

Colorado Produced Water Consortium

Overview

HB23-1242 requires that oil and gas operators report specified information on water use in oil and gas operations to the Colorado Oil and Gas Conservation Commission (COGCC) in the Department of Natural Resources (DNR). The commission must adopt new rules, and creates a consortium to study the use and recycling of produced water in oil and gas operations.

A Colorado Produced Water Consortium (CPWC) aims to bring state and federal agencies, research institutions and institutes of higher education, affected and interested NGO's, local government, affected industries and others together to encourage the reuse and recycling of produced water and address barriers associated with utilization of produced water. The CPWC will provide an informed path for the utilization of this water resource inside, and potentially outside, of the oilfield in Colorado. The outcome of this effort will build upon produced water consortium efforts nationally (e.g., New Mexico and Texas Produced Water Consortiums) and will identify and address critical scientific, legislative and regulatory knowledge gaps needed to develop policies that are protective of public health, welfare, safety, the environment and wildlife resources in Colorado.

The primary goal of the Colorado Produced Water Consortium is to help reduce the consumption of freshwater within oil and gas operations. Responsibilities also include making recommendations around:

1. Developing an informed path for reuse and recycling of produced water inside and potentially outside of oil and gas operations within the state
2. Measures to address barriers associated with the utilization of produced water
3. Research to evaluate analytical and toxicological methods employed during produced water treatment and assess tools used to evaluate produced water and its potential for use outside of the oilfield

Membership:

Governing Body- Executive Director of DNR Appoints

- 1- COGCC
- 1- DWR
- 1- CDPHE

Consortium Membership- Governing Body Appoints

- 4- State of Federal Agency, with one coming from CDPHE and no COGCC commissioner
- 4- Research institutions of state institutions of higher education with expertise in produced water
- 4- Environmental NGO's with experience in produced water
- 4- Oil and Gas Industry with one each from DJ, Piceance, San Juan and Raton basins
- 2- Local government elected from areas with reuse and recycling of produced water
- 4- Expertise and experience in produced water

Consortium Membership- Senate President Appoints

- 2- NGO's that work on or advocate for Environmental Justice or Conservation
- 1- Either works with or advocates for DIC and communities of color or resides in DIC

Consortium Membership- Speaker of House Appoints

- 1- NGO's that work on or advocate for Environmental Justice or Conservation
- 2- Either works with or advocates for DIC and communities of color or resides in DIC

Notes:

- \$50 per diem for consortium members per meeting
- \$200 per diem for those residing in DIC unless being paid by NGO for participating
- Consortium meets monthly for the first year and at least quarterly in subsequent years

CPWC Director

There will be one full time Director of the Colorado Produced Water Consortium employed by the Department of Natural Resources. There will also be an additional Director of Research associated with the CPWC hired at a later date.

Responsibilities:

The Director position would be the staff lead for the Colorado Produced Water Consortium. Responsibilities would include amongst other things administration, coordination of meetings and membership, grant writing and budgeting, contracting for analysis and studies, providing recommendations from consortium to agencies and the legislature for policy, rulemakings and legislation to promote re-use, recycling and beneficial use of produced water. The Program Manager would facilitate the work and deliverables of the CPWC as indicated in HB23-1242 including but not limited to:

- a. Legislative/ Regulatory
 - i. Solicit input from the consortium and provide recommendations to state agencies and the legislature on how state and federal agencies can better coordinate regulatory policies in regards to produced water.
 - ii. Through analysis and research, provide recommendations to state agencies and the legislature appropriate for short and long term produced water reuse and recycling goals.
 - iii. Provide recommendations to state agencies and the legislature necessary rulemakings and legislation that would remove barriers to reuse and recycling of produced water in the state of Colorado. These should include:
 1. Legal issues around the utilization of non-tributary water for beneficial use inside and outside of oil and gas operations from a water rights and liability standpoint for both conventional and non-conventional operations
 2. Testing standards and procedures for treatment of produced water from both conventional and non-conventional operations
 3. Research gaps associated with the treatment of produced water
 4. Water share agreements
 5. Infrastructure and storage for produced water reuse/ recycling
 - iv. Report to state agencies and the legislature on topics related to produced water.

