



Town of Frederick
Board of Trustee Agenda
Tuesday, September 29, 2020

**Frederick Board of Trustees
Work Session
Virtual Zoom Meeting
401 Locust Street
Frederick, CO 80530**

5:30 P.M.

1. Water 101
2. Mayor and Trustee Reports

Topic: Board of Trustee Meeting - Work Session
Time: Sep 29, 2020 05:30 PM Mountain Time (US and Canada)

Join Zoom Meeting

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Built on What Matters.

Water Rights 101



September 29, 2020

Jennifer M. DiLalla
Moses, Wittemyer, Harrison
and Woodruff, P.C.

Tonight's path: topics and objectives



I: Broad overview of and introduction to the fundamentals of Colorado water law.

Objective: helping the Board become familiar and comfortable with both the concepts and the vocabulary of this all-important body of law, which is both awash in history and emphatically part of Coloradans' daily lives.

II: Introduction to the Town's water team, current water portfolio, and water operations.

Objective: ensuring that the Board has a solid sense of where things stand today with the Town's water well-being; and giving the Board a brief preview of what comes next in the Town's planning efforts.

Part I: Fundamentals of Colorado Water Law



Discussing Water Rights, A Western Pastime

Topics

- Doctrine of prior appropriation
- What it means to have a water right
- Appropriation, confirmation, and administration of water rights
- The importance of priority
- Operation out of priority: plans for augmentation
- Colorado's system of water courts
- Offices of the State and Division Engineers

Prior appropriation and the priority system

- The “prior appropriation” doctrine is a system of allocating water based on the historical order in which water users (i) diverted water from the stream system, and (ii) placed the water to a beneficial use.
- Guiding principle: “First in time, first in right.”
- Administered through what is known as Colorado’s “priority system.”
- Unless a water right is abandoned, its place in line is preserved in perpetuity.

What is a water right?

- A water right is the right to use, in accordance with its priority, a specific amount of “the waters of the State” that the water user has appropriated.
- Water rights are “usufructuary” rights, which means that the water right holder does not own the water itself, but instead owns the right to use the water.
- Water rights are valuable property rights that generally are treated as real property in Colorado.
- Water rights are confirmed and described in a decree granted by a court and imposing terms and conditions on use of the water right.

Types of water rights

- Water rights are decreed either for what is known as “direct use” or for use after storage.
- Water rights that are not decreed to be used after storage generally must be put to use within 72 hours of diversion.
- Water rights are decreed for diversion either as “surface water rights” or “ground water rights.”
- A special type of surface water right called an “exchange” allows a water user to take water out of priority at an upstream point, and to replace the water to the stream at a downstream point.

Creation of a water right

- The water user creates a water right through a **non-speculative** “**appropriation**,” which is the application of a specified amount of water to a particular beneficial use based on the water user’s **demonstrated need**.
- **Beneficial use**: the use of the amount of water **reasonable and appropriate** to accomplish the purpose of the appropriation **without waste**.
- “**Speculation**” means appropriating a water right for the purpose of hoarding or selling the water right, rather than using the water for the appropriator’s demonstrated need.
- The “**anti-speculation doctrine**” is a critical part of Colorado water law.

Appropriation vs. adjudication

- The appropriation creates the water right.
- The adjudication confirms the water right and makes it enforceable by state water officials.
- Adjudication is the process of obtaining a court decree confirming the appropriation.
 - State officials cannot enforce, or “administer,” unadjudicated water rights.
 - If a water right cannot be administered, the water user cannot assert its place in line in the the priority system.
 - Decrees impose terms and conditions and limitations, but also give certainty.

Priority

- A water right's priority is its place in line in Colorado's system of administration, and is made up of a priority date (i.e., year) + an appropriation date.
- For water rights decreed in an original adjudication before adoption of the Water Right Determination and Administration Act of 1969 (often referred to as the "1969 Act"), the priority date is the year of appropriation.
- For water rights decreed in a supplemental adjudication before adoption of the 1969 Act, the priority date is the year in which the adjudication was completed and the decree was entered.
- For water rights decreed after adoption of the 1969 Act, the priority date is the year in which the application was filed.
- As between water rights with the same priority date, priority is determined by the relative seniority of the date on which the water right was appropriated (i.e., the "appropriation date").

