities within watersheds have
	fits-all approach to sustainable water usage and conservation and suggests a greater need for flexibility and
	local involvement. (Llamas, et al. <i>ibid</i> , at 17-18.)
	Sufficiency: This value emphasizes that all forms of life (including people and fish) are entitled to those
Basic Needs	resources required to meet their basic needs. This is particularly relevant to such basic needs as clean air
	and access to drinking water. It repudiates wasteful consumption and encourages fairness and generosity.
	<i>Id.</i> Related to this is equal respect for human dignity — which is a fundamental principle of public health othics
	<b>Equity &amp; Proportionality</b> : Related to the values of sustainability and sufficiency is the principle of equity
T • • 1	and proportionality. Meeting the needs of all persons and the environment is important, but equity and
Limited	proportionate response require, in the face of limited resources, giving priority to:
Kesources	• the least well off
	• those most immediately at risk
	• those made vulnerable by past discrimination, exclusion, and powerlessness

	These principles call for protecting streams from over-appropriation, but also protecting groundwater		
Water	availability in rural areas and growing suburban communities where the most affordable housing		
Conflicts	an a		
& Fthics	surface and groundwater is neither equitable nor proportional to the impacts caused by each new permit-		
	exempt groundwater use.		
Water Supply	From a financial and public health perspective, closing the safest and most affordable water supply		
Alternative	alternative for rural development appears to be disproportionate and inequitable. This is especially		
	true if there are regional solutions available to mitigate for incremental cumulative effects on instream		
	functions and values. There is also a disproportionate administrative impact to counties and state agencies		
	impacts on water resources. State funding and coordination of regional mitigation efforts for cumulative		
Regional	impacts from the smallest users would be far more financially efficient and fair than requiring each		
Mitigation	landowner to conduct an individual water availability analysis and mitigation plan to be reviewed by		
	county officials and potentially appealed to the courts. It would also result in better stewardship of our		
	water and salmon resources. See Chris Pitre and Sharon Haensly, "Water for Rural Development: Tapping		
	<i>The Hirst Ruling</i> , Daily Journal of Commerce, Sept. 28, 2017. <b>Participation:</b> The ecolustice norm of participation addresses the values inherent in the process of		
T (1 T	policymaking and decision making. Legislatures and courts may be influenced by powerful, well-		
Influence Issues	organized, and well-funded groups from all sides of the political spectrum. A dominant influence over		
	government by any particular interest group is not well-suited to the equitable distribution of water or any		
	public resource. From an ethical point of view, governance mechanisms should involve a deliberative and		
	participatory process marked by transparency, universal access to information, inclusiveness, and individual and community empowerment so that all may take adventage of the open information and the participatory		
	opportunities (Jennings <i>ibid</i> ) Participation implies equality of access to decision-making processes and		
	is not inconsistent with balancing the needs of human development with the need to preserve our natural		
	resources and maintain a healthy ecosystem.		
Flow Impacts	The water rights that most limit legal availability of water in Washington State are minimum instream		
	flow water rights. These rights are established and managed by Ecology for the purpose of preserving		
	making processes for most of these instream flow rules did not allocate water for future human domestic		
	needs despite statutory policy that water be allocated according to the maximum net benefits to the public.		
Outleted Dates	RCW 90.54.020(2), 90.03.005. These instream flow rules have not been updated despite new information		
Outdated Kules	linking groundwater and surface water and new court decisions affecting the availability of groundwater.		
	The Washington Supreme Court has interpreted instream protection rules as excluding other uses of water, thus deriving human access to water despite the failure to balance the public interests between water for		
	instream and out-of-stream needs. Thus, the State's groundwater has essentially been closed to new uses in		
De Facto	order to protect instream flows — without any public notice or robust balancing of public interests between		
Closure	environmental and human water needs. This process excluded public participation in the closure of		
	groundwater that is relied upon by rural property owners and growing communities. Some open and public		
	balancing of interests in groundwater should have happened, but did not.		
	those who suffer discourages discrimination and oppression, and embodies a fundamental communal		
Interdependence	nature of life in contrast to individual rights and the pursuit of accumulation. The notion of solidarity and		
	interdependence applies in both social and ecological contexts, between human communities and nature. In		
	water ethics, solidarity reminds us of what may be called our "upstream and downstream interdependence."		
	(Jennings, <i>ibid.</i> ) Tracting water rights as private property implicates the conflict between self interest and the second (		
Privata	ecological common good. There are situations in which the pursuit of rational self-interest leads to		
Property	outcomes that are irrational and harmful to the interests of other individuals and communities — the so-		
(Self Interest)	called "tragedy of the commons." In other words, the human interests served by sustainable and sufficient		
(our merest)	water supply and by biodiversity and maintenance of a healthy environment are often not well served by		
	encouraging individual behaviors that seek to maximize their self-interest. Treating water as a commodity		
	under the Prior Appropriation Doctrine and creating incentives to preserve private water rights for future		
Fundamental	Understanding that water is a common resource and a fundamental need and that sustainable water		
Need	utilization is a common good, can provide the basis for ethically appropriate solutions to current and future		
	water availability issues.		

Water

Conflicts

& Ethics

Ethical

Workable Policy

**Instream Flow** 

Protection

## The Water Report

## CONCLUSION

The ethical principles of sustainability, sufficiency, participation, and solidarity are useful guides for both governmental and individual behavior in the resolution of water resource conflicts. The Washington legislature and governor, and the stakeholders/lobbyists who advise them, should consider these principles in the development of a participatory stakeholder process for resolving the most vexing groundwater availability issues in the state, rather than continuing to defend the self-interests of one stakeholder group or set of values in preference to others. Each ethical value or moral norm described in this article is as valid Responsibility and worthy of protection as the others, and we all have an ethical responsibility to the larger communities we live and work in to join others and consider their needs in the process of resolving water availability disputes. That includes providing communities access to water based on achievable mitigation and public interest decision-making. It also means preventing cumulative impacts to rivers and streams that have no effective and adequate mitigation.

