No. 137, Original

♦

In The
Supreme Court Of The United States

♦

STATE OF MONTANA,

Plaintiff,

v.

STATE OF WYOMING

and

STATE OF NORTH DAKOTA

Defendants.

♦

Before the Honorable Barton H. Thompson, Jr.
Special Master

♦

MONTANA'S POST-TRIAL REPLY BRIEF

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INTRODUCTION AND SUMMARY OF ARGUMENT

Over the last thirty years, Wyoming has exhibited a disturbing pattern of disclaiming any responsibility for compliance with the Yellowstone River Compact. Despite repeated efforts by Montana over those decades to work with Wyoming to develop a method for administering the Compact, and persistent requests from Montana for water, Wyoming flatly refused to acknowledge that it had any obligation under Article V(A) of the Compact, and resisted all of Montana's attempts to administer the Compact. Nor has Wyoming ever taken a single action to provide any water for Montana's pre-1950 rights. Montana's only option was to seek relief in this Court.

Wyoming's ongoing efforts to avoid its Compact obligation persisted in this litigation, where Wyoming asserted its longstanding position that the Compact afforded no protection for pre-1950 rights and contained no provision for an interstate call. Since the rejection of that position, Wyoming has advanced a series of novel, and sometimes conflicting positions, designed to minimize its Compact burden. These positions have included an argument that the Compact *requires* an interstate call (after arguing that the Compact precluded such a call), an argument that the Compact did not divide the tributaries to the Interstate tributaries (a position it later recanted), an argument that the key to the case rested on an obscure 1992 agreement relating to the Northern Cheyenne Compact that expressly disclaimed any impact on the Yellowstone River Compact, and consistently uneven positions on expert disclosures.

Wyoming's pattern of formulating new and ever-evolving arguments carries through in its Post-Trial brief. For instance, for the first time, Wyoming claims that the Compact's protection of Montana's pre-1950 right in Tongue River Reservoir extends only to the amount of "actual use" at the time of the Compact, which Wyoming construes as the 32,000 acre-feet

marketed to water users at that time. Similarly, Wyoming asserts a new theory regarding the Compact's treatment of the rights of the Northern Cheyenne Tribe in Tongue River Reservoir, in arguing that the Compact drafters intended that water for pre-existing Indian federal reserved water rights was to be provided out of each State's Article V(B) percentage allocations. This new argument stands in direct contradiction to the plain language of Article VI. As discussed below, Wyoming makes its arguments in a vacuum, and it finds no support in the facts or law.

In contrast to Wyoming's shifting positions, Montana's position has remained steady. Montana has always maintained that the Compact obligates Wyoming to protect Montana's pre-1950 appropriations from post-1950 uses in Wyoming. The overwhelming evidence at trial shows that Wyoming violated this obligation. As Montana demonstrated, the Tongue River Reservoir did not fill in 2001, 2002, 2004 or 2006, and only the most senior right on Tongue River received direct flow water. At the same time, Wyoming was allowing post-Compact storage, post-Compact irrigation, and post-Compact groundwater pumping. Even Wyoming's experts acknowledged that Wyoming's post-Compact uses harmed Montana. In short, it cannot reasonably be disputed that Wyoming violated its Compact obligations.

Montana irrigators rely on Tongue River water for their livelihood. "[E]very drop of water is valuable," Tr. 3653:1-3 (Hamilton), and "[a] small amount of water can go a long ways." Tr. 3427:19 – 3428:6 (Kepper). During the years at issue, Montana water users made sacrifices to deal with the shortages. Farmers and ranchers like Art Hayes, Les Hirsch, and John Hamilton all were forced to make difficult choices such as selling cattle, idling lands, and purchasing hay from other sources.

Only this Court can afford Montana relief. The Special Master should find in Montana's favor and allow the case to proceed to the remedies phase.

ELEMENTS OF MONTANA'S CLAIMS AND BURDEN OF PROOF

Wyoming misstates the elements of Montana's Compact claim. As identified by the Special Master, the elements of Montana's claim include the following: (1) Montana provided notice to Wyoming that it was not receiving sufficient water to satisfy its pre-Compact rights; (2) Montana's pre-Compact water rights went unsatisfied; and (3) Wyoming allowed post-Compact use at times when Montana's pre-Compact rights were unsatisfied. In Section II of its Post-Trial Brief, Wyoming misstates the elements in several respects that warrant discussion.

First, Wyoming argues that "Montana's claims are measured by the same standards that apply to any claim for breach of contract." WY Br. at 6. Wyoming thereby suggests that this dispute between States should be treated like a garden variety contract dispute. But as Wyoming grudgingly admits, a "compact is both a contract and a statute." *Id.* As a result, the standards guiding interstate water disputes enunciated by the Supreme Court govern.

Next, the second element identified by Wyoming is that "Montana engaged in intrastate regulation sufficient to ensure that no post-1950 appropriations in Montana were receiving water." Wyoming premises this assertion on the Special Master's statement in the First Interim Report that "[w]here Montana can remedy shortages of pre-1950 appropriators in Montana through purely intrastate means that do no prejudice its other rights under the Compact, an intrastate remedy is the appropriate solution." First Interim Report at 27-28 ("FIR"). However, as discussed in more detail below, Wyoming's suggestion that Montana must affirmatively prove that there was "sufficient" intrastate regulation does not square with the rulings in this case. *See* FIR at 27-28, 89; Memorandum Opinion of Special Master on Wyoming's Motion for Partial Summary Judgment (Notice Requirements for Damages) at 11 (Dec. 20, 2011) (explaining that after Montana notified Wyoming of shortages "the burden would have been on Wyoming to

determine whether the insufficiency was the result of post-January 1, 1950 uses in Wyoming in violation of Article V of the Compact") (Dec. 20, 2011 Memo. Op."); Memorandum Opinion of the Special Master on Montana's Motion for Summary Judgment on the Compact's Lack of Specific Intrastate Administration Requirements at 4 (Sept. 16, 2013) ("Instead, the initial presumption is that Montana's existing regulation and administration of its water rights are acceptable under the Compact. Wyoming is free, however, to challenge Montana's regulation as inconsistent with the requirements of the Compact") ("Sept. 16, 2013 Memo. Op.").

Third, Wyoming argues that Montana must prove that "post-1950 diversions in Wyoming caused harm to Montana's pre-1950 appropriations." WY Br. at 7. Once again, Wyoming's position is inconsistent with the language of the Compact and the previous rulings of the Special Master. As discussed in more detail in the section of this Post-Trial Response on causation, the Compact is between sovereigns, and Montana's burden is to show a connection between Wyoming's actions and shortages to the Montana stateline.

Fourth, Wyoming includes a lengthy discussion of "unmet demand" and of the *Tucker v. Missoula Light & Water Co.*, 250 P. 11 (Mont. 1926) and *Parshall v. Cowper*, 143 P. 302 (Wyo. 1914) cases. As Montana has recognized, under prior rulings, Montana bears the burden of establishing that there was insufficient water reaching Montana in the years at issue to satisfy Montana's pre-Compact rights. Given that acknowledgment, it is unclear what the purpose of Wyoming's discussion is, other than to suggest Montana is not entitled to the full amount of water that its pre-Compact rights have historically used. As Montana has explained, however, throughout the west, historic beneficial use is determined through water adjudications. The water rights in the Tongue River Basin in Montana are subject to an adjudication decree, Ex. M7 at App. G-2, thereby establishing prima facie evidence of beneficial use. Mont. Code Ann. § 85-

2-227 (2005). Thus, Wyoming's position that Montana appropriators did not actually need the adjudicated amount conflicts with prior appropriation law. *See, e.g., Quinn v. John Whitaker Ranch Co.*, 92 P.2d 568, 571-72 (Wyo. 1939) ("a decree adjudicating water rights and priorities, as well as a certificate of appropriation, must be regarded as prima facie evidence of the right to take the water as decreed"); *Kaiser Steel Corp. v. W.S. Ranch Co.*, 439 P.2d 714, 716-17 (N.M. 1968) (adjudication decree is conclusive proof of beneficial use).

Contrary to this principle, Wyoming argues that it should be assumed that the pre-Compact water users in Montana did not need their water until either Montana or those users prove that they did. This argument turns the doctrine of appropriation on its head. If Wyoming contends that Montana users did not need the prima facie amount of water provided in the adjudication decree, that is Wyoming's burden to establish. For example, despite Wyoming's best efforts to distinguish the *Parshall* case, it still stands for the proposition that a party claiming a user does not need his decreed amount bears the burden. 143 P. at 304. Nothing in *Tucker* disturbs that bedrock principle of prior appropriation doctrine.

Moreover, Wyoming's "unmet demand" concept is tantamount to arguing that water reaching the stateline would have been wasted. As Wyoming has acknowledged, black letter prior appropriation law provides that Wyoming bears the burden of proving that Montana wasted or did not need water. Wyoming's Final Pretrial Memorandum at 5, n.3. Consistent with this principle, the Special Master has held that "*Wyoming* is free to try to establish that Montana administered water rights on the Tongue River in the years at issue in fashion that did not guarantee beneficial use, that any additional water flowing to Montana would have constituted waste, and that Wyoming was therefore not obligated to provide any additional waters pursuant to Article V(A) of the Compact." Dec. 20, 2011 Memo. Op. at 32 (emphasis added).

Last, Wyoming raises the standard for imposing injunctive relief. In so arguing, Wyoming misconstrues the stage of this litigation. In this phase, the Special Master is considering only whether Wyoming is liable, and if so, in what amount. A consideration of the appropriate remedy, including injunctive relief, for Wyoming's violation, will be conducted following completion of this stage.

In the end, as discussed below, Wyoming's parsing of elements and discussion of "unmet demand" is academic. The evidence presented at trial gives a clear picture that Montana did not receive sufficient water to satisfy its pre-Compact rights. In fact, Montana was short the entire year and did not receive enough water to satisfy even the two most senior rights.

UNMET PRE-1950 DEMAND IN TONGUE RIVER RESERVOIR

I. The Existence of the NCT's Right in Tongue River Reservoir Does Not Diminish Montana's Claim

Wyoming argues that water for the Northern Cheyenne Tribe's ("NCT" or "Tribe") rights recognized under the NCT Compact come out of Montana's percentage allocations under Article V(B), and are therefore not accorded protection under Article V(A). Based on this construction of the Compact, Wyoming claims that the NCT storage right in Tongue River Reservoir is effectively a post-1950 right, and therefore it cannot be included when calculating the existence and extent of shortages in the Reservoir for purposes of determining Wyoming's liability for Compact violations. Wyoming's arguments on this point are unavailing because the source of water for the NCT tribal right has no bearing on Montana's claimed shortages in Tongue River Reservoir, and, in any event, Wyoming's claim that water for the Tribe's right comes out of Montana's Article V(B) percentage allocation runs directly contrary to the plain language of Article VI. This is the first time Wyoming has raised this particular theory, and, similar to Wyoming's theory earlier in this litigation regarding the 1992 Agreement, it is yet another far-

fetched, out-of-the-blue argument attempting to circumvent the plain language of Article VI, and should be rejected accordingly.

A. It Makes No Difference Whether the NCT Rights Are Viewed as Pre-1950 or Post-1950 Rights

As explained in Montana's Post-Trial Brief, DNRC's pre-1950 storage right in Tongue River Reservoir that is protected under the Compact is measured by the original capacity of the Reservoir, which was 72,500 acre feet. *See* MT Br. at 105. The additional capacity created by the 1999 rehabilitation beyond the original 72,500 acre feet amounts to 6,571 acre-feet. Even if the Tribe's water right is viewed as having a post-1950 priority, Montana Department of Natural Resources and Conservation's ("DNRC") pre-1950 storage right went unsatisfied in all of the years at issue. This is because reservoir rights with different priorities are administered from the top down, with the pre-1950 capacity occupying the top of the reservoir and therefore subject to release first. This is true in both Montana and Wyoming. *See, e.g.*, Tr. 5286:1-5288:16 (Tyrrell). In fact, during the pre-trial conference, counsel for Wyoming withdrew Wyoming's motion in limine attempting to restrict the capacity of the Reservoir protected by the Compact to the pre-1999 capacity, acknowledging that Montana had a "good point" with respect to how storage rights with multiple priorities are administered. Tr. 49:23-50:4 (Kaste).

Consequently, unless the Reservoir is drawn down to below 6,571 feet of total storage, the post-1950 storage right is not implicated. The Reservoir was not drawn down that low in any of the years in question, and thus the priority associated with the 6,571 acre-feet of incrementally enlarged capacity is not at issue in this case.

B. Article VI of the Compact Requires that the Tribe's Rights Be Protected as Pre-1950 Rights Under Article V(A)

Wyoming mischaracterizes Montana's position regarding the Northern Cheyenne Tribe's water rights. Montana does not claim that those rights are "excluded" from the Compact. *See* WY Br. at 11. Rather, Montana maintains that the Compact recognizes those rights, along with all other Indian water rights in the Yellowstone River Basin, and protects them from adverse impacts occasioned by the Compact, to which no Indian tribe is a party. Montana's position, unlike the interpretation advanced by Wyoming, is grounded in the plain language of Article VI of the Compact.

The Tribe's storage rights in Tongue River Reservoir are federal reserved water rights. *See* Tr. 1611:7-13 (Tweeten); Ex. M527 (NCT Compact, Art. VII). As such, those rights were already in existence at the time the States entered into the Compact, though they had not yet been quantified. That quantification was established by the NCT Compact. *See* Northern Cheyenne Indian Reserved Water Rights Settlement Act of 1992 (Public Law 102-374, 106 Stat. 1186); Tr. 1598:3-20 (Tweeten). Article VI of the Compact recognizes the existence of unquantified federal reserved water rights for Indian tribes at the time of the Compact, providing that "[n]othing contained in [the Compact] shall be so construed or interpreted as to affect adversely any rights to the use of the waters of the Yellowstone River and its tributaries owned by or for Indian tribes, and their reservations." This language was included in the Compact specifically to account for and ensure the protection of the rights of the Indian tribes to waters in the Yellowstone River System. As explained by Oscar Chapman, then the Secretary of the Interior, to the House and Senate congressional committees considering the federal legislation to approve the Compact:

> The water rights of the Indians were reserved by the Indians at the time of the creation of the respective reservation by the treaties entered into by the Indians with the United States. These Indian water rights have been recognized by the Supreme Court of the United States. The most important decision is the case of *Winters v. United States* reported in 207 U.S. 564. This situation explains the inclusion of [Article VI].

Ex. J72, at 21.

Thus, while the Tribe's water rights had not been quantified at the time of the Compact, they pre-existed the Compact, and therefore the Compact expressly recognized and protected those rights. To treat the Tribe's rights as anything other than pre-1950 rights under Article V(A) would effectively subordinate them to all pre-1950 uses in Wyoming, not only as those rights stood on January 1, 1950, but as their impact on the water budget may have increased over time due to heavier consumption of water as a result of increasingly efficient delivery methods. *See Montana v. Wyoming*, 131 S. Ct. 1765, 1773 (2011). The Tribe has never agreed to subordinate any water right to Wyoming. *See* Amicus Brief of the Northern Cheyenne Tribe in Opposition to Wyoming's Motion for Summary Judgment (Aug. 2, 2013). Thus, the interpretation of the Compact advanced by Wyoming—that the federal reserved water rights confirmed under the NCT Compact are to be provided out of Montana's post-1950 percentage allocations under Article V(B) of the Compact—directly contravenes the plain language of Article VI because it would adversely affect the Tribe's water rights.

Given that the plain language of Article VI is unambiguous, Wyoming's resort to extrinsic evidence to interpret the meaning of that provision is inappropriate. *See Tarrant Reg. Water Dist. v. Hermann*, 133 S. Ct. 2120, 2130 (2013) (noting that interstate compacts are constructed as contracts under principles of contract law, and thus "the express terms of the Compact are the best indication of the intent of the parties"). Further, Wyoming's interpretation would require reading into the Compact terms that cannot be found in the express language,

something the Court has emphatically stated it will not do. *See Alabama v. North Carolina*, 560 U.S. 330, 352 (2010).

In any event, even if resort to extrinsic evidence were appropriate in determining what the States intended with respect to Article VI, the minutes of the December 1950 Yellowstone River Compact Commission ("YRCC") meeting that Wyoming relies on do not support the interpretation of Article VI that Wyoming advocates. The minutes do not reflect any acquiescence by Montana to an understanding that Article VI included Indian rights in the percentage allocations. Instead, those minutes can just as easily be read to indicate that the Montana commissioners believed that further language was not necessary. The plain language of the Compact controls.