Priority as the keystone of water law

- If the flow in the stream is less than the rate of flow to which the senior priority on the stream is entitled, junior priorities on that stream will receive no water (i.e., will be “**curtailed**” by state water officials) until the senior water right has been satisfied.
- There is no equitable apportionment in times of drought.
- When there is not enough water in the stream to satisfy a senior water right, the holder of that senior water right is entitled to “**call**” for its water as against junior water rights holders. When a senior places a call on the stream, juniors may not divert water from that stream unless and until the senior’s water right is fully satisfied.
- The calling water right may be on a different stream system (e.g., downstream water rights on the South Platte River may **call out** water rights on Boulder Creek).
- When there is no senior water right placing a call, we are in a period of “**free river.**”

Absolute vs. conditional water rights

- Water rights are decreed as either “absolute” or “conditional.”
- Absolute water rights are those that have been diverted in priority and placed to decreed beneficial use(s) for direct-flow water rights; or delivered to the decreed bucket for storage water rights.
- Conditional water rights are those for which the appropriator has taken a documented “first step” toward the appropriation, but under which water has not yet been diverted in priority and placed to decreed beneficial use(s).
- Conditional water rights carry a priority just like absolute water rights, but also carry special obligations (next slide).
- Conditional water rights are made absolute after the water user “completes the appropriation” by diverting water in priority and placing it to decreed beneficial use(s) or delivering it to storage.