Washington State already possesses workable water policy fundamentals in the Water Resources Act of 1971 (chapter 90.54 RCW) for the allocation of water. Unfortunately, the State has strayed from these fundamentals over the last several decades to maintain consistency with a preference for instream protection before allocating water to people and communities. The irony of the current groundwater availability issue is that progressive-leaning environmentalist politics have become most closely identified with this commodity driven view of "legal water availability" and that conservative-leaning rural property rights advocates have become most closely identified with the resource view of protecting human rights to access affordable water supplies.

As a result of the State's single-minded effort to protect instream flows, it has fallen into the trap of closing the State's groundwaters to the public, at enormous cost to people and water-short communities, without adequate public interest evaluation and with little hope of a solution. That missing public interest balance should be the focus of legislative and gubernatorial efforts to solve the water allocation problem, using stakeholders who agree to employ ethical principles to guide the decision-making process.

### FOR ADDITIONAL INFORMATION:

THOMAS PORS, Law Office of Thomas M. Pors, 206/ 357-8570 or tompors@comcast.net

### References

Human Right to Water: General Assembly Resolution 64/292 of July 28, 2010; cited in Neelke Doorn, "Water and Justice: Towards an Ethics of Water Governance" — Public Reason 5 (1): 97-114 (2013); and Human Rights Council Resolution 15/9 of September 30, 2010.

Key Ethical Values: James Martin Schramm, "Toward an Ethic of EcoJustice" - from Moral Issues and Christian Responses, at pp. 259-63, by Patricia Beattie Jung and L. Shannon Jung, 8th ed. (2013).

Environmental Health and Social Justice Issues: Dieter T. Hessel, "Religion and Ethics Focused on Sustainability"- Environmental Law Reporter, 39 ELR 10291 at 92 (April 2009).

"Metaphysical Blindspot:" Jeremy J. Schmidt and Christiana Z. Peppard, "Water Ethics on a Human-Dominated Planet: Rationality, Context and Values in Global Governance" — WIREs Water 2014. doi: 10.1002/wat2.1043.

Public Health Ethics: Bruce Jennings, "Principles of Water Ethics" — from: Minding Nature: August 2009, Volume 2, Number 2.

Thomas Pors' law practice emphases water rights and land use, including project permitting and environmental review, water quantity and quality issues, water supply development and planning, regulatory compliance, and related litigation. He has been practicing law since 1982. He has extensive experience representing private and municipal clients in planning and advocacy roles before state and federal courts, agencies and commissions, hearing examiners, planning commissions, appeals boards, and city and county councils. Mr. Pors is a frequent author and lecturer on water rights issues at local and regional seminars and conferences. For additional background concerning recent Supreme Court water cases and the conflict between instream flow regulation and groundwater availability, see the author's articles at: www.porslaw. com/articles.

## WATER BRIEFS

## RECLAMATION TITLE TRANSFERS WEST RECLAMATION TITLE TRANSFER PRACTICES

SENATE TESTIMONY

On January 17<sup>th</sup>, Austin Ewell, Deputy Assistant Secretary for Water and Science, US Department of the Interior, testified before the US Senate's Energy and Natural Resources Committee's Subcommittee on Water and Power.

Excerpts from his written statement:

The [Interior] Department strongly supports Congress' efforts to better facilitate the title transfer of Reclamation facilities to non-Federal entities.

[U]nder Reclamation law, title to Reclamation projects, lands, and facilities must remain with the United States until such time as a title transfer is authorized by Congress. For many years, Reclamation and interested stakeholders have been working together, along with other federal and state agencies and interested stakeholders, to negotiate the terms and conditions of specific title transfers. Unfortunately, even for simple transfers, this can be a time consuming and costly process.

[S]ince 1996, Reclamation has transferred title to thirty (30) projects or parts of projects across the West pursuant to various acts of Congress. ...Over time, Reclamation recognized that there were many more entities that might be good candidates to take title, but had not pursued it for various reasons. In an effort to work with stakeholders who are interested in pursuing title transfers, Reclamation developed a process to facilitate additional title transfers in a consistent and comprehensive way known as the *Framework for the Transfer of Title* [see www.usbr.gov/title/framework\_title\_transfer\_2004\_revision.pdf]. Considerations for Title Transfer Legislation:

First, the legislation should authorize the Secretary, through the Bureau of Reclamation, to administratively transfer title to projects and facilities based upon the establishment of specific eligibility criteria. Those criteria should focus on ensuring that the terms and conditions of title transfer agreements protect the project purposes for which the facilities were authorized; protects the contractors and the other stakeholders of the facilities who enjoy benefits from these facilities, protects the public and tribal entities as well as the environmental resources that may be impacted by the Project facilities and protect the Federal financial investment.

Second, the process to develop title transfer agreements under a title transfer program should be open, public, and transparent.

Third, as there currently is no categorical exclusion that applies to title transfers under the National Environmental Policy Act (NEPA), Reclamation believes that the development of a categorical exclusion, depending upon its structure and content and subject to approval by the Council on Environmental Quality, would be a logical and helpful tool.

Fourth, the existence of hydropower on a Reclamation project provides additional complexities that need to be addressed by legislation, including issues related to Federal Energy Regulatory Commission (FERC) licensing and federal power marketing by the Power Marketing Administrations.