Nor does *Arizona v. California*, 373 U.S. 546 (1963), support Wyoming's position. Wyoming claims that this case stands for a general principle of law that "all uses of mainstream water including uses by the United States are to be charged against that State's apportionment." WY Br. at 13 n.1. In *Arizona v. California*, the Court agrees with the special master's statement "that all uses of mainstream water within a State are to be charged against that State's apportionment, which of course includes uses by the United States." However, this statement is not a general statement of law. Rather, it is entirely based on the Boulder Canyon Project Act and the particularities of the interstate apportionment dictated under that act. *Arizona v. California*, 373 U.S. at 601. The particularities addressed in the context of the Court's apportionment of the Colorado River cannot be simply grafted on to the Yellowstone River Basin and the interstate Compact at issue in this litigation. The statement cited by Wyoming is no more a general proposition of law than any particular provision of any interstate compact, and

it has no force or bearing in determining how the Compact in this case treats Indian federal reserved water rights under Article VI.

The language of Article VI is clear: Nothing in the Compact is to be interpreted in such a way that Indian water rights in the Yellowstone River Basin will be adversely impacted. Wyoming's assertion that the Tribe's water rights under the NCT Compact are to be accorded the status of post-1950 water rights, and provided for out of each State's Article V(B) percentage allocation, would result in the very adverse impacts prohibited by Article VI.

II. Montana's Reservoir Right Is Based on the Original Capacity of the Reservoir

Wyoming maintains that the Compact protects "only those portions of existing reservoirs put to beneficial use as of 1950." WY Br. at 14. According to Wyoming, the largest amount of Tongue River Reservoir that can be considered put to beneficial use at the time of the Compact under Montana law and the doctrine of appropriation is 32,000 acre-feet, which is the amount marketed to the Tongue River Water Users Association ("TRWUA") under the July 1937 contract. This amount, Wyoming claims, is the only part of Tongue River Reservoir storage right that is protected by the Compact. *See* WY Br. at 13-15. Wyoming's argument was raised for the first time during trial. It is not supported by the Compact as already interpreted by the Court. Moreover, Wyoming's argument ignores clear Montana and Wyoming law and misapprehends the nature of storage rights under basic principles of the doctrine of appropriation.

As an initial matter, Wyoming's argument that the storage right in Tongue River Reservoir is protected under Article V(A) only to the extent of the amount actually used or marketed was raised for the first time during trial in this case. Montana therefore did not have the opportunity to fully address this position in developing its testimony and evidence for trial. For

example, Wyoming allocates storage to pre-1950 rights based on pre-1950 capacity, not pre-1950 actual use, and Montana adopted this methodology in presenting evidence of Wyoming's post-1950 storage. *See, e.g.*, Tr. 4276:23-4277:22 (Fassett) (explaining Wyoming's position that the Middle Fork project would have had a pre-1950 water right protected under Article V(A), even though construction of that project would not have occurred until after the Compact). If Wyoming's most recent theory is accepted, Wyoming's pre-1950 storage would have to be recomputed to remove any use of a perfected storage right beyond that which was actually in existence at the time of the Compact. Thus, if the Master believes that Wyoming's position on this issue has merit, Montana should be permitted to develop and present evidence to address that position directly.

Contrary to Wyoming's suggestion, the Compact protects pre-1950 appropriative *rights*, not just uses existing at the time of the Compact. The Compact did not simply take a snapshot of the Tongue River Basin in 1950 and then limit the protection of pre-1950 appropriations to that exact scenario. Rather, so long as a pre-1950 right is a recognized type of beneficial use (which storage rights are) and has not been abandoned, the Compact protects the exercise of that right within the full scope of the original appropriation. Indeed, it was pursuant to this principle that the Court upheld the ability of Wyoming pre-1950 irrigators to increase their efficiencies and effectively consume more water than they had at the time of the Compact. As the Court explained:

> The amount of water put to "beneficial use" has never been defined by net water consumption. The quantity of water "beneficially used" in irrigation, for example, has always included some measure of necessary loss such as runoff, evaporation, deep percolation, leakage, and seepage (regardless of whether any of it returns to the stream. So, water put to beneficial use is not what is actually consumed, but what is actually necessary in good faith.

Montana v. Wyoming, 131 S. Ct. at 1778 (internal citations and quoted authority omitted). Wyoming cannot take advantage of that principle to allow its own pre-1950 appropriators to exercise their water rights to their full extent while simultaneously trying to fix Montana's pre-1950 storage rights to only the measure of one aspect of their necessary quantity, and only as that one aspect of use existed on the date the Compact was signed.

As the Court's decision indicates, the amount of water for a pre-1950 storage right that is protected by the Compact (i.e., the amount of water Wyoming is required to deliver to Montana) is determined by reference to the water right itself. That right, as the Special Master has confirmed, is defined by state law. *See* Memorandum Opinion of the Special Master on Montana's Motion for Summary Judgment on The Compact's Lack of Specific Intrastate Administration Requirements at 3-4 (Sept. 16, 2013). As Montana explained at length in its Post-Trial Brief, under Montana law, reservoir storage rights are measured by the original capacity of the reservoir. MT Br. at 99-105. This is also true under Wyoming law. *See, e.g.*, Tr. 5151:15-16 (Tyrrell); Tr. 1828:13-1830:13 (Aycock) (describing Wyoming's recognition of the original water right for Buffalo Bill Reservoir after restoration to the original capacity). Further, Montana law provides that appropriations by the State of storage water for the purpose of marketing are perfected to the full original capacity at the time the works of the reservoir are completed. Montana's right in Tongue River Reservoir was perfected to the full original capacity at the time that the works were completed in 1939 and the Reservoir began storing water for the purpose of marketing for sale. *See* MT Br. at 99-105. Thus, the Compact protects Montana's exercise of that right within the full scope of the original appropriation, which was not for a particular amount, but rather all the unappropriated waters of the Basin to provide water for marketing up to the firm yield of the Reservoir. Under fundamental principles of the doctrine

of appropriation, Montana need only prove that its right was perfected, which it did. At that point, the burden shifts to Wyoming to prove that the right was abandoned, which Wyoming did not prove.

For the same reason, Wyoming's statement that the TRWUA is able to fulfill its contract deliveries with less than the full capacity of the Reservoir is irrelevant to Wyoming's Compact liability. The Compact protects the full exercise of the pre-1950 Tongue River Reservoir storage right under Montana law from interference by Wyoming post-1950 appropriations. That right, which was entirely perfected and exercised to its full extent prior to the Compact, encompasses the full original capacity of the Reservoir. *See* Ex. M7 at 16; Ex. M5 at 29 (table showing end-of-month contents of Tongue River Reservoir, perfection of water right prior to Compact). The testimony Wyoming cites refers to the time period after the 1978 flood, when restrictions on reservoir operations required that the TRWUA make do without carryover storage. This does not mean that they abandoned their water right, however, and should be forever restricted to that amount. The question whether deliveries under TRWUA contracts can be fulfilled even at a lower capacity, while it may pertain to the extent of Montana's injury occasioned by Wyoming's violations, has no bearing on Wyoming's liability for such violations in the first instance. *See Wyoming v. Colorado*, 309 U.S. 572, 582 (1940).

In a similar vein, Wyoming claims that the willingness of water users to voluntarily take a reduction in their shares in dry years when the Reservoir does not fill completely, even if there is sufficient water in the Reservoir to satisfy all contract deliveries, precludes Montana from complaining about shortage to its Compact rights. This argument would require Montana water users to mitigate Wyoming's impairment of Montana's Compact rights with their own storage water. That is not required under the Compact or the doctrine of appropriation. Carryover is

part of a storage water right under the doctrine of appropriation in Montana, and available storage does not serve to benefit junior upstream users to the detriment of senior direct flow or storage rights.

In arguing that beneficial use of Montana's storage right in Tongue River Reservoir is measured solely by the amount of water that was marketed at the time of the Compact, Wyoming demonstrates a fundamental misunderstanding of the nature of storage rights. Wyoming derives the 32,000 acre-foot figure from the early reservoir storage contract developed prior to the construction of Tongue River Reservoir. That figure was nothing more than an early estimate of the minimum firm annual yield from the Reservoir. The capacity of a reservoir and the firm annual yield are two entirely different components of a reservoir project, with capacity being only one of several factors that determine the reservoir yield. Most reservoirs need a minimum pool to provide a sufficient level to deliver adequate water to the river, as well as some carryover storage to protect against severe drought that would prevent the reservoir from refilling each spring. The firm yield is determined by an operation study that analyzes the operation of the system over an extended critical drought period. Firm yield is almost always less than the reservoir's capacity, sometimes considerably so.

As discussed above, the water right for the Reservoir is based on the actual capacity of the Reservoir, not the Contract. In any event, the Contract amount estimated prior to construction of the Reservoir was subject to change without altering the priority date, because the Contract committed to delivering to TRWUA the full annual yield of the Reservoir, whatever that amount ended up being. The actual capacity and firm annual yield were not determined until years later. The original capacity of 72,500 acre-feet was determined in 1948 when the

Bureau of Reclamation resurveyed the Reservoir. When the Contract was amended in 1969, the water available for marketing had been determined to be 40,000 acre-feet.

Finally, that the Compact's protections were meant to extend to the full capacity of Tongue River Reservoir must follow from the recognized importance of storage to Montana's pre-1950 appropriators. As Mr. Chapman explained to the House and Senate congressional committees considering the federal legislation to approve the Compact:

> It long has been recognized that the fuller use of the water resources of the Yellowstone River Basin contemplated in [the Department of Interior's plan for improvements in the Missouri River Basin] is dependent entirely upon the construction and operation of storage reservoirs to regulate and conserve the water yields of the principal streams of the basin [including the Tongue River].

Ex. J72 at 21. Thus, it makes no sense that Montana would have agreed to have its rights in Tongue River Reservoir limited under the Compact in the manner Wyoming suggests.

III. Montana's Reasonable Reservoir Operations Are Protected by the Compact

At trial, Montana presented expert testimony regarding the operations of Tongue River Reservoir. This testimony demonstrated that those operations are reasonable, efficient, and consistent with the historic pattern of use of the Reservoir established prior to the Compact, based on the geography, climate, and senior water rights in the Tongue River Basin. *See* MT Br. at 105-127. The testimony regarding the reasonableness and efficiency of Montana's operations of Tongue River Reservoir went entirely uncontroverted by any Wyoming expert. Instead, Wyoming simply ignores all of Montana's reservoir testimony and persists in its position that any and all water that Montana chooses to bypass during the water year, which is not needed to satisfy a downstream senior right, counts against Montana's storage right in Tongue River Reservoir. Wyoming maintains that Montana's reservoir operations are entirely "discretionary"

and that it is "self-evident" that any flows out of the Reservoir beyond those required to satisfy downstream users constitute waste. WY Br. at 28.

In advancing these arguments, Wyoming continues to misapprehend Montana's claims with respect to Tongue River Reservoir. Fundamental to those claims is the nature of Tongue River Reservoir as an onstream reservoir. This means that flows coming out of the Reservoir are characterized as either releases of stored water, or flows of the River that are bypassed through the Reservoir. Montana does not "use" the River, and the River does not require a water right to flow. Montana does not claim that it can call on Wyoming to refill storage water after Montana begins releasing water for irrigators or to draw down the Reservoir. Instead, Montana claims that it has the right to fill the Reservoir during the spring fill period, hold the Reservoir at a lower level during the winter, and call on Wyoming for any shortage. This type of reservoir operation is permissible under Montana law. Further, even Wyoming does not administer its own reservoirs according to the strictures it seeks to impose on Montana.

A. Bypass Flows Attendant to Reasonable Reservoir Operations Are Consistent with the Doctrine of Appropriation

Wyoming characterizes winter operations of Tongue River Reservoir as "discretionary" to the extent that they are not restricted solely to providing flows necessary to satisfy senior stockwater rights. Such a characterization is inapt, given the extensive evidence presented at trial that those winter operations are justified by very real and significant safety concerns. To operate the Reservoir as Wyoming suggests—storing every drop of water except for that necessary to satisfy senior stockwater rights—would amount to negligent, even reckless operations that could create dangerous conditions threatening loss of property and life downstream. Montana does not have the "discretion" to operate Tongue River Dam negligently or recklessly. *See* Mont. Code Ann. §§ 85-15-212, 85-15-305.

Exercising reasonable care in dam operations and altering winter flows includes consideration of the impacts of icing and ice jams. *See Jeffers v. Mont. Power Co.*, 217 P. 652 (1923) (action for damages resulting from winter releases from Hebgen dam for hydropower generation causing unnatural fluctuation in the level of the river, which allegedly caused breaking and jams of ice with resulting floods and damage to plaintiff's property); *Gaudreau v. Clinton Irrigation District*, 30 P. 3d 1070 (2001) (action for damages after ice jam in Clark Fork River caused water to back up and enter irrigation district canal and a second ice jam in the canal caused water to flood a horse arena in area of the canal). The right to store water in a reservoir does not include the right to indiscriminately or unreasonably exercise that right without consideration of the impact on others. *See Mattson v. Mont. Power Co.*, 215 P.3d 65 (Mont. 2010) (shoreline landowners on Flathead Lake alleged that Montana Power Company's practice of operating Kerr Dam to artificially maintain the lake's water level at full pool into the fall storm season was subjecting their property to increased erosion). Wyoming points to no tenet of prior appropriation that requires a water right holder to operate a reservoir recklessly or negligently in order to enjoy the full benefit of its water right. *See* Tr. 1243:23-25, 1244:1-7, 1256-1257:6 (Smith).

The operational constraints Wyoming would impose on Tongue River Reservoir are a prime example of Wyoming's attempts, by virtue of its advantageous position as the upstream state, to impose requirements and restrictions on Montana that it does not apply to itself. Wyoming does not require its reservoirs to be operated in a manner that could harm the reservoir structure or create dangerous conditions downstream. *See, e.g.*, Tr. 1792:22-1793:22 (Whitaker); Tr. 5009-15 (Lowry). Indeed, several of Wyoming's reservoirs in the Tongue River Basin are operated to bypass water during the winter. *See* MT Br. at 72-73. Wyoming has never

accounted for or limited these Wyoming reservoir rights based on any senior storage rights in Montana. The Wyoming reservoirs are allowed to store water freely up until the time a senior downstream direct flow right in Wyoming requires flows to be bypassed. *See id.* at 69-74. Further, testimony provided by Mr. Aycock and Mr. Whitaker showed that at least some Wyoming reservoirs, including federal reservoirs, have been allowed to bypass water during the winter without its being counted against them. In the case of Pilot Butte reservoir in the Wind River Basin, the need to shut off the reservoir's supply canal during the winter results in a significant amount of water flowing past the reservoir. It was Mr. Aycock's experience that those bypass flows were not counted against the right of the reservoir to fill to its capacity under its water right. Tr. 1859:23-1860:20 (Aycock). This flexibility in accounting by Wyoming water officials was consistent with the flexibility found in their rules. *See* Ex. M519 at 5.

In claiming that Montana's operations of Tongue River Reservoir—operations that are based on a historical pattern of use adapted to the particular conditions of the Basin—are discretionary and are not protected under the Compact, Wyoming fundamentally misunderstands the concept of pattern of use and how it establishes the contours of a storage water right. Wyoming states that bypasses are not part of a pattern of use because they are not a depletive use. Once again, Wyoming displays confusion regarding the nature of an onstream reservoir. The pattern of use of Tongue River Reservoir has to do with when and to what extent Montana has historically exercised its right to store. If the Reservoir were an offstream reservoir, the right would be exercised by diverting water from the stream and impounding it; the pattern of use would correspond to when and to what extent the reservoir diverted the water from the stream into storage. This pattern, in turn, sets the condition of the stream that must be maintained by upstream junior appropriators and that is available for appropriation by downstream juniors. *See,*

e.g., *Spokane Ranch & Water Co. v. Beatty,* 96 P. 727, 731 (Mont. 1908); *Hohenlohe v. DNRC,* 240 P.3d 628, ¶43 (Mont. 2010) (stating fundamental tenet of western water law that an appropriator has a right only to that amount of water historically put to beneficial use developed in concert with the rationale that each subsequent appropriator "is entitled to have the water flow in the same manner as when he located," and the appropriator may insist that prior appropriators do not adversely affect his rights).

