

# British Columbia

## 1. Definitions

- a. Produced Water – Water brought to the surface during oil or gas well drilling, completion, and production operations, which may include formation water, injected water, and flowback water.
  - i. If your state defines the term “produced water,” please provide that definition below.

***From Oil and Gas Waste Regulation, B.C. Reg. 46, 2018, s.1 (definitions)***

***"produced water" means water or brine that is brought to the surface with the natural gas or oil from a well but excludes workover or completion liquids;***

***From Petroleum and Natural Gas Act, R.S.B.C. 1996, c.361, s.1 (definitions):***

***"well" means a hole in the ground***

***(a) made or being made by drilling, boring or any other method to obtain petroleum or natural gas,***

***(b) made or being made by drilling, boring or any other method to explore for, develop or use a storage reservoir for the storage or disposal of petroleum, natural gas, water produced in relation to the production of petroleum or natural gas, waste or any other prescribed substance,***

***(c) used, drilled or being drilled to inject natural gas, water produced in relation to the production of petroleum or natural gas or other substances into an underground formation in connection with the production of petroleum or natural gas,***

***(d) used to dispose of petroleum, natural gas, water produced in relation to the production of petroleum or natural gas, waste or any other prescribed substance into a storage reservoir, or***

***(e) used, drilled or being drilled to obtain geological or geophysical information respecting petroleum or natural gas, and includes a water source well;***

- b. Recycle/Reuse – To process or treat produced water or its constituent substances for beneficial use.
- i. If your state defines the term “recycle” or “reuse,” please provide the definition(s) below.

- **No definition.**

## 2. Ownership

- a. Please describe the authority (deed, lease, contract, statute, regulation, case law, common law etc..) and include any relevant citations under which any of the following occurs.
- i. The right to produce water during well completion and oil and gas production operations.

- ***Mineral rights tenure enables water production for oil and gas operations, as well as the right to store or dispose of water produced in relation to the production of petroleum, gas or other substances. These rights are defined under the Petroleum and Natural Gas Act (see definition of “well” above and section 50(2) of the Petroleum and Natural Gas Act below).***

***From Petroleum and Natural Gas Act, R.S.B.C. s. 361, s.50***

### ***Leases and their rights***

***50 (1) A lease shall be a petroleum and natural gas lease.***

***(2) The holder of a petroleum and natural gas lease has***

***(a) the exclusive right to produce, in accordance with this Act and the [Oil and Gas Activities Act](#), both the petroleum and natural gas referred to in the lease, and***

***(b) subject to any rights conferred under a storage lease issued under section 130 before the lease under this section is issued, the right to store or dispose of natural gas, water produced in relation to the production of petroleum or natural gas or other substances associated with petroleum or natural gas exploration, production or processing into an underground formation in the location of the lease.***

ii. Ownership of produced water from oil or gas wells after it has been brought to the surface.

- **Mineral rights holders have rights to produce, use, store or dispose of natural gas, and may contract with others (i.e. disposal companies), see above.**

iii. Use and/or reuse of produced water in the oilfield.

- **Companies re-use water for hydraulic fracturing and they are responsible for its use and re-use (they obtain a permit to engage in activities that encompass produced water).**
- **The permitted party would be responsible in the instance of water hubs.**
- **If use includes putting it back in the ground for disposal or waterflood, section 75 Oil and Gas Activities Act approval required.**

iv. Use and/or reuse of produced water outside of the oilfield.

- **Currently not done.**

b. Place an “x” in each box to indicate who holds the right to each of the following regarding water that has not yet been produced.

Who	Possession	Use	Other rights (please specify)
<i>Landowner</i>			
<i>Operator</i>			
<i>Government. Government may grant rights (incl. to PNG rights holders)</i>	<b>X</b>	<b>X</b>	
<i>Whoever owns the PNG rights can possess and use produced water in accordance with the mineral right tenure. Untenured mineral rights belong to the government.</i>	<b>X</b>	<b>X</b>	<b>Store, Dispose</b>

- c. Place an “x” in each box to indicate who holds the right to each of the following regarding produced water after it has been brought to the surface.

<i>Who</i>	<i>Possession</i>	<i>Use</i>	<i>Other rights (please specify)</i>
<i>Landowner</i>			
<i>Operator</i>	<b>X</b>	<b>X</b>	
<i>Government</i>			
<i>Other (please specify)</i>			

- d. Does the quality of the produced water play a role in the ownership of the water?
- ***If it is produced water, no.***

### 3. Liability

- a. Please provide the cite to any relevant state statute/case law/regulation regarding liability for:
- i. ***Produced water handling (extraction, transportation, sale, etc.).***
    - ***Mostly under Drilling and Production Regulation.***
    - ***No significant case law of note.***
  - ii. Use and/or reuse of produced water in the oilfield:
    1. By the producer
      - ***Under section 75 of the Oil and Gas Activities Act order for disposal.***
      - ***Under section 75 of the Drilling and Production Regulation.***
      - ***Section 37 of the Drilling and Production Regulation (record keeping).***
      - ***The permit itself.***
    2. By a different operator
      - ***Under section 75 of the Oil and Gas Activities Act order for disposal.***
      - ***Under section 75 of the Drilling and Production Regulation.***
      - ***Section 37 of the Drilling and Production Regulation (record keeping).***
      - ***The permit itself.***

iii. Use and/or reuse of produced water outside of the oilfield.

- ***Not permitted.***

#### 4. State or Provincial Regulatory Agency

a. State or provincial agencies charged with regulating the use/reuse of produced water:

- ***BC Oil and Gas Commission.***

Contact information:

[Ron.Stefik@BCOGC.ca](mailto:Ron.Stefik@BCOGC.ca)

[Devin.Scheck@BCOGC.ca](mailto:Devin.Scheck@BCOGC.ca)

Brief summary of areas of responsibilities:

- ***Ron Stefik, Supervisor Reservoir Engineering: subsurface disposal and pressure maintenance.***
- ***Devin Scheck, Supervisor, Environmental Stewardship: environmental stewardship.***

b. Federal agencies charged with regulating the use and/or reuse of produced water:  
If available, please provide appropriate contact information.

- ***Canadian Energy Regulator for offshore.***

#### 5. Incentives

a. Does your state or province have any incentives to use and/or reuse produced water in the oilfield? If so, please describe.

- ***No government or regulator incentives.***
- ***Economics and social licence, including lack of disposal space, avoidance of disposal costs, ability to reduce requirement to obtain regulatory approvals for new/additional water sources.***

b. Outside of the oilfield? If so, please describe.

- ***No incentives provided for putting fresh water back into the environment.***

## 6. Innovations and Successes

- a. Do you have any innovative or unique approaches to addressing use and/or reuse of produced water? If so, please provide a brief description.
  - ***Water hubs for reuse.***
- b. Does the quality of the produced water pose impediments to recycling and reuse?
  - ***Yes. After the 3<sup>rd</sup> or 4<sup>th</sup> use, the water is no longer reusable due to chemistry (particularly salinity).***

## 7. Other Information

- a. Please provide any additional notes or commentary below.

***N/A***