Fifth, Reclamation recommends statutory language to ensure Reclamation law continues to control project water regardless of the title transfer and especially in circumstances where only a portion of a project is being transferred.

Reclamation strongly supports expanding the number of projects and facilities that are transferred out of Federal ownership and we believe that the process for making this happen is key to our success. We have found that we are most successful when the process is collaborative, open, and inclusive

— so that all the stakeholders with an interest in the operations of the facilities have an opportunity to have their concerns and views heard. **For info:** Full Written Testimony at: www.usbr.gov/newsroom/testimony/ detail.cfm?RecordID=3241

## SALMON REHAB

SAN JOAQUIN CHINOOK SPAWNED

Spring-run chinook salmon have successfully spawned in the San Joaquin River for the first time in over 60 years due to a multi-agency effort by the San Joaquin River Restoration Program (Program).

While the San Joaquin was once home to the largest population of spring-run Chinook in California, with the construction of Friant Dam in 1942, the prime spawning habitat for the spring-run was cutoff. The result, in combination with other factors, was the species disappearing from the river.

The Program, the outcome of an 18-year lawsuit and subsequent settlement, seeks to return the fish species to the river through a collection of actions. Understanding what spring-run Chinook need to survive is a key component. Fishery biologists measure, weigh and take tiny genetic identification tissue samples from juvenile fish before releasing them back to the river as part of a monitoring process. This genetic information helps Program biologists determine the parentage of each fish in the river. The value of this information is twofold: 1) a better understanding of which fish have the genetics for the greatest chance of survival; and 2) the ability to track the fish back to a specific redd (or spawning nest) in order to analyze which locations have the best survival rates and why.

The adult salmon — parents of the juveniles caught — were grown to adult size over the course of three-to-four years in tanks at the Salmon Conservation and Research Facility, located below Friant Dam. These adults were then released into the river and some successfully spawned, producing their offspring before dying. Though these adult salmon never migrated to the ocean or journeyed back upstream as natural salmon do, they still constructed 13 redds in the most upper reach of the river that were detected through observation.

Program staff will soon be releasing additional spring-run Chinook juveniles to the river and monitoring the lower reaches of the restoration area for returning adult spring-run Chinook from previous year releases.

Implementing agencies responsible for management of the program are the Bureau of Reclamation, the US Fish & Wildlife Service, the National Marine Fisheries Service, the California Department of Water Resources and the California Department of Fish & Wildlife. **For info:** San Joaquin River Restoration Program website: www.restoresjr.net

## WATER BRIEFS

## GROUNDWATER RECHARGE ID

### EASTERN SNAKE PLAIN AQUIFER

On January 8th, the Idaho Water Resource Board (Board) announced that it is poised to surpass recharging 200,000 acre-feet (AF) of water into the Eastern Snake Plain Aquifer (ESPA) that week. The effort ison course to exceed the Board's annual recharge goal of 250,000 AF per year. "We are hoping to not only meet our annual goal but potentially surpass the record we set last year of 317,000 acre-feet of water, depending on what the weather brings the rest of this winter," said Wesley Hipke, recharge project manager for the Board. The ESPA is crucial to southern Idaho's economy, covering approximately 10,800 square miles of Idaho. Now that colder weather has settled over the ESPA region, Hipke expects recharge flows to decrease in the short term because of freezing temperatures and icy conditions in the canals, and then pick up again in the early spring when temperatures warm up.

As of January 5th, recharge flows reached 200,044 AF of water into the ESPA. This year the Board's recharge program has benefited from a surplus of reservoir storage in the Upper Snake River region, Hipke said, allowing the Surface Water Coalition to donate 61,100 acre-feet of water for recharge under the historic water settlement agreement. Those flows were recharged into the ESPA between August 30 and early November. *See "Settlement Agreement Entered Into June 30, 2015"* (Participating Members of the Surface Water Coalition and Idaho Ground Water Appropriators, Inc.) (weblink below).

The Board has been working to expand the number of recharge sites that have the potential and capacity to participate in the program and also boost the capacity of existing sites. So far, more than 100,000 AF of water has been recharged into the ESPA from the Upper Snake region, above Minidoka Dam, by eight different irrigation districts or canal companies. Below Minidoka Dam, three irrigation districts and canal companies have recharged more than 95,000 AF of water into the ESPA. The Board pays the districts and canal companies to conduct managed recharge using the Board's water rights on a per-acre-foot basis with funds provided from the Idaho Legislature.

The Board's goal of meeting an annual target of 250,000 AF of recharge into the ESPA per year is intended to restore the ESPA to sustainable levels, along with a reduction of 240,000 AF of groundwater pumping by the Idaho Ground Water Appropriators (IGWA) and nine groundwater districts across the ESPA region through the settlement agreement.

Up to 2016, the ESPA was being overdrafted by an estimated 200,000 AF per year (*see* below). In 2017, groundwater monitoring wells showed that the ESPA was beginning to bounce back, showing an increase in storage of at least 660,000 AF. "We are starting to see the benefits of the board's recharge program in the ESPA, along with contributions from the Surface Water Coalition and IGWA," Hipke said. "However, to meet our long term goals when water isn't as abundant, we need to continue to expand the recharge infrastructure." For additional background, *see* Water Briefs, *TWR* #144.