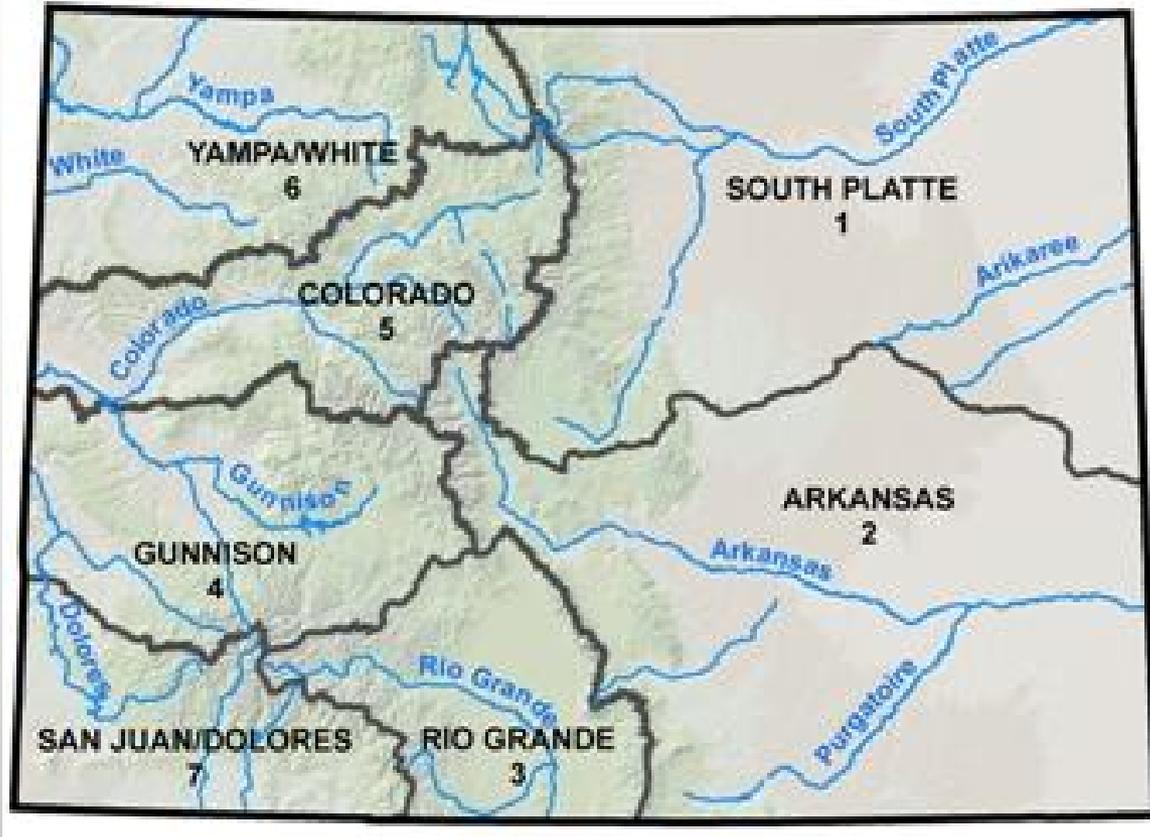
Absolute vs. conditional water rights

- There are various statutory and common-law (i.e., court-imposed) requirements for appropriation and confirmation of conditional water rights.
- The holder of the water right must return to water court every 6 years to do the following:
 - Demonstrate reasonable due diligence in developing the conditional appropriation and placing the water to beneficial use; and/or
 - Demonstrate that the water has been diverted in priority and placed to beneficial use, and therefore should be made absolute.
- The obligation to file “diligence applications” ends when the conditional water right has been made fully absolute or cancelled.
- If a diligence or make-absolute application is not filed in water court by the deadline, the conditional water right will be cancelled.
- Conditional water rights may be made absolute in part, and continued as conditional in part.

Plans for Augmentation

- Augmentation plans allow water users to continue diverting water even when their water rights are out of priority, as long as the water user delivers a replacement supply, or “augmentation supply,” to the stream at the time, in the amount, and at the location needed to protect downstream senior water rights.
- Augmentation plans must be adjudicated in water court.
- Augmentation plans are critical for municipalities and other water users that must have a firm-yield water supply year-round, without regard for changing flows in the stream, but that do not own sufficiently senior water rights.