In an onstream reservoir, the act of storage is one and the same as the act of diversion, and bypassing flows is the same as shutting off diversion and allowing the river to flow by. Montana does not "use" the River, and allowing the river to flow through the Reservoir consistent with the historical pattern of use is not a "donation" of stored water for downstream use, *see* WY Br. at 21, nor does it amount to "waste." *Id.* at 28-29. Instead, the pattern of storage, bypass, and storage water releases set the timing and amount of the storage right, and all aspects of the storage right — dead storage, evaporation, irrigation contracts, and carryover storage—are protected beneficial uses.

Accordingly, once its pre-1950 appropriations are satisfied, Wyoming is required to deliver sufficient water to Montana to allow Tongue River Reservoir to operate in a manner consistent with its historical pattern of use. Wyoming, of course, is certainly free to store or use post-1950 water when the Reservoir is not storing during the non-irrigation season.

B. Bypass Flows Attendant to Reasonable Reservoir Operations Do Not Constitute Waste

It is Wyoming's burden to show waste. In the face of extensive expert testimony indicating that Tongue River Reservoir was operated reasonably and efficiently, Wyoming presented no contrary evidence that those operations amounted to waste. Instead, Wyoming asserts that "waste is self-evident from Montana's practice of bypassing water for non-beneficial

uses." WY Br. at 28. In support of this assertion, Wyoming cites *Ready Mixed Concrete Co. in Adams County v. Farmers Reservoir and Irrigation Co.*, 115 P.3d 638, 645 n.4 (Colo. 2005), for the proposition that "diverting [water] when not needed for beneficial use, or running more water than is reasonably needed for application to beneficial use, is 'waste.'" However, as explained previously, bypass flows through an onstream reservoir consistent with the historic pattern of use are not "diversions," nor are they excess releases of stored water that Montana seeks to charge to Wyoming. There is nothing self-evidently wasteful about a pattern of use that at certain times does not "divert" by impounding the water and, instead, allows the river to flow through for safety considerations and to make water available for downstream appropriators.

Similarly misguided is Wyoming's additional claim that Montana wasted significant amounts of water in 2004 and 2006 during the summer months by bypassing and releasing excess amounts through the Reservoir. As demonstrated by the testimony of Mr. Aycock at trial, a reasonable review of the records shows that the system was operated in an extremely tight manner considering the long distance and travel time from the dam to the Miles City gage. *See* Ex. M7, App. C, at 38-44; *id.* at 39; Tr. 1835:14-1841:8 (Aycock). Mr. Aycock's testimony showed that the daily records at the Miles City gage dropped frequently to extremely low levels of less than 10 cfs. While there were spikes in the flows due to constantly changing conditions, these spikes were all short-lived. Because the Miles City gage lies approximately 20 miles below the T&Y Canal, there is clearly a significant opportunity for return flow and other accretions to enter the river in that stretch. Far from indicating waste, the records actually demonstrate the opposite — there were likely frequent periods of time in 2004 and 2006 when the entire river was diverted by the T&Y Canal and a shortage still occurred. Tr. 1837:1-1842:25

(Aycock). Wyoming provided no testimony to show how the Reservoir could have been operated more efficiently.

C. Montana Does Not Have a One-Fill Rule

As discussed at length in Montana's Post-Trial Brief, there is no one-fill rule in Montana. MT Br. at 116-22; *see also* Tr. 1856:8-12 (Aycock) ("[H]as the State of Montana ever applied to any of the Bureau of Reclamation reservoirs, in your experience, a one-fill rule? A. No."). The water right in Tongue River Reservoir under Montana law, which includes the historic pattern of use, encompasses more than one fill. Montana does not seek to divert more water than that to which it is entitled under the valid water right, or to fill Tongue River Reservoir water right multiple times.

Montana explained in its Post-Trial Brief that the statement in *Federal Land Bank v. Morris*, 116 P.2d 1007 (Mont. 1941), which forms the cornerstone of Wyoming's claim that Montana follows a strict one-fill rule, is the epitome of dicta. MT Br. at 118-21; *see* WY Br. at 23-24. That statement does not amount in any way to the "unambiguous ruling of [the Montana Supreme Court]" that Wyoming claims it to be.[1] WY Br. at 24. Indeed, well-known water law treatises have recognized as much. *See* A. Dan Tarlock, Law of Water Rights and Resources, § 5:39 n.3 (2013) (stating that "[t]here is some suggestion in Montana that the state follows the one fill rule, *Federal Land Bank v. Morris*, 112 Mont. 445, 116 P.2d 1007 (1941), but the Department of Natural Resources has held that the reasonableness of a diversion scheme should not be determined by a mechanistic application of the rule").

[1] Wyoming is not the appropriate authority to pronounce the law of Montana, particularly where it stands to benefit from its own interpretation of that law. If the Special Master believes that resolution of the ambiguity in the *Federal Land Bank* decision is necessary to a ruling in the instant case, the proper course of action would be to certify the case to the Montana Supreme Court, the only authority that should be pronouncing the law in Montana.

Nor is the one-fill rule an essential feature of the doctrine of appropriation, applicable across all western states, as Wyoming suggests. As one treatise has noted:

> A rational reservoir manager might fill and empty a reservoir several times a year, but ***some states*** follow a one fill rule that limits the amount of water that can be stored each year to the capacity of the reservoir. Colorado and Wyoming allow a reservoir to be filled once a year. ***The status of the rule in other states is unclear.***

Tarlock, *supra*, § 5:39 (emphasis added). The rule has also been criticized for a number of reasons. For instance, one commentator explains that the rule is "inefficient because it discourages carry-over storage." *Ibid.* Another analysis has suggested that in Colorado, "it may now be time to recognize that . . . some aspects of the one-fill rule, as originally conceived, are unnecessary and contrary to public policy considerations." Austin C. Hamre, *When You've Had Your Fill: A Review of the One-Fill Rule*, 27 Colo. Law. 95, 96 (1998).

Moreover, the one-fill rule as actually implemented in the states that do follow it, including Wyoming itself, bears little resemblance to the rigid, mechanistic rule that Wyoming would apply to Tongue River Reservoir, requiring Montana to store every drop of water regardless of any other consideration. For example, Wyoming Water Commissioners have discretion to determine when a reservoir owner must begin to fill. *See* Ex. M519 at 5; Ex. W290. The Water Commissioners "interpret each situation as they exist [sic]" in making that determination. Tr. 2018:9-2019:24 (LoGuidice). It is only after a notice to fill is issued that bypass flows may count against the fill of the reservoir. A number of Wyoming reservoirs associated with the Tongue River Basin bypass winter flows for similar reasons that Tongue River Reservoir does, but are nonetheless allowed to fill completely in the spring. *See* MT Br. at 71-74.

Likewise, one commentator has explained the current, more flexible approach to the one fill rule in Colorado:

> Under current law, the primary focus is on the appropriator's intent. The physical capacity of the "bucket" used to effect the appropriation is relevant operationally, and therefore enters into the proof that water can and will be diverted, stored, and used, but generally deserves to be accorded no further legal significance.
>
> If a party can show that an intent to refill was part of the original appropriative intent, and can make the "can and will" showing required by CRS § 37-92-305(9)(b), there now should be no barrier to the appropriation of a refill right, even as part of the original priority granted for a reservoir. In fact, the court has already approved such an appropriation in [*City of Thornton v. Bijou Irr. Co.*, 926 P.2d 1 (Colo. 1996)]. Although the attack on the refill rights in that case was primarily on the basis of insufficient notice rather than an asserted legal impossibility of obtaining a right to refill as part of the original storage priority, the Supreme Court acknowledged the one-fill rule, and characterized it as merely a presumption that is overcome by notice of the appropriator's intent to fill and refill the reservoir.

Hamre, *supra*, at 96-97.

Nor does the Idaho case that Wyoming quotes extensively in its brief promote the crabbed interpretation of the one-fill rule that Wyoming argues should apply to Tongue River Reservoir. *See* WY Br. at 24-25. As an initial matter, *In re SRBA*, Case No. 39576, Basin-Wide Issue 17, Subcase No. 00-91017 (5th Dist. Idaho Mar. 20, 2013) does not address bypass flows or other operational constraints, but rather the release of stored water and refill of that stored water in the same year. Such a refill is not what Montana is seeking to protect with respect to Tongue River Reservoir; instead, Montana seeks protection of its historic operations, including fill period, winter storage limitations, and attendant winter bypass flows. Further, the *SRBA* case does not require filling until full every day of the non-irrigation season. Instead, the emphasis is on diverting the quantity to which the right holder is entitled, with no discussion that such diversion is required on any particular day. In fact, the Idaho version of the one-fill rule recognizes historic pattern of use, as well as carry-over storage. Idaho regulations provide:

> A claim to a water right which includes storage shall be broken down into component purposes, with the ultimate use(s) of the stored water indicated. The component purposes of a storage right are diversion to storage (not applicable to on-stream reservoirs), storage, diversion from storage (not applicable where the ultimate use is an in-reservoir public purpose). . . . The amount of water claimed shall be limited to the active storage capacity of the reservoir ***unless a past practice of refilling the reservoir during the water year (October 1 to September 30) is shown or the claim is for a licensed or decreed right that includes refill.*** If a past practice of refilling the reservoir is shown or if the claim is for a licensed or decreed right that includes refill, the total amount of water claimed for the calendar year and the entire period during which diversion to storage or impoundment occurs shall be indicated.

Idaho Admin. Code § 37.03.01.060 (emphasis added); *see also* Idaho Admin. Code § 37.03.11.041.01(g) (stating that "the holder of a surface water storage right shall be entitled to maintain a reasonable amount of carry-over storage to assure water supplies for future dry years"). As applied to Tongue River Reservoir, Idaho's one-fill rule would protect both the full capacity of the Reservoir, as well as all aspects of Montana's reservoir operations, which have been demonstrated to be reasonable and consistent with the historic pattern of use.

Wyoming's efforts to reduce or eliminate its liability for Compact violations involving Tongue River Reservoir by advocating application of its strict version of the one-fill rule to Montana's reservoir operations should be rejected.

UNMET PRE-1950 DIRECT FLOW DEMAND IN MONTANA

I. Montana Has Shown that Pre-1950 Direct Flow Rights in Montana Went Unsatisfied in the Years in Question

At trial, Montana's water users, commissioners, and expert witnesses provided voluminous, unrebutted evidence supporting Montana's claim that its pre-1950 water rights had unmet demand in the years in question and would have put additional water to beneficial use had it been available. Wyoming claims that Montana failed to demonstrate that "at a specific headgate, a specific irrigator, was short a specific amount of water" on or after a specific call

date. WY Br. at 30. Given that this dispute is between two sovereigns, and Montana is the real party in interest, Montana was not obligated to show that specific pre-1950 water rights were short a specific amount. *See* First Interim Report at 99 ("FIR") (Feb. 10, 2010) ("Interstate water disputes such as the instant action by Montana inherently deal with sovereign interests that supersede the interests of individual water users."). Wyoming witness Sue Lowry recognized at trial that Montana's delivery obligations under the Compact are to the stateline, not individual points of diversion. *See* Tr. 4984:23-4985:5 (Lowry). In any event, Montana would be barred under the Eleventh Amendment to the United States Constitution from recovering damages against Wyoming on behalf of individual water users. *See Kansas v. Colorado*, 533 U.S. 1, 7 (2001); *Maryland v. Louisiana*, 451 U.S. 725, 737 (1981). Thus, while Montana was obligated to show that Wyoming delivered insufficient water to the stateline to satisfy the demand of Montana's pre-1950 rights, Montana was not required to show specific injury to a specific user. Nevertheless, Montana provided the exact information that Wyoming claims is lacking.

As an initial matter, Montana demonstrated that all 76 pre-1950 direct flow rights junior to the Nance Cattle Company ("Nance Cattle") had unmet demand in each of the years in question. Montana's Water Commissioners and users all testified that after the spring runoff in each of the years in question, the only direct flow rights receiving water were Nance Cattle and the T&Y. Tr. 3316:2-14, 3335:24-3336:19, 3367:17-24 (Kepper); Tr. 3545:10-16 (Gephart); Tr. 3587:6-24 (Fjell); Tr. 3811:3-8 (Nance); Tr. 3894:20-3895:17 (Muggli); Tr. 1438:17-24, 1440:14-21, 1505:10-17 (Hayes); Tr. 3637:3-6, Tr. 3655:4-23 (Hamilton); 3689:15-3690:4 (Hirsch). Wyoming did not rebut this evidence by showing that rights junior to Nance Cattle and the T&Y received direct flow water. *See* Tr. 4989:1-4990:1 (Lowry) (Wyoming had no information to suggest that rights junior to T&Y were being satisfied in 2004); Ex. J64.

As previously noted, Montana is entitled to recover damages for the entire irrigation season during the years at issue. However, Montana also demonstrated specific unmet demand of specific pre-1950 irrigators on or after the call dates. For example, Art Hayes irrigates under two pre-1950 direct flow rights originally adjudicated in the 1914 Miles City Decree. *See* Ex. M243; Tr. 1406-1408 (Hayes). Mr. Hayes' rights are the 21st and 23rd most senior water rights out of Montana's 77 pre-1950 direct flow rights on the Tongue River. *See* Ex. M6 at 121. Water Right No. 42B 145051-00, with an 1899 priority, entitles Mr. Hayes to 13.34 cfs. Ex. M6 at D-218-D-227; Tr. 1410:14-1411:14 (Hayes). Water Right 42C 145052-00, with a 1902 priority, entitles Mr. Hayes to 6.90 cfs. Ex. M6 at D-239-D-243; Tr. 1411:15-23 (Hayes). Thus, Mr. Hayes is entitled to pre-1950 direct flow rights of 20.24 cfs.

The USGS gage at the stateline showed that between May 18, 2004, the date of Montana's call letter, and August 31, 2004, there were 83 days when the flow at the stateline was below 200 cfs. Ex. M6 at 114. Yet the unrebutted testimony at trial established that at least 200 cfs is needed at the stateline in order to satisfy Nance Cattle and the T&Y, which are the two most senior rights. Tr. 1438:17-24 (Hayes); Tr. 3330:14-18 (Kepper). Thus, for at least 83 days after the call date during the irrigation season in 2004, there was insufficient water reaching the stateline to satisfy even the *third* most senior pre-1950 right. Given that there are an additional 17 pre-1950 rights senior to Mr. Hayes' 42B 145051-00 right that were entitled to any water not taken by the T&Y (the 3rd to 20th senior rights), and considering Mr. Hayes' unrefuted testimony that his operation was in need of water and his direct flow rights went unsatisfied during this period, there is no question that Mr. Hayes' pre-1950 direct flow rights went unsatisfied during the irrigation season after May 18, 2004. *See* Tr. 1485:20-1486:3 (Hayes); Ex. J64 at WY-031304. Further, Mr. Hayes testified that he rotates his irrigation so that he is irrigating one field

while he is haying another, and that he irrigates "around the clock." Tr. 1418:3-7, 14:195-13 (Hayes). Thus, Montana demonstrated that Mr. Hayes' pre-1950 water rights were short 20.24 cfs during 83 days after May 18, 2004.

A similar analysis of Mr. Hayes' unmet pre-1950 direct flow demand can be made for 2006. The USGS gage at the stateline showed that during every day between July 28, 2006, the date of Montana's call letter, and September 15, 2006, there was less than ***40 cfs*** reaching the stateline. Ex. M6 at 116. Mr. Hayes testified that in 2006 he had a "dire need for water" and that he suffered economic loss as a result of the lack of water supply. Tr. 1487:4-22 (Hayes); Ex. J68 at WY-027309. Because it takes 200 cfs at the stateline to meet the needs of the two most senior appropriators, it requires no complex analysis to determine that when less than 40 cfs is reaching the stateline, only the most senior of the direct flow rights is being fully satisfied. Thus, Montana demonstrated that during every day between July 28, 2006 and September 15, 2006, Mr. Hayes' pre-1950 water rights were short 20.24 cfs. *See, e.g.*, Ex. M394 at MT-10035 (showing that Mr. Hayes' operation used 1200 acre-feet of storage water between June 21 through September 30, 2006).

In sum, Montana's evidence established that all pre-1950 rights junior to the T&Y had unmet demand during the years in question. Mr. Hayes testified that he works closely with Roger Muggli, the managing director of the T&Y, to determine when the T&Y's direct flow demand is going unsatisfied so that Mr. Hayes can begin releasing storage water. Tr. 1436:11-1437:17 (Hayes). When there is 200 cfs at the stateline, all irrigators besides Nance Cattle and T&Y are switched to stored water. Tr. 1438:14-24 (Hayes). There was less than 200 cfs reaching the stateline during every day of July and August in 2001, 2002, and 2006. Ex. M6 at 111-116.

