Oklahoma

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.

On November 1st 2020 a new section of law was codified in the Oklahoma Statutes as Section 86.7 of Title 52.

Within this section a definition for "Oil and gas produced water and waste" which means the fluid containing salt or other mineralized substances, hydraulic fracturing fluid, flowback water, formation water, injection water and any chemicals added downhole, associated with the drilling completion or production of an oil or gas well, incidental to or extracted from hydrocarbon-bearing strata during the drilling.

- 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.

"Recycling" is the reuse, processing, reclaiming, treating, neutralizing, or refining of materials and by-products into a product of beneficial use which, if discarded, would be deleterious substances.

"Reuse" is the introduction (or reintroduction) into an industrial, manufacturing, or disposal process of a material which would otherwise be classified as a deleterious substance. A material will be considered "used or reused" if it is either:

- (A) Employed as an ingredient (including use as an intermediate) in an industrial, manufacturing, or disposal process to make or recover a product.
- (B) Employed in a particular function or application as an effective substitute for a commercial product or non-deleterious substance.

Section 86.7 of Title 52 defines recycled water as "oil and gas produced water and waste that has been reconditioned or treated by mechanical or chemical processes into a reusable form

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.

Section 86.7 of Title 52 states that prior to extraction, the surface owner is the owner of the water, subject to the right of the mineral owner or the oil and gas lessee of the mineral owner, or both, to extract the subterranean water as part of the oil and gas produced water and waste as is reasonably necessary for, or incident to, the exploration, exploitation or extraction of hydrocarbons.

After extraction, the operator or operators, and the nonoperator or nonoperators, of an oil and/or gas well shall be the owner or owners of the oil and gas produced water and waste extracted from the ground through the borehole of the oil or gas well and shall have the right to use, possess, handle, dispose of, transfer, sell, convey, transport, process, recycle, reuse or treat the produced water and waste and shall also have the exclusive right to obtain proceeds.

i. The right to produce water during well completion and oil and gas production operations.

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

November 1st 2020 a new section of law was codified in the Oklahoma Statutes as Section 86.7 of Title 52.

iii. Use and/or reuse of produced water in the oilfield.November 1st 2020 a new section of law was codified in the Oklahoma Statutes as Section 86.7 of Title 52.

iv. Use and/or reuse of produced water outside of the oilfield.
 OAC 165:10-7-17 (Surface Discharge of Produced Water) or through
 Oklahoma Corporation Commission Order

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)
Landowner	х	х	
Operator			
Government			
Other (please specify)			

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.

Who	Possession	Use	Other rights (please specify)
Landowner			
Operator	х	х	
Government			
Other (please specify)			

d. Does the quality of the produced water play a role in the ownership of the water?

No, the quality and/or composition of the produced water does not play a role in the ownership of the produced water.

3. Liability

a. Please provide the cite to any relevant state statute/case law/regulation regarding liability for:

52 OS 86.7.D and 52 OS 86.7E

- i. Produced water handling (extraction, transportation, sale, etc.).
 November 1, 2020 a new section of law was codified in the Oklahoma Statutes as Title 52, Section 86.7.
- ii. Use and/or reuse of produced water in the oilfield:
 - By the producer
 November 1, 2020 a new section of law was codified in the Oklahoma Statutes as Title 52, Section 86.7.

- 2. By a different operator

 November 1, 2020 a new section of law was codified in the

 Oklahoma Statutes as Title 52, Section 86.7.
- Use and/or reuse of produced water outside of the oilfield.
 OAC 165:10-7-17 (Surface Discharge of Produced Water) or through
 Oklahoma Corporation Commission Order

4. State or Provincial Regulatory Agency

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

Oklahoma Corporation Commission
Oil and Gas Conservation Division

Contact information:

Division Main Phone Number 405-522-0577

Brief summary of areas of responsibilities:

- o the conservation of oil and gas,
- field operations for geologic and geophysical exploration for oil, gas and brine, including seismic survey wells, stratigraphic test wells and core test wells,
- the exploration, drilling, development, producing or processing for oil and gas on the lease site,
- the exploration, drilling, development, production and operation of wells used in connection with the recovery, injection or disposal of mineral brines,
- reclaiming facilities only for the processing of salt water, crude oil, natural gas condensate and tank bottoms or basic sediment from crude oil tanks, pipelines, pits and equipment associated with the exploration, drilling, development, producing or transportation of oil or gas,
- injection wells known as Class II wells under the federal Underground Injection Control Program, and any aspect of any CO2 sequestration facility, including any associated CO2 injection well, over which the Commission is given jurisdiction pursuant to the Oklahoma Carbon Capture and Geologic Sequestration Act. Any substance that the United States Environmental Protection Agency allows to be injected into a Class II well may continue to be so injected,
- tank farms for storage of crude oil and petroleum products which are located outside the boundaries of refineries, petrochemical manufacturing plants, natural gas liquid extraction plants, or other facilities which are subject to the jurisdiction of the Department of Environmental Quality with regard to point source discharges,

- the construction and operation of pipelines and associated rights-of-way, equipment, facilities or buildings used in the transportation of oil, gas, petroleum, petroleum products, anhydrous ammonia or mineral brine, or in the treatment of oil, gas or mineral brine during the course of transportation but not including line pipes in any:
 - natural gas liquids extraction plant,
 - refinery,
 - reclaiming facility
 - mineral brine processing plant, and
 - petrochemical manufacturing plant,
- the handling, transportation, storage and disposition of saltwater, mineral brines, waste oil and other deleterious substances produced from or obtained or used in connection with the drilling, development, producing and operating of oil and gas wells, at:
 - other oil and gas extraction facilities and activities,
- spills of deleterious substances associated with facilities and activities or associated with other oil and gas extraction facilities and activities, and
- subsurface storage of oil, natural gas and liquefied petroleum gas in geologic strata.
- b. Federal agencies charged with regulating the use and/or reuse of produced water: If available, please provide appropriate contact information.

Nancy Dorsey USEPA Oklahoma UIC (reuse as makeup water through Class II EOR ops)

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.

The State of Oklahoma does not provide incentives at this time.

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

The State of Oklahoma does not provide incentives at this time.

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.

None at this time.

b. Does the quality of the produced water pose impediments to recycling and reuse? Yes, higher TDS waters are cost limiting through additional processes to reach desirable discharge or beneficial use parameters.

7. Other Information

Please provide any additional notes or commentary below.