Colorado's water courts



Colorado's water courts

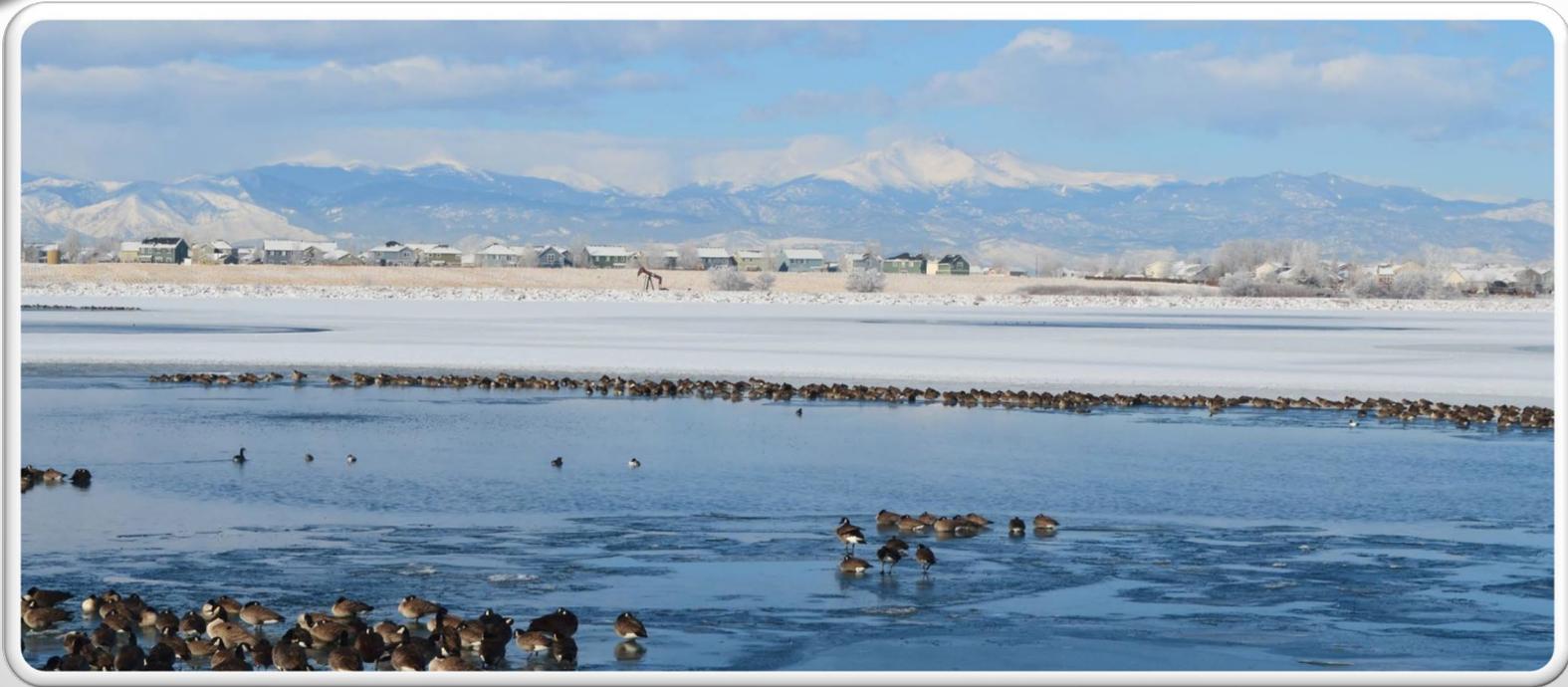
- Adjudication of new water rights, plans for augmentation, changes of existing water rights, and diligence or make-absolute proceedings for conditional water rights is under the exclusive jurisdiction of Colorado's 7 water courts.
- The 7 water courts correspond with Colorado's 7 water divisions, which in turn correspond with river basins or sub-basins.
- Boulder Creek is within the South Platte River basin, which is far and away the most hotly contested of the basins because of “over-appropriation” of Front Range stream systems.

The long arm of the law: administration



Division of Water Resources

- Water rights are administered by the Division of Water Resources, or “DWR,” which is better known as the “State Engineer’s Office” or “SEO.”
- Each water division is overseen by a Division Engineer, who is assisted in administration by a team of assistant division engineers and water commissioners. It’s always a good idea to get to know the Division Engineer and water commissioner.
- DWR employees are statutorily authorized to enter upon private property to carry out their duties.
- The State Engineer, the Division Engineer, and the water commissioners are obligated to administer water rights in accordance with their decrees; they are not authorized to determine water rights.
- Under section 37-92-308, C.R.S., the SEO may approve temporary operation of plans for augmentation or changes of water rights through “substitute water supply plans,” or SWSPs.
- <https://dwr.state.co.us/tools/>
- <https://dwr.state.co.us/Tools/WaterRights/Transactions>



Part II: Frederick's Water Supply and Water Operations

Topics

- The Water Fund
- The water team
- The current water portfolio
 - Potable water supply
 - Sufficiency of the potable supply
 - Raw/irrigation water supply
- The water team's current and most pressing projects
- The water team's interactions with the Board

The Water Fund



Water Fund

- Enterprise Fund

- Financed and operated in a manner similar to a private business enterprise.
- Goods and services are provided to the general public on a continuing basis and the costs are recovered primarily through user charges.
- Does not receive any revenue from taxes.

2019 Audited Fund Balance	\$23,780,502
2020 Estimated Revenues	\$4,697,200
Total Available Funds	\$28,477,702
Less: 2020 Expenditures	(\$8,643,468)
Estimated 2020 Ending Fund Balance	\$19,834,234

Water Fund

- Revenue Sources
 - Potable / Non-potable / Hydrant Water Sales
 - Impact Fees
 - Water Share Fees
- Operations and Maintenance
 - Personnel Services
 - Contract Services
- Capital
 - Infrastructure – Raw Water line extension
 - Windy Gap Water Allocation
 - NISP Water Allocation - \$4,384,801 contributed to date (2008 – 2020)
 - 2021 Allocation - \$1,157,000
 - 2022 Allocation - \$1,215,500

