



Drought and Human Health: The Carbon Component & Montana's Response



Derf Johnson

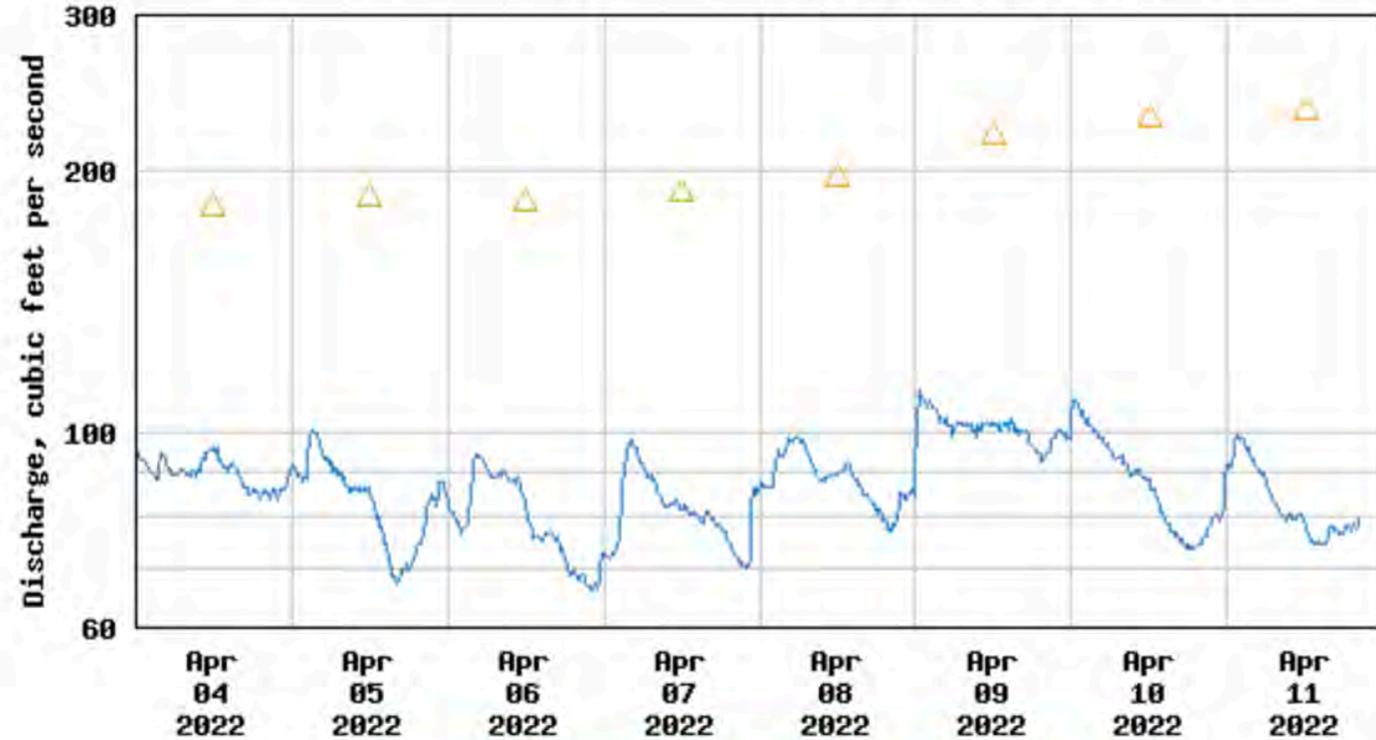
Montana Environmental Information Center
Staff Attorney & Water Program Director



Discharge, cubic feet per second

Most recent instantaneous value: 79.9 04-11-2022 20:15 MDT

USGS 06077200 Smith River bl Eagle Cr nr Fort Logan MT



----- Provisional Data Subject to Revision -----

△ Median daily statistic (24 years) — Discharge

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“Continued emission of GHGs will cause further warming and long-lasting changes in all components of the climate system, increasing the likelihood of severe, pervasive, and irreversible impacts for people and ecosystems.”

350 Montana, et al v. U.S. Office of Surface Mining, citing Intergovernmental Panel on Climate change, 2014 Synthesis Report





“an environmental review conducted pursuant to subsection (1) may not include a review of actual or potential impacts beyond Montana's borders. It may not include actual or potential impacts that are regional, national, or global in nature.”

SB 233, Rep. Jim Keane (D-Butte), Mont. Code Ann. § 75-2-201(2).



“... it would be impossible for DEQ to consider the effect of climate change within Montana, without “a review of actual or potential impacts beyond Montana’s borders... or potential impacts that are regional, national, or global in nature.” § 75-2-201(2)(a), MCA.”



The Social Cost of Carbon

Evaluating Carbon's Impacts on Society

Social Cost of CO₂, 2015-2050 ^a (in 2007 dollars per metric ton CO₂)

Source: Technical Support Document: Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 12866 (May 2013, Revised August 2016)

Year	Discount Rate and Statistic			
	5% Average	3% Average	2.5% Average	High Impact (3% 95 th percentile)
2015	\$11	\$36	\$56	\$105
2020	\$12	\$42	\$62	\$123
2025	\$14	\$46	\$68	\$138
2030	\$16	\$50	\$73	\$152
2035	\$18	\$55	\$78	\$168
2040	\$21	\$60	\$84	\$183
2045	\$23	\$64	\$89	\$197
2050	\$26	\$69	\$95	\$212

^a The SC-CO₂ values are dollar-year and emissions-year specific.



The Social Cost of Carbon

Evaluating Carbon's Impacts on Society

Using the SCC to Calculate Costs and Benefits of Changing Emissions

In this example, the social cost of carbon has been calculated to be **\$50 per ton of CO₂**.

▲ RFF



$$500,000 \text{ tons CO}_2 \times \$50 \text{ per ton CO}_2 = \$25,000,000$$

Increase in emissions due to Policy A

SCC

Cost of Policy A due to added emissions

$$500,000 \text{ tons CO}_2 \times \$50 \text{ per ton CO}_2 = \$25,000,000$$

Decrease in emissions due to Policy B

SCC

Benefit of Policy B due to decrease in emissions



Montana & the Social Cost of Carbon

Signal Peak Mine





350 Montana, et al. v. Haaland

- “... Interior’s 2018 EA includes dozens of sobering and unchallenged observations concerning the effects of global warming and climate change on the environment...”
- “The 2018 EA thoroughly supported the relationship between GHG emissions and climate change and included an unvarnished summary of the broad consensus that has emerged from the scientific community – that climate change is having, and is expected to continue to have, alarming effects on our environment.”
- “... Interior must use some methodology that satisfies NEPA and the APA. At a minimum, this approach requires providing the information that is known ...”



Questions?

Montana Environmental Information Center

Clean and healthful.

It's your right, our mission.

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