Wyoming claims that Montana's release of storage water is not an indicator of unmet pre-1950 demand. WY Br. at 31. This is a curious position given that Wyoming's own expert Bern Hinckley stated in his report that "the exercise of storage is an obvious indicator of water-supply conditions" and that "the use of storage water provides a reasonable gage of the diversion demands that are not met with direct flow." Ex. W3 at 24. Thus, Wyoming's expert analysis supports Montana's position that when storage water is released, all pre-1950 direct flow rights junior to the T&Y are going unsatisfied.

Montana also demonstrated that the T&Y's 187.5 cfs direct flow right went unsatisfied during each of the years in question. Wyoming, relying on Mr. Hinckley's report, claims that the T&Y "often does not use its full appropriation." WY Br. at 31 (citing Ex. W3 at 15). Notably, Wyoming fails to mention that at trial Mr. Hinckley was forced to correct many of the tables in his report because the daily gage data he relied on was incomplete. Tr. 5658:6-5659:12, 5662:8-5663:2 (Hinckley). Mr. Hinckley's corrected tables support the fact that when there is adequate water supply, the T&Y diverts all or almost all of its 187.5 cfs direct flow right. For example, Mr. Hinckley's corrected Table 4 shows that during 1997-2000, 2003, and 2005, years when there was adequate supply, the T&Y diverted on average 92% percent of its 187.5 cfs right in July, and 96% of its 187.5 cfs right in August. Tr. 5662:22-5663:2 (Hinckley); *see also* Ex. M377; Tr. 3909:7-17 (Muggli) (stating that during normal years, T&Y diverts and uses its full 187.5 cfs right). During the drought years of 2001, 2002, 2004, and 2006, the T&Y was not diverting 187.5 cfs because there simply was not enough water in the river and Mr. Muggli was trying to carefully ration the T&Y's storage water. Tr. 3905:20-3906:6, Tr. 3911:10-15 (Muggli).

Mr. Muggli also testified that the T&Y ran out of stored water in 2001, 2002, 2004, and 2006. Tr. 3921:4-10, 3925:15-25, 3926:1-20, 3989:16-18 (Muggli); Ex. M377; Ex. M343; Ex. M394. Further, Mr. Muggli testified that the T&Y purchased supplemental water from the Northern Cheyenne Tribe in 2001, 2002, and 2006. Tr. 3923:1-25, 3925:1-3, 3928:2-6 (Muggli); Ex.M343; Ex. M394, Ex. M399. Wyoming did not rebut this evidence. *See* Tr. 4989:1-4990:1 (Lowry); Ex. J64. Thus, Montana established at trial that all 76 pre-1950 direct flow rights junior to Nance Cattle had unmet demand during the years in question.

II. Montana's Water Administrators Recognized and Responded to the Unmet Demands of Its Water Users

Montana's water commissioners testified that they strictly regulated all rights on the Tongue River according to priority and that during most of the irrigation season, Nance Cattle and the T&Y were the only pre-1950 rights receiving any direct flow. Tr. 3316:2-14, 3335:24-3336:19, 3367:17-24 (Kepper); Tr. 3545:10-16 (Gephart); Tr. 3587:6-24 (Fjell). This testimony was fully corroborated by Montana's water users. Tr. 3811:3-8 (Nance); Tr. 3894:20-3895:17 (Muggli); Tr. 1438:17-24, 1440:14-21, 1505:10-17 (Hayes); Tr. 3637:3-6, Tr. 3655:4-23 (Hamilton); 3689:15-3690:4 (Hirsch). Further, it was Wyoming's burden to show that Montana engaged in water use or administered its system of regulation in a manner that is inconsistent with the Compact. *See Parshall*, 143 P. 302; *see also In re Gen. Adjudication of All Rights to Use Water in Big Horn River Sys.*, 48 P.3d 1040, 1056-57 (Wyo. 2002) ("It is well established that the burden of proof is on the party asserting the affirmative of any issue." (internal quotation marks, brackets, and citations omitted)). Wyoming failed to establish that Montana's system of administration is in conflict with the doctrine of appropriation, or that Montana engaged in waste.

During the years in question, the TRWUA had water commissioners appointed to ensure that both decreed water rights and Tongue River Reservoir storage rights were exercised within priority and in appropriate amounts. Tr. 3307:12-19 (Kepper); Tr. 3576:13-16 (Fjell); Ex. M380A, Ex. M380B; Tr. 3514:24-3515:8 (Gephart); Ex. M394. Wyoming claims that Montana's records fail to show unmet direct flow demand. WY Br. at 31-32. In doing so, Wyoming seeks to impose a higher standard on Montana than it requires of its own water commissioners. Wyoming does not routinely regulate, monitor, or keep records pertaining to either the storage of water in non-Compact reservoirs or to the diversion of direct flow by particular users under post-1950 water rights. *See* Tr. 3472:2-9 (Benzel); Tr. 2243:15-25 (Boyd); Tr. 5497:25-5498:3 (Fritz); *see also* Tr. 1950:7-10 (Aycock). Wyoming certainly does not monitor or keep records of any kind during the free-for-all known as "free river," where water can be diverted by anyone without regard to the flow rate of any water right or even if a water right exists. MT Br. at 162-64. Wyoming's failure to regulate, monitor, and keep records has made it difficult for Montana to establish the extent of Wyoming's violations of the Compact. *Id.* at 143-44.

Importantly, neither the Compact nor the doctrine of appropriation requires Montana to maintain records to the standard sought by Wyoming in order for Montana to enjoy its pre-1950 water rights under the Compact. As explained in detail above, the evidence demonstrated that Montana's pre-1950 water rights are mostly active, have total direct flow rights and demands far in excess of flows coming into Montana from July through September, and routinely must rely on reservoir storage to supplement their demand. Further, Wyoming selectively ignores voluminous testimony by Montana's commissioners at trial that they monitored flows at the stateline and flows coming out of Tongue River Reservoir, and physically recorded diversions of

direct flow water and stored water on a daily basis. Tr. 3317:16-3318:12, 3321:14-21 (Kepper); 3522:1-10, 3538:10-20 (Gephart); Tr. 3587:3-5 (Fjell). The commissioners were on the river measuring diversions seven days a week during the irrigation season, including holidays. Tr. 3346:25-3347:5 (Kepper). In doing so, the commissioners remained in constant communication with the water users. Tr. 3331:1-3332:3 (Kepper). The water commissioners compiled their records of daily diversions and provided biweekly reports to the court. Tr. 3347:20-3348:17, 3374:9-12 (Kepper); Tr. 3588:23-3589:12 (Fjell); *see also* Exs. M381, M382, M396, M399, M400. The testimony of Montana's water commissioners, supported by the court records and the testimony of Montana's water users, leaves no doubt that the water commissioners strictly regulated direct flow rights for the benefit of senior rights, and that the vast majority of pre-1950 direct flow rights had unmet demand during the years in question.

Wyoming complains that Montana's water commissioners did not regulate tributaries of the Tongue River "for the benefit of seniors on the mainstem." WY Br. at 32. In support, Wyoming relies on the testimony of Raymond Harwood, who testified that he has a 35 acre-foot reservoir on Cottonwood Creek that fills with snowmelt in February or March. Tr. 4454:19-4456:8 (Harwood). Given the relatively small capacity of Mr. Harwood's reservoir, and the fact that Mr. Harwood's reservoir fills before Montana's pre-1950 rights begin irrigating in May, regulating Mr. Harwood's reservoir would have done nothing to help alleviate the shortage to Montana's senior pre-1950 direct flow rights during the years in question.

Wyoming also complains that Montana's water commissioners did not regulate water use on the Northern Cheyenne Reservation. WY Br. at 32. The unrefuted testimony of Jason Whiteman established that use of water by NCT tribal members is regulated through a permitting process and that there was no question that the two tribal members diverting under the NCT's

rights did not use more than the Tribe's allocation during the years in question. Tr. 1629:10-24, 1657:2-16, 1660:23-1661:24 (Whiteman); Ex. M387. Thus, Wyoming's suggestion that regulation of water use on the NCT Reservation could have somehow alleviated the shortages to Montana's pre-1950 direct flow rights is simply not supported by any evidence.

Wyoming erroneously claims that Montana "did not make any actual changes to diversions based on changes in the direct flow of the river." WY Br. at 32. In fact, Mr. Kepper testified that if Jay Nance shut down his diversion, his 10.48 cfs went to the T&Y. Tr. 3615:22-3616:7 (Kepper). Further, given the severe drought conditions, Nance Cattle and the T&Y were the only direct flow rights that received any water after the spring runoff during 2001, 2002, 2004, and 2006. Tr. 3328:23-3329:7, 3329:13-3330:13 (Kepper); 3595:12-21 (Fjell).

Montana also established that the process of ordering storage water was communicated to the water users and strictly enforced. In order to receive their purchased stored water from Tongue River Reservoir, water users were required to call one of the commissioners and request that a certain flow be released for a certain amount of time. *See* Ex. M397; Tr. 3520:7-21 (Gephart); Ex. M388; Tr. 3356:17-3357:6 (Kepper); Tr. 3713:3-11 (Hirsch). The commissioner receiving the call would then call Art Hayes and order the release of the requested amount. Tr. 3356:17-3357:6 (Kepper); Tr. 1440:3-10 (Hayes). Through this system, during the dry years when a commissioner was on the river, no water was released except under the direction of the commissioner. Tr. 3439:2-5 (Kepper). While small mistakes will be made in any water administration system, the testimony established that, overall, the water commissioners did an excellent job in ensuring that water was properly delivered and diverted in correct amounts. *See* Tr. 1523:12-22 (Hayes); Tr. 3640:10-22 (Hamilton); Tr. 3716:12-3717:1 (Hirsch); Tr. 3792:16-25 (Nance); Tr. 3935:18-3936:12 (Muggli).

Montana's commissioners did not calculate return flows, because, for the most part, there were none. Most of the fields in Montana have been laser leveled which allows for efficient use of water and reduces return flows. *See* Tr. 1417:8-18, 1420:7-9 (Hayes); 3682:10-3683:4 (Hirsch). Further, the dry condition of the soil reduces return flows. Tr. 1465:1-14 (Hayes). The commissioners testified that during these dry years they did not observe any waste of water or substantial return flows. Tr. 3372:14-25 (Kepper); Tr. 3540:2-10 (Gepart); Tr. 3599:15-3600:2 (Fjell).

In sum, Montana established that its water commissioners diligently monitored and administered all direct flow and stored water diversions during 2001, 2002, 2004 and 2006. Wyoming failed to rebut the overwhelming evidence that the vast majority of Montana's pre-1950 direct flow rights went unsatisfied during the majority of the irrigation season in each of the years in question.

III. Mr. Book's Demand Analysis Conservatively Estimates the Demand of Montana's Pre-1950 Direct Flow Water Rights

Montana's expert witness Dale E. Book's demand analysis conservatively estimates the amount of water needed at the stateline to satisfy Montana's pre-1950 direct flow demand. While the testimony of Montana's water users and commissioners sufficiently established that Montana's pre-1950 direct flow rights were unmet during the majority of the irrigation season during the years in question, Mr. Book's demand analysis corroborated this testimony. Wyoming attacks Mr. Book's use of the County Surveys in calculating the amount of acreage irrigated under pre-1950 rights. WY Br. at 35. Wyoming, however, ignores the fact that Mr. Book's calculation also relied on 2009 aerial photography. Tr. 68:18-69:10 (Book); *see also* Ex. M5 at 68 (Appendix A), 27 (Table 2). Mr. Book also described in great detail the basis of his return flow calculation, and explained why Mr. Hinckley's claims regarding the timing of return

flows are without merit. Tr. 122:25-125:2 , Tr. 240:16-243:23, 246:20-22 (Book); Ex. M6 at 17-19, 32-36 (Tables 5-A, 5-B, 6-A, 6-B, 6-C).

INTRASTATE REMEDIES

During the years at issue, there was no intrastate means to satisfy Montana's pre-1950 direct flow rights. The Special Master explained in his First Interim Report:

> Wyoming's argument, however, depends on the existence of an adequate intrastate remedy. This will not always be the case. Intrastate remedies and Article V(B), for example, do not help Montana's pre-1950 appropriators when there is insufficient water passing the state line into Montana even to meet the needs of pre-1950 Montana appropriators and when there is no post-1950 storage in Montana from which to draw.

FIR at 27. Ms. Lowry conceded that Wyoming had no information to suggest that an intrastate remedy was available. *See* Tr. 4989:1-4990:1 (Lowry). Because Wyoming has not met its burden of establishing that an intrastate remedy was available, Wyoming's argument that Montana must prove specific instances in which water was not delivered must fail. *In re Gen. Adjudication of All Rights to Use Water in Big Horn River Sys.*, 48 P.3d 1040, 1056-57 (Wyo. 2002) ("It is well established that the burden of proof is on the party asserting the affirmative of any issue.") (internal quotation marks, brackets, and citations omitted)).

Even if Wyoming could have shown that intrastate remedies were in theory available, however, the testimony and evidence at trial established that early in the irrigation season, in each of the years at issue, all direct flow rights junior to the T&Y were shut down. *See* Tr. 3689:19-3690:4 (Hirsch); Tr. 3316:2-14, 3335:24-3336:19, 3367:17-24 (Kepper); Tr. 3545:10-16 (Gephart); Tr. 3587:6-24 (Fjell). Montana's water commissioners testified that after the spring runoff, there was only enough water to satisfy the direct flow rights of the two most senior users, Nance Cattle and the T&Y. Tr. 3328:23-3329:7, 3329:13-3330:13 (Kepper); Tr. 3587:6-24, 3595:12-21 (Fjell). Thus, because all 75 direct flow rights junior to the T&Y were shut down for

the majority of the irrigation season during the years at issue, including 2001, 2002, 2004, and 2006, there was as a practical matter no intrastate means for Montana to satisfy its pre-1950 rights.

NOTICE

Wyoming argues that Montana did not provide sufficient notice in any of the years at issue apart from 2004 and 2006. This position is premised on Wyoming's continued insistence that only a highly formalized "call," meeting a number of strict requirements, could satisfy the notice element that the Special Master has held is a necessary prerequisite to Montana's ability to seek remedies for Wyoming's past Compact violations. The type of formalized call that Wyoming posits runs contrary to both the plain language of the Compact, which does not provide for any call whatsoever, and the Special Master's repeated rulings rejecting Wyoming's arguments on that point. The evidence presented at trial is entirely sufficient to meet the standard of notice set forth by the Special Master in his multiple pre-trial rulings.

In any event, Wyoming cannot escape the undeniable reality reflected in its responses to Montana's 2004 and 2006 call letters. Those responses show that even a call comporting with every single strict formality that Wyoming would require, along with documentation in the annual report of the YRCC, would not have prompted Wyoming to take action to comply with its Compact obligations. Indeed, such a formal call by Montana would have been met with the response that the Compact does not provide for any "call," and that the Compact imposes no obligation on Wyoming to protect Montana's pre-1950 rights. That is precisely the response that Wyoming gave in 2004 and 2006. Its current position regarding the Compact's "call" requirement is a convenient switch in response to the rulings of the Special Master and the Court that Wyoming does indeed have a Compact obligation to protect Montana's pre-1950 rights.

Thus, as Wyoming's responses to Montana's formal calls in 2004 and 2006 demonstrate, any such formal call in any of the previous years would not have been honored and would, therefore, have been futile.

I. Montana's Notice Was Not Required to Contain Statements of Demand or Any Other Particular Information

Instead of focusing on the function of a call and whether Montana's notice adequately served that function, Wyoming once again fixates on the particular contents of the notice, asserting that the "key element of any call is the demand that the junior appropriator curtail his diversions for the benefit of the senior." WY Br. at 38-39. It further contends that the "absence of such a demand by the downstream senior is decisive." *Id.* at 39. This characterization of the standards governing notice is contrary to the previous rulings of the Special Master, the standard discussed at the 1982 YRCC meeting, and the definition of a "call" as described by Wyoming's own water commissioners.