It should also be noted that in 2016, the Idaho Department of Water Resources (IDWR) created a Ground Water Management Area (GWMA) for the Eastern Snake Plain Aquifer (ESPA) region, with Director Gary Spackman saying at the time that more needed to be done to restore the aquifer. "By designating a groundwater management area in the Eastern Snake Plain Aquifer region, we bring all of the water users into the fold — cities, water districts and others — who may be affecting aquifer levels through their consumptive use," Spackman told the Idaho Water Users Association in November 2016 when the GWMA was created. Spackman pointed out the necessity of a management area in an IDWR press release at the time: "As we've continued to collect and analyze water data through the years, we don't see recovery happening in the ESPA. We're losing 200,000 acre-feet of water per year," Spackman said. "At some point, we can't deny the reality that we need to do more to stop the drop."

For info: Wesley Hipke, IDWR, 208/ 287-4832; IDWR website: www.idwr.idaho. gov/IWRB/ >> Search on Settlement Agreement

## WOTUS RULE

CWA JURISDICTION

Uncertainty and confusion remain dominant themes when it comes to Clean Water Act jurisdiction and the definition of "Waters of the United States" (WOTUS). The WOTUS rule is a definitional rule that clarifies the scope of the statutory term "waters of the United States." The rule was designed to clarify which wetlands and streams were to be given automatic protection by setting out which water sources fall under the jurisdiction of the Clean Water Act.

US

First, the US Supreme Court unanimously ruled on January 22nd that challenges to an EPA regulation defining the Clean Water Act term "waters of the United States" must be filed and heard in federal district courts. The ruling came in opposition to the Trump administration, which had argued that the cases should be heard in federal appellate courts (i.e. the U.S. Court of Appeals) because the WOTUS rule was related to the Environmental Protection Agency's (EPA) permitting authority. National Association of Manufacturers v. Department of Defense, et al., Case No. 16-299 (Jan. 22, 2018). The decision was "not about substantive challenges to the WOTUS Rule" but instead "was about in which federal court those challenges must be filed." Id. at 1. Justice Sotomayor wrote the unanimous opinion for the Supreme Court.

The next development in the controversy came about on February 1st, when the head of the Environmental Protection Agency (EPA) Tom Pruitt issued the following statement in reference to a delay of the WOTUS rule: "The 2015 WOTUS rule developed by the Obama administration will not be applicable for the next two years, while we work through the process of providing long-term regulatory certainty across all 50 states about what waters are subject to federal regulation." For info: Supreme Court decision available at: www.supremecourt. gov/opinions/slipopinion/17

Copyright© 2018 Envirotech Publications; Reproduction without permission strictly prohibited.

## WATER BRIEFS

## WATER ENERGY NEXUS reduced energy use

CA

An article was published January 12th in Environmental Research Papers entitled "The Estimated Impact of California's Urban Water Conservation Mandate on Electricity Consumption and Greenhouse Gas Emissions" (Spang, Holguin, and Loge1. ERP, Volume 13, No. 1). Their research revealed a silver lining from California's water conservation efforts during the drought. The goal was to reduce water use by 25% and Californians came close to meeting it: between June 2015 and April 2016, when restrictions were in effect, residents reduced the amount of water they used by 24.5%. The unintended side effect to this massive conservation experiment was that residents weren't just saving water, they were saving energy as well.

The team from UC Davis found that in addition to saving 524,000 million gallons of water over the mandate period, state residents also saved 1830 gigawatt hours of electricity — enough to power 274,000 average homes for a year. That electricity savings meant a reduction of 521,000 metric tons of greenhouse gases, the equivalent of taking about 110,000 cars off the road for a year.

California has what Edward Spang, associate director of the Center for Water-Energy Efficiency at UC Davis and the first author on the report, describes as "energy intensive water." The amount of energy required to extract the water used, treat it, and distribute it varies depending on where in California you live, but overall, it is quite high. "We have one of the largest scale conveyance systems in the country," Spang said. "We have a lot more water in the north and a lot more people in the south." Spang and his colleagues cite previous work that found that roughly 19% of California's electricity demand is related to the pumping, conveying, distributing, heating, and treatment of water.

The authors also report that all the electricity and greenhouse gas emissions Californians saved when they thought they were only saving water is comparable to the results of statewide energy-efficiency programs. The cost of achieving these savings through water conservation was competitive with existing programs that specifically target electricity or greenhouse gas reductions. This led researchers to conclude that water conservation should be included in the state's slate of initiatives to reduce overall energy consumption.

The team built a companion website to this research effort — "H2Open" (https://cwee.shinyapps.io/greengov/) — that allows users to view and explore the data and results across scales, from individual water utilities to the statewide summary.

For info: Report available at: http://iopscience.iop. org/article/10.1088/1748-9326/aa9b89

WA

## "HIRST FIX"

WATER SUPPLY LEGISLATION

On January 18th, the Washington State Legislature passed Engrossed Substitute Senate Bill 6091, which was signed by Governor Jay Inslee the next day, to deal with the complications brought about by the Hirst decision. Whatcom County v. Western Wash. Growth Mgt. Hrgs. Bd., 186 Wn.2d 648, 381 P.3d 1 (2016) (Hirst). Hirst was a Washington State Supreme Court (Court) decision that changed how counties approve or deny building permits that use permit-exempt wells for a water source. In the Hirst decision, the Court ruled that Whatcom County failed to comply with the Growth Management Act requirements to protect water resources. The ruling required the county to make an independent decision about legal water availability, including any impact on instream flows. While the case directly related to Whatcom County, it set legal precedent that applied to other counties.

A reliable, year-round supply of water is necessary for new homes or developments. Before the October 6, 2016, *Hirst* decision, many counties relied on determinations by Washington's Department of Ecology (Ecology) about whether year-round water was available. *Hirst*, however, required that counties had to make their *own* assessment about whether there was enough water, both physically and legally, to approve building permits that would rely on a permit-exempt well. Ecology noted that in response to the decision, "several counties severely restricted approvals of subdivisions and building permits for houses relying on permit-exempt wells. Some counties required permit applicants to pursue expensive hydrogeological study before building."