The Town's water team



The Town's water team

- Kevin Ash and Sarah Watson in the Engineering Department oversee and manage the water portfolio, water operations, water accounting, and water planning, including coordinating work by the Town's outside consultants.
- The “Water Committee”—Mayor Crites, Bryan Ostler, Kevin Ash, the Town Attorney, and the Town's water attorney—meet periodically to ensure that Town leadership is immersed in and guiding water-related conversations and decision-making.
- The attorneys at Moses, Wittemyer, Harrison and Woodruff, P.C. (led by Jennifer DiLalla and Josh Boissevain) are the Town's outside legal counsel for water matters.
- The engineers and hydrologists at ELEMENT Water Consulting (led by Beorn Courtney and Matt Welsh) are the Town's outside technical consultants for water matters.

The Town's water portfolio





This evening's focus:
the Town's current portfolio and operations,
building blocks for the long-term water future

Potable supply



Current potable supply

- The Town's potable supply is delivered by two water districts: Central Weld County Water District on the east side of I-25, and Left Hand Water District on the west side of I-25.
- The Town provides water for the east-side (Central Weld) supply with an annual dedication of Town-owned units of Colorado-Big Thompson Project (familiarily called "C-BT") water.
 - The Town's 7 units in the Windy Gap Project (which is the younger sibling to C-BT) and 1 leased unit in the Windy Gap FIRMING Project also may be used to fund the Central Weld supply; however, the Town has never received a delivery of water to those units.
 - Residents served by Central Weld are Town customers.
- Developers or other landowners provide water for the west-side (Left Hand) supply with dedication of their own water rights to the District; the Town is not involved in those transactions.
 - Residents served by Left Hand are Left Hand customers.

Sufficiency of the potable supply – near term

- The Town owns **4,373 C-BT** units.
- The Engineering Division reports the following:
 - **Existing** east-side **potable** demand is **2,045.0 acre-feet per year (“afy”)**.
 - **Short-term future** potable demand on the east side is **2,830.2 afy**.
 - The **firm yield** of the C-BT units is **2,623.8 afy**.
 - The **average yield** of the C-BT units is **3,061.1 afy**.
- Under current conditions, the Town has **~578.8 afy of excess C-BT** water in **dry years** and **~1,016.1 afy of excess C-BT** water in **average years**.
- In the near term, the Town will have a **deficit** of **~206.4 afy** of C-BT water in **dry years**, and **~230.9 afy** of excess C-BT water in **average years**.
- **Staff has estimated that at current growth rates, the Town will exhaust its potable supply by 2030.**

Sufficiency of the potable supply – near term

- To ensure that the Town can meet potable demand in the near term, the Town acquired 2,600 afy in the Northern Integrated Supply Project, or “NISP”
- Because NISP will not be online and delivering water until **2028 at the earliest**, the Town will need to shore up its potable supplies in the near term.
- Under NCWCD’s policy regarding limitations on municipal ownership of C-BT, the Town may acquire 614 additional units based on current conditions.
 - C-BT ownership available to the Town is reduced based on a presumed yield to the 8 Windy Gap units, to which no water has been delivered to date.
 - **C-BT ownership available to the Town is *not* affected by developer dedications that are a condition/requirement of annexation; therefore, the Town may (and should) continue to require developers to dedicate C-BT for potable supplies as a condition of annexation, without running afoul of the municipal limit.**

Sufficiency of the potable supply - medium- and long-term planning horizon

- In a March 2017 Technical Memorandum, Ecological Resource Consultants, Inc. projected that the Town's east-side potable demand would reach **~5,262 afy by 2040; ~7,715 afy by 2050; and ~10,368 afy by 2060.**
- The 2,600 afy from NISP, added to the firm yield of existing and future-acquired C-BT units, should carry the Town through 2040.
- Any firm yield from the Windy Gap units would carry the Town farther into the planning horizon, as would developer-dedicated C-BT units under annexation agreements.
- **By the 2040s, based on current projections of demand and growth, the Town will need to have acquired additional potable supplies.**
- Kevin Ash, Sarah Watson, and ELEMENT will be getting the Town's big-picture water planning underway by the end of 2020.