In his September 28, 2012 Memorandum Opinion, the Special Master reaffirmed that the notice Montana was obligated to provide to Wyoming did not have to take any particular shape or form, be in writing, be delivered by any specific person (so long as that person had proper authority), or "meet any particular specifications." Memorandum Opinion of the Special Master on Wyoming's Renewed Motion for Partial Summary Judgment (Notice Requirement for Damages) at 13 (Sept. 28, 2012). In fact, the Special Master ruled, "the notice *need not have contained any specific information* other than that Montana did not believe that it was receiving sufficient water under the Compact . . . . The key requirement is simply that Montana have placed Wyoming on adequate notice that Montana was not receiving sufficient water to meet the requirements of Article V(A) of the Compact." Memorandum Opinion of Special Master on

Wyoming's Motion for Partial Summary Judgment (Notice Requirements for Damages) at 7-8 (Dec. 20, 2011) (emphasis added).

This approach is consistent with how Wyoming and Montana historically treated "notice" under the Compact, as well as how notice was viewed by representatives to the YRCC. The States discussed this standard at their 1982 meeting and agreed that in times of shortage, Montana should notify Wyoming that Montana was not receiving its pre-1950 water. Ex. J32, YRCC, Thirty-First Annual Report at iv (1982). The States confirmed this approach at the 1983 meeting. Ex. J33 at iv. At neither meeting did Wyoming suggest that any further communication or specific "demand" would be required. Tr. 2681:15-2682:5 (Moy).

The Special Master's definition of notice also comports with how Wyoming officials respond to intrastate calls. Wyoming law defines a call as a communication from a downstream senior water user that he is not receiving enough water to serve his water right; a call need not be in writing or contain any particular statements of demand. Tr. 1967:19-1968:3 (LoGuidice); Tr. 2232:12-2233:4 (Boyd); Tr. 2067:8-22 (Knapp); Tr. 1705:2-21 (Whitaker); Tr. 2074:20-24 (Knapp); Tr. 2007:17-23 (LoGuidice). Indeed, Wyoming water commissioners often place a river under regulation based solely on stream flows without a formal call. Ex. W2 at 13.

Similarly, Montana does not require that a call be in writing, contain any particular statements, or be made from or to any particular person. Tr. 461:14-25 (Davis); *see Tucker*, 250 P. at 13 (stating that oral calls are acceptable in Montana).

In any event, the testimony at trial established that the notice provided by Montana officials to Wyoming during the relevant years satisfies the Special Master's definition of notice as that concept is incorporated in the "call" requirement under the doctrine of appropriation. MT Br. at 21-31, 87-94.

II. The Notice Requirement Should Be Waived for All the Years at Issue

As detailed in Montana's Post-Trial Brief, the Special Master has identified three exceptions to the notice requirement: futility; "other sufficient reason;" and "preventing compact administration." MT Br. at 82-86. Wyoming does not address any of these exceptions, and instead simply makes a conclusory statement that "because calls are intrinsic to the prior appropriation system incorporated into the Compact, Montana cannot be excused from providing notice." WY Br. at 55. The Special Master has already ruled that there are circumstances under which Montana would not have to give notice, and Montana presented evidence pertaining to each exception at trial. Wyoming has not pointed to any evidence showing otherwise.

Wyoming's longstanding position that it had no Compact obligation to protect Montana's pre-1950 rights, a position that is perfectly embodied in Wyoming's responses to Montana's formal call letters in 2004 and 2006 and the lack of any action by Wyoming following those letters, rendered futile any attempt by Montana to make a call. MT Br. at 83-85. The notion, implicit in Wyoming's arguments, that Wyoming would have responded any differently to a call—however formal—in any of the earlier years, is absurd. Given Wyoming's responses to Montana's formal call letters in 2004 and 2006, and in the absence of any evidence that Wyoming would have actually responded to a call by Montana by shutting down its post-1950 uses in any of the years at issue, the futility exception must apply.

Likewise, Wyoming provides no evidence or argument against application of the second or third exceptions. As discussed in Montana's Post-Trial Brief, throughout the years at issue, Wyoming had reason to know that insufficient water was reaching Montana to satisfy Montana's pre-1950 rights, yet did nothing about it. *Id.* at 85-86. Moreover, while Montana made diligent efforts to move forward with Compact administrative guidelines addressing this issue, Wyoming

stalled taking action so as to avoid their enactment. *Id.* at 86-87; *see* Ex. M97; Tr. 2588:11-13 (Moy) (testifying that he and his staff "pushed as long and as hard as we could push it. But sometimes you can't push water uphill, and we finally just gave up"). This attitude was persistent and pervasive, as evidenced by Mr. Tyrrell's response to Montana's call letters in 2004 and 2006. Ex. J65; Tr. 5182:13-18 (Tyrrell) ("[T]he Compact makes no provision for a state to make a call on the river."); Tr. 5193:19-21 (Lowry) ("I think we had a basic threshold question there of where is that in the compact?").

Thus, under the exceptions outlined by the Special Master, the notice requirement should be waived for all relevant years, 1987-1989 and 2000-2006.

III. Montana Notified Wyoming in 1981 that It Was Not Receiving Sufficient Water to Satisfy Its Pre-Compact Rights

Wyoming asserts that conversations between Wyoming and Montana officials in 1981 did not constitute a call. WY Br. at 39-41. This position cannot be sustained. The evidence presented at trial and outlined in Montana's Post-Trial Brief shows that phone conversations occurred between the top water official from Montana and the top water official from Wyoming. During those phone calls, Montana's top water official asked Wyoming's top water official whether post-1950 rights in Wyoming could be regulated for the benefit of Tongue River Reservoir's pre-1950 right. *See* MT Br. at 28, 88-89. It is difficult to conceive of what evidence would indicate sufficient notice if this evidence does not, as Wyoming maintains. Under the standard set by the Special Master for notice, the evidence plainly demonstrates that Montana provided sufficient notice in 1981.

In a footnote, Wyoming reasserts that Montana's claim for 1981 should be dismissed under the doctrine of laches, "but in the interest of brevity" refers the Special Master to its Motion for Leave to Amend its Answer to Include the Defense of Laches and Mitigation of

Damages. WY Br. at 41, n.10. Testimony at trial discussed herein and in Montana's Post-Trial Brief establishes that notice to Wyoming in 1981 was simply the beginning of an ongoing pattern of requests and dismissals that extended throughout the late 1980s and up until 2006. In any event, the Special Master ruled at trial that Montana could present evidence of notice for that year. Tr. 36:21-48:14. To the extent that the Special Master considers Wyoming's argument regarding laches, Montana reasserts its right to oppose the affirmative defense of laches, and reaffirms its position that its lack of opposition should not be construed as a waiver of any factual or legal position, as it stated in its response to Wyoming's Motion for Leave to Amend its Answer to Include the Defenses of Laches and Mitigation of Damages, filed July 25, 2012.

IV. Montana Notified Wyoming in the Relevant Years Prior to 2004 that It Was Not Receiving Sufficient Water to Satisfy Its Pre-Compact Rights

The evidence presented at trial showed that Montana gave diligent and proper notice to Wyoming that Montana was not receiving sufficient water to meet pre-1950 demand in all relevant years. MT Br. at 87-94. Wyoming's assertion that no calls were made is based on its mischaracterization of what constitutes a call, and its failure to give due regard to the previous rulings of the Special Master and the testimony presented at trial based on those rulings.

A. Montana Properly Notified Wyoming of Shortages in 1987, 1988, 1989, 2000, 2001, 2002, and 2003

The evidence at trial showed that, during the periods 1987-1989, and 2000-2003, Wyoming was put on notice that Montana was not receiving sufficient water to satisfy its pre-1950 rights. Specifically, the evidence showed that water supply and availability during those years was a constant concern to Montana. Tr. 664:14-23, 668:5-14 (Stults). Montana diligently monitored supply, and Montana officials understood when there were shortages in the relevant years. MT Br. at 21-24. During times of shortage, Montana officials often inquired about the

regulation of Wyoming water rights in an effort to determine whether Wyoming was complying with the Compact. Ex. M205 at 4918; Tr. 1796:10-1797:16 (Whitaker); Tr. 4181:17-21, 4196:9-24; (Fassett); Tr. 2564:1-2565:6 (Moy). Montana witnesses testified that they repeatedly communicated to their counterparts in Wyoming that Montana water users were not receiving water to meet pre-1950 rights.

Wyoming attempts, however, to hold Montana to a higher standard than that established by the Special Master, and that imposed by Wyoming in its own administration of water use. Wyoming claims that communications were made outside the irrigation season, that Montana officials "did not make a demand on Wyoming to take action," that the communications were informal, were not in writing, and were not really "calls." WY Br. at 41. Essentially, Wyoming maintains that the only communications that can satisfy the notice requirement were the 2004 and 2006 call letters. This position, of course, runs contrary to the Special Master's repeated rulings regarding the standards for notice, and his emphasis on the practical function of such notice.

Moreover, the evidence also showed that the character, content, and timing of Montana's communications to Wyoming regarding shortages to pre-1950 rights in Montana were shaped and influenced by Wyoming's long-standing positions that the Compact imposed no obligation on Wyoming to protect those rights, and did not provide for any "call" for such protection. *See* MT Br. at 11-12; *see e.g.*, Tr. 888:1-7 (Stults).

B. Wyoming Officials Admit Montana Notified Wyoming that Montana Was Not Receiving Sufficient Water to Satisfy Its Pre-Compact Rights

Several Wyoming officials acknowledged at trial that they were put on notice that Montana was not receiving its pre-1950 water. *See* Tr. 4329:3-7 (Fassett) (responding affirmatively to the Special Master's question about whether Montana informed him or his staff

that water users in Montana were short of water); Tr. 4965:9-13 (Lowry) ("I think Montana expressed to us that they were not able to certainly fill all of their senior rights."); Tr. 4989:8-11 (Lowry). This testimony also showed that these officials understood that Montana's communications regarding shortages to pre-1950 rights were requests for Wyoming to take action to get additional water to Montana. *See, e.g.*, Tr. 4330:2-8 (Fassett) ("Q. And did you believe in any of the times when Montana gave you this information that one of the purposes was to see whether or not anything could be done in Wyoming to help? A. Oh, I think to some extent, that's correct.").

C. The Absence of a Specific Reference to a "Call" in the YRCC Minutes or Annual Report Is Irrelevant

In addition to all of the particular requirements and formalities Wyoming would impose on Montana's notice, Wyoming maintains that the lack of specific reference to a "call" by Montana in the YRCC minutes or reports is evidence of a lack of notice. This is yet another convenient, revisionist argument that ignores the about-face Wyoming has performed in this litigation with respect to its position on the Compact's requirement of a call. Of course, the YRCC has never adopted regulations requiring Montana to make interstate priority calls as a condition of its right to seek relief under the Compact. Tr. 5068:1-7 (Lowry). This is reflective of Wyoming's longstanding position prior to this litigation that the Compact did not allow for a call, and the lack of any actual call provision in the Compact. While as early as 1975 the YRCC held a special meeting "to initiate discussions of water-right procedures in Montana and Wyoming," no agreement was ever reached. Ex. J25 at 2. Expressions of frustration concerning this lack of procedure continued throughout the years. *See, e.g.*, Ex. J42 at 6. Thus, even though from time to time Montana's notice to Wyoming that it was not receiving water was indicated in

the YRCC Annual Reports, *see* Tr. 1080:11-14 (G. Fritz), the YRCC was never considered to be a forum in which to provide notice to Wyoming, or to record notices earlier given.

V. Montana Is Entitled to Damages for the Entire Year in 2001, 2002, 2004 and 2006

In its Motion for Partial Summary Judgment, Wyoming asserted that Montana is "precluded from claiming damages or other relief for those days [in any year in which notice was provided] that preceded Montana's notification." Wyoming's Motion for Partial Summary Judgment at 1 (Sept. 12, 2011). The Special Master disagreed, ruling that so long as Montana diligently acted in learning of pre-1950 deficiencies, and promptly notified Wyoming of these deficiencies, the notice should permit Montana to seek damages for the entire year, despite the fact that "this places Wyoming at risk of paying damages for periods in which it was not on notice of Montana's deficiency." Dec. 20, 2011 Memo. Op. at 8. The Special Master reasoned that because neither party was knowingly at fault, because Wyoming had use of the excess water during the period at issue, and because Wyoming has an affirmative obligation under the Compact to avoid post-Compact uses when water is short, "it is appropriate that Wyoming should compensate Montana for the loss of such water when notice was diligently provided." *Ibid.* Nevertheless, Wyoming renews its argument. WY Br. at 55, 57.

Just as before, Wyoming's argument should be rejected. As detailed in Montana's Post-Trial Brief, the evidence at trial showed that Montana was diligent in learning of the deficiencies to its pre-1950 rights and providing notice of those deficiencies to Wyoming in the years for which Montana has quantified Wyoming's violations. MT Br. at 89-94. Montana is therefore entitled to damages for the entire year in each of those years.

VI. Wyoming's Request for Reconsideration of the Special Master's Ruling Is Misguided

The arguments put forth by Wyoming in requesting reconsideration of the Special Master's previous rulings regarding the standards for notice in this case have been raised, considered, and rejected repeatedly the Special Master, and they should be rejected again now.

A. Wyoming's Position on Notice Has Shifted over Time to Suit Its Litigation Position

At the beginning of this litigation, Wyoming maintained that the Compact imposed no obligation on Wyoming to protect Montana's pre-1950 rights, and thus made no provision for Montana to make a "call." *See, e.g.*, Ex. J65 at 2; Ex. J69 at 2. Following the Court's ruling that Wyoming does have an obligation under the Compact to protect Montana's pre-1950 rights from post-1950 uses in Wyoming, Wyoming shifted its position to argue that, because the Compact mentions the doctrine of appropriation in Article V(A), Montana could not recover damages for past violations in years where it did make a call. After the Special Master ruled that notice is required under the doctrine of appropriation, Wyoming has shifted once again, not only embracing a "call" that it never before recognized, but asserting that a call must meet certain precise standards that deviate from what is required under the doctrine of appropriation, because "a call between states is different than a call between two farmers." WY Br. at 55-57. Wyoming cannot have it both ways; either the Compact incorporates the type of notice-based call requirement under the doctrine of appropriation, as the Special Master has held, or there is no call requirement at all. Given Wyoming's long-held position, Ex. J69 at 2, it would have been futile—and in fact was futile—for Montana to have provided Wyoming with the formal notice Wyoming now claims was required, as Montana did in its call letters of 2004 and 2006. What Montana could have done under the circumstances is exactly what it did: notify appropriate Wyoming officials that Montana was not receiving water sufficient to meet pre-1950 requirements.

B. If the Prior Decision Is Disturbed, It Should Be to Reconsider Whether Notice Is Required Under the Yellowstone River Compact

Any reconsideration concerning the formality required for notice must be grounded in the express language of the Compact. Wyoming's arguments are not based on that express language. Instead, in arguing that the Special Master's ruling on standards for notice should be reconsidered, Wyoming apparently relies on its perception, without citation, that "[c]alls on the Yellowstone River system need to be in writing like other interstate calls between sovereigns." WY Br. at 56. What these "other interstate calls" Wyoming is referring to remains a mystery. Nowhere is there a clear indication of the basis for Wyoming's assertion that calls must be in writing, except for the passing comment that "the Compact surely demands at least this much." *Ibid.* As discussed, the Compact does not require a call in writing, and it is impermissible to read additional obligations into the Compact.

Further, contrary to Wyoming's reliance on *Worley v. U.S. Borax and Chemical Corp.*, 428 P.2d 651 (N.M. 1967), *see, e.g.*, WY Br. at 7-8; both Montana's and Wyoming's Supreme Courts have recognized that a senior appropriator is not required to make a call for regulation in order to bring suit for damages alleging that a junior impaired its water rights. *Van Buskirk v. Red Buttes Land & Live Stock Co.*, 156 P. 1122 (Wyo. 1916); *Tucker*, 250 P. 11. In *Tucker*, the allegedly infringing junior claimed that the complaining senior could not succeed on its claim for damages because the senior failed to "notify defendant that he required water for irrigation; that no water commissioner was appointed for said stream; that plaintiff did not seek to secure such appointment, and that, by his failure 'to avail himself of the rights and authority conferred upon him by law,' plaintiff was precluded from complaining of his failure to obtain water in that year." *Tucker*, 250 P. at 13. The Court rejected this argument, explaining:

> The right to sue for damages for the invasion of a right existed under the common law, and exists under our Code (sections 8659 and 7097, Rev. Codes 1921), and the statutory remedy referred to by counsel must, if it is to supersede such right of action, be entirely adequate to protect the rights of owners of decreed rights at all times. A careful reading of the chapter discloses that it does not require the appointment of a water commissioner on all adjudicated streams and for all seasons. It is only on application of at least 10 per cent. of the owners under the decree that the court is required to appoint such a commissioner. It was clearly intended only for the protection of prior rights in time of need. This remedy does not protect the owner of an adjudicated right from deprivation before the appointment of the commissioner, nor does it afford him adequate relief for the unlawful diversion of his water during the administration of a water commissioner. . . .
>
> It is therefore manifest that the remedy provided for in chapter 27, Revised Codes of 1921, is but cumulative . . . *and the fact that plaintiff did not avail himself of the provisions of the chapter does not preclude him from maintaining this action.*

Id. at 14 (emphasis added).

