

# How Diversion and Beneficial Use of Water Affect the Value and Measure of a Water Right

*Is “Use It or Lose It” an Absolute?*

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**How Diversion and Beneficial Use of Water  
Affect the Value and Measure of a Water Right  
(Is “Use It or Lose It” an Absolute?)**

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## **SYNOPSIS**

Colorado water law is complicated and can easily be misunderstood. In particular, the component of a water right that requires it be put to a beneficial use without waste can create confusion.

It is a fact that wasteful water diversions and practices are not permissible under the state's water law. Unfortunately, this has led to the adoption of the misleading adage "Use It or Lose It."

This document clarifies how the use or nonuse of a water right affects its value.

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## How Colorado water rights work

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Water rights in Colorado are based upon the principle that a water right is a legal right to beneficially use a portion of the public's water without waste or speculation (termed a usufructuary right). Water is administered in Colorado based upon a priority date that considers the date of adjudication and the original date of appropriation recognized within a court-decreed water right. In times of shortage, senior water rights (with older court decreed priority dates) can divert and use water before a junior user, even though the junior diverter may be located upstream.

A water right will generally be limited by the amount that can be diverted for a beneficial use. Of that diverted amount, some will be consumed and some will return to the stream system. Consumptive use is that portion of diverted water that is consumed by the crop, industrial process, or municipal use and does not return to the stream system.

## Misunderstandings of “use it or lose it”

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The term “use it or lose it” is commonly associated with the incorrect belief that by maximizing the amount of water diverted, regardless of the need, one can enhance or preserve the magnitude of a water right in a future transfer or protect it from some other reduction. Efforts to reduce diversions for conservation or efficiency purposes raise a similar concern for some people: that in reducing the amount of water diverted, some portion of the water right may be lost.

Because of this, “use it or lose it” is commonly seen as a barrier to implementing water conservation measures and efficiency improvements. Generally, in a water right transfer (change of water right) case, the true measure of the water right is its actual historical, beneficial consumptive use (CU); in the case of an irrigation right, this is the documented annual crop evapotranspiration (ET) that can be shown to have been met by the water right, for a representative period of years.

Thus, there is likely no real legal incentive to divert more irrigation water than is needed to satisfy what the crop will eventually consume plus necessary carriage water. Additional water diverted, over that amount needed to transport the water to its place of use, becomes ditch seepage and return flow from the farm—neither of which is part of the CU—and generally of no value in a change case.

However, there remains a disincentive to practices that temporarily or permanently reduce consumptive use if the water right may be diminished in a future water right change case. SB 13-019 and other provisions now provide exemptions for participation in certain conservation programs but concerns, both real and imagined, persist in some circumstances.

### **HOW WATER USERS CAN HELP:**

*By the water user noting changes and providing the water commissioner with this information, the Division of Water Resources can maintain a more accurate record of the amount of water used.*

*User supplied data submitted to the Division of water Resources can be recorded as being of “Known reliability” or “Unknown reliability”. On ditches or pumps not equipped with a measuring device, the data, if entered at all, will be considered of “Unknown reliability”.*

*The data entered into the Division of Water Resources database is ultimately used by each Division Engineer to determine what water rights will be included on the initial abandonment list.*

## *Estimating consumptive use (CU)*

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Analysis of historical diversions and consumptive use requires measurement, recording, and maintaining accurate diversion records. Properly functioning measuring and recording devices are needed to enable your water commissioner to keep accurate records of diversions. Without these devices, the water commissioner can only estimate the diversion of water through a ditch or pump.

Depending on the area of the state that you live in, each water commissioner may have hundreds of structures that have to be visited during the irrigation season.

Between visits by the water commissioner, the amount of water diverted could have been changed (turned on, turned off, increased) without the water commissioner's knowledge.

## *What "use it or lose it" really means*

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A water right can be determined to be abandoned due to non-use for a long period of time (ten years or more), but only if the non-use is due to an actual intent of the owner of the water right to permanently forego the beneficial use of this water. This is the real basis for the term "use it or lose it."

However, in discussions of water administration, "abandonment" and "use it or lose it" can create confusion for the public. To address this confusion, the Colorado Water Institute, working with the Office of the State Engineer, convened a group of experts in an attempt to clarify the issue, resulting in this factsheet.

