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STATE OF NEW MEXICO
BEFORE THE WATER QUALITY CONTROL COMMISSION

IN THE MATTER OF PROPOSED
AMENDMENTS to 20.6.8 NMAC –
Ground and Surface Water Protection –
Supplemental Requirements
For Reuse of Treated Produced Water

No. WQCC 25-34

Water Access Treatment & Reuse Alliance,

Petitioner.

PETITION FOR RULEMAKING AND STATEMENT OF REASONS

The Water Access Treatment and Reuse Alliance ("Alliance") petitions the Water Quality Control Commission ("Commission") to adopt certain additions and amendments to Part 8 to Title 20, Chapter 6 of the New Mexico Administrative Code ("NMAC"). The proposed amendments to Part 8 build on and propose amendments to those portions of Part 8 pertaining to the use of treated produced water and supplement existing Ground and Surface Water Protection Regulations found at 20.6.2 NMAC. The proposed amendments and additions to Part 8 propose to regulate the discharge or other use of treated produced water pursuant to the Produced Water Act, NMSA 1978, Section 70-13-3(B) and the 2019 amendments to the Water Quality Act found at NMSA 1978, Section 74-6-4(P). A statement of reasons is included below, and the text of proposed amendments and additions to Part 8 is included as Attachment 1 to this Petition.

The WATR Alliance requests that the Commission consider this Petition at its next regular meeting, scheduled for July 8, 2025, and that the Commission set this matter for hearing during the latter half of the month of October 2025, that the hearing be set in Jal, New Mexico, and that the Commission appoint a hearing officer. The Department estimates that a hearing for the proposed amendments and additions to Part 8 will take approximately 10 business days.

Under Section 74-6-6(C) NMSA, the Commission is instructed to hold hearings of statewide application in Santa Fe, but it may hold hearings that are not of statewide application

"within the area that is substantially affected by the regulation." The proposed amendments and additions to Part 8 of 20.6.8 NMAC pertain to the discharge, use, or reuse of treated produced water and are not of statewide application because 1) produced water is not generated statewide and thus not a statewide issue, and 2) the proposed amendments and additions to Part 8 are limited in their scope to the thirteen New Mexico counties in which produced water is generated or in which research facilities pertaining to the treatment of produced water are located.

Chavez, Colfax, Eddy, Harding, Lea, McKinley, Otero, Rio Arriba, Roosevelt, San Juan, Sandoval and Union Counties are the only counties in New Mexico in which produced water has been generated in the last ten years. Doña Ana and Otero Counties are counties in which produced water treatment research facilities are located—the Bureau of Reclamation Brackish Groundwater National Desalination Research Facility in Otero County, and New Mexico State University, in Doña Ana County.

Of the 2,527,086,698 barrels (325,725 acre-feet) of produced water generated in New Mexico in 2024, fifty-one percent, or 1,292,259,177, of those barrels were generated in Lea County and forty-seven percent, or 1,191,592,769 were generated in Eddy County, together totaling over ninety-eight percent of the produced water generated in the state. Thus, it is Lea and Eddy Counties that are most "substantially affected" by the proposed regulation. Fortunately, Lea and Eddy Counties neighbor one another, thus a hearing in Lea County is still in the "area" of Eddy County. But, no county is as affected as Lea County, thus a hearing on the proposed amendments to Part 8, should be heard in Lea County—the area most "substantially affected by the regulation."

Respectfully submitted,

WATR Alliance

/s/ Matthias Sayer

STATEMENT OF REASONS

BACKGROUND

1. The Commission is authorized by the Water Quality Act, NMSA 1978, Section 74-6-4 (hereinafter, "WQA") to "…adopt, promulgate and publish regulations to prevent or abate water pollution in the state or in any specific geographic area, aquifer or watershed of the state or in any part thereof, or for any class of waters…." *See* Section 74-6-4(E) NMSA 1978.

2. The Commission's mandate to prevent or abate water pollution was actualized in 1977 when the Commission adopted the Ground and Surface Water Protection Regulations found in 20.6.2 NMAC.

3. Since that time, the Commission has occasionally adopted supplemental regulations to 20.6.2 NMAC, including changes intended to conform to amendments in the WQA.

4. The Water Access Treatment & Reuse (WATR) Alliance is a New Mexico nonprofit organization, whose mission it is to increase water supplies in New Mexico and the broader Southwest through credible advocacy and collaboration. The WATR Alliance is comprised of a diverse coalition of water stakeholders, including municipalities, global and local engineering organizations and professionals, ranchers and other agricultural stakeholders, global and local water treatment organizations, water resource professionals, hydrogeologists, landowners, technology organizations, water infrastructure organizations, energy producers, water recycling organizations and others.

PROPOSED AMENDMENTS TO PART 8

5. The purpose of the proposed amendments to Part 8 are to regulate the discharge and use of treated produced water via permit and thus regulate the movement of contaminants into groundwater or surface waters of the state.

6. The proposed additions and amendments to Part 8 are limited in scope to persons and activities within Chavez, Colfax, Doña Ana, Eddy, Harding, Lea, McKinley, Otero, Rio Arriba, Roosevelt, San Juan, Sandoval and Union Counties and more specifically to persons intending to discharge or otherwise use treated produced water for authorized uses within the named counties. See proposed amendment to 20.6.8.2.

7. The Commission's adoption of the proposed amendments to Part 8 is authorized by the WQA and the Produced Water Act, NMSA 1978, Subsection B of Section 70-13-3 and Subsection D of Section 70-13-4. See proposed 20.6.8.3.

8. The objective of the proposed amendments to Part 8 is to supplement the general requirements of 20.6.2.1200 through 20.6.2.2201 NMAC and the general permitting requirements of 20.6.2.3000 through 20.6.2.3114 NMAC to control the discharge of water contaminants specific to the discharge and use of treated produced water. See proposed 20.6.8.6 and 20.6.8.400.

9. Amendments to Part 8 regulate the use of treated or untreated produced water that is unrelated to the production of oil or gas. See proposed 20.6.8.400.

10. Amendments to Part 8 provide that no person shall cause or allow, without a permit issued by the department, treated produced water to discharge to groundwater or surface waters of the state. See proposed 20.6.8.400(A)(2) and (A)(4).