The legislation was designed to protect water resources (instream flows) while allowing families in rural Washington to utilize groundwater for their water supply. Governor Inslee stated that the bill "includes significant funding for habitat protection and restoration and other improvements that will be guided by local stakeholders and tribes according to the needs of each basin. Despite this positive step, pressures on stream flows and salmon will continue to mount in the face of climate change and growing demand for water. We must build upon this effort to meet those challenges far into the future and continue to work collaboratively to protect this valuable resource."

As part of Ecology's Q&A on its website, the agency summarized what the law does. "The law focuses on 15 watersheds that were impacted by the *Hirst* decision and also establishes standards for rural residential permitexempt wells in the rest of the state. The law divides the 15 basins into those that have a previously adopted watershed plan and those that did not. The law allows counties to rely on [Ecology's] instream flow rules in preparing comprehensive plans and development regulations and for water availability determinations."

Ecology continued: "It allows rural residents to have access to water from permit-exempt wells to build a home. It lays out these interim standards that will apply until local committees develop plans to be adopted into rule: Allows a maximum of 950 or 3,000 gallons per day for domestic water use, depending on the watershed[;] Establishes a onetime \$500 fee for landowners building a home using a permit-exempt well in the affected areas. It retains the current maximum of 5,000 gallons per

## day limit for permit-exempt domestic water use in watersheds that do not have existing instream flow rules. It invests \$300 million over the next 15 years in projects that will help fish and streamflows."

*The Water Report* plans to publish a full article discussing the *Hirst* Fix, as the legislation has come to be known, in an upcoming issue. Ecology posted a webpage that details the new law and includes highlights from the law, a map showing where the law applies, and a Q&A. Ecology said that they will continue to work on the page as it moves further into implementation of the law.

For info: Ecology NEW LAW webpage: www.ecology.wa.gov/Water-Shorelines/ Water-supply/Water-rights/Case-law/ Hirst-decision

TX

## ESA GUIDANCE

LANDOWNER ESA GUIDE

Questions about exactly what the federal Endangered Species Act is and how it applies to private landowners is addressed in a new fact sheet produced by Texas A&M AgriLife Extension, by authors Dr. John Tomacek, Kathryn Smith-Hicks and Tiffany Dowell Lashmet (Assistant Professor and Extension Wildlife Specialist; Program Manager, Natural Resources Institute, Texas A&M University; Extension Agricultural Law Specialist, respectively). Lashmet is the writer of the Texas Ag Law Blog.

The Landowner Guide helps landowners get up to speed on the basics of this important, and complex, federal law. Although the title focuses on Texas landowners, since this is a federal law, the fact sheet should be applicable to use and useful for landowners across the country.

**For info:** Guide available at: https:// agrilife.org/texasaglaw/2018/01/22/ updated-link-endangered-species-actfact-sheet/

## RECLAIMED WATER WA

RECYCLED WATER RULE On January 24th, Ecology announced that it adopted a new rule to

# The Water Report

## WATER BRIEFS

streamline the process for reclaiming water. The rule requires that reclaimed water projects protect public health and water quality. Reclaimed water can be used for irrigation, landscaping, flushing toilets, improving wetlands or stream flows, recharging groundwater, and other beneficial uses. The new rule addresses all aspects of reclaimed water; including permitting for generating, distributing, and using reclaimed water across the state. The rule will become effective on February 23, 2018.

Reclaiming water uses advanced technologies to remove pathogens and contaminants from wastewater so that it is safe to be reused. Ecology considers reclaimed water to be a "key component of managing Washington waters wisely and protecting the state's resources for future generations." Ecology's press release noted that the "use of reclaimed water preserves Washington's drinking water, and helps reduce the discharge of wastewater to the state's lakes, rivers and Puget Sound. It can also help our state prepare for impacts from climate change."

Reclaiming water is one way rapidly growing communities can meet increased demands. Ecology noted an example in eastern Washington, where the Odessa aquifer is being depleted. The city of Othello is pursuing reuse and reclaimed water projects to take pressure off the aquifer and ensure the city has the water it needs. "We've documented declining groundwater in Othello's water supply wells. The city is pursuing the reuse and reclaiming of water as tools for our city," said Mayor of Othello Shawn Logan. "This will ensure we use existing water sources more efficiently and protect the city's potable water. Ecology's adoption of the reclaimed water rule clarifies the regulatory requirements for the city and we strongly support this planning process."

The reclaimed water rule is the state's first rule governing these practices. The rule creates statewide standards and makes a clear and predictable permitting process for reclaimed water projects, while protecting public health and water quality. The rule comes after a decade of work with Washington State Department of Health, utilities, and other stakeholders to develop protective standards, as well as a project planning, design, and permitting process that works for everyone.

For info: Ecology's webpage: https:// ecology.wa.gov/Water-Shorelines/ Water-quality/Reclaimed-water

# LEGIONNAIRES' DISEASE US COOLING TOWERS' THREAT

A study from the US Centers for Disease Control and Prevention (CDC) points to cooling towers (CTs) as a leading source of outbreaks of Legionnaires' Disease (LD), a severe form of pneumonia caused by inhalation of aerosols containing Legionella bacteria. The study, Distribution of Legionella and Bacterial Community Composition Among Regionally Diverse US Cooling Towers (Llewellyn, Lucas, Roberts, Brown, Nayak, Raphael, and Jwinchell; December 20, 2017 in PLOS (PLoS ONE 12(12): e0189937. https://doi.org/10.1371/journal. pone.0189937). According to the study, proper maintenance of CTs is vital for the prevention of LD. The aim of this study was to determine the distribution of Legionella in a subset of regionally diverse CTs in the US and characterize the associated microbial communities.