## FREQUENTLY ASKED QUESTIONS

*Colorado water law is complicated and site-specific facts often have bearing on water rights. Resolving site-specific water issues may require consultation with your Division of Water Resources' Water Commissioner and your attorney.*

*This factsheet provides general guidance on the current state of knowledge on abandonment and maintaining water rights but does not provide recommendations. If you own water rights, the following answers to these frequently asked questions may be helpful.*

### Guidelines related to abandonment

**Q: If a water right is not put to its full decreed use in amount or type of use for an extended period, what is the basis for the Colorado Division of Water Resources to put the water right, in whole or in part on the decennial abandonment list?**

**A:** Colorado water law provides that an absolute water right is subject to consideration of “abandonment” and subsequent “termination.” This would occur as the result of the intent of the owner to discontinue the use of the water right in part or in whole for an extended period of time.

**Q: How long must a perfected water right remain unused before it is considered abandoned?**

**A:** A water right is subject to listing on the decennial abandonment list (issued in 2000, 2010, 2020, etc.) if the water has not been put to use for an extended period of time, typically ten years or more. Non-use does not necessarily constitute abandonment if there is no intent to abandon and/or the non-use is due to circumstances such as the destruction of the headgate in a flood. Colorado Revised Statutes (C.R.S.) Section 37-92-401(1)(c) states that the Division Engineer will use the guidance given in Section 37-92-402(11), which states, “[f]or the purpose of procedures under this section, failure for a period of ten years or more to apply to a beneficial use the water available under a water right when needed by the person entitled to use same shall create a rebuttable presumption of abandonment of a water right with respect to the amount of such available water which has not been so used; except that such presumption may be waived by the division engineer or the state engineer if special circumstances negate an intent to abandon.”

**Q: Is it possible that abandonment can apply to only a portion of my water right due to non-use?**

**A:** Yes, the statute is clear that a water right can be considered abandoned in part. The Division Engineer would make this judgment based upon historical diversion records but can be countered by evidence provided by the water right owner that there was no intent to abandon the right.

**Q: Do water conservation actions that result in a record of not having diverted the full amount of the water right put the water right at risk of being considered for abandonment?**

A: Section 37-92-401(1)(a) gives the basis for the preparation of the decennial abandonment list and includes the consideration that the Division Engineer include “absolute water rights that he or she has determined to have been abandoned in whole or in part.” Section 37-92-401(1)(c) states that the Division Engineer will use the guidance given in Section 37-92-402(11), which states, “[f]or the purpose of procedures under this section, failure for a period of ten years or more to apply to a beneficial use the water available under a water right when needed by the person entitled to use same shall create a rebuttable presumption of abandonment of a water right with respect to the amount of such available water which has not been so used; except that such presumption may be waived by the division engineer or the state engineer if special circumstances negate an intent to abandon.” For that reason, reductions that result from an effort to conserve the resource may be considered “special circumstances” that “negate the intent to abandon,” and therefore, such conservation actions do not typically contribute to an abandonment determination by the Division Engineer; though after an extended period of time, these reductions may be considered permanent and serve as a basis for partial abandonment.

**Q: Can a conditional water right be subject to abandonment?**

A: Yes. Colorado water law provides for the issuance of a decree for a *conditional water right* for a specific, non-speculative beneficial use. After the decree is issued, the water must be applied to the decreed beneficial use or the water right will be subject to consideration of “Abandonment of a conditional water right” and subsequent “termination” (Section 37-92-301(1) “(1). However, if that application to beneficial use has not occurred but the applicant has shown “reasonable diligence” in pursuing the perfection of the water right, the holder of the water right can make the showing of reasonable diligence to the court every six years to retain the conditional water right.

Colorado water law allows a non-speculative conditional water right to undergo a change of use proceeding even though there is not a record of historical consumptive use. According to Section 37-92-103(5), “[t]he term “change of water right” includes changes of conditional water rights...” the standard for quantifying the amount of a conditional water right that may be changed is the “contemplated draft” of the water right. This standard includes consideration of what use was contemplated for the water right at the time of the conditional water right appropriation, further limited by the conditions that would have allowed greater or lesser use of the water.

**Q: Is a municipal and quasi-municipal water provider subject to abandonment if they are not using their entire water portfolio for its decreed purpose?**

A: Municipal and quasi-municipal water providers are charged with the *responsibility* to serve customers and the obligation to plan for future growth through the acquisition of water rights. Colorado law gives special deference to these water providers.