11. Amendments to Part 8 authorize the discharge or other specified uses of treated produced water under either a Class I or Class II permit. See proposed 20.6.8.400(B) and (C).

12. Amendments to Part 8 provide that a Class I permit is available for certain specified uses, including pilot projects, industrial use, mixing water for concrete, closed-loop geothermal projects, hydrogen production, and certain land applications. See proposed 20.6.8.400(B).

13. Amendments to Part 8 outline the application procedures attendant a Class I permit. See proposed 20.6.8.400(B)(2)(a)-(c).

14. Amendments to Part 8 identify the items required to be included with an application for a Class I permit. See proposed 20.6.8.400(B)(3).

15. Amendments to Part 8 provide that certain uses of treated produced water under a Class I permit, uses presenting no exposure to ground or surface water, are exempt from the effluent limits and monitoring requirements under proposed 20.6.8.400(D). See proposed 20.6.8.400(B)(2)(c).

16. Amendments to Part 8 provide that certain uses of treated produced water under a Class I permit are subject to the effluent limits and monitoring requirements under proposed 20.6.8.400(D), specifically, those uses presenting exposure to ground or surface water. See proposed 20.6.8.400(B)(2)(d).

17. Amendments to Part 8 provide that a Class I permit shall be valid for a term of five years and able to be renewed for subsequent five-year terms and modifiable upon submission of a request to the department. See proposed 20.6.8.400(B)(7)-(9).

18. Amendments to Part 8 provide that a Class II permit is available for certain specified uses, including irrigation of non-food crops, discharge into surface or ground water, and restoration or ecological use. See proposed 20.6.8.400(C)(1).

19. Amendments to Part 8 require that an applicant for a Class II permit provide certain information as part of its application for a Class II permit, including the results from a feasibility study, and reports from both targeted and non-targeted analysis of the applicant's untreated and treated produced water. See proposed 20.6.8.400(C)(2).

20. Amendments to Part 8 require that an application for a Class II permit include certain information, including a draft operations plan, a draft transportation and release

prevention plan, a draft engineering and water characterization report, and a draft waste management plan, with final such plans to be provided to the department at the time of facility start-up. See proposed 20.6.8.400(C)(4)-(9).

21. Amendments to Part 8 outline the procedures associated with an application for a Class II permit. See proposed 20.6.8.400(C)(11).

22. Amendments to Part 8 outline the public notice and participation requirements associated with an application for a Class II permit. See proposed 20.6.8.400(C)(12).

23. Amendments to Part 8 require the preparation of a draft permit and that notice of the draft permit be made available to the public, with an opportunity for public comment and request for a hearing. See proposed 20.6.8.400(C)(13).

24. Amendments to Part 8 provide certain general terms and conditions applicable to a Class II permit and that the department may impose special conditions as necessary. See proposed 20.6.8.400(C)(14)-(15).

25. Amendments to Part 8 require that a Class II permit include effluent limits for analytes identified as present in the applicant's untreated produced water and establishes a monitoring and testing program. See proposed 20.6.8.400(D)(1)(a).

26. Amendments to Part 8 require that a Class II permit include control limits for certain indicator compounds, and that the permittee adhere to the monitoring program and schedule included in the amended Part 8. See proposed 20.6.8.400(D)(1)(b) - (2)(b)-(e).

27. Amendments to Part 8 provide that the monitoring frequency under a Class II permit may be reduced if certain conditions are met. See proposed 20.6.8.400(D)(2)(f).

28. Amendments to Part 8 require ongoing monitoring for contaminants of emerging concern and that monitoring be conducted according to test procedures approved by the EPA under 40 CFR Part 136. See proposed 20.6.8.400(D)(2)(g)-(h).

29. Amendments to Part 8 require that under a permit to discharge treated produced water to a surface water that both acute and chronic toxicity be monitored via whole effluent toxicity testing. See proposed 20.6.8.400(D)(4).

30. Amendments to Part 8 establish the methodology, frequency, and certain testing conditions for both acute and chronic whole effluent toxicity testing. See proposed 20.6.8.400(D)(5)-(6).

31. Amendments to Part 8 establish reporting and recordkeeping protocols for Class II permits. See proposed 20.6.8.400(D)(9)-(11).

32. Amendments to Part 8 establish obligations associated with closure, abatement and financial assurance, requiring that applicants for a Class I or Class II permit provide a closure plan, including an estimated cost of closure, and in certain instances identified by the department, an abatement plan, to the department and financial assurance, in the form of a surety bond, letter of credit, or cash account, equal to the estimated cost of closure of a produced water treatment facility. See proposed 20.6.8.400(E).

33. Amendments to Part 8 prescribe the fees required to be submitted with an application for, renewal of, or modification of a Class I or II permit and that the department must develop necessary forms within a time certain. See proposed 20.6.8.401.

34. Amendments to Part 8 provide that untreated produced water and wastes resulting from the treatment of produced water may be disposed of in a Class I, II, or V underground injection control well and that a Class II well may be reclassified to a Class I or Class V well via request made to the Oil Conservation Division. See proposed 20.6.8.402.

STATUTORY CRITERIA FOR ADOPTION

35. Amendments to the WQA adopted in 2019 specify that the Commission must require a permit for the use of produced water and required the Commission to adopt regulations

to be administered by the department of environment for the discharge, handling, transport, storage, recycling, or treatment for the disposition of treated produced water. See NMSA 1978, 74-6-4(P).

36. The WQA states that regulations adopted by the Commission may specify a standard of performance for new sources that reflects the greatest reduction in the concentration of water contaminants that the Commission determines to be achievable through the application of the best available demonstrated control technology, processes, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants. See NMSA 1978, 74-6-4(E).

37. In making regulations, the WQA specifies that the Commission shall give the weight it deems appropriate to all relevant facts and circumstances, including:

a) the character and degree of injury to or interference with health, welfare, environment, and property;

b) the public interest, including the social and economic value of the sources of water contaminants;

c) the technical practicability and economic reasonableness of reducing or eliminating water contaminants from the sources involved and previous experience with equipment and methods available to control the water contaminants involved;

d) the successive uses, including domestic, commercial, industrial, pastoral, agricultural, wildlife, and recreational uses;

e) feasibility of a user or a subsequent user treating the water before a subsequent use;

f) property rights and accustomed uses; and

g) federal water quality requirements.

See NMSA 1978, 74-6-4(E).

