

# Water Rights Implications for Stream and Wetland Restoration

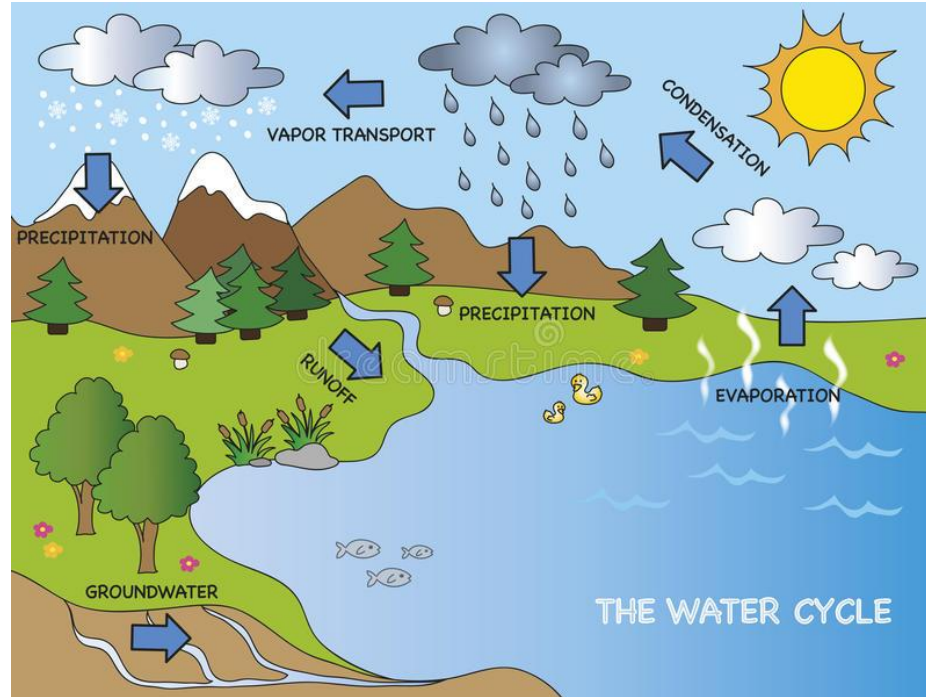
Patrick Byorth, Montana Water Director



[pbyorth@tu.org](mailto:pbyorth@tu.org)

[www.tu.org](http://www.tu.org)

# The Water Cycle



<https://www.dreamstime.com/stock-images-water-cycle-illustration-funny-image38776414>

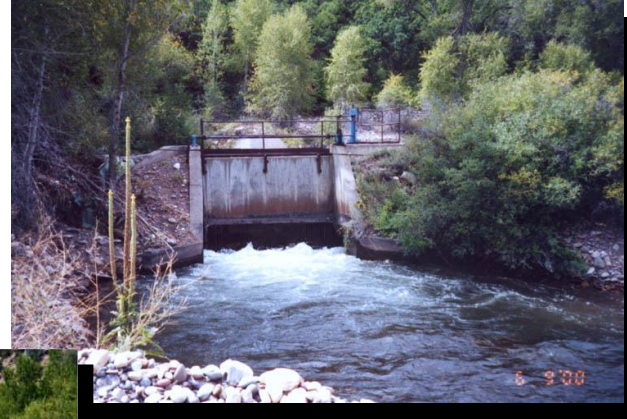
# 19<sup>th</sup> Century Law - 21<sup>st</sup> Century Problems

## Prior Appropriations:

- First in Time, First in Right
- Use it or Lose it
- 80% Ag Water Use

## But:

- Climate Change
- Geo-hydrology
- Restoration



## In Practice:

- Whiskey's for drinkin', water's for fightin',
- Better to be upstream with a shovel, than downstream with seniority
- Take what you can, til you get caught



Pooh Sticks



- 🐟 **General Use or Appropriation?**
  - Beneficial Use
- 🐟 Diversion or impoundment
- 🐟 Status of Stream or wetlands
- 🐟 Adverse Effects
- 🐟 Source of water
- 🐟 Water right necessary? or Advisable?

# Use or Appropriation?



Montana Constitution Article IX(3)(3): “All surface, underground, flood, and atmospheric waters within the boundaries of the state are the property of the state for **the use of its people** and are **subject to appropriation for beneficial uses** as provided by law.”