This deference, known as the *Great and Growing Cities Doctrine*, allows water providers to acquire water rights for future use, within reasonable time and amount limits and, subject to reasonable diligence review proceedings, in a manner that does not conflict with Colorado’s anti-speculation law. Thus, while municipal water supplies can in theory abandon water rights, in practice it is very rare because of the deference given to municipal water planning.



## *Preventing abandonment designation*

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**Q: Should I simply divert my entire decreed amount in order to ensure I will protect my water right?**

**A:** No. You should divert only the amount necessary to accomplish the decreed beneficial use. Diversions in excess of the amount necessary to accomplish the decreed beneficial use may be curtailed as wasteful and do not add to a water right's value in a change of water rights case.

While the measure of a water right can be clearly described as the amount of historical consumptive use, an analysis to determine that amount must include an analysis of the amount of diversion over the representative study period. The amount of diversion in and of itself does not necessarily result in a greater consumption. However, actual diversions, as demonstrated by diversion records, make up an important component in the analysis. A change of water right decree will acknowledge the impact on the river from the historical diversion by the water right. Also, the decree will address the need to maintain the portion of the diversion that was not consumed by the use, otherwise known as return flows.

This does not mean that a water user should divert decreed amounts regardless of need, and in fact, it could be detrimental. Some water users are advised by well-meaning individuals, including their legal counsel, that they should divert the entire decreed amount of their water right, whether it is needed for the particular use or needed at all, in order to preserve the water right; that is, protect it from abandonment and/or lead to the maximum value of the water right in a water right change proceeding. This conclusion is based on a misapplication of the law.

First, if resources allow for proper administration, such diversions should be curtailed as wasteful in keeping with the language of the Section 37-92-502(2)(a), C.R.S. above. Second, consumptive use is based on an analysis of the crop demand and diversions, so diverting excess water may not yield additional consumptive use. Excess diversions will either be discounted as wasteful in the historical consumptive use analysis, or made a part of the return flow obligations of the applicant. Meeting return flow obligations is often difficult for applicants and increasing this obligation is not necessarily positive from an applicant's perspective. In sum, an increased diversion rate beyond what is necessary for the specific beneficial use is not typically helpful from a perspective of historical consumptive use analysis.

Therefore, while recognizing that the diversion amount is an important component in a water right change case, excess diversions beyond the duty of water may be curtailed and do not add to a water right's value in a change of water right case. These excess diversions do not normally lead to a calculation of a greater consumptive use amount, nor protect the excess portion of the water right for change in use purposes.

## *If your water right has been designated as abandoned...*

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**Q: What if I have no intention of abandoning my water right but it is listed on the decennial abandonment list?**

**A:** If there has been prolonged non-use of the water right, the water right holder must provide sufficient evidence to the Division Water Court of no intent to abandon to overcome the presumption of abandonment. Section 37-92-401(1)(a) gives the basis for the preparation of the decennial abandonment list and includes the consideration that the Division Engineer include "absolute water rights that he or she has determined to have been abandoned in whole or in part."

However, Section 37-92-401(1)(c) states that the Division Engineer will use the guidance given in Section 37-92-402(11), which states, “[f]or the purpose of procedures under this section, failure for a period of ten years or more to apply to a beneficial use the water available under a water right when needed by the person entitled to use same shall create a rebuttable presumption of abandonment of a water right with respect to the amount of such available water which has not been so used; except that such presumption may be waived by the division engineer or the state engineer if special circumstances negate an intent to abandon.”

For that reason, a periodic reduction or reductions that result from an effort to apply water more efficiently or to conserve the resource *may* be considered “special circumstances” that “negate the intent to abandon,” and therefore, such improvements do not typically contribute to an abandonment determination by the Division Engineer.

However, whether a conservation or efficiency improvement will be considered “special circumstance” is a fact specific and open question. Water right owners should discuss their plans with their water attorney and Division Engineer to gain assurances before engaging in these practices. The owner of the water right should also keep records of non-use or conservation actions to document intent. It is important to consider that an action that allows reduced diversions may eventually be for all practical purposes, permanent. At that time, the Division Engineer and the water court may see that as “intent to abandon.”