38. The proposed additions to Part 8 fulfill the mandate of the 2019 amendments and is in compliance with the other requirements of the WQA.

TITLE 20 ENVIRONMENTAL PROTECTION
CHAPTER 6 WATER QUALITY
PART 8 GROUND AND SURFACE WATER PROTECTION – SUPPLEMENTAL REQUIREMENTS FOR WATER REUSE

20.6.8.1 ISSUING AGENCY: Water Quality Control Commission.
[20.6.8.1 NMAC - N, mm-dd-yy]

20.6.8.2 SCOPE: All persons subject to regulation implemented through the department pursuant to the Water Quality Act, Sections 74-6-1 et seq, NMSA 1978 and specifically to persons intending to reuse wastewater and their operations. Any provisions of this Part applicable to the discharge, use or reuse of produced or treated produced water are limited in their scope and applicability to Chavez, Colfax, Doña Ana, Eddy, Harding, Lea, McKinley, Otero, Rio Arriba, Roosevelt, San Juan, Sandoval and Union Counties. The discharge or use of produced or treated produced water is prohibited in all other New Mexico counties.
[20.6.7.2 NMAC - N, mm-dd-yy]

20.6.8.3 STATUTORY AUTHORITY: Standards and regulations are adopted by the commission under the authority of the Water Quality Act, Sections 74-6-1 through 74-6-17 NMSA 1978 and the Produced Water Act, Subsection B of Section 70-13-3 NMSA 1978 and Subsection D of Section 70-13-4 NMSA 1978.
[20.6.8.3 NMAC - N, mm/dd/yy]

20.6.8.4 DURATION: ~~December 3, 2030~~ Permanent.
[20.6.8.4 NMAC - N, mm-dd-yy]

20.6.8.5 EFFECTIVE DATE: Month Day, Year, unless a later date is cited at the end of a section.
[20.6.8.5 NMAC - N, mm-dd-yy]

20.6.8.6 OBJECTIVE: The objective of 20.6.8 NMAC is to supplement the general requirements of 20.6.2.1200 through 20.6.2.2201 NMAC and 20.6.4.8 through 20.6.4.900 NMAC, and the general groundwater permitting requirements of 20.6.2.3000 through 20.6.2.3114 NMAC to control the discharges of water contaminants specific to water reuse.
[20.6.8.6 NMAC - N, mm-dd-yy]

20.6.8.7 DEFINITIONS: The following terms as used in this part shall have the following meanings: terms defined in the Water Quality Act, but not defined in this part, will have the meaning given in the act.

A. Terms beginning with numerals or the letter "A" and abbreviations for units.

(1) "Agricultural use" means the application of reuse water for cultivating the soil and growing crops or irrigating pasture for livestock grazing. Agricultural application includes the use of water in connection with the operation or maintenance of feedlots or animal feeding operations ("AFOs"), but not those activities defined as livestock application.

B. Terms beginning with the letter "B".

(1) "Bench-scale project" means a project or study conducted in a laboratory.

C. Terms beginning with the letter "C".

(1) "Commercial use" means the application of reuse water in connection with any activity that provides, or offers to provide, goods or services for incidental use, such as but not limited to car washes, laundry facilities, window washing, chemical mixing, for dust control and construction purposes, where public access is not restricted or limited.

(2) "Contaminant of Emerging Concern" means a chemical that has not previously been regulated or detected in a wastewater that may cause negative ecological or human health impacts.

(3) "Control Limit" means a standard representing a limit or upper and lower bound for indicators and indicator compounds.

D. Terms beginning with the letter "D".

(1) "Department" means the New Mexico environment department.

(2) "Direct potable reuse" means the application of reclaimed wastewater for drinking water purposes through delivery directly to a drinking water plant or a drinking water distribution system without an environmental buffer. Additional treatment, monitoring, or an engineered buffer would be used in place of an environmental buffer to provide equivalent protection of public health and response time if the purified water does not meet specifications.

(3) "Discharge permit" as defined in 20.6.2 NMAC.

(4) "Disposal" as defined in 20.6.2 NMAC.

(5) "Domestic wastewater" means untreated wastewater containing human excreta and water-carried waste from typical residential plumbing fixtures and activities, including but not limited to wastes from toilets, sinks, bath fixtures, clothes or dishwashing machines and floor drains.

E. Terms beginning with the letter "E".

(1) "Effluent limit" means a restriction on the quantity, rate, or concentration of chemical, physical, biological or other contaminant in a wastewater.

(2) "Environmental buffer" means any ground water, streams, lakes, or impoundments used for reuse water storage or conveyance purposes related to an indirect potable application.

F. Terms beginning with the letter "F".

(1) "Feasibility study" means a study conducted by a person to determine if a new or modified ~~domestic~~ wastewater treatment technology will be technically, economically, or financially viable for use in a particular application or for a particular purpose. ~~in a direct or indirect potable application~~.

(2) "Food crop" means a domestic plant which is produced for the purpose of or may be used in whole or in part for, consumption by people, including, but not limited to nursery, root, seedstock to be used for the production of food crops.

G. Terms beginning with the letter "G".

(1) "Ground water" as defined in 20.6.2 NMAC.

H. Terms beginning with the letter "H".

I. Terms beginning with the letter "I".

(1) "Indicator compound" or "Indicator" means a chemical in wastewater that represents the physical, chemical, and/or biodegradation characteristics of a specific family of target compounds that are rapid to test for and are likely predictors of specific constituents. These indicators may be used to monitor the efficacy of target compounds by a treatment process, and/or that provides an indication of treatment process performance.

(2) "Indirect potable reuse" means the application of reclaimed wastewater for drinking water purposes with an intermediary environmental or constructed buffer.

(3) "Industrial use" means the application of reuse water in any activity that is used in connection with industrial processes, such as alternative energy production, hydraulic cement concrete manufacturing, cooling water, manufacturing or refinery process water, process/boiler feeds, utility power plants, chemical plants, and metal working facilities where at a minimum, public access is restricted or limited.

(4) "Injection" as defined in 20.6.2 NMAC

(5) "Irrigation use" means application of reuse water to land areas to foster plant growth.