Raw water/irrigation supply



Raw water/irrigation supply

- The Town is the largest shareholder in the New Consolidated Lower Boulder Ditch and Reservoir Company, and therefore owns a pro-rata share of the water rights decreed to the **Lower Boulder Ditch**—**which carries the most senior priority in the South Platte River basin.**
- The Town owns a “senior” (though not so senior) storage water right for **Milavec Reservoir**, which fills through the Lower Boulder Ditch and was decreed as the “**Lower Boulder Extension Reservoir.**”
- The Town owns junior storage water rights for Milavec and several nearby ponds.
- The Town owns a small number of shares in the New Coal Ridge Ditch Company, the supply for which primarily comes from the Lower Boulder.

Raw water/irrigation supply

- Unlike potable demand, which for planning purposes is limited to the east side of the highway, the demand for raw water—primarily for use in irrigation—applies on both sides of the highway.
- The Town has heard increasingly from developers that appropriate raw water supplies are difficult to come by in the Boulder Creek basin.
- The Town's portfolio of Lower Boulder water and Milavec-stored water is the most critical component of the raw water supply.
- This winter, we will be initiating a change of water rights case for the Town's Lower Boulder shares, to allow the water to be used for all municipal purposes throughout the Town's service area, and for limited purposes outside the service area.
 - As originally decreed, the Lower Boulder water rights may be used only for irrigation downgradient of the ditch; and the more senior Milavec water right may be used only for irrigation downgradient of the reservoir.
 - Because of a lack of records of historical use, we will not include the Milavec water right in the change case.

Looking ahead



What's most pressing as of fall 2020: the water team's current projects

- For the remainder of 2020 and heading into 2021, the water team will be occupied with two special projects that we have determined to be most pressing for securing the Town's water future:
 - Kevin Ash and Sarah Watson will be working with the Town's technical consultants at ELEMENT to design and implement a comprehensive, big-picture water-planning effort, with a goal of evaluating existing and potential future supplies, infrastructure, and agreements, and developing recommendations for the Town's best path forward.
 - The full water team will be initiating a change of water rights case in the Division 1 water court, to allow the Town's valuable portfolio of Lower Boulder shares to be used for all municipal purposes, rather than solely for irrigation under the Lower Boulder Ditch. Because the Town is the largest shareholder in the Company, the case will be the largest Lower Boulder change case ever prosecuted.

Keeping our heads above water: the water team's interaction with the Board



Keeping our heads above water: the water team's interaction with the Board

- The water team will ensure that the Board is able to take timely and efficient action to protect the water portfolio and to ensure a secure water future for Frederick, by promptly bringing the following issues to the Board:
 - Within the big-picture planning process, analyses and projections that show that the Town needs to take action to add to or alter the water portfolio, with recommended strategies for such action.
 - Offers for the Town to acquire new supplies that preliminary diligence investigations have shown to be a good fit for the Town's needs and goals.
 - Recommendations regarding potential changes to—including termination of—agreements with contractual partners such as Central Weld and Left Hand.

Keeping our heads above water: The water team's interaction with the Board

- Within litigation (such as the forthcoming application for a change of water rights for the Lower Boulder shares), recommendations regarding proposed settlement principles that represent a change in our previously determined course; or recommendations regarding proceeding to trial or filing an appeal.
- Within big-picture planning, recommendations regarding infrastructure investments that could increase the yield of existing water supplies (e.g., infrastructure needed for a “reuse plan,” or for treating supplies other than C-BT, Windy Gap, or NISP water for potable use).
- Recommendations regarding the Town's approach to accepting cash from developers in lieu of dedicated water supplies.
- Periodic (at least annual) check-ins regarding the status of the portfolio's yield vis-à-vis demand.

Questions?