### *How common actions may or may not affect your water rights*

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**Q: After having established the use of the absolute water right, is the owner of the water right limited to those established practices? Does the Division Engineer conduct periodic review of the use of surface or ground water rights to determine potential for reduction?**

**A:** In general, once a water right has been made absolute, the State and Division Engineers will not seek to limit the actions of the owner of the water right if they conform to the terms of the absolute decree. Absolute decrees and change of water right decrees state the place of diversion, type of use, and amount of diversion that can be made in the exercise of the water right. The place of the water right’s use is either stated in the decree or derived from evidence of the appropriator’s original intent in making the appropriation.

For example, changing the crop mix on lands historically irrigated under the right and utilizing more efficient means of irrigation for those lands are allowable. However, the water right cannot be enlarged to include acreage not contemplated and the protective conditions contained in the decree to prevent injury to other water rights must be honored.

New irrigation practices must not conflict with the provisions of the water right decree, provisions of an interstate compact, or any promulgated rules. In part, this concept was affirmed through SB13-074, codified in Section 37-92-305(4)(a)(I)(B) and Section 37-92-503(9), C.R.S. However, while the State or Division Engineer will not limit the use of water right based on an established maximum, as long as the use does not exceed the limits specified in the decree, there may be situations where a water right’s decree is unclear regarding the use and the water court may place limits on the use of a water right.

This concept was also affirmed for wells in the Designated Ground Water Basins through Senate Bill 13-075, which protects wells from a reduction in the amount allowed through the final permit due to consideration of a reduction in the amount of water pumped if the reduction was for conservation purposes. As to well permits for tributary or designated ground water, absent abandonment or a change of water right, the Division of Water Resources (DWR) does not seek to revoke or modify well permits based on non-use.

Therefore, in general, a water user may use their full entitlement to water consistent with the terms and conditions of the decree or well permit even though there may have been previous and perhaps prolonged periods of non-use or diminished use. The Division Engineer and his or her staff are required to maintain records of the diversion and beneficial use of water. Any permanent change in the physical point of diversion, place of use, or a change in the type of beneficial use (such as agricultural to industrial) must be approved by the Division Water Court.

**Q: If I increase the efficiency of my irrigation system, with the result being a reduction in my diversions, could my water right be considered partially abandoned in the amount of the reduction?**

**A:** Efficiency improvements do not typically contribute to an abandonment determination by the Division Engineer. However, while the Division Engineer has authority to consider “special circumstances” that “negate the intent to abandon,” a long-term record of reduced diversions that result from efficiency efforts or other actions may ultimately be considered the permanent character of the water right and the reduction could be considered an “intent to abandon,” in which case, the reduction may be considered for abandonment. The owner of the water right should keep records of such efficiency actions.

**Q: Is there potential for abandonment due to a record of reduced diversion that cannot be attributed to efficiency or conservation purposes?**

**A:** Yes. However, the presumption of abandonment is based upon intent. If there are reasons for reduced diversion, these should be documented and provided to the Division Engineer.

### *How “change of water right” cases work*

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**Q: In a “change of water right” case, to what extent is the period of time that a water right was used for its originally-decreed purpose considered in calculating the amount of water that may be transferred to another use?**

**A:** The standard applied by the water court in a “change of water right” case is that the change cannot cause injury to other water rights and, more recently, the standard has included consideration that the change not cause an expansion of *historical consumptive use*. The measure of the historical consumptive use is typically the average consumptive use over a *representative period of record*. Using a *representative study period* for the determination of *historical consumptive use* helps ensure that the quantified water right is reflective of the amount averaged over a range of conditions.

What constitutes a “representative study period” may vary from case to case. Recently, water users did get some guidance as to what constitutes a *representative study period* through Senate Bill 15-183. SB15-183 clarified what a representative study period is in three important ways.

First, the *representative study period* includes wet years, dry years, and average years; second, the *representative study period* must not include undecreed use of the water right; and third, the *representative study*

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*...after a water right has once been quantified and changed to a new purpose, it is not subject to requantification based on historical consumptive use in any subsequent change proceeding.*

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*period* need not include every year of the entire history of the water right. With this new statutory language, the General Assembly has directed that a *representative study period* does not need to include the entire history of the water right, with consideration for years being excluded, but rather, the *representative study period* be only that, representative.