J. Terms beginning with the letter "J". [RESERVED]

K. Terms beginning with the letter "K". [RESERVED]

L. Terms beginning with the letter "L".

(1) "Livestock use" means the application of reuse water for the consumption of water for the care and feeding of domestic animals such as cattle or horses. Livestock application does not

include the use of water in connection with the operation or maintenance of feedlots or agricultural application of water.

M. Terms beginning with the letter "M". [RESERVED]

N. Terms beginning with the letter "N".

(1) "Non-food crop" means a crop grown for purposes other than direct human or animal consumption, including horticulture, landscaping, biofuel, animal consumption, or other wildlife foraging uses.

(2) "National Pollutant Discharge Elimination System" means the federal program for issuing, modifying, revoking, and reissuing, terminating, monitoring, and enforcing permits, and imposing and enforcing pretreatment requirements, under Sections 307, 318, 402, and 405 of the federal Clean Water Act.

(3) "No exposure" means the absence of a pathway, due to natural or engineered controls, for a wastewater to move directly or indirectly to surface or ground water.

(4) "Non-targeted analysis" means an analysis of wastewater using high-resolution mass spectrometry or equivalent to identify previously unknown or undetected chemicals, including unknown or emerging contaminants or compounds.

(5) "NPDES permit" means a national pollutant discharge elimination permit which is an authorization, license, or equivalent control document issued by the authorized permitting entity to implement the requirements of the federal program as identified in 40 C.F.R. Sections 122, 123, and 124.

O. Terms beginning with the letter "O". [RESERVED]

P. Terms beginning with the letter "P".

(1) "Person" as defined in 20.6.2 NMAC.

(2) "Pilot project" means a representative engineering scale model or prototype system that is beyond the bench-scale and tested in a non-laboratory environment. A pilot project represents an increase in the technological scale than otherwise achievable in a laboratory and often involves larger quantities of materials over longer periods of time.

(3) "Potable" means water that meets the state drinking water standards at 20.7.10 NMAC and is otherwise suitable for human consumption.

(4) "Pretreatment" means the reduction, elimination, or alteration of pollutants in wastewater prior to or in lieu of discharging into a publicly owned treatment works (POTW) or other wastewater treatment facility. The reduction or alteration may be obtained by physical, chemical, or biological processes, process changes, or by other means. Appropriate pretreatment technology includes control equipment, such as equalization tanks or facilities, for protection against volumetric or pollutant surges or load variations that might interfere with or otherwise be incompatible with the treatment facility.

(5) "Produced water" means a fluid that is an incidental byproduct from drilling for or the production of oil and gas.

Q. Terms beginning with the letter "Q". [RESERVED]

R. Terms beginning with the letter "R".

(1) "Reclaimed wastewater" means domestic wastewater that has been treated to the specified levels for the defined applications and complies with other applicable local, state, or federal regulations.

(2) "Recycled produced water" means produced water that is reconditioned by a recycling facility permitted or registered with the oil conservation division of the energy, minerals, and natural resources department, and is reused within the oil and gas industry for the exploration, drilling, production, treatment or refinement of oil and gas.

(3) "Restoration use" or **"ecological use"** means the use of water for the implementation of ecological or environmental restoration activities permitted under applicable state and federal regulations.

(4) "Reuse water" means a treated wastewater originating from domestic, industrial, or produced water sources, that has undergone a level of treatment appropriate for an application such as agriculture, irrigation, potable water supplies, aquifer recharge, industrial processes, or environmental restoration. Reuse water has a water quality, based on application, determined to be protective of the environment and human health. For purposes of this Part, reuse is categorized by the source of the water.

S. Terms beginning with the letter "S".

(1) "State" means the state of New Mexico.

(2) "Surface water" means a "surface water(s) of the state" as defined in 20.6.4 NMAC.

(3) "Surrogate parameter" or "surrogate" means a measurable chemical or physical property, microorganism, or chemical that has been demonstrated to provide a direct correlation with the concentration of an indicator compound or pathogen; that may be used to monitor the efficacy of trace compounds or pathogen reduction by a treatment process; and/or that provides an indication of a treatment process failure.

T. Terms beginning with the letter "T".

(1) "Targeted analysis" means an analysis of wastewater based on a pre-defined list of known or previously detected chemicals or compounds.

(2) "Total Organic Carbon (TOC)" means the concentration of organic carbon present in water.

(3) "Treated produced water" means produced water that is reconditioned by mechanical, biological, or chemical processes or a combination of these processes into a reusable form.

(4) "Treated wastewater" means wastewater that has undergone treatment.

(5) "Treatment" means a process in which wastewater has been reconditioned by biological, mechanical, or chemical processes to remove or eliminate contaminants, creating an effluent that can be returned to the water cycle either through discharge, transfer, storage, disposal, or distribution.

(6) "Treatment Train" means a group or assemblage of physical, chemical, and biological treatment processes that conditions or treats water to achieve a specific water quality objective.

(7) "Twenty-four hour composite sample" means a minimum of four grab samples collected at equally-spaced time intervals in a twenty-four hour period.

U. Terms beginning with the letter "U".

(1) "Untreated produced water" means produced water that has not undergone treatment.

(2) "Untreated wastewater" means wastewater that has not undergone treatment.

(3) "Upset" means an incident in which there is unintentional and temporary noncompliance with permit effluent limits because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

(4) "Use" means the utilization of a treated wastewater, including but not limited to, utilization for agricultural, indirect potable, recreational turf, rangeland or ecological restoration, industrial, commercial, construction, or irrigation purposes.

V. Terms beginning with the letter "V". [RESERVED]

W. Terms beginning with the letter "W".

(1) "Water contaminant" as defined in 20.6.2 NMAC.

(2) "Water pollutant" as defined in 20.6.2 NMAC.

(3) "Water pollution" as defined in 20.6.2 NMAC.

(4) "Wastewater" means water or other fluids associated directly with sewerage systems, industrial processes, or produced water that is disposed of, or undergoes treatment for discharge, transference, storage, disposal, distribution, or reuse. Wastewater in this Part does not include dairy wastewater, as defined in 20.6.6 NMAC.