- **General Use**
- Non-exclusive use
- **Indefinite** quantity of water
- No **permanent, artificial diversion**
- Not **defensible** against other water rights
- Within natural water cycle
- **Appropriative Use**
- **Exclusive use**
- **Defined** quantity of water
- **Specific beneficial purpose,**
- **Defined location and period,**
- Often with **permanent, artificial diversion**
- **Defensible** against other water users in priority

# Beneficial Use



- ✍ “Beneficial use shall be the basis, the measure, and the limit of all rights to use water.” (McDonald v. State, 722 P.2d 598, 605, 220 Mont. 519, 530 (1986)).
- ✍ **Basis** - the beneficial purpose\* of the water use
- ✍ **Measure** - how much water is necessary for that purpose (specific quantity)
- ✍ **Limit** - only the minimum amount to effectuate the beneficial purpose, without waste.

\* All appropriations require beneficial uses but not all beneficial are appropriations

# State of the Wetland – DNRC Guidance



- ✎ **Creation:** New wetland/stream created outside historic footprint - appropriation
- ✎ **Restoration:** Restoring within the historic footprint - general use
- ✎ **Enhancement:** Restoration of wetland/stream extends beyond historic footprint – increased consumptive burden = appropriation?



# Historical Land Use Practices

O'Dell Creek straightened and channelized in early 1950s

- Lowering of water table drained wetlands
- Incised channel morphology created unstable conditions
- Simplified habitat conditions for fish and wildlife



Before



After

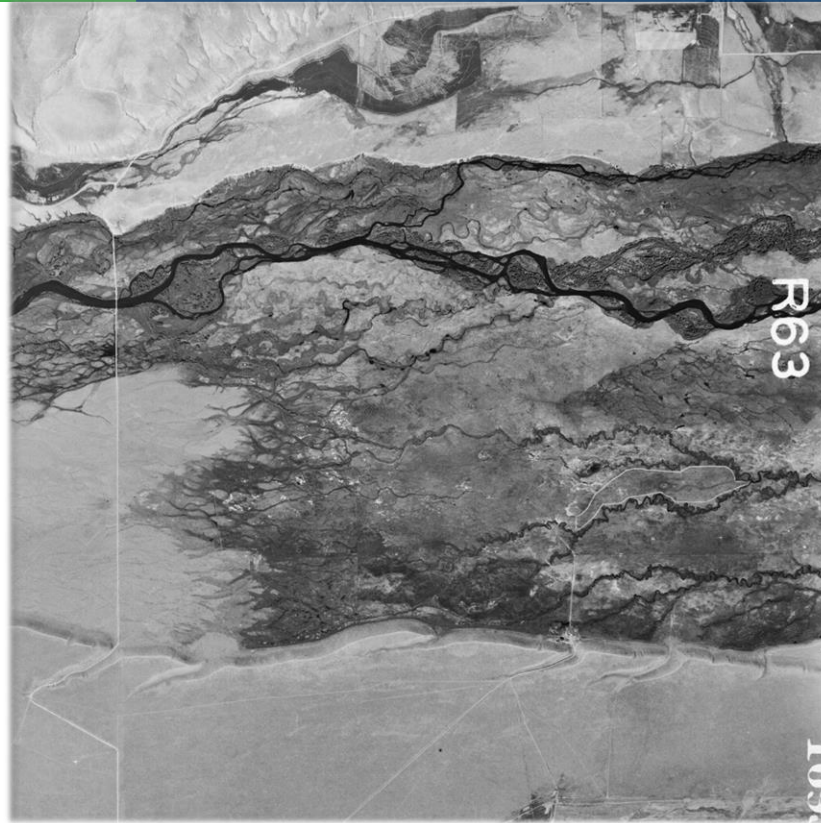
Thanks John Muhlfeld!

# Draining the O'Dell Creek Wetlands Circa 1955



Thanks John Muhlfield!

# 1947 Aerial Photograph \_ Madison Floodplain



# No Injury Rule – Adverse or Beneficial



- ✎ Water users are entitled to conditions that existed when they arrived on the source.
- ✎ Will the restoration activity deprive other water users of the reasonable exercise of their water rights?
- ✎ Basic calculation of increased consumptive burden in the affected area is warranted