Ultimately, the water court will determine what period of the water right's exercise is appropriate for calculating the amount of beneficial historical consumptive use made in accordance with the decreed appropriation.

In addition to addressing the issue of the *representative study period* for a water right that has never been changed, Senate Bill 15-183 gives a new consideration to Colorado water law, that after a water right has once been quantified and changed to a new purpose, it is not subject to requantification based on historical consumptive use in any subsequent change proceeding.

**Q: Once a representative study period has been determined, how is historical consumptive use quantified in a change case with respect to the historical diversion record?**

**A:** In general, the amount of transferable consumptive use allowed in a water right change can be determined by reconciling the amount of water diverted, reduced for losses and efficiency considerations, with the amount of water required for consumption, for example, by irrigated crops for an agricultural water right.

The consumptive use is quantified as the minimum of the supply or the demand. Therefore, the diversion amount directly affects the consumptive use quantification only up to the point at which the demand is fully met, and any additional diversion over that amount does not increase the consumptive use.

While the measure of a water right can be clearly described as the amount of historical *consumptive* use, an analysis to determine that amount must include an analysis of the amount of diversion over the study period. While the amount of diversion in and of itself may or may not directly result in a greater allowable amount to be consumed, it does influence the analysis and the change to the water right in two ways.

First, the amount of the diversion for the period of analysis is used to calculate an estimate of the amount of consumptive use, after consideration of transit losses and efficiency.

Second, the amount of diversion represents the initial impact to the stream that results from the exercise of the water right. The owner of the water right may continue to impact the stream after a change of water right in the time, location, and amount of impact previous to the change case in the full amount of non-wasteful diversion, even if the entire amount diverted is not ultimately consumed.

In practice, this allowance is implemented by allowing diversion and use of the diverted amount, while ensuring the maintenance of return flows in time, location, and amount.

### ***Potential effects of intentional conservation***

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**Q: How is conservation defined?**

**A:** In Colorado's system of water administration, conservation is the effort to reduce the amount of water consumed or taken out of the hydrologic cycle. For example, taking land out of production by removing end guns, fallowing a field, or irrigating a less consumptive crop. Water saved through conservation will likely be consumed by another water user in an over-appropriated system.

Relevant Colorado Statutes:

- Section 37-92-103(2), Intent to abandon shall not result from...
- Section 37-92-305(3)(c), In historical use analyses, the judge shall not consider decreases in use that result from...(SB13-019)
- Section 37-90-108(5)(b), “Conservation” is not grounds to reduce the water right of a final permit (SB13-075)

**Q: If the use of a water right over some part of its history of use is reduced specifically due to an effort to conserve the water resource or ensure a sustainable supply, for example in the case of groundwater, will it influence the analysis associated with a change of water right?**

**A:** As discussed above, a water right may be subject to reduction or termination due to non-use. However, for water rights that are intentionally part of a conservation or sustainability effort, statutory law, including laws enacted in recent years, provides protection for water rights that show non-use if that non-use is attributed to a formal conservation program. Specifically, Senate Bill 13-019 provides such protection to water rights in Divisions 4, 5, and 6. (Section 37-92-305(3)(c)) (“In determining the amount of historical consumptive use for a water right in division 4, 5, or 6, the water judge shall not consider any decrease in use” when the land on which the water from the water right has been historically applied is enrolled under a federal land conservation program or there is “non-use or decrease in use of the water from the water right by its owner for a maximum of five years in any consecutive ten-year period as a result of participation in” certain water conservation, land fallowing, or water banking programs.)

**Q: What about water conserved through fallowing and leasing pilot projects, temporary instream flow loans, rotational crop management contracts, substitute water supply plans, and interruptible water supply agreements?**

**A:** Administrative approvals may be granted for fallowing and leasing pilot projects (Section 37-60-115(8)), temporary instream flow loans (Section 37-83-105), rotational crop management contracts (defined in Section 37-92-103(10.6)), substitute water supply plans (Section 37-92-308), and interruptible water supply agreements (Section 37-92-309). Of these, the rotational crop management contract gives explicit consideration of non-use of a water right under certain circumstances.

**Section 37-92-305(4)(a)(IV)** states “A failure of a party to a rotational crop management contract who is not the owner of the irrigation water rights that are subject to the contract to put to beneficial use the full amount of water that was decreed pursuant to the application for approval of the contract shall not be deemed to reduce the amount of historical consumptive use that the owner of the water rights has made of the rights.”