Legionellae are Gram-negative opportunistic bacterial pathogens common to soil and freshwater environments. These bacteria are the causative agents of LD, a severe form of pneumonia that primarily affects adults who are 50 years or older, have a history of smoking or chronic lung disease, or are immunocompromised. Legionella infections are primarily spread via inhalation of contaminated aerosols from man-made water systems and devices such as showers, whirlpool spas, and CTs. Legionella is the leading cause of deaths from waterborne outbreaks in the US and the rate of reported cases of legionellosis in the US increased nearly four-fold from 2000 to 2014, highlighting the urgency of this public health threat.

CTs are a part of the airconditioning systems often present The Water Report WATER BRIEFS

in large buildings, such as hotels or hospitals, which use water to efficiently cool air via heat transfer. Environmental microbes can flourish in CT systems that are not properly maintained. The presence of sediment, nutrients, heterotrophic biofilm, and amoebae in warm water combined with insufficient biocide treatment can result in high numbers of legionellae. These microbes can then become aerosolized in the spray or mist generated by the tower. In some outbreaks, cooling tower plumes have been reported to disperse over several kilometers. Susceptible individuals who inhale Legionellacontaining aerosols are at risk for developing LD.

CTs have been linked to many reported LD outbreaks. The Abstract of the study concludes that "[O]ur findings highlight that, under the right conditions, there is the potential for CT-related LD outbreaks to occur throughout the US." The CDC also has a helpful webpage entitled "What Owners and Managers of Buildings and Healthcare Facilities Need to Know about Legionella Water Management Programs" that discusses how to maintain building water systems so as to prevent Legionnaires' disease. For info: Study available at: http://journals.plos.org/plosone/ article?id=10.1371/journal. pone.0189937; CDC webpage: www. cdc.gov/legionella/water-systemmaintenance/wmp-fact-sheet.html

## UNAUTHORIZED FILL WA ENFORCEMENT ORDER

Richard and Sarah Tamburello of Kennewick have been fined for failing to restore the shoreline and remove the fill material they illegally placed in the Naches River floodway near Nile in Yakima County. The Washington Department of Ecology (Ecology) issued the Tamburellos a \$16,000 civil penalty for not following an enforcement order issued in January 2017. In that order, Ecology and Yakima County required them to prepare and submit a restoration plan and obtain all the necessary permits to remove the fill.

Beginning in May 2013, the Tamburellos placed 296 cubic yards of fill material in the Naches River floodway below the ordinary high watermark and in an associated wetland. All work was conducted without necessary local, state and federal permits. The fill, equal to roughly 30 dump truck loads, can obstruct the river's floodway and alter flow patterns and flood depths. Ecology also noted in its press release that wetlands are critical to overall watershed health because they protect surface and groundwater, provide erosion control, recharge groundwater, and offer wildlife habitat. Such functions are lost when wetlands are filled.

The penalty followed numerous opportunities for the Tamburellos to prepare, submit, and implement plans to restore the shoreline disturbed by their construction activities. The Tamburellos have 30 days to file an appeal with the Shorelines Hearings Board. **For info:** Joye Redfield-Wilder, Ecology, 509/ 575-2610 or joye. redfield-wilder@ecy.wa.gov

## PRODUCED WATER UT OIL & GAS ISSUES

Oil and gas fields in the Uinta Basin of eastern Utah typically produce about 30 million barrels of oil and 325 billion cubic feet of natural gas annually. The hydrocarbon production also generates over 100 million barrels of saline nonpotable water which requires disposal. A new Utah Geological Survey report, released November 29, 2017, addresses how to deal with this water.

Extensive drilling for gas in "tight" sandstones in the eastern part of the basin generates a need for water disposal, while in the central basin expanding enhanced oil recovery (EOR) programs, called waterflooding, creates a need for water. Although drilling activity is currently low in Utah, and elsewhere, due to depressed oil and gas prices, existing fields continue to produce. As wells mature, water production increases while oil and gas production decreases. The environmentally sound disposal of produced water affects the economics of the hydrocarbon resource development in the basin. Specific Uinta Basin water issues include water use/reuse for well drilling and completion (e.g., hydraulic fracturing), appropriate sites for disposal/reuse of water, development of systems to manage the produced water streams, and differing challenges for gas versus oil producers.

This new study by the Utah Geological Survey (UGS) covers the geology, chemistry, and best practices related to saline water production in the Uinta Basin. Specifically, it includes: (1) descriptions and maps of Uinta Basin reservoirs and aquifers; (2) statistical trends of the basin's water quality; (3) overviews of produced-water facilities; and (4) recommendations for the best management practices and options to deal with the produced water. Appendices provide complete data compilations either collected or generated as part of this study. The report provides a framework to address the divergent water uses and disposal interests of various stakeholders and will help industry, particularly small producers, and regulators make optimum management decisions. The report also offers sound scientific information to allay public concerns about the potential for drinking-water contamination from hydraulic fracturing and production operations.

The 279-page Utah Geological Survey Bulletin 138, *Produced Water in the Uinta Basin, Utah: Evaluation of Reservoirs, Water Storage Aquifers, and Management Options*, is available (PDF) for free download from the UGS website (below) at geology.utah.gov. Print-on-demand copies are available for purchase from the Utah Department of Natural Resources Map and Bookstore, 1-888-UTAHMAP, or www.mapstore. utah.gov.