- v. Participate in relevant state agency rulemaking in regards to produced water.
- b. Studies, Analysis, Pilot Projects and Research
- i. Analysis and report developed on current produced water infrastructure, storage and treatment facilities within the different basins in Colorado with specific emphasis on the DJ basin.
 - ii. Analysis and report on the volume of produced water produced in the different basins available for reuse and recycling in comparison to water necessary for completion activities in new oil and gas operations.
 - iii. Analysis and report identifying necessary infrastructure, storage and technology necessary to achieve different levels of reuse and recycling in basins across Colorado with emphasis on the DJ Basin.
 - iv. Develop guidance documents and case-studies to promote best practices for infield reuse around Colorado.
 - v. Evaluate analytical and toxicological methods employed during produced water treatment and assess tools to evaluate produced water and its fit-for-purposes use outside the oilfield.

Consortium Recommendations/ Responsibilities:

July 1, 2023- Governing Body and membership of consortium appointed

August 15, 2023- Director hired

May 1, 2024- How state and federal agencies can better coordinate regulatory policies related to produced water

September 1, 2024- Topics related to produced water

November 1, 2024- Any legislation or agency rules needed to remove barriers to the safe reuse and recycling of produced water taking into consideration:

1. EJ issues
2. Legal issues
3. Testing standards and treatment
4. Research gaps in treatment of produced water including emissions
5. Water sharing agreements
6. Infrastructure and storage of produced water including pits

December 1, 2024- Short and long term produced water reuse and recycling goals for state

March 1, 2024- Develop guidance documents and case studies to promote best practices for infield reuse and recycling

July 1, 2024- Analyze and report on current produced water infrastructure, storage and treatment facilities across state with emphasis on DJ basin

August 1, 2024- Analyze and report on volume of produced water in each basin available for reuse and recycling in comparison to the total volume of water necessary for the completion activities in new oil and gas activities

September 1, 2024- Analyze and report on infrastructure, storage and technology necessary to achieve different levels of reuse and recycling of produced water in oil and gas basins across the state with emphasis in DJ basin

July 1, 2025- Evaluate analytical and toxicological methods employed during produced water treatment and assess tools used to evaluate produced water and its potential for use outside of the oilfield

Notes: Consortium provides annual report to legislative committees and to SMART Act hearings

ECMC Responsibilities per HB23-1242:

In addition to the development of the CPWC, the Energy and Carbon Management Commission (formerly the COGCC) is instructed to accomplish the following:

September 1, 2023

Operators shall report to the commission monthly on a per well basis:

1. Volume in barrels of all freshwater used downhole
2. Volume in barrels of all reused or recycled water used downhole
3. Volume in barrels of all produced water that is produced from the well
4. Volume of produced water that is removed from location for disposal including disposal method and disposal location
5. Volume in barrels of all produced water that is produced from well and is reused or recycled on another well at same location or removed from location for reuse or recycling at a different location

January 2, 2024

Operators shall report to the commission quarterly on a location basis:

1. Volume in barrels of freshwater used and the categorical source of that freshwater as either industrial, commercial, municipal or agricultural
2. Volume in barrels of reused or recycled water and source of that water
3. Volume in barrels of disposed produced water and the disposal method and location
4. Volume in barrels of produced water that is removed from location for reuse or recycling
5. Total volume of produced water in barrels

Notes:

- Must be filed 45 days after end of previous calendar quarter
- Must include total amounts of all freshwater, produced water and reused or recycled water managed at the location for any reason besides stormwater
- Rulemaking can occur if necessary to implement reporting requirements

December 31, 2024

Commission shall adopt rules to require a statewide reduction in freshwater usage and corresponding increase in the usage of reused or recycled produced water at oil and gas locations.

Rules shall consider:

1. Data in reports filed as part of new reporting requirements
2. Recommendations the Produced Water Consortium develops

Rules shall include:

1. Requirements for new OGD's and substantial modifications to existing permits to include a plan specifying the methods and locations for treatment of produced water, quantifying reused or recycled produced water used in place of freshwater, describing emissions controls associated with produced water treatment and storage and any other requirements the commission determines necessary for implementation of stated goals
2. A prohibition against placement of new centralized produced water storage or treatment facilities in a DIC
3. A requirement that the operator quantify and report for each oil and gas location the vehicle miles traveled in relation to fresh and produced water management including reused and recycling
4. A requirement for each oil and gas production basin an iterative and consistent increase in the use and recycling of produced water without increasing associated emissions
5. Establish based on recommendations from the Consortium an iterative and consistent schedule of dates that will significantly increase the usage of reused or recycled produced water and decrease the amount of freshwater used in oil and gas operations while ensuring the protection of PHSWEW
6. May include oil and gas basin specific benchmarks to comply with the above requirements
7. Commission will include cumulative impacts of water in its cumulative impacts reporting