

Pennsylvania

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.

There is no statutory or regulatory definition for “produced water” in Pennsylvania. Pennsylvania regulates produced water as a “residual waste” under the [Solid Waste Management Act, 35 P.S. §§ 6018.101-6018.1003](#).

Section 103 of the Solid Waste Management Act defines “residual waste” as:

(1) The term includes any of the following:

(i) Any garbage, refuse, other discarded material or other waste including solid, liquid, semisolid, or contained gaseous materials resulting from industrial, mining and agricultural operations.

(ii) Any sludge from an industrial, mining or agricultural water supply treatment facility, waste water treatment facility or air pollution control facility, provided that it is not hazardous.

In general, the Pennsylvania Department of Environmental Protection (DEP) considers production water to be water or formation fluids recovered at the wellhead after the flowback period. Flowback is considered the return flow of water and formation fluids recovered from the well bore of an oil or gas well within 30 days following the release of pressures induced as part of the hydraulic fracture stimulation of a target geologic formation, or until the well is placed into production, whichever occurs first. These terms are most relevant in determining with compliance with reporting requirements in the 2012 Oil and Gas Act – See 58 Pa. C.S. § 3222.

- 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.

In the context of recycling/reusing produced water, Pennsylvania law does not have a specific of a definition of “recycle” or “reuse”. DEP addresses “recycling/reusing” produced water as a “beneficial use” as that term is defined in its residual waste regulations. 25 Pa. Code Section 287.1 defines “beneficial use” as “[u]se or reuse of residual waste or residual material derived from residual waste for commercial, industrial or governmental purposes, if the use does not harm or threaten public health, safety, welfare or the environment, or the use or reuse of processed municipal waste for any purpose, if the use does not harm or threaten public health, safety, welfare or the environment.”

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.

A person may not operate a well in Pennsylvania under the 2012 Oil and Gas Act, 58 Pa.C.S. § 3201-3274, and the Oil and Gas Regulations, 25 Pa. Code Chapters 78-78a, unless the person obtains a well permit from the Department of Environmental Protection in accordance with those laws. Producing water during well completion constitutes operating a well; therefore, a person generating produced water during well completion is required to have a well permit and comply with all applicable laws. The well permit requirements can be found in Section 3211 of the 2012 Oil and Gas Act, 58 Pa.C.S. § 3211.

The right to produce water during well completion would follow the property rights that control whether an operator has the right to extract oil/gas from the location of the well. PADEP does not regulate these property rights.

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

Under Pennsylvania law, the well operator of the well generating the produced water is required to ensure compliance with the applicable law for the management of that produced water on the well site. See 58 Pa.C.S. §§ 3211, 3259.

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

Under PADEP Oil and Gas regulations, 25 Pa. Code § 78a.58 provides:

(a) The operator may request approval by the Department to process fluids generated by the development, drilling, stimulation, alteration, operation or plugging of oil or gas wells or mine influenced water at the well site where the fluids were generated or at the well site where all of the fluid is intended to be beneficially used to develop, drill or stimulate a well. The request shall be submitted on forms provided by the Department and demonstrate that the processing operation will not result in pollution of land or waters of the Commonwealth.

(b) Approval from the Department is not required for the following activities conducted at a well site:

(1) Mixing fluids with freshwater.

(2) Aerating fluids.

(3) Filtering solids from fluids.

(c) Activities described in subsection (b) shall be conducted within secondary containment.

(d) An operator processing fluids or drill cuttings generated by the development, drilling, stimulation, alteration, operation or plugging of oil or gas wells shall develop an action plan specifying procedures for monitoring for and responding to radioactive material produced by the treatment processes, as well as related procedures for training, notification, recordkeeping and reporting. The action plan shall be prepared in accordance with the

Department's Guidance Document on Radioactivity Monitoring at Solid Waste Processing and Disposal Facilities, Commonwealth of Pennsylvania, Department of Environmental Protection, No. 250-3100-001, as amended and updated, or in a manner at least as protective of the environment, facility staff and public health and safety and which meets all statutory and regulatory requirements.

(f) Processing residual waste generated by the development, drilling, stimulation, alteration, operation or plugging of oil or gas wells other than as provided for in subsections (a) and (b) shall comply with the Solid Waste Management Act (35 P.S. § § 6018.101—6018.1003).

(g) Processing of fluids in a manner approved under subsection (a) will be deemed to be approved at subsequent well sites provided the operator notifies the Department of location of the well site where the processing will occur at least 3 business days prior to the beginning of processing operations. The notice shall be submitted electronically to the Department through its web site and include the date activities will begin.

(h) Sludges, filter cake or other solid waste remaining after the processing or handling of fluids under subsection (a) or (b), including solid waste mixed with drill cuttings, shall be characterized under § 287.54 (relating to chemical analysis of waste) before the solid waste leaves the well site.

PADEP also offers a general permit called WMG123 for processing, transfer and beneficial use of oil and gas liquid waste to develop or hydraulically fracture an oil or gas well – see [http://files.dep.state.pa.us/Waste/Bureau%20of%20Waste%20Management/WasteMgtPortalFiles/SolidWaste/Residual Waste/GP/WMGR123.pdf](http://files.dep.state.pa.us/Waste/Bureau%20of%20Waste%20Management/WasteMgtPortalFiles/SolidWaste/Residual%20Waste/GP/WMGR123.pdf).

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

Produced water outside the oilfield must be managed as a residual waste and comply with the Solid Waste Management Act.

- 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.

In Pennsylvania, prior to well completion, base fluid/water, the well operator is responsible to comply with all applicable law related to water withdrawals and water management on the well site. Water withdrawals and water management of the well site is also subject to the personal property rights that would give the well operator the right to access water at a particular location or allow an operator to construct a well site to extract oil/gas.

Who	Possession	Use	Other rights (please specify)
Landowner			
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. **Same as above.**

Who	Possession	Use	Other rights (please specify)
Landowner			
Operator			
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.).

2012 Oil and Gas Act, 58 Pa.C.S. § 3259

Solid Waste Management Act, 35 P.S. § 6018.302

Clean Streams Law, 35 P.S. § 691.611

The Administrative Code of 1929, 71 P.S. § 510-17

Land Recycling and Environmental Remediation Standards Act, 35 P.S. §§ 6026.101-6026-908

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

1. By the producer

Same as above

2. By a different operator

Same as above

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

Same as above

4. State or Provincial Regulatory Agency

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

**Pennsylvania Department of Environmental Protection
Office of Oil and Gas Management**

Contact information:

Kurt Klappkowski

Brief summary of areas of responsibilities:

DEP's Office of Oil and Gas Management is responsible for the statewide oil and gas conservation and environmental programs to facilitate the safe exploration, development, recovery of Pennsylvania's oil and gas reservoirs in a manner that will protect the commonwealth's natural resources and the

environment. The office develops policy and programs for the regulation of oil and gas development and production pursuant to the Oil and Gas Act, the Coal and Gas Resource Coordination Act, and the Oil and Gas Conservation Law; oversees the oil and gas permitting and inspection programs; develops statewide regulation and standards; conducts training programs for industry; and works with the Interstate Oil and Gas Compact Commission and the Technical Advisory Board.

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

Susquehanna River Basin Commission

Delaware River Basin Commission

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, within the state statute, the 2012 Oil and Gas Act, there is a limited exemption for certain wastes that applies to reusing produced water from the permitting and bonding requirements of the SWMA to streamline the permitting process for limited activities to promote recycling.

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

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.

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

7. Other Information

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