

A Brewing Water Overview

Find your city water profile

1. On the BBoPP website select Colorado Springs Water on the Information tab
2. Use the Flouride Levels in Drinking Water link to go to the CSU website
3. Enter your Address to find your water source(s)
4. Read the PDF to se the source's water profile
5. If you need more information contact the Colorado Springs Utility Lab at waterquality@csu.org

Calcium

- **Recommended Range 50-100 ppm**
- Beneficial for enzyme action in the mash.
- Improves the flocculation of trub and yeast and
- Limits the extraction of grain husk astringency
- Reduces haze and gushing potential
- Improves wort runoff from the lauter tun
- Improves hop flavors.
- Exceeding the recommended range may cause phosphorus (an essential yeast nutrient) to precipitate excessively out of solution.

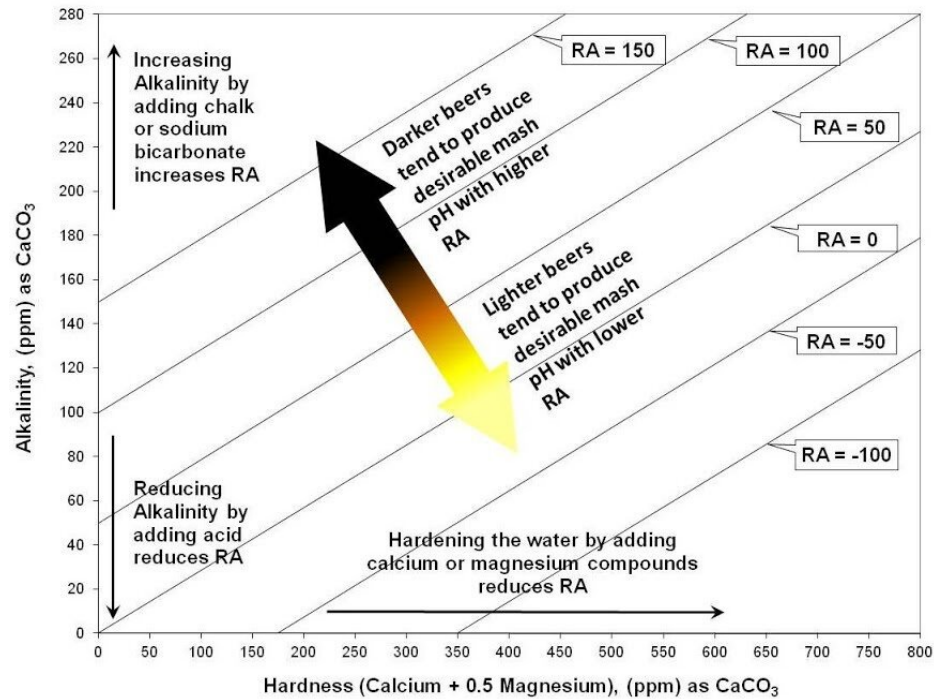
Sulfate / Chloride Ratio

Sulfate / Chloride Ratio Effects *	
Perception	SO ₄ /Cl Ratio
Very Dry	>2
Dry	2
Balanced	1.3
Full	0.75
Very Full	0.5

** for Chloride concentration between 25 and 100 mg/L*

Residual Alkalinity (RA)

$$RA_{(ppm)} = Alkalinity_{(ppm)} - \left[\frac{Calcium_{(ppm)}}{3.5} + \frac{Magnesium_{(ppm)}}{7} \right]$$



Brewing Water Calculators

- Palmer's Brewing Water App
 - Offers suggested water profiles for most beer styles
- Brunwater.com
 - Website also has a very good presentation on brewing water
- <https://www.ezwatercalculator.com>
- <https://www.brewersfriend.com/water-chemistry>