Similarly, the Wyoming Supreme Court in *Van Buskirk* rejected the argument that a plaintiff's failure to call for regulation from a water commissioner precludes the recovery of damages from an infringing junior water right. The Court noted that "the cases are numerous in which the right to damages as well as an injunction has been sustained, apparently in the absence of any prior demand that the commissioner or other authorized officer shall regulate the distribution of the water." 156 P. at 1126. Thus, to the extent the Special Master is inclined to reconsider his previous rulings regarding notice, the Master should hold that Montana was not required to make a call in order to recover damages for Wyoming's Compact violations.

POST-1950 USE IN WYOMING

I. Montana Conclusively Established that Wyoming's Post-1950 Use Resulted in Violations of the Compact in the Years at Issue

In its Post-Trial Brief, Montana explains in detail the impact of Wyoming's post-1950 use on Montana's pre-1950 rights. *See generally* MT Br. at 143-77; *id.* at 59-80. The evidence unequivocally establishes that Wyoming's post-Compact use resulted in net depletions to

stateline flows of 1,530 acre-feet in 2001; 2,795 acre-feet in 2002; 2,166 acre-feet in 2004; and 3,232 acre-feet in 2006. *Id.* at 174-75. Indeed, Wyoming does not dispute that its use of post-1950 rights resulted in net depletions of at least 319 acre-feet in 2001, 319 acre-feet in 2002, 252 acre-feet in 2004, and 356 acre-feet in 2006. Ex. W3 at 33, Table 6. C. Thus, Montana clearly demonstrated that Wyoming is liable for Compact violations in all four years at issue.

A. Mr. Book Accurately Quantified Wyoming's Post-1950 Use Resulting in Violations of the Compact

Mr. Book established that Wyoming's post-1950 use resulted in net depletions to the stateline flow, impacting Montana's pre-1950 water rights in the amounts set forth above. Wyoming's expert Mr. Fritz agreed with Mr. Book's methodology, which is explained in detail in Montana's Post-Trial Brief. *See* MT Br. at 151-59. Wyoming now notes Mr. Fritz's criticisms of Mr. Book's conclusions. WY Br. at 59-60. However, as discussed in Montana's Post-Trial Brief, Mr. Book amended his conclusions in light of Mr. Fritz's comments, including those identified in Wyoming's Post-Trial Brief. MT Br. at 152, 158-59; *see* Ex. M6 at 1-11; *see also* WY Br. at 60. Mr. Book's analysis conservatively estimates depletions at the stateline from post-1950 diversions in Wyoming, and Wyoming failed to rebut this analysis.

B. Wyoming Does Not Deny that Its Post-1950 Use Adversely Impacted Montana's Pre-1950 Water Users in the Years at Issue

Wyoming agrees with Mr. Book's conclusion that its post-1950 use impacted Montana's pre-1950 water rights. *See, e.g.*, WY Br. at 60, 67, 68. Notably, Wyoming's expert Mr. Hinckley testified that "Mr. Book's report . . . is an encyclopedia of data that he found useful." Tr. 5653:12-14 (Hinckley). Nonetheless, Mr. Hinckley attempted to discredit Mr. Book's calculations. Those attempts are unavailing, however. Mr. Hinckley was obliged at trial to withdraw his initial conclusions concerning the impacts on Montana's pre-1950 rights, due to his

reliance on incomplete data. Tr. 5658:11-5661:3; 5661:25-5665:4 (Hinckley).[2] His final conclusions revealed a minimum net loss to Montana of 319 acre-feet in 2001, 319 acre-feet in 2002, 252 acre-feet in 2004, and 356 acre-feet in 2006. Ex. W2 at 33 (Table 6-C).

C. Wyoming's Focus on Call Dates Is a Red Herring and Inconsistent with the Special Master's Rulings

Wyoming argues, without supporting authority, that Montana must establish the use of post-1950 water by Wyoming after calls were made. WY Br. at 57. Based on this unsupported assertion, Wyoming contends that its "potential liability is necessarily limited to that portion of the year following the call." *Ibid.* Wyoming's position cannot be sustained, because it is directly contrary to the previous ruling by the Special Master.

As explained in the Memorandum Opinion of December 20, 2011,

> Montana's notice . . . did not need to be instantaneous. . . . [I]n many cases, pre-1950 users in Montana may not have immediately realized that they were receiving inadequate water because of Wyoming's failure to comply with Article V of the Compact, a general period of investigation might have been required to determine the nature of the shortage, and information cannot be expected to have travelled instantaneously from water users to Montana officials to Wyoming. *So long as Montana acted diligently* in learning of pre-1950 deficiencies and notifying Wyoming of those deficiencies, *the notice typically should permit Montana to seek damages for the entire year.*

Dec. 20, 2011 Memo. Op. at 8 (emphasis added). The Special Master went on to point out that "it is appropriate that Wyoming should compensate Montana for the loss of such water when notice was diligently provided," because "Wyoming enjoyed the use of the excess water during these periods and had the affirmative obligation under the Compact to avoid post-January 1, 1950 uses that denied Montana adequate water to meet its pre-1950 appropriations." *Ibid.*

[2] Mr. Hinckley's corrections to his expert report at trial included the deletion of Table 6-D at page 33, the deletion of paragraph 2 on page 31, and the deletion of the final paragraph on page 32. *See* Ex. W3.

Consequently, Wyoming's criticisms of Mr. Book's analysis, based on its belief that liability accrues only after the date a call is made, have no foundation and should be disregarded. *See, e.g.*, WY Br. at 58 (arguing that "Mr. Book made no attempt to differentiate between water used or stored after either call date"). As stated, Wyoming does not dispute that it allowed post-1950 use in the years at issue. Wyoming merely argues that Mr. Book overstates the depletions caused by Wyoming's post-1950 use. *See id.* at 57.

Moreover, to allow Wyoming to evade liability, as Wyoming contends, on the basis that Montana must "prove" use after the call date would effectively reward Wyoming for its failure to properly monitor and maintain records of its water use and for its decades-long resistance to complying with the Compact. As discussed in Montana's Post-Trial Brief, Wyoming's only records of storage in the Tongue River Basin pertain to those reservoirs identified as the Compact Reservoirs. Wyoming keeps no records of storage for other private reservoirs, such as the Padlock Reservoirs and the Windy Draw Reservoir. MT Br. at 147, 149-50. Wyoming also failed to keep any record of the free river diversions that were unlimited in each of the years at issue during the period when Tongue River Reservoir was trying to fill.[3] Thus, equity counsels that Montana need not quantify Wyoming's post-1950 use to the extent that Wyoming demands, because doing so would result in rewarding Wyoming for its failure to adequately administer water and for its continuous refusal to take any action to comply with the Compact since Wyoming first became aware of Montana's shortages as early as 1981. *See* MT Br. at 86-87. *See generally* MT Br. at 88-94, 143-44.

[3] Free river status also violates Wyoming's alleged "one fill" rule. *See N. Sterling Irrigation Dist. v. City of Boulder*, 202 P.3d 1207, 1212 n.2 (Colo. 2009) (en banc) (in the only other state with a free river concept, the Court recognizes that free river evades the annual fill in Colorado; Colorado however appears to at least require compliance with a water right under the free river concept).

D. Montana Established that Wyoming Continued to Use Post-1950 Water After Receiving Notice of Montana's Shortages

Even if Montana were required to establish and quantify use after the "call date," which Montana denies, Wyoming's argument must fail, because Montana has conclusively established Wyoming's use of post-1950 rights after calls were made. Indeed, Wyoming admits that it allowed post-1950 use after Montana's call in 2004. WY Br. at 58 (stating that Dome and Sawmill reservoirs were storing water that would not have been consumed by senior downstream rights and that 688 acre-feet was stored therein after the call date); *accord*, *id.* at 60.

Moreover, evidence at trial established that storage of post-1950 water continued after the call dates. For example, the Padlock Recovery Reservoir filled at least twice every year. MT Br. at 75, ¶ 294. To fill twice every year, the reservoir must empty its first fill. Testimony established that all of the reservoir water is used for irrigation. *See* MT Br. at 147-48. Thus, the second fill necessarily occurs, and then is released for use in Wyoming, during the irrigation season. In addition, the Windy Draw Reservoir fills continuously throughout the year. *Id.* at 150-51.

Wyoming argues that in 2006, "the observations of Mr. Knapp and Mr. Benzel reveal that no reservoir in the Tongue River Basin in Wyoming was storing after July 28, 2006." WY Br. at 58. This statement is overbroad, at best. Wyoming neglects to mention that the observations of Mr. Knapp were limited solely to the Compact Reservoirs. *See* Tr. 2102:11-2103:5 (Knapp); Ex. W348. Similarly, Wyoming conveniently ignores the fact that the observations of Mr. Benzel were limited to the Wagner and Fivemile reservoirs. Tr. 3508:24-3509:5 (Benzel). Mr. Benzel did not address the Padlock Recovery Reservoir, which filled twice a year, or any other reservoir in the Tongue River Basin. *Ibid.* Moreover, as discussed in Montana's Post-Trial Brief, the dearth of records and Wyoming's failure to administer other private reservoirs required

Montana to conservatively estimate the impact of those reservoirs, resulting in understated impacts, and precluded Montana from learning the fill history of the numerous reservoirs with post-1950 storage. MT Br. at 143-44.

Notably, Wyoming manages its reservoirs under the principle of "highority," wherein junior storage may occur in an upstream reservoir but that storage is released for a senior storage right downstream when necessary to satisfy that senior right. MT Br. at 70, ¶ 273. However, contrary to its own practices, Wyoming never released stored post-1950 water when it was notified of Montana's shortages in Tongue River Reservoir. MT Br. at 70, ¶ 274.

Similarly, Wyoming misrepresents the testimony of Mr. Knapp with respect to diversions for irrigated acreage. Contrary to Wyoming's assertion, Mr. Knapp did not "look for post-1950 rights diverting along the mainstem of the Tongue River" after the 2006 call. *Cf.* WY Br. at 59. Mr. Knapp did not testify that he found no post-1950 rights diverting. *See* Tr. 2161-62 (Knapp). Mr. Knapp did not look to see whether pre-1950 or post-1950 rights were diverting. *See ibid.* Rather, he acknowledged that post-1950 rights could be diverting at that time. Tr. 2162:6-19 (Knapp). He simply noted that at the time they first regulated the mainstem of the Tongue River, in 2006, they "looked downstream" to the lower stem, which was not regulated, and found that the Interstate Ditch was receiving less than its pre-1950 water. *Id.* at 2161:10-2162:5 (Knapp); *see also* Ex. M495 ("We began regulating the Tongue River prior to Montana's call due to shortages for our own water users."). Mr. Knapp expressed no opinion as to whether those diverting that water had pre-1950 or post-1950 rights. *See* Tr. 2161-2162 (Knapp).

E. Wyoming Failed to Regulate Post-1950 Water Users After the Call Dates

In addition, Wyoming's practices in water use and in water administration clearly establish that post-1950 use in Wyoming continued after the call dates. *See generally* MT Br. at

159-62. Importantly, where there is no regulation, all Wyoming water users, including post-1950 users, are permitted to take the full amount of their water right and more under Wyoming's free river practice. And, in the dry years at issue, when Wyoming water users had access to water, those users diverted water. MT Br. at 60, ¶ 231. Most of the post-1950 rights were used every year. *Ibid.* And, in fact, some Wyoming irrigators used water 24 hours per day. *Ibid.* When Wyoming water users are not regulated, there is a "free river" and they take as much water as they can get. *Id.* at 159-60, 162-63. Their only limitation is the size of their diversion or ditch. *Id.* at 60, ¶ 232. Thus, Wyoming water users diverted as much as their diversion infrastructure would allow, to the extent water was available, before regulation began during the years at issue. *Ibid.* Typically, regulation did not begin until mid-July. *Id.* at 60, ¶ 234.

Testimony at trial conclusively established that Wyoming did *not* control this "free river" practice as necessary to ensure that Wyoming post-1950 rights were not diverting and that pre-1950 water use was within the adjudicated right when Montana was short. Wyoming never regulated to ensure that Montana received the pre-1950 water to which it was entitled. *Id.* at 31, ¶ 106; *id.* at 69, ¶ 269; *id.* at 160. Wyoming never regulated any water rights on Prairie Dog Creek. *Id.* at 67, ¶ 260; *see id.* at 160 (approximately 13,000 acres irrigated on Prairie Dog Creek). Wyoming never regulated the lower part of the mainstem of the Tongue River. *Id.* at 160. Even after Montana's written calls in 2004 and 2006, Wyoming never directed the water commissioner to take any action on the lower part of the Tongue River mainstem. *Id.* at 160. Indeed, 2006 was the first year in which regulation occurred on any part of the Tongue River. *Ibid.* Measuring devices were not even required to be installed until 2007. *Id.* at 65, ¶ 248.

Wyoming similarly did not engage in any regulation on the tributaries of the Tongue River. Wyoming never regulated Fivemile Creek or Columbus Creek. *Ibid.* Wyoming never

regulated the Interstate Ditch. *Id.* at 161 (citing testimony that these water users, which are closest to Montana, take as much as they can get and that every time the water commissioner visited the Ditch, there was active irrigation of post-1950 acreage). Wyoming never regulated down the ditch. *Id.* at 162. In fact, there are no diversion records for structures diverting from the ditches. *Ibid.*

On those few tributaries that are regulated, Wyoming never regulated for the benefit of Montana water users. MT Br. at 31, ¶ 106; *id.* at 164. Wyoming only regulated to satisfy calls by Wyoming water users, notwithstanding its knowledge that stateline flow was insufficient to satisfy Montana's pre-1950 water rights in 2001, 2002, 2004, and 2006. MT Br. at 58-59, 164.

F. Wyoming Knew that the Amount of Water Delivered to Montana at the Stateline Was Insufficient to Satisfy Montana's Pre-1950 Water Rights and Refused to Initiate Regulation to Prevent Compact Violations

Wyoming had notice that its use of post-1950 water caused shortages to Montana's pre-1950 rights during all of the years at issue. MT Br. at 166. Indeed, Wyoming was apprised of water conditions at every regular compact commission meeting. Tr. 4851:22-:4852:2, 4853:6-10 (Lowry). Wyoming's insistent response to Montana's communications regarding its shortages, however, was that it had no obligation under the Compact to take any action. MT Br. at 11-12, ¶¶ 33-36. Wyoming should not be allowed to evade liability for its admitted violations of the Compact when it has taken a position so contrary to the unambiguous language of the Compact.

Wyoming attempts to obfuscate the data indicating irrigation of post-1950 acreage after call dates by mischaracterizing the testimony of its own expert Mr. Fritz. *See* WY Br. at 59-60. Wyoming's position cannot be sustained. The METRIC data establishes that it is more likely than not that irrigation of post-1950 acreage occurred after Montana's calls. As Dr. Allen explained in response to the Special Master's questions, METRIC data reflecting

evapotranspiration ("ET") of 20-30 percent above the background ET rate would be a good indication that a field was irrigated. Tr. 3168:21-3169:20 (Allen). Dr. Allen also testified that he provided monthly estimates of ET. Tr. 3164:23-3165:4 (Allen). These monthly ET estimates can be used to estimate the length of time for irrigation and a decline in monthly ET can indicate the time of irrigation. Tr. 3172:8-3174:23 (Allen); *see* Ex. M8 at MT-14930 (Allen expert report).