**Senate Bill 15-183** may render this protection under the rotational crop management statute unnecessary because the water rights will no longer be subject to requantification after they are changed and quantified for use under a rotational crop management contract. Also, the instream flow loan statute expressly states that “periods of time during which a loaned water right is used by the [CWCB] for instream flow purposes shall be excluded from any historic consumptive use analysis of the loaned water right required under any water court proceeding.”

**Section 37-83-105(2); see also Section 37-92-102(3)** addressing long-term leases of water for instream flow use (“Said method shall recognize the actual amount of consumptive use available under the leased or loaned water right and shall not result in a reduction of the historical consumptive use of that water right during the term of the lease or loan [to the CWCB], except to the extent such reduction is based upon the actual amount of water available under said rights.”).

### **Other statutes**

The other listed statutory mechanisms for approving the application of a water right to a use that is not a decreed use do not give explicit protection from abandonment or from a reduction in the value of a water right due to the undecreed use. However, explicit protection may not be needed, especially in light of existing case law. The abandonment statutes make exceptions for no decreed use when water is loaned or contracted to the CWCB for instream flow use or there is non-use due to water conservation, land fallowing and water banking programs (Section 37-92-103(2)(a) and (b)).

Similarly, the Ground Water Commission's designated ground water rules exclude from the computation of average historical use years of "limited or no irrigation" due to lands being placed into a federal set aside or conservation reserve program. See Ground Water Commission Rule 7.10.4, 3 Code Colo. Regs. 410-1.

Finally, even with a common understanding of this application of the law, the owner of the water right needs assurance of the allowances that these years will not be included for abandonment or change of use purposes. That assurance can be enhanced through permanent documentation in diversion records. The Division of Water Resources is currently responding to this need by providing the appropriate diversion record coding.

### **Legal definitions as they pertain to water rights and usage**

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#### **Efficiency:**

In Colorado's system of water administration, the term efficiency should be distinguished from the term conservation. In agriculture and other water uses, efficiency has a specific meaning. *Specifically, efficiency is the ratio of the amount of water consumed by a specific beneficial use to the amount of water that must be diverted to achieve the beneficial use.*

Examples of improving efficiency in agricultural irrigation include modifying the method of diversion or application of the water by lining the ditch or switching from flood to sprinkler irrigation. Efficiency changes may affect diversion rates and/or return flows.

#### **Duty of water:**

*Duty of water is a term of art that is not quantitatively defined for any particular use. However, in concept, it is described as the amount of water that needs to be diverted to accomplish the beneficial use, without waste.*

The concept of waste is critical in water rights administration and helps clarify the discussion of duty of water. It must be recognized as being a subjective factor to be evaluated on a case-by-case basis at the time of diversion.

#### **Note on efficiency:**

*Water not diverted due to efficiency improvements becomes available to be beneficially used by downstream water rights holders in accordance with the priority system. Therefore, it may be consumed by a different water user than before the efficiency improvement was made.*

*Water saved through efficiency improvements will likely be consumed by another water user in an over-appropriated system and will not necessarily remain in the stream for environmental or recreational uses.*

**Waste:**

*Water that is diverted above the amount necessary for application to a beneficial use (including necessary transit loss) is considered waste. Increased diversions for the sole purpose of maintaining a record of a larger diversion are considered waste.*

Wasteful diversions will either be curtailed, or will not be considered as a part of the water right's beneficial use.

Water diverted to carry the consumptively used portion of a water right to the location where it is used is part of "the duty of water" and is not considered waste.

Section 37-92-502(2)(a) requires that "[e]ach division engineer shall order the total or partial discontinuance of any diversion in his division to the extent that the water being diverted is not necessary for application to a beneficial use..." Proper application of this authority requires that the Division Engineer and the Division Engineer's staff understand the amount of diversion that is needed to accomplish a beneficial use.

**Note on determining waste:**

*For an irrigation water right, it's important to understand the geographic-specific irrigation requirements since the duty of water may vary from one location to another. Notably, one aspect of this "understanding" of irrigation requirements is given some specificity in Division 3 (Rio Grande Basin) through State Engineer Policy 2010-01, which provides a basis for establishing an irrigation season.*