**For info:** Tom Chidsey, UGS, 801/537-3364 or tomchidsey@utah.gov; Report available at: geology.utah.gov

## February 15, 2018

#### February 15-16 AK Alaska Water Well Association 2018 Conference, Anchorage. Lakefront Hotel. For info: www.alaskawellwater. org/convention

February 21-22 TX North American Shale Water Management 2018: Reducing the Cost of Water Recycling & Reuse, Houston. The Westin Galleria. For info: www. shale-water-management.com

February 22 WEB **Reservoir Sedimentation Management** Options & Data Needs Webinar (Dr. Greg Morris), WEB. 11 am - Noon MT. Sponsored by CIRES Education & Outreach and CIRES Western Water Assessment. For info: http://cires. colorado.edu/news/announcingreservoir-sedimentation-managementwebinar-series

February 22-23 WY **Oklahoma Water Law Conference**, Oklahoma City. Sheraton Downtown. For info: CLE Int'l, 800/ 873-7130 or www.cle.com

February 22-23 NM 2018 Land & Water Summit: The Ripple Effect - Stormwater & Tree Canopy, Albuquerque. Sheraton Hotel Albuquerque Airport. Presented by Xeriscape Council of New Mexico & Arid Low Impact Development. For info: www.landandwatersummit.org

February 22-23 NV Family Farm Alliance Conference: One Year In - What's Changed & Where Are We Going in Western Water, Reno. Eldorado Resort Casino. For info: www.familyfarmalliance.org

February 22-23 CA Water 101 Workshop: The Basics and Beyond, Sacramento. McGeorge School of Law, 3200 5th Avenue. Presented by Water Education Foundation; Optional 2nd Day on Feb. 23rd Delta Tour. For info: www.acwa.com/events/water-101workshop-basics-beyond/

February 26-March 2	
Rural Water Association of Utah	
Annual Conference, St. George.	
The Dixie Center. For info: www.	
utahruralwater.net	

February 27 WEB Enforcement & Compliance History Online (ECHO) Advanced Training Webinar, WEB. Presented by EPA. For info: https://echo.epa. gov/help/training#upcoming

February 27-March 1 DC ACWA DC2018 - Annual Washington D.C. Conference, Washington. St. Regis Hotel. Presented by Association of California Water Agencies. For info: www.acwa.com/events/acwa-dc2018/

# **CALENDAR**

March 1-2 AZ Law of the Colorado River Superconference: Learning from Our History & Planning for the Future, Tucson. Hilton El Conquistador Resort. For info: CLE Int'l, 800/ 873-7130 or www.cle.com

### March 1-2

Natural Resource Damages Seminar, Washington. Arnold & Porter Kaye Scholer LLP Conference Center. For info: Law Seminars Int'l, 206/ 567-4490 or www.lawseminars.com

### March 1-4

Public Interest Environmental Law **Conference 2018: Local Character,** Global Vision, Eugene. University of Oregon. Presented by Land Air Water & Friends of Land Air Water. For info: http://pielc.org/pielc-2018/

### March 5-6

Texas Wetlands Conference, Austin. Omni Hotel at Southpark. For info: CLE Int'l, 800/ 873-7130 or www.cle.com

## March 5-7

16th Biennial Symposium on Managed Aquifer Recharge, San Diego. The Dana on Mission Bay, 1710 W. Mission Bay Drive. Presented by Groundwater Resources Assoc. of California and the Arizona Hydrological Society. For info: www.grac.org/events/99/

#### March 6-7 MT The Montana Water Summit: "Water in a Changing West", Helena. Radisson Colonial Hotel, 2301 Colonial Drive. Presented by Montana Department of Natural Resources and Conservation (DNRC), Montana Water Center, Montana Department of Environmental Quality (DEQ), Montana Department of Fish, Wildlife & Parks (FWP), and Montana Bureau of Mines and Geology (MBMG). For info: http://dnrc.mt.gov/ divisions/water/management/trainingeducation/2018-montana-water-summit

<u>March 7</u> WA **Managing Stormwater in Washington** Conference, Tacoma. Greater Tacoma Convention Center. For info: www. washingtonstormwater.com

#### March 8 OR Faces of Freshwater Event, Portland. Castaway Portland, 5:30 - 9:00 pm. Presented by The Freshwater Trust. For info: www.thefreshwatertrust. org/get-involved/events/

March 9-10 LA 23rd Annual Tulane Environmental Law & Policy Summit, New Orleans. Weinmann Hall on Tulane University Campus. Presented by Tulane Law Students. For info: Emily Werkmann, ewerkmann@tulane.edu

## March 13

**The Water Report** 

DC

OR

TX

CA

Wyoming Water Forum: Nick Scribner, WY Game & Fish. "Updates on Governor's Water Strategy Fish Passage Initiative", Cheyenne. Wyoming Water Development Commission at 6920 Yellowtail Rd. Presented by Wyoming State Engineer's Office. For info: http://seo.wyo. gov/interstate-streams/water-forum

### March 13-16

Research & Management in a Changing Climate: 2018 Oregon Chapter 54th Annual Meeting of the American Fisheries Society, Eugene. Hilton Eugene. For info: Kristen Homel, 971/ 673-0578 or http://orafs. org/2018-annual-meeting/

### March 14

CA Water Gala '18: 9th Annual Celebration of Imagine H2O, San Francisco. Mezzanine. For info: www. imagineh2o.org/water-gala-18

#### March 14 Association of California Water Agencies 2018 Legislative Symposium,

Sacramento. Sacramento Convention Center. Presented by Association of California Water Agencies. For info: www.acwa.com/events/2018-acwalegislative-symposipum/

#### VA March 14-15 2018 WSWC Spring Meeting & Washington, DC Roundtable, Arlington. Crystal Gateway Marriott. Presented by the Western States Water Council; Co-Sponsored with the Interstate Council on Water Policy. For info: http://www.westernstateswater.org/ wswc-spring-2018-council-meetingsand-washington-dc-roundtable/

March 16-17 OR 2018 Pacific Northwest Ground Water Exposition, Portland. Red Lion Hotel on the River - Jantzen Beach. For info: http://www.pnwgwa.org/

#### March 19 UT Water Law & Policy Seminar, St. George. Presented by Utah Water Users Workshop. For info: Donna Keeler,801/ 292-4662 or https://conference.usu. edu/uwuw/Law.cfm

### March 20 Water Quality Conference: NPDES

Permitting, Stormwater Management & Source Control, Portland. World Trade Center Two. For info: Holly Duncan, Environmental Law Education Center, 503/282-5220, info@elecenter. com or www.elecenter.com

#### March 20-22 CA 14th Annual Western Boot Camp on Environmental Law, San Francisco. Holland & Knight LLP, 50 California Street, Ste. 2800. Presented by Environmental Law Institute. For info: www.eli.org/boot-camp/westernbootcamp-environmental-law

## March 21

WY

OR

CA

OR

Environmental Law & Policy in the Age of Trump: 2018 Martz Spring Symposium, Boulder. University of Colorado School of Law, Wolf Law Bldg., Wittemyer Courtroom. For info: www.colorado. edu/law/research/gwc/events

СО

#### March 22 **WEB USACE & Reclamation: Sediment** Management for Multi-Purpose Federal Reservoirs Webinar, WEB. 11 am - Noon MT. Sponsored by CIRES Education & Outreach and CIRES Western Water Assessment. For info: http://cires.colorado.edu/news/ announcing-reservoir-sedimentationmanagement-webinar-series

March 22-23 OR & WEB The Mighty Columbia Conference, Portland. Embassy Suites Portland - Downtown. For info: The Seminar Group, 800/ 574-4852, info@ theseminargroup.net or www. theseminargroup.net

#### March 25-27 CA 2018 WateReuse California Annual Conference, Monterey. Portola Hotel & Spa. Presented by WateReuse. For info: https://watereuse.org/newsevents/conferences/california-annualconference/

March 25-28 WA Sustainable Water Management Conference, Seattle. Renaissance Seattle. Presented by American Water Works Association. For info: www. awwa.org/conferences-education/ conferences/sustainable-watermanagement.aspx

March 26-28 OR **Principles & Practices for Environmental Conflict: An Intensive** Workshop, Troutdale. McMenamins Edgefield. Organized by Four Worlds LLC. For info: Todd Votteler, 512/970-9840 or votteler@waterdisputes.org

#### March 28 AZWRRC Conference 2018: The Business of Water, Tucson. University of Arizona, Student Union. Presented by Water Resources Research Centr. For info: https://wrrc.arizona. edu/conferences/2018

March 29-30 MT & WEB Buying & Selling Ranches Seminar, Billings. Northern Hotel, 19 N. Broadway. For info: The Seminar Group, 800/ 574-4852, info@theseminargroup. net or www.theseminargroup.net

April 3-4 CA Solving Water Challenges Through Partnerships - P3 Water Summit, San Diego. Grand Hyatt Hotel. For info: www.p3watersummit.com



260 N. Polk Street • Eugene, OR 97402

## CALENDAR ·

FL

### (continued from previous page)

April 4-5 CA California Tribal Water Summit. McClennan Park. McClennan Conference Center. Hosted by the California Dept. of Water Resources. For info: Angela Rabe, SWRCB, 916/ 322-4266, Angela.Rabe@waterboards.ca.gov or http://www.water.ca.gov/waterplan/ tribal/tws/index.cfm

#### April 5-6

18th Annual Law of the Rio Grande **Conference: Protecting & Enhancing** Our Water Resources, Santa Fe. La Fonda. For info: CLE Int'l, 800/ 873-7130 or www.cle.com

#### April 9-11

Federal Water Issues Conference - National Water Resources Assoc., Washington. Embassy Suites. For info: NWRA, www.nwra.org/upcomingconferences-workshops.html

WY April 10 Wyoming Water Forum: Paul Caffrey, WyGISC. "Wyoming National Hydrology Dataset (NHD) Data Stewardship", Cheyenne. Wyoming Water Development

Commission at 6920 Yellowtail Rd. Presented by Wyoming State Engineer's Office. For info: http://seo.wyo. gov/interstate-streams/water-forum

#### April 16-18

NM

DC

36th Annual ABA Water Law Conference, Orlando. Hilton Bonnet Creek. Presented by Section of Environment, Energy & Resources. For info: https://shop.americanbar. org/ebus/ABAEventsCalendar

### April 22-25 **GIS and Water Resources X**

Conference, Orlando. Rosen Centre Hotel. Presented by American Water Resources Association. For info: www. awra.org

#### April 24-26

CO FLOW 2018: Managing Rivers, Reservoirs, and Lakes in the Face of Drought, Fort Collins. Hilton Hotel. Presented by the Instream Flow Council. For info: www.instreamflowcouncil.org

#### FL April 26

WEB Permitting for Reservoir Sediment Management Webinar - Dr. Rollin Hotchkiss, WEB. 11 am - Noon MT.

2018

DOWNTOWN

Portland, OR

Sponsored by CIRES Education & Outreach and CIRES Western Water Assessment, For info: http://cires. colorado.edu/news/announcingreservoir-sedimentation-managementwebinar-series



For info: www.TheSeminarGroup.net The Water Report is a media sponsor for this event Readers of The Water Report can enjoy \$50 off regitration **Enter promotion code: SPP50**