Wyoming appears to be arguing that there is no evidence of irrigation from the Tongue River after Montana's 2004 and 2006 calls. WY Br. at 59. However, such a claim is preposterous. Prairie Dog Creek water users are harvesting two to three cuttings each year. *See, e.g.*, Tr. 2340:25-2341:4 (Schroeder). They do not call for storage water until the first week of July, when they are into their second cutting. Tr. 2461:11-25 (Koltiska) (stating that Kearney Lake fills by the end of June each year). Thus, it can be inferred that in 2004, Wyoming users continued to divert direct flow for post-1950 irrigated acreage after the call date of May 18. Moreover, not all water users on Prairie Dog Creek have storage water, Tr. 2455:24-2456:23 (Koltiska), or CBM water. Thus, it is evident that even those post-1950 water users who did not have storage water continued to divert throughout the irrigation season to accomplish a second and sometimes third cutting.

It is telling that Wyoming focuses only on the years 2004 and 2006. WY Br. at 58-60. Indeed, its neglect to discuss evidence of irrigation of post-1950 acreage in 2001 and 2002 is an implicit concession that such irrigation occurred. Testimony at trial established irrigation of post-1950 acreage in all of the years at issue. *See, e.g.*, Tr. 4655: 14-19, 4660:6-10, 4675:13-18 (Ankney); Tr. 4698:22-4699:8, 4701:7-17, 4701:18-4702:23 (Fisher); Tr.4599:15-20, 4603:1-7, 4614:2-13, 4629:8-14, 4631:25-4632:2 (Pilch).

Further, in its Post-Trial Brief, Wyoming misrepresents the testimony of Wyoming water users. For example, Wyoming states that Mr. Pilch "confirmed that his parcels were irrigated with CBM water in 2004 and 2006." WY Br. at 60. However, Mr. Pilch specifically excepted several parcels in his testimony, stating that he irrigated with water from Prairie Dog Creek in 2004 and 2006. Tr. 4584:25-4586:7, 4587:4-4588:5, 4588:23-4589:10, 4589:19-4591:8, 4593:3-25 (Pilch). In addition, Wyoming water user Mr. Fisher admittedly irrigated his post-1950 acreage in 2004 after Montana's call. *See* WY Br. at 60; Tr. 4698:12-14 (stating that irrigation didn't begin until it began "getting a little brown in Wyoming, which could be in July or August or whenever"). Wyoming conveniently neglected to recognize Ms. Ankney's testimony regarding irrigation in 2001 and 2002.

In sum, Wyoming was fully aware that the amount of water it delivered to the stateline was insufficient to meet Montana's pre-1950 demand, but Wyoming nonetheless failed to regulate its post-1950 rights.

G. When Tongue River Reservoir Is Storing in the Spring, Wyoming Must Regulate Diversions to Ensure that Water Users Have a Valid Water Right and Are Using Water in Accordance with the Terms of Their Water Rights

Wyoming improperly allows anyone to divert under free river status to Montana's detriment. The Compact protects appropriative water rights under Article V(A). Under any interpretation, an "appropriative right" requires a valid water right used in accordance with its terms (e.g., flow rate). Unlimited diversions in excess of a valid water right or by one without a water right are not protected. The Compact requires, and Montana is entitled as the downstream state to demand, that Wyoming not allow diversions without a valid water right and that diversions be made in accordance with the terms of a valid water right. Wyoming must regulate and eliminate the free river status when Tongue River Reservoir is storing, even absent a "call."

Absent free river status in the years at question, Tongue River Reservoir may have filled if Wyoming had allowed only diversions under a valid water right within the terms of the water right. The abuse of the appropriation system under this free river concept came to light only at trial.

II. The Special Master Has Already Held that Neither State's Regulation of CBM Pumping Is Determinative of the Compact's Reach*

In its brief, Wyoming argues that "[w]here neither state regulates coalbed methane wells in priority with the surface, the Compact does not reach these wells." WY Br. at 61. This is simply a repetition of Wyoming's argument on summary judgment. *See* Memorandum Opinion of the Special Master on Wyoming's Motion for Summary Judgment at 17-18 (Sept. 16, 2013) ("In its summary judgment motion, Wyoming argues that Montana should not be able to make out a violation for CBM groundwater production in Wyoming because 'both States have implicitly and explicitly determined that the connection between CBM groundwater production and the surface waters is too tenuous to warrant regulation under the doctrine of appropriation.'"). The Special Master thoroughly considered the arguments by Wyoming and Amicus Curiae Anadarko in this regard and held, "Montana and Wyoming law is informative, but not determinative, of when groundwater production in Wyoming violates Article V(A) of the Compact." *Id.* at 22. The Master further explained that "[e]ven if neither Montana nor Wyoming regulated any groundwater pumping, the withdrawal of hydrologically interconnected groundwater could still jeopardize the continued enjoyment of pre-1950 appropriative rights in Montana." *Id.* at 22-23. As a result, Wyoming's arguments in this regard are of no consequence.

Contrary to Wyoming's assertion, CBM water is regulated by Montana under the Coalbed Methane Protection Act ("CMPA"), Mont. Code Ann. §§ 76-15-901 to -905 (2013). Notably, Section 76-16-905(b), enacted in 2001, expressly provides protection from CBM

development that results in any reduction in the quantity or quality of water available from a *surface* water or a ground water source. Moreover, CBM development is expressly subject to Title 85, Water Use, of the Montana Code. *Id.* § 76-16-90(6)(b) (stating that the provisions of the CMPA "do not relieve [CBM] developers or operators from . . . the responsibility to comply with any applicable provision of Title[] . . . 85 and any other provision of law applicable to the protection of natural resources or the environment," which would include the Compact). Further, in considering an application to develop CBM, Montana conducts an environmental assessment to determine whether significant environmental impacts will occur. *See, e.g., Diamond Cross Props., LLC v. Montana*, No. DV 05-70, 2008 WL 3243320, at *2 (Mont. Dist. Ct. July 14, 2008); *see also* Montana Environmental Policy Act, Tit. 75 Ch. 1 Pt. 1. An environmental assessment regarding CBM development includes "an examination of the consequent ground water withdrawals and potential impact to water resources." *Diamond Cross Props., LLC*, 2008 WL 3243320, at *2. Thus, Wyoming's claim that Montana does not regulate CBM production is simply incorrect and should be disregarded in considering whether Wyoming violated the Compact by allowing CBM production to deplete streamflow that would have otherwise benefitted Montana's pre-1950 rights.

III. Mr. Larson's Analysis Reliably Quantifies the Adverse Effects of CBM Pumping on Montana's Pre-1950 Water Rights

Mr. Larson concluded that net depletions resulting from CBM pumping amounted to 413 acre-feet in 2004 and 666 acre-feet in 2006. MT Br. at 173; *see also id.* at 170-72 (explaining Mr. Larson's analysis of CBM return flows). Wyoming disputes, however, the reliability of Mr. Larson's work. WY Br. at 64-67. As explained below and in Montana's Post-Trial Brief, Mr. Larson appropriately reached his conservative estimate of CBM produced water's impacts on Montana's pre-1950 rights.

Contrary to Wyoming's assertions, Mr. Larson, Montana's hydrologist and modeling expert, showed that his analysis of the impacts of CBM pumping in Wyoming on the Tongue River were reliable. *See* MT Br. 76-79, 166-174. In particular, the BLM Model used by Mr. Larson was created in order to quantify, among other things, the impact of CBM pumping on the Tongue River. *See* MT Br. at 168. Mr. Larson also reviewed the calibration of the BLM Model and found it sufficient. *See id.*

Wyoming does not dispute the hydrological connection between water produced in CBM development and the Tongue River. WY Br. at 64. Instead, Wyoming asserts that the BLM Model is not reliable for predicting depletions to the Tongue River that result from the development of CBM in Wyoming. WY Br. at 65. Notably, Wyoming does not challenge Mr. Larson's qualifications or experience in groundwater modeling, which provide the basis for Mr. Larson's determination that the BLM Model is appropriate for Montana's purposes in this litigation. *See id.* at 64-65; *see also* Wyoming's Motion in Limine to Exclude Expert Testimony by Steven Larson (Sept. 30, 2013).[4] Rather, Wyoming relies on the criticisms of Dr. Schreüder to challenge the BLM Model and Mr. Larson's testimony. WY Br. at 65. Wyoming's reliance on Dr. Schreüder is misplaced, however, for the following reasons.

Wyoming first argues that the Model is not reliable because it was not calibrated to stream base flows. WY Br. at 65; *see* Ex. M10 at 6 (Larson expert report). However, the BLM Model considered base flow conditions and groundwater discharge conditions. Tr. 2794:25-2795:13 (Larson). Importantly, Wyoming's expert Dr. Schreüder attempted to impose an impossible standard on the Model, which would in effect ensure that the Model could not meet

[4] To the extent the Court considers the arguments raised in Wyoming's motion in limine to exclude Mr. Larson's testimony, Montana incorporates fully herein its Response in Opposition to Wyoming's Motion in Limine to Exclude Expert Testimony by Steven Larson (Oct. 7, 2013).

the standard. *See* M10 at 5, ¶ 1, 6. At best, "Dr. Schreüder conflates model reliability with model uncertainty," which exists in all models. *Id.* at 6.

Calibration is but one aspect to evaluating the usability of groundwater modeling. Tr. 2796:5-8 (Larson). Equally, if not more important, is the conceptual design and structural components needed to make the requested calculations. Tr. 2795:8-12 (Larson). Here, the general hydrologic, geologic, and geographic conditions in the basin are the major features affecting the relationship between groundwater storage depletion and streamflow depletions. Tr. 2796:13-16 (Larson). The BLM Model reasonably characterized and incorporated these conditions, including effects on streamflows, and thus, provided the necessary structure for calculating the impacts of CBM water production. Tr. 2796:17-2797:17 (Larson); Tr. 2806:13-2807:14 (Larson); *see also* Tr. 2797:18-2799:2, 2800:15-2804:3 (Larson) (identifying the BLM Model's specific consideration of impact of CBM pumping to streamflows).

Wyoming complains, however, that the BLM Model "does not factor in the effect of ET salvage on surface flows." WY Br. at 65. Mr. Larson demonstrated that Dr. Schreüder's contentions regarding ET salvage were not supported by the studies on which he relied. These studies showed that the amount of reduction in ET that might result from small declines in groundwater levels is highly uncertain and that assumed relationships between groundwater levels and changes in ET have been shown to be significantly overestimated. Ex. M10 at 5, ¶ 2; Tr. 2809:2-16 (Larson). As Mr. Larson pointed out, "[t]he real question with respect to the incorporation of ET into a groundwater modeling analysis is not the overall amount of ET that may be occurring directly from groundwater but whether ET would change significantly if groundwater levels changed by only a small amount." Ex. M10 at 12; *see also* Tr. 2808:1-13 (Larson). Mr. Larson further demonstrated that the scientific literature showed that assumption

of a relationship between groundwater levels and ET was subject to significant uncertainty. Ex. M10 at 12-13; Tr. 2810:12-2811:9 (Larson). Dr. Schreüder acknowledged this on cross-examination. Tr. 3072-3079 (Schreüder); *see also* Ex. M41.

ET salvage was not included in the original BLM Model or in any of the Model's updates. Tr. 2808:14-18 (Larson). Mr. Larson discounted Wyoming's criticism in this regard, pointing to peer-reviewed studies discussing ET salvage, which concluded that ultimately changes in water levels have no real impact on ET rates because of secondary factors coming into play when groundwater levels change. Tr. 2808:21-2811:9 (Larson). Mr. Larson also discussed the hydrologic institutional model that was used and approved in the litigation between Kansas and Colorado, observing that the model did not have the ET salvage function that Dr. Schreüder insists is necessary. Tr. 2811:10-2812:6 (Larson).

Further, Wyoming confuses Mr. Larson's adjustment of storage parameters in the BLM Model with the return flow rate associated with CBM pumping. *See* WY Br. at 65. These are two separate issues. As to the Model parameters, Mr. Larson has fully explained why the adjustments to storage coefficients assigned to the deepest aquifer units in the Model are appropriate. *See* Ex. M9 at 9-10; Tr. 2817:15-23 (Larson). In his Rebuttal Report, Mr. Larson detailed why Dr. Schreüder's criticism of these adjustments was without basis. He pointed out that Dr. Schreüder's position was contradicted by the updated calibration performed for the BLM in 2009. Ex. M10 at 5, ¶ 4; *see also* Tr. 2819:12-2821:3 (Larson). Mr. Larson explained in detail how Dr. Schreüder had misinterpreted the relevant hydrology and ignored other relevant information. Ex. M10 at 8-9.

With regard to recharge to the regional groundwater system from CBM pumping, Mr. Larson carefully analyzed the available data and prior estimates of recharge from CBM pumping

and made an informed, conservative estimate. *See* Ex. M9 at 10-12; MT Br. at 170-172. In his Rebuttal Report and testimony, Mr. Larson pointed out that Wyoming's criticisms were based on studies that were not representative of conditions in the Tongue River portion of the Powder River Basin. Ex. M10 at 5, ¶ 5; *id.* at 9-12; Tr. 2821:20-2822:8 (Larson).

Mr. Larson also detailed the flaws in the studies relied upon by Wyoming, explaining that the first was associated with on-channel impoundments, which are not the type at issue here, and that the second inappropriately relied on a water balance approach to determine the amount of infiltration. Tr. 2821:13-2822:24 (Larson); Ex. M10 at 11. Further, the second study assumed that all produced water would return to groundwater. Tr. 2822:25-2823:6 (Larson); Ex. M10 at 12. In addition, Mr. Larson compared the depletion estimate reached by the report relied upon by Wyoming, which used 100 percent return of produced water based on reported data through 2003, and the estimate reached by the BLM Model for the same year using the well function rather than the drain function, as recommended by Dr. Schreüder. Ex. M10 at 12. Both produced essentially the same depletion in 2003. *Ibid.* And both were greater than the estimate produced by the BLM Model using the drain function to represent CBM wells. *Ibid.* In light of this comparison, Mr. Larson concluded that Montana's estimates of depletions are understated, even if the CBM water return to groundwater was greater than the 25 percent used in Mr. Larson's analysis. *Ibid.*

Wyoming complains that "Mr. Larson did not account for known direct discharges of CBM produced water into the Tongue River." WY Br. at 66. To the contrary, Mr. Larson investigated the available data from WDEQ and found that "one percent or less" of produced water was directly discharged to the Tongue River watershed. Ex. M9 at 11. Moreover, the direct discharges claimed by Wyoming were only for a few months in 2004, and there was no

showing that such discharges got past Wyoming diverters downstream and reached the stateline. *See* Ex. W3 at 27 and Fig. 11; *see also* Tr. 3186:14-3187:9 (Compton) (explaining that "Wyoming's position was consistently that the only [impounded CBM] water that was going to reach Montana was the result of overtopping of ponds during precipitation events."); Tr. 4629:15-17 (Pilch) (downstream diverter on Prairie Dog Creek diverts all available flows).

Thus, Montana demonstrated that Mr. Larson's analysis is reliable and conservatively estimates the impact of CBM production in Wyoming on streamflow in the Tongue River during the years in question.

CAUSATION

Montana accepts that the test of a Compact violation is whether sufficient water is reaching the stateline to satisfy Montana's pre-Compact rights. As discussed above, Montana has satisfied that burden. In its continuing effort to raise the bar for Montana to unattainable levels, however, Wyoming argues that "Montana then must prove that post-1950 diversions in Wyoming caused harm to Montana's pre-1950 appropriations." WY Br. at 67. In other words, despite the fact that the Compact equitably divides the Tongue River water *between the two States*, Wyoming asserts that Montana must show a direct causal link between *individual rights* in both States. *Id.* (arguing that Montana has the burden to show that curtailing a "specific" right in Wyoming would make water "available for the benefit of the calling pre-1950 right in Montana"). Wyoming's argument fails for three related reasons.

First, the Memorandum Opinion cited by Wyoming does not support Wyoming's position that a Compact violation is predicated on the causal link between individual users in both States. *See* WY Br. at 68 (citing Memorandum Opinion of the Special Master on Wyoming's Motion for Summary Judgment at 28 (Sept. 16, 2013) ("Sept. 16, 2013 Memo. Op."). In the Memorandum

Opinion cited by Wyoming, the Special Master explained that "[t]o establish a violation of the Compact in any given year, Montana must show at a minimum that at least some pre-1950 appropriative rights are unsatisfied and that they went unsatisfied because Wyoming instead delivered that water to post-1950 appropriators." Sept. 16, 2013 Memo. Op. at 27. While this standard imposes a burden on Montana to show a causal connection between Wyoming's actions and the shortage in Montana, it does not require Montana to show that curtailing a "specific post-1950 diversion[]" in Wyoming would result in water arriving at a "calling pre-1950 right in Montana." WY Br. at 67.