# Basic Adverse Effects – Due Diligence Analysis



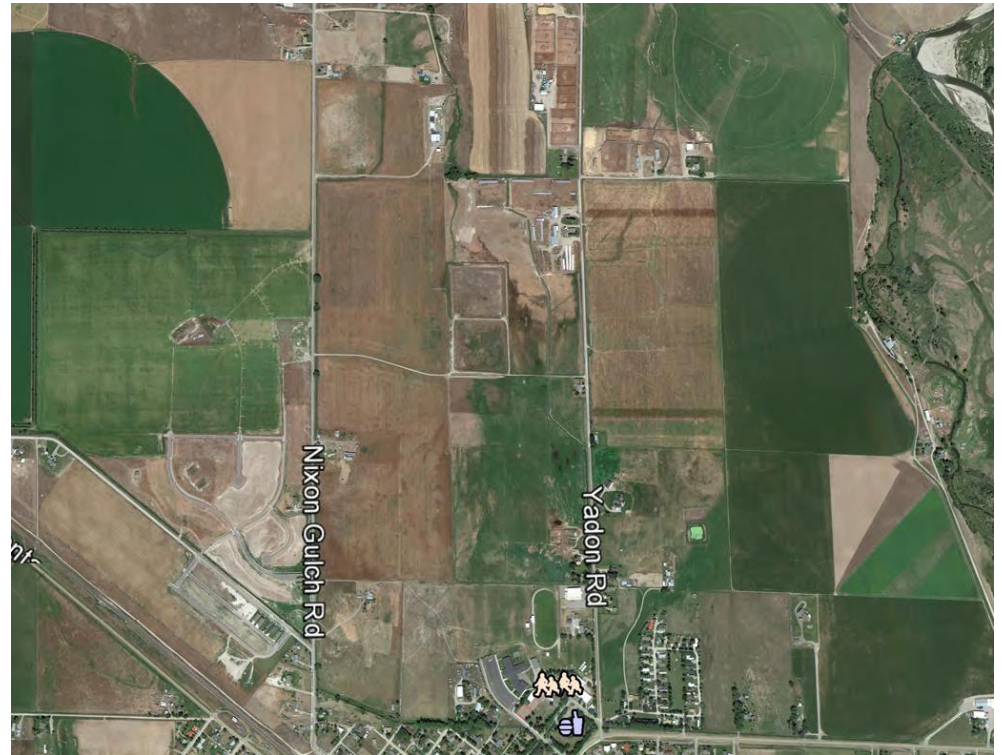
- Project = 10 bda, over 300 yds,
- Add'l Volume = 2' x 14' x 28' = 784 cuft; 10 x 784 cuft = 7840 cuft
- Baseflow = 3 cfs;
- Time to fill = 7840 cuft/3.0 cuft/s
- = 2613 sec/ 60 sec per min = **43.5 min**
- **Water Rights**
  - 3 on tributary, owned by landowner partner
  - 6 on mainstem (2 partner's)
  - Max 2-mile project reach



- ✦ Soil Types and water holding characteristics:  
<https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>
- ✦ Water rights on a source: <https://gis.dnrc.mt.gov/apps/WRQS/>
- ✦ Hydrography – water gaging: USGS  
<https://waterdata.usgs.gov/mt/nwis/current?type=flow>
  - DNRC <https://gis.dnrc.mt.gov/apps/stage/gage-report/>
- ✦ Consumptive Use calculations: ARM 36.12.1902
- ✦ Aerial Photographs: <https://earthexplorer.usgs.gov/> or <https://nris.msl.mt.gov/>

- **Surface water or groundwater *in situ*:**
  - May be appropriated
  - DNRC administers
- **Waste Water – from irrigation after beneficial use**
  - May be appropriated for new beneficial use, but cannot be compelled to continue
  - (DNRC administers)
- **Wastewater – water carrying pollution after municipal, industrial, or agricultural uses**
  - Generally associated with appropriative water right (e.g. municipal supply)
  - May be used after processing if within discharge permit (DEQ administers)
  - If new beneficial use after discharge, requires new appropriation

- Special classes of water under existing water rights:
  - Waste water = irrigation
  - Wastewater = treatment
- Special Requirements:
  - May be appropriated
  - May be covered under existing discharge permit
  - New beneficial uses require new right or change





## Analysis Framework - Is a water right necessary for this restoration project?



- Is the objective to appropriate a specific amount of water for beneficial use, defend against others in priority?
- Permanent, artificial diversion structure or impoundment?
- Restoration within historic extent of wetland or stream?
- Does the project increase the burden on the source, to the extent that it might interfere with other water users?
- Does the source of water involve waste water, or wastewater or other special circumstance?
- Would a protectable water right be advisable to preserve the project against other potential appropriators?

# Conclusions

- ✍ Nature-based restoration practices are designed to repair lost function to the water cycle, but may collide with appropriative water rights.
- ✍ Depending on the type of restoration project, an appropriative water right may be necessary, especially if burden on source increased.
- ✍ Even if a water right is not necessary, acquiring a water right may be advisable through new permit, exemption, or change in use.



If interested in reviewing draft report, please  
email: [pbyorth@tu.org](mailto:pbyorth@tu.org)