X. Terms beginning with the letters "X" through "Z". [RESERVED]
[20.6.8.8 NMAC – N, mm-dd-yy]

20.6.8.8 – 20.6.8.99 [RESERVED]
[20.6.8.9-20.6.8.99 NMAC – N, mm-dd-yy]

20.6.8.100 GENERAL PROVISIONS: Unless otherwise required by this Part, all persons are subject to the state's Ground and Surface Water Protection Regulations (20.6.2 NMAC). This includes, but is not limited to, regulations relating to spills, notices of intent, permitting, fees, penalties, compliance orders, and abatement. However, unless otherwise noted in 20.6.8.400 NMAC, the requirements of 20.6.2.3101 through .3114 NMAC do not apply to a facility treating produced water [20.6.8.100 NMAC – N, mm-dd-yy]

20.6.8.101 – 20.6.8.199 [RESERVED]
[20.6.8.101-20.6.8.199 NMAC – N, mm-dd-yy]

20.6.8.200 DOMESTIC WASTEWATER REUSE: [RESERVED]
[20.6.8.200 NMAC – N, mm-dd-yy]

20.6.8.201 DIRECT AND INDIRECT POTABLE APPLICATIONS:

A. Unauthorized applications. The department shall not approve a discharge permit or a discharge permit modification that includes the discharge of reuse water for direct or indirect potable applications except for those authorized applications identified in Subsection B of 20.6.8.201 NMAC.

B. Authorized applications.

(1) Feasibility studies: Persons proposing to conduct a feasibility study for direct or indirect potable applications shall;

(a) Comply with all applicable permitting requirements in 20.6.2 and 20.6.4 NMAC.

(b) Ensure there is no connection between a potable water system and the water being studied and no cross connections exist between feasibility study-water and a community's potable water supply.

(c) Ensure that all direct and indirect potable reuse feasibility studies are conducted in a manner that does not interfere with ongoing operations at the wastewater and drinking water facilities.

(d) Obtain approval from the department, through either a discharge permit or NPDES permit and comply with all conditions therein.
[20.6.8.201 – N, mm-dd-yy]

20.6.8.202-299 [RESERVED]
[20.6.8.202-20.6.8.299 NMAC – N, mm-dd-yy]

20.6.8.300 INDUSTRIAL WASTEWATER REUSE: [RESERVED]
[20.6.8.300 NMAC – N, mm-dd-yy]

20.6.8.301-399 [RESERVED]
[20.6.8.301-20.6.8.399 NMAC – N, mm-dd-yy]

20.6.8.400 PRODUCED WATER REUSE: As provided in the Produced Water Act, Subsection P of Section 70-13-3 NMSA 1978, the following provisions apply to the discharge or use of produced water for

activities unrelated to the exploration, drilling, production, treatment, or refinement of oil or gas.

A. General requirements.

(1) Untreated produced water discharge to surface water: No person shall, cause or allow untreated produced water to discharge so that it may move directly or indirectly to a surface water. The department shall deny certification of any federal permit proposing to discharge untreated produced water to a surface water.

(2) Treated produced water discharge to surface water: No person shall, without a permit issued by the department, cause or allow treated produced water to discharge so that it may move directly or indirectly to a surface water. ~~The department shall deny certification of any federal permit proposing to discharge treated produced water to a surface water.~~ A person intending to discharge treated produced water to surface water shall submit an application for a permit pursuant to this Part, and where applicable to the United States Environmental Protection Agency, under the Clean Water Act for a surface discharge into a Water of the United States, and remit fees pursuant to 20.6.8.401 NMAC. A permit to discharge treated produced water to surface water shall not impair or degrade the existing water quality of a surface water.

(3) Untreated produced water discharge to ground water: No person shall cause or allow untreated produced water to discharge so that it may move directly or indirectly into ground water. The department shall not issue a discharge permit or a discharge permit modification that includes the discharge of untreated produced water.

(4) Treated produced water discharge to ground water: No person shall, without a permit issued by the department, cause or allow treated produced water to discharge so that it may move directly or indirectly into ground water. ~~The department shall not issue a discharge permit or a discharge permit modification that includes the discharge of treated produced water.~~ A person intending to discharge treated produced water that may move directly or indirectly into ground water shall submit an application for a permit pursuant to 20.6.8.400.B or 20.6.8.400.C NMAC, as applicable, and remit fees pursuant to 20.6.8.401 NMAC. Unless otherwise noted in 20.6.8.400, the requirements of 20.6.2.3101 through 20.6.2.3114 NMAC do not apply to a facility treating produced water.

~~B. **Authorized pilot projects**~~

~~Pilot projects, determined by the department not to require a discharge permit *because the pilot project will not discharge in a manner that may directly or indirectly affect ground or surface water, are subject to the following requirements:~~

~~**(1)** Persons intending to conduct a pilot project shall secure and comply with all applicable federal, state, and local statutes, permits, and certifications, including the Produced Water Act, NMSA 1978, Sections 70-13-1, et. seq NMSA 1978, and including payment of department fees and satisfying department financial assurance requirements.~~

~~**(2)** The pilot project shall be designed to provide information specific to untreated produced water quality, treatment technologies, treated produced water quality, treatment volumes, and toxicity studies for potential produced water reuse applications.~~

~~**(3)** * Any person intending to conduct a pilot project shall submit to the ground water quality bureau of the department a produced water notice of intent prior to use.~~

~~**(4)** Pilot projects shall not commence until the department has issued a discharge permit or made a determination of no permit required on the notice of intent.~~

~~**(5)** Persons distributing, transporting, storing, treating, or utilizing untreated or treated produced water shall have written procedures at the locations where the pilot project is physically located to prevent releases onto the ground, directly or indirectly into ground or surface water.~~

(6) All untreated and treated produced water shall be handled, transported, *distributed, and stored in accordance with all other applicable local, state, and federal regulations.

(7) Any release of untreated or treated produced water is subject to the notifications and corrective actions in 20.6.2.1203 NMAC except releases under the authority of the oil conservation commission pursuant to the provisions of the Oil and Gas Act, NMSA 1978, Section 70-2-12 and other laws conferring power on the oil conservation commission and the oil conservation division of the energy, minerals, and natural resources department to prevent or abate water pollution.

(8) Persons disposing of untreated or treated produced water, as part of the final disposition following a pilot project, shall use an appropriate method approved by the Department, which may include one of the following methods in accordance with the relative permit: discharge to a produced water disposal well permitted pursuant to the oil conservation commission's regulations for oil and gas injection at 19.15.26 NMAC, delivery to a surface waste management facility permitted pursuant to the oil conservation commission's regulations for oil and gas surface waste management facilities (19.15.36 NMAC), or disposal in a permanent pit permitted pursuant to the oil conservation commission's regulations for oil and gas pits, closed-loop systems, below-grade tanks and sumps at 19.15.17 NMAC. The department may consider alternative disposal options on a case-by-case basis.

