Louisiana

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.

LAC Title 43.XIX.301: Produced Water—liquids and suspended particulate matter that is obtained by processing fluids brought to the surface in conjunction with the recovery of oil and gas from underground geologic formations, with underground storage of hydrocarbons, or with solution mining for brine.

LAC Title 43.XIX.4501: Produced Water— water that is obtained by processing fluids brought to the surface in conjunction with the recovery of oil and gas from underground geologic formations.

- 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.

LAC Title 43, Part XIX.501: Reusable Material—a material that would otherwise be classified as E and P Waste, but which is capable of resource conservation and recovery and has been processed in whole or in part for reuse. To meet this definition, the material must have been treated physically, chemically, or biologically or otherwise processed so that the material is significantly changed (i.e., the new material is physically, chemically, or biologically distinct from the original material), and meets the criteria §565.F. This term does not include FSR Fluid (Fracture Stimulation Reclamation Fluid as defined in section 501).

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.

The registered operator of the well.

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

The registered operator of the well.

iii. Use and/or reuse of produced water in the oilfield.
The registered operator of the well or the operator to whom ownership of FSR fluid has been transferred.

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

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			
Operator			
Government			
Other (please specify)			

N/A: In Louisiana, oil, gas, water and produced water are considered fugacious material and are not subject to ownership until produced. See Burley v. Sunbelt Royalty, Inc., 534 So.2d 101, 103 (La. App. 3 Cir. 1988); see also Frost -Johnson Lumber Co. v. Salling's Heirs, 150 La. 756, 91 So. 207 (1922); Wernple v. Nabors Oil & Gas Co., 154 La. 483, 97 So. 666, 668-669 (1923). As such, the above chart is inapplicable.

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.

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.). LAC Title 43.XIX.501 "Generator—any person or entity who generates or causes to be generated any E and P Waste." This definition includes produced water as an E and P waste. Further, LAC Title 43.XIX.503.D provides: "The generator is responsible for the proper handling and transportation of E and P Waste taken offsite for storage, treatment, or disposal to assure its proper delivery to an approved commercial facility or transfer station or other approved storage, treatment or disposal facility. Failure to properly transport and dispose of E and P Waste shall subject the generator to penalties provided for in R.S. 30:18." As such, a "cradle to grave" fiction is established whereby the generator is responsible for the produced water throughout the process.
 - ii. Use and/or reuse of produced water in the oilfield:
 - By the producer
 The producer will fall under the definition of "generator". See above description.
 - By a different operator
 LAC Title 43.XIX.303.P "FSR fluid received by an operator regulated pursuant to this Chapter shall be used solely as media for hydraulic fracture stimulation operations. Upon receiving possession of FSR fluid from a commercial facility, the operator shall be solely responsible for ensuring that this requirement is met."
 - iii. Use and/or reuse of produced water outside of the oilfield.N/A

4. State or Provincial Regulatory Agency

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

For all on-site activities: Louisiana Office of Conservation.

For any off-site issues: Louisiana Department of Environmental Quality.

Contact information:

Louisiana Office of Conservation 225-342-5540

Louisiana Department of Environmental Quality 225-219-LDEQ (5337) or Toll Free 1-866-896-LDEQ (5337)

Brief summary of areas of responsibilities:

See section a. above.

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

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.

Yes. The following allowed uses for produced water are considered incentives: 1) LAC 43:XIX.311 allows as follows: Produced water, rainwater, drilling, workover, completion and stimulation fluids generated at a wellsite (originating wellsite) that are classified as E and P waste may be transported offsite for use in hydraulic fracture stimulation operations at another wellsite ...

2) LAC 43:XIX.4501 et seq., allows for produced water to be used in enhanced oil recovery projects, upon application and approval.

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

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.

Yes, see the response to Part 5. Incentives. Additionally, LAC 43:XIX.501 provides as follows: "Fracture Stimulation Reclamation Fluid (FSR fluid)—a material that would otherwise be classified as E and P Waste, but which has been reclaimed for the sole use as media for Office of Conservation permitted hydraulic fracture stimulation operations." This definition allows for produced water as well as water recovered from hydraulic fracture stimulation operations to be re-used in hydraulic fracture stimulation operations.

b. Does the quality of the produced water pose impediments to recycling and reuse?
 Unknown

7. Other Information

a. Please provide any additional notes or commentary below.