Second, as Montana has repeatedly explained, this interstate compact suit is "between states, each acting as a quasi-sovereign and representative of the interests and rights of her people in a controversy with the other." *Wyoming v. Colorado*, 286 U.S. 496, 508-09; *see also Hinderlider v. La Plata River & Cherry Creek Ditch Co.*, 304 U.S. 92, 104-106 (1938) (rule from *Wyoming v. Colorado* applies equally to compact enforcements suits). Thus, the interests being asserted are those of the sovereign States, and the existence of a violation cannot be premised on injury to individual users. This position is supported by the negotiating history, Ex. M12 at 11, 15, 18, 23-24, 26-29, 31-32; the First Interim Report, FIR at 22 ("The final Compact provides block protection for all existing, pre-1950 appropriations, without attempting to quantify the amounts of those appropriations, and then after providing for supplemental appropriations for lands already under irrigation, apportions the amount that remains")l and the plain language of the Compact. *E.g.*, Ex. J1 at Preamble, Art. I, Art. XVIII.

Third, as with most of the arguments contained in Wyoming's Post-Trial Brief, Wyoming's position completely disregards the evidence presented at trial. When the evidence is considered, Montana satisfied even Wyoming's incorrect heightened standard. Mr. Book, Mr.

Allen, and Mr. Larson all presented expert evidence testimony on post-Compact use in Wyoming. After evaluating all of the evidence, Mr. Book calculated the depletions to the Montana stateline as described above. Based on his conservative analysis, in just the four years when damages were calculated, Wyoming's post-Compact use caused depletions to Montana of 1,530 acre-feet in 2001; 2,795 acre-feet in 2002; 2,166 acre-feet in 2004; and 3,232 acre-feet in 2006. Ex. M7 at 22.

In fact, every expert at trial concurred that there was post-Compact use in Wyoming that caused impacts to Montana. Wyoming did not contest that it had post-Compact storage during the years at issue, and Doyle Fritz' testimony acknowledges post-Compact direct flow uses. Tr. 5560:25-5561:6 (D. Fritz) (indicating that Wyoming's impact from post-1950 use is 1300 acre-feet per year). Similarly, Dr. Schreüder acknowledged that over time, the CBM pumping would cause depletions to surface flows. Ex. W15 at Fig. 12. For his part, Mr. Hinckley acknowledged that he made a number of errors in his analysis. Tr. 5656:20-5664:20 (Hinckley); Tr. 5897:19-5899:3 (Hinckley). After correcting some, but not all, of those errors, Mr. Hinckley provided his own calculation of depletions to Montana's Compact rights under extremely favorable assumptions for Wyoming. Tr. 5907:9-5908:5 (Hinckley); Ex. W3 at 33, Table C. Even with the unrealistic assumptions utilized by Mr. Hinckley, he still only succeeded in *reducing*, not eliminating the stateline impacts, and his testimony establishes beyond any dispute that Wyoming post-Compact use harmed Montana.

Further, it cannot reasonably be contested that Montana did not receive sufficient water to satisfy its pre-Compact rights. Tongue River Reservoir did not fill in any of the years for which Montana calculated damages. Combined with the overwhelming evidence that only the most senior right on the Tongue River in Montana received direct flow water in the years at issue,

Montana's pre-Compact rights were short the entire year. To the extent that Wyoming believes that a "calling right" must be identified, the evidence unmistakably shows that the T&Y was the calling right. *E.g.*, Tr. 3330:12-25 (Kepper) ("Calling right would be when, like I said, the T&Y decided that they needed their water right.").

Finally, to the extent that Wyoming is claiming a futile call, it is Wyoming, not Montana, who bears the burden on that defense, *Clear Springs Foods, Inc. v. Spackman*, 252 P.3d 71, 98 (Idaho 2011), and the evidence would not support such a claim in any event. Tr. 5325:18-5327:24 (Tyrrell) (acknowledging that the circumstances for a futile call were not present in this case).

MATERIALITY

Montana explained in its Post-Trial Brief the significance of Wyoming's violations to the State of Montana, particularly as those violations have accumulated over many decades in light of Wyoming's refusal to recognize its Compact obligations and Wyoming's recalcitrance towards developing a workable methodology to administer the Compact. MT Br. at 175-76. Montana further pointed out the difficulty for the Court of establishing a fair and workable line in interstate compact cases between "material" violations that warrant a remedy, and "immaterial" violations that do not. By way of illustration, take an interstate compact establishing a boundary line. *See, e.g.*, *New Jersey v. New York*, 523 U.S. 767 (1998). If the relief in a case over that boundary line entailed shifting it by only five feet, but that shift was of great importance to the state in whose favor the shift would be made, would the Court decline to grant that relief simply because the shift was so small relative to the size of the states? Moreover, in the context of an interstate water compact, annual violations that seem relatively small become significant if they are allowed to accumulate over many years and decades. This is

the only Court that can resolve these types of disputes, and it should not decline to do so based on an arbitrary determination of materiality.

Wyoming v. Colorado, 309 U.S. 572 does not counsel otherwise. Wyoming argues that the holding in that case, that Wyoming had apparently acquiesced in Colorado's violations, applies here, such that this case should not proceed to the remedies phase. WY Br. at 69-70. However, *Wyoming v. Colorado* suggests the exact opposite result when applied to the facts of this case. The Court in *Wyoming v. Colorado* held that Colorado could not defend against its violations by asserting they did not cause injury to Wyoming, and had it not been for Wyoming's acquiescence, the Court would have been forced to grant Wyoming's requested relief by holding Colorado in contempt for violating the Court's decree. *Wyoming v. Colorado*, 309 U.S. at 581 ("Colorado is bound by the decree not to permit a greater withdrawal and, if she does so, she violates the decree and is not entitled to raise any question as to injury to Wyoming when the latter insists upon her adjudicated rights."); *id.* (stating that acquiescence "is the sole available defense"). Montana has never acquiesced in Wyoming's violations; it has always maintained that the Compact requires Wyoming to protect Montana's pre-1950 uses, and Wyoming was on notice in all the relevant years that Montana was not receiving the water to which it was entitled. It is Wyoming, not Montana, that must bear the consequences of Wyoming's faulty interpretation of the Compact, an interpretation that Wyoming benefitted from for decades by virtue of its advantageous position as the upstream state. *See Texas v. New Mexico*, 462 U.S. 554, 568 (1983).

Finally, while Montana maintains that it is entitled to a remedy for Wyoming's past violations to the extent that those violations have been demonstrated and quantified, Montana's primary goal in bringing this suit in the Court's original jurisdiction has always been to obtain a

workable methodology for administering the Compact so that Montana and its water users will no longer be at the mercy of Wyoming, who has long resisted the development of such a methodology because it worked to Wyoming's advantage. Montana was therefore forced to seek the Court's intervention to obtain that relief. If this case shows anything, it is that Wyoming will do whatever it can to ensure that it never has to take action to protect Montana's Compact rights. If the case is not allowed to proceed to the remedies phase based on a determination that the quantity of Wyoming's violation in certain years was not sufficiently large, Montana's entitlement to its Compact water will be entirely subject to whatever flow level Wyoming determines is sufficiently material to require Wyoming to act. Montana's evidence at trial firmly established Wyoming's Compact violations, and the case should be allowed to proceed to the remedies phase so that the prospective relief Montana seeks can be granted, thereby resolving the dispute that has persisted over many decades and led to the filing of this lawsuit.

CONCLUSION

Evidence at trial irrefutably established that Wyoming's post-1950 use adversely impacted Montana's pre-1950 water rights, resulting in repeated violations of the Compact. Wyoming is liable for Compact violations for all of the years at issue, including 1981, 1987, 1988, 1989, 2000, 2001, 2002, 2003, 2004, and 2006. Wyoming's violations resulted in adverse impacts to Montana of at least 1,530 acre-feet in 2001; 2,795 acre-feet in 2002; 2,166 acre-feet in 2004; and 3,232 acre-feet in 2006. Wyoming should therefore be found liable for such Compact violations, and the case should proceed to the remedies phase.

Respectfully submitted,
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Appendix A

Table of Montana Answers to CMO 14 Questions

Below is a list of page numbers where Montana addresses the questions raised in Case Management Order No. 14. This list is not meant to be exhaustive.

I. Notice

A. In what years did Montana provide adequate notice to Wyoming under Article V of the Compact?

   a. MT Br. at 9-11, 19-31, 87-94
   b. MT Reply Br. at 36-45

B. In years in which adequate notice was provided, when was notice provided?

   a. MT Br. at 9-11, 19-31, 87-94
   b. MT Reply Br. at 40-45

C. Can Wyoming be held liable in those years for any failure to curtail water use prior to notice and, if so, for what periods of time?

   a. MT Br. at 9-11, 19-31, 87-94
   b. MT Reply Br. at 39-45

D. Are there any years in which Montana should be excused from providing notice?

   a. MT Br. at 11-19, 83-87
   b. MT Reply Br. at 39-45

II. Post-1950 Water Use in Wyoming

A. Reservoirs

   a. Did Wyoming store post-1950 water during periods when liability is appropriately at issue?

      i. MT Br. at 69-76, 144-155
      ii. MT Reply Br. at 48-56

   b. If so, what was the quantum impact on water in the Tongue River system?
      i. MT Br. at 69-76, 80, 144-155, 174-175

ii. MT Reply Br. at 63-66, 48-49

B. Post-1950 Irrigation

a. Did Wyoming surface-water users divert and consume post-1950 water during periods when liability is appropriately at issue?

i. MT Br. at 59-69, 156-166
ii. MT Reply Br. at 48-56

b. If so, what was the quantum impact on water in the Tongue River system?

i. MT Br. at 59-69, 80, 156-166, 174-175
ii. MT Reply Br. at 48-49

C. CBM Water Production

a. What is the appropriate standard for showing a violation of the Compact as a result of groundwater extraction, and has Montana met that standard?

i. MT Br. at 76- 79, 172-173
ii. MT Reply Br. at 57-59

b. Can the 2002 BLM model form the basis for a liability determination in this case?
i. MT Br. at 76- 79, 166-175
ii. MT Reply Br. at 59-63

c. If so, what are the appropriate variables and assumptions in running the model, and how should the Supreme Court deal with the inevitable uncertainty in groundwater modeling?

i. MT Br. at 76-79, 167-172
ii. MT Reply Br. at 59-63

d. Who has the burden of proof regarding how much of the groundwater extracted ultimately returned to the Tongue River system in years in question through groundwater recharge, direct discharge into the Tongue River system, return flow from irrigation use, or other routes?

i. MT Br. at 6-11, 76- 79, 173-174
ii. MT Reply Br. at 5-6, 59-63

III. Shortages in Pre-1950 Water Rights in Montana

A. Tongue River Reservoir

a. What reservoir-related rights are protected by Article V(A) of the Compact?

   i. MT Br. at 31-37, 95-105
   ii. MT Reply Br. at 11-25

b. Has Montana shown that these rights were not satisfied during periods when liability is appropriately at issue?

   i. MT Br. 31-47, 127-128
   ii. MT Reply Br. at 11-25

c. If so, what was the amount of the shortage?

   i. MT Br. at 31-47, 80, 127-128
   ii. MT Reply Br. at 11-22

d. What is the relevance to Montana's claims of:

   i. the expansion of the reservoir;

      1. MT Br. at 31-37, 46, 95-105
      2. MT Reply Br. at 11-16

   ii. the negotiated settlement with the Cheyenne Indian Tribe;

      1. MT Br. at 31-34, 36, 95-105
      2. MT Reply Br. at 6-11

   iii. changes in the contract with the Tongue River Water Users Association;

      1. MT Br. at 31-37, 95-105
      2. MT Reply Br. at 11-16

   iv. winter releases from the reservoir?

      1. MT Br. at 37-47, 108-128
      2. MT Reply Br. at 16-25

B. Direct Diversion Rights

a. What must Montana show to establish that its pre-1950 direct diversion rights were not satisfied during periods when liability is appropriately at issue, and has Montana met its burden?

   i. MT Br. at 6-11, 47-59, 80-81, 128-137
   ii. MT Reply Br. at 5-6, 25-35

b. If so, what was the amount of the shortage?

   i. MT Br. at 47-59, 128-137, 80, 174-175
   ii. MT Reply Br. at 25-30

C. Post-1950 Water Use

a. Could Montana have met any pre-1950 shortages by curtailing any post-1950 Montana uses?

   i. MT Br. at 47-59, 138
   ii. MT Reply Br. at 35-36

b. If so, is there any evidence by how much? Who has the burden of proof on this issue?

   i. MT Br. at 6-11, 47-59, 80, 138
   ii. MT Reply Br. at 5-6, 35-36

D. Waste

a. Did Montana waste any pre-1950 water?

   i. MT Br. at 57-59, 106-108, 137-142
   ii. MT Reply Br. at 5, 20-21, 30-34

b. If so, is there any evidence by how much? Who has the burden of proof on this issue?

   i. MT Br. at 57-59, 106-107, 137-142
   ii. MT Reply Br. at 5, 20-21, 30-34

E. Administration of Water Uses in Montana

a. What intrastate regulatory obligations does the Compact impose on Montana (e.g., to ensure that water it claims for pre-1950 uses is needed for a reasonable and beneficial use, is not wasted, and/or is not going to post-1950 uses)?

i. MT Br. at 47-59, 137-142
ii. MT Reply Br. at 30-34

b. Did Montana satisfy any such obligations during the periods at issue?

i. MT Br. at 47-59, 137-142
ii. MT Reply Br. at 30-34

c. If not, what is the impact of that failure on the issue of liability?

i. MT Br. at 47-59, 137-142
ii. MT Reply Br. at 30-34

d. Who has the burden of proof on this issue?

i. MT Br. at 6-11, 106-107, 137-142
ii. MT Reply Br. at 5-6, 30-34

IV. Liability

A. Direct Causation

a. Did post-1950 storage or use in Wyoming cause any pre-1950 shortages in Montana?

i. MT Br.at 69-76, 80, 174-175
ii. MT Reply Br. at 63-66

B. Futility

b. What, if any, role does the doctrine of futility play in the resolution of this case?

i. MT Br. at 12-19, 80, 172-173, 174-176
ii. MT Reply Br. at 36-37, 39, 45-46, 67-69

C. Partial Years

a. If the Court decides that Wyoming was required to curtail post-1950 uses for only part of an irrigation season (e.g., because Wyoming did not receive notice until the middle of an irrigation season), how can the Court determine liability for that period alone?

i. MT Br. at 8-31, 87-94
ii. MT Reply Br. at 26-30, 39-45

b. In addressing earlier issues (e.g., impact of post-1950 direct diversions in Wyoming), counsel should discuss whether it is possible to determine liability for just part of the irrigation season given the evidence that was presented.

i. MT Br. at 8-31, 87-94, 137-142
ii. MT Reply Br. at 26-30, 39-45

c. If it is not possible, what should the Court do?

i. MT Br. at 106-107, 137-142
ii. MT Reply Br. at 26-30, 39-40

V. Materiality of any Liability

a. If the Supreme Court finds liability in this case, should the Court proceed to take evidence on and determine an appropriate remedy?

i. MT Br. at 80, 174-176
ii. MT Reply Br. at 67-69

b. Is there a level of materiality in the quantum of liability below which the Court should decline to impose any remedy?

i. MT Br. at 80, 172-176
ii. MT Reply Br. at 67-69

c. If so, what is that level? (I earlier addressed this issue in deciding whether this matter should proceed to trial. The question here is what the Court should do regarding remedy if it determines that Wyoming is liable, but the amount of liability is small.)

i. MT Br. at 80, 172-176
ii. MT Reply Br. at 67-69

No. 137, Original

♦

In The
Supreme Court Of The United States

♦

STATE OF MONTANA,

Plaintiff,

v.

STATE OF WYOMING

and

STATE OF NORTH DAKOTA

Defendants.

♦

Before the Honorable Barton H. Thompson, Jr.
Special Master

♦

CERTIFICATE OF SERVICE

I certify that a copy of *Montana's Post-Trial Reply Brief* was served electronically on April 25, 2014, Pacific Time, and by U.S. Mail, on April 26, 2014, to the following:

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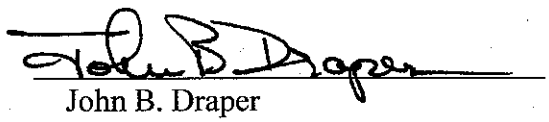

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