(9) Persons disposing of the components of a pilot project using untreated or treated produced water, as part of the final disposition must adhere to all local, state, and federal regulations, as applicable.

C. Produced Water Pilot Project Permit.

(1) Any person intending to use produced water for an authorized pilot project under Subsection B of 20.6.8.400 NMAC shall submit to the ground water quality bureau of the department *an application for a produced water pilot project permit prior to use *and shall not proceed with the project until the application is approved.

(a) Applications shall be on a form provided by the department and shall include the following information:

i. the name and address of the person intending to conduct the pilot project;

ii. the location of the intended pilot project

(iii) the concentration of water contaminants in the untreated produced water used in the pilot project

(iv) the daily quantity of produced water used in the pilot project;

(v) the pilot project research plan and objectives;

(vi) documentation that the pilot project or design is consistent with the approved uses in Subsection B of 20.6.8.400 NMAC;

(vii) the storage, secondary containment and spill prevention methods that will be used to prevent accidental discharges; *and the plans for monitoring devices to detect any such discharges;

(viii) a plan to transport in and transport out any untreated produced water or treated produced water in a safe manner, in accordance with state and federal regulations;

(ix) plans for safe handling and proper disposal of produced water and any materials that come into contact with untreated produced water or treated produced water, including soils, plant material, treatment equipment, and containment area materials;

(x) *the health and safety considerations that *plans to

~~minimize the risk of human exposure to produced water via any exposure pathway; and~~

~~**(xi)** financial assurance in place to cover the cost of cleanup and remediation in the event of failure during operation and closure of the pilot project~~

~~**(xii)** proposed locations and newspaper for providing notice of the pilot project consistent with the manner of notice required of discharge permit applications set out in 20.6.2.3108.A.~~

~~**(b)** The department, at its discretion, may request additional information.~~

~~**(c)** Based on the information provided in the application, the department shall determine whether the application is administratively complete and notify the applicant of any deficiencies.~~

~~**(2)** following a determination that an application is administratively complete, the applicant and department shall proceed with the further public notice and participation requirements set out in 20.6.2.3108.B-N and 20.6.2.3110; and the relevant evaluation and action requirements set out in 20.6.2.3109 and 20.6.2.3111. The plans required of the applicant in Section C (1) shall be incorporated into the pilot project permit as enforceable conditions. The department shall provide in the permit a daily maximum produced water capacity and the term of any pilot project shall not exceed 5 years. Appeals from the secretary's decisions and the commission's decisions may be taken in accordance with 20.6.2.3112 and 20.6.2.3113.~~

~~**(3)** Data Reporting Requirements~~

~~**(a)** Persons implementing pilot projects pursuant to Subsection B of 20.6.8.400 NMAC shall submit to the department all research results, including lab analyses of all water contaminants in the untreated produced water and treated produced water, to assist the department in developing standards and assist the commission in promulgation of regulations for the use of treated produced water in a manner that prevents water pollution and protects human health and the environment.~~

~~**(b)** Persons implementing pilot projects pursuant to Subsection B of 20.6.8.400 NMAC shall submit to the department monthly reports with water quality data for all liquid streams and the volume, mass, and physical and chemical characteristics of solid waste disposed of during the month, as requested by the department.~~

~~**(c)** The department shall publish on its website all applications for produced water, pilot project permits, all written procedures and plans required by Paragraphs B and C of this Section, the department's determination, and supplemental information provided by the applicant at the department's request.~~

B. Class I permit to Use Treated Produced Water

(1) A Class I permit is available for the following uses of treated produced water:

(a) Pilot projects;

(b) Industrial use;

(c) Mixing water used in the production of hydraulic cement concrete, consistent with American Society for Testing and Materials (ASTM) C1602 / C1602M;

(d) Closed-loop geothermal projects approved by the Energy, Minerals and Natural Resources Department;

(e) Hydrogen production;

(f) Commercial use;

(g) Land applications in areas located more than 100 feet from surface waters and more than 100 feet above ground water;

(h) Use in road or construction maintenance in areas located more than 100 feet from surface waters and more than 100 feet above ground water;

(i) Use in other construction in areas located more than 100 feet from surface waters and more than 100 feet above ground water;

(j) Use in roadway ice and dust control in areas located more than 100 feet from surface waters and more than 100 feet above ground water;

(2) A Class I permit to use treated produced water shall be authorized when the requirements, terms, and conditions contained in this subsection B are satisfied.

(a) Prior to the discharge or use of treated produced water under this subsection B, an applicant shall file an application with the department for a Class I permit, which shall contain the information required by this subsection, including:

i. the name and address of the applicant;
ii. the location of the treatment facility;
iii. the location of the use or reuse location, if different from the location of the treatment facility;
iv. estimated daily volume of produced water treated at the treatment facility;
v. documentation that the proposed use is consistent with the approved uses in Subsection B of 20.6.8.400 NMAC;
vi. submission of an overview of the treatment process to be used in the activity to be permitted under the Class I permit;
vii. the storage, secondary containment and spill prevention methods that will be used to prevent accidental discharges; and the plans for a monitoring program and devices to detect any such discharges;
viii. a plan to transport in and transport out any untreated produced water or treated produced water in a safe manner, in accordance with state and federal regulations;
ix. plans for safe handling, characterization, and proper disposal of produced water, treatment residuals and wastes, and any materials that come into contact with untreated produced water or treated produced water, and any other waste generated by the project;
x. if applicable, a request for a finding of "no exposure" accompanied by a demonstration of natural or engineered controls preventing exposure;
xi. plans to minimize the risk of human exposure to untreated produced water via any exposure pathway; and
xii. a closure plan, and financial assurance, consistent with subsection E of 20.6.8.400 NMAC, to cover the cost of closure and abatement, if applicable.

(b) The department shall review the application and provide notice of any deficiency and, if applicable, a finding of "no exposure", in writing to the applicant within 30 days after receipt of the application by the department.

(c) An application for a Class I permit and any permit authorized under the application shall be exempt from Subsection D of 20.6.8.400 NMAC following a finding of "no exposure" from the department.

(d) If the department declines to issue a finding of "no exposure", the application and any permit authorized under the application shall be subject to subsection D of 20.6.8.400 NMAC.

(e) Failure by the department to issue a finding of "no exposure" within the 30-day period, shall result in the application being deemed to have "no exposure" for purposes of this Part.

(f) If the department provides notice to the applicant that it will not issue a finding of "no exposure" due to identified exposure pathways, the applicant may appeal the department's decision to the Commission.

(g) If the department does not provide notice of an application deficiency within the 30-day period, and the person treating the produced water complies with the terms and requirements contained within this subsection, and the application is exempt from subsection D of 20.6.8.400 NMAC, the applicant is authorized to operate under the Class I permit.

(h) If the department provides notice of a technical deficiency within the 30-day period, the applicant shall have 30 days to address any such objections in writing to the department, at which point, absent an unresolved deficiency, and if the application is exempt from subsection D of 20.6.8.400 NMAC, the Class I permit shall be deemed in effect.

(3) To qualify for a Class I permit, the applicant must comply with the following general conditions, as applicable, in addition to any case-specific conditions imposed by the department:

(a) Submission of the application required by Subsection B of 20.6.8.400 to the department;

(b) Comply with all applicable federal, state, and local laws and regulations, including the Produced Water Act;

(c) Comply with subsection E of 20.6.8.400 NMAC;

(d) Payment of applicable department application fees;

(e) Submission of a signed certification to the department that the proposed operations comply with the terms and conditions of this subsection and the Produced Water Act.

(4) A Class I permit shall have a term of five years.

(5) A Class I permit may be renewed for subsequent five-year terms by submission of a renewal request, no later than 30 days before expiration of the current term, on a form prescribed by the department.

(6) A Class I permit may be modified by submission of a modification request on a form prescribed by the department.

C. Class II permit to discharge or use treated produced water

(1) The following uses of treated produced water are authorized, only by a Class II permit issued by the department:

(a) Irrigation of non-food crops and non-food agricultural products

(b) Discharge into surface or ground water, provided that for a discharge to a Water of the United States, until such time as the State receives federal authorization to issue NPDES permits, an applicant obtain an NPDES permit, as applicable, pursuant to the Clean Water Act, and provided a surface discharge does not impair or degrade the existing water quality of a surface water.

(c) Restoration or ecological use.

(2) General application requirements: Before submitting an initial application for a new treated produced water facility, an applicant shall:

(a) conduct a feasibility study demonstrating that the produced water treatment train to be utilized by the applicant will be technically viable for use in the proposed application

(b) conduct a non-targeted analysis of the untreated and treated produced water and prepare a report of the analysis;

(c) conduct a targeted analysis of the untreated and treated produced water, targeting analytes included in the list at Appendix 1 and prepare a report of the analysis; and

(d) schedule a pre-application meeting with the department to discuss the proposed location of the treated produced water facility, the operating plans for the facility, the physical characteristics of the facility's proposed site, the applicant's feasibility study, including reports on the targeted and non-targeted analysis required under

20.6.8.400(C)(2), and other information that is required to be submitted in an application for a permit. The pre-application meeting shall be held at the Department's offices, unless otherwise agreed to by the department.

(3) Duty to Apply: Persons wishing to use treated produced water for approved purposes under 20.6.8.400.C shall file a complete application for a Class II permit.

(4) Application forms: An applicant for a permit shall submit a complete application using forms provided by the department. At a minimum, the following are required to be submitted by an applicant for a permit, unless otherwise specified:

(a) One original and two copies of the complete application. The department may require additional copies as necessary and reasonable to complete the review process.

(b) Applicable permit application fees.

(c) If required by the application, proof that public notice of the application has been published in a newspaper of general circulation in the county in which the activity is or will be located once a week during a consecutive 4-week period.

(d) Documentation that any findings of noncompliance under an existing discharge permit issued by the department has been resolved by an appropriate compliance action or by the terms and conditions of the applicable permit.

(e) The application shall also include:

i. Name of company, entity, or individual seeking a permit;

ii. Identification of the facility name, location, and telephone number if applicable.

iii. Mailing address and telephone number of company, entity, or individual seeking a permit.

iv. Applicant status as federal, state, private, public, or other entity and status of applicant as owner, operator or both.

v. Authorization of a duly authorized representative of the applicant.

vi. If the proposed use is a discharge to surface water:

(1) the names, addresses, and telephone numbers of landowners where outfalls will be located, if property owner is other than applicant.

(2) the location of the outfall expressed in latitude and longitude to the nearest 15 seconds.

(3) legal description of each outfall location to the nearest quarter/quarter of a section, including the county.

(4) whether the discharge will be continuous or periodic.

vii. Type and location, expressed in latitude and longitude to the nearest 15 seconds, of the facility or location where the treatment of produced water will occur.

viii. A description of the activities conducted by the applicant which require it to obtain a permit and where the activity includes treatment facilities associated with the use, a site diagram of the treatment facilities associated with the use.

ix. Up to four (4) SIC codes which best reflect the principal products or services provided by the facility.

x. Expected maximum design capacity in million gallons per day and the average daily flow rate in million gallons per day of treated produced water proposed for use, flow rate in million gallons per day or cubic feet per second, and whether the proposed use will be continuous or intermittent.

xi. Description of each treatment process that will be used by the applicant to treat produced water.

xii. A description of the proposed use of the treated produced water.

(f) A draft Operations Plan.

(g) A draft Transportation & Release Prevention Plan.

(h) A draft Engineering and Water Characterization Report.

(i) A draft Waste Management Plan.

(5) **Additional information**: The department may require other information or data needed to assess the proposed use, including discharges from the facility and any impact on receiving waters, and to determine what conditions or effluent or control limitations (including water quality-based effluent limitations) to place in the permit. The additional information may include, but is not limited to:

(a) If the application is a discharge to a surface water,

(1) information and data relating to the biological, physical and chemical characteristics of waters and habitat immediately upstream and downstream of a proposed discharge, performed under a department-approved protocol;

(2) the results of a waterbody assessment, under department protocols, setting forth the impact (or potential impact) of the discharges on the surface water.

(3) the results of whole effluent toxicity testing, an instream cause/effect analysis, or other comparable tests to determine the impact of a discharge on a waterbody performed under a department-approved protocol.

(6) **Operations Plan:**

(a) Applicant shall develop a draft operations plan for each treated produced water treatment facility and submit the draft operations plan to the department with the application. The final operations plan shall be submitted to the department at the time of facility start-up.

(b) Permittee shall operate the treated produced water project in accordance with the operations plan and the permit.

(c) The operations plan shall include:

i. A description of the standard operating procedures to be used.

ii. A description of the treatment process performance monitoring pursuant to the monitoring plan, including:

(1) Identification of each indicator and operational parameter used for each step in the treatment train and a description of the equipment sampling and recording frequency for continuously monitored parameters.

(2) Identification of the monitoring location for each indicator and operational parameter; and

(3) Identification of control of other critical limit(s) associated with each indicator and operational parameter.

iii. Information demonstrating how the personnel operating and overseeing the project operations have or will receive training and continuing education in the proper operation of the treatment processes utilized.

iv. A description of the protocols for managing an upset and for returning to normal operations after a shutdown or upset condition.

v. A description of the treatment process equipment inspection and maintenance program, including equipment inspection, maintenance, and calibration.

vi. An evaluation of the data collected pursuant to the feasibility study, including data collected from the targeted and non-targeted analysis of the applicant's untreated and treated produced water under subsection C(2) of 20.6.8.400 NMAC, and reasonably available and pertinent data or information, assessing the potential human health risks from analytes detected in the treated produced water.

(7) **Transportation and Release Prevention Plan:**

(a) Applicant shall develop a draft plan to transport in and transport out any untreated produced water or treated produced water in accordance with state and federal regulations and to prevent and manage the unplanned release of untreated or treated produced water for each treated produced water treatment facility and submit the draft plan to the department with the application. The final transportation

and release prevention plan shall be submitted to the department at the time of facility start-up.

(b) Permittee shall operate the treated produced water project in accordance with the release prevention plan and the permit.

(c) The release prevention plan shall include:

i. A description of the physical layout of the facility, including a facility diagram, which must mark the location and contents of each fixed untreated produced water storage container and the storage area where mobile or portable containers are located. The facility diagram must also include all connecting pipes that transport untreated produced water.

ii. Release prevention measures including procedures for routine handling of untreated produced water (loading, unloading, and facility transfers, etc.).

iii. Release or drainage controls such as secondary containment around containers and other structures, equipment, and procedures for the control of an unplanned release.

iv. Countermeasures for release discovery, response, and cleanup (both the facility's capability and those that might be required of a contractor).

v. Methods of disposition of recovered materials in accordance with applicable legal requirements.

vi. A contact list and phone numbers for the facility response coordinator, cleanup contractors with whom you have an agreement for response, and any appropriate Federal, State, and local agencies who must be contacted in case of a release; and

vii. Information and procedures to enable a person reporting an unplanned release to relate information of the address or location and phone number of the facility; the date and time of the release, the type of material released; estimates of the total quantity released; estimates of the quantity released; the source of the release; a description of all affected media; the cause of the release; any damages or injuries caused by the release; actions being used to stop, remove, and mitigate the effects of the release; and, the names of individuals and/or organizations who have also been contacted.

(8) Engineering and Water Characterization Report: Applicant shall develop a draft engineering and a water characterization report for a treated produced water facility and submit the draft report to the department with the permit application. The final engineering and water characterization report shall be submitted to the department at the time of facility start-up.

(a) The engineering and water characterization report shall be prepared by a licensed professional engineer with experience in water and wastewater treatment.

(b) The engineering and water characterization report shall contain the following information:

i. A description of the treatment train used to treat the produce water.

ii. A description of any pre-treatment technologies used to pre-treat the produced water.

iii. Identification of monitoring locations within the treatment train.

iv. A characterization of the quality of the treated produced water that will be generated by the project, as documented by the applicant’s feasibility study.

v. Analytical results from WET testing, if the application is for discharge to surface water, and samples collected from monitoring location(s) representative of the treated produced water.

(9) Waste Management Plan: Applicant shall develop a draft waste management plan for each treated produced water facility and submit the draft plan to the department with the permit application. The final waste management plan shall be submitted to the department at the time of facility start-up.

(a) The Waste Management Plan shall include:

i. A description of all expected waste streams, including any hazardous waste, exempt waste under the federal Resource Recovery and Conservation Act, solid waste, and liquid waste.

ii. Discussion of the disposal or management methods planned to be employed by applicant for each waste stream, including, as relevant, designated UIC injection wells, landfills, incinerators, hazardous waste treatment facilities, etc.

iii. Procedures to track waste volumes, and compliance with the plan, including proposed reporting intervals to the department.

(b) A person disposing of regulated NORM, as defined at 19.15.2.7 NMAC, is subject to 19.15.35.9 NMAC through 19.15.35.14 NMAC and to New Mexico environmental improvement board rule, 20.3.14 NMAC.

(10) Supporting documentation: Any additional information or data provided by the applicant to support the application shall be considered part of the application.

(11) Processing procedures applicable to all Class II permit applications

(a) Completeness review. The department shall provide a notice of administrative completeness or deficiency within 45 days of receipt of the application. If a notice of completeness or deficiency is not issued to the applicant within 45 days of receipt of the application, the Secretary shall issue a letter of explanation to the applicant which specifies the expected date of the completeness determination. If the department fails to respond within 45 days of receipt of the application or provide a letter of explanation to the applicant, the applicant may file a petition with the Water Quality Control Commission.

(b) Completeness determination. The department shall not process or issue a permit before receiving a complete application for a permit and all requirements of this Part have been met. An application for a permit is complete when it has been submitted to the department, and includes those items required under Paragraphs (a) through (i) of Subsection C(4) of 20.6.8.400 NMAC and the proposed newspaper for providing notice required under this Part. The completeness of any application for a permit shall be judged independently of the status of any other permit application or permit for the same facility or activity.

(12) Public Notice and Participation

(a) Within 30 days of the department deeming an application administratively complete, the applicant shall provide notice to the general public in the locale of the proposed use or reuse in a form provided by the department by these methods:

i. providing written notice of the application by mail or electronic mail, to owners of record of properties within ¼ mile of the property where the discharge, use, or reuse site are located and to any adjacent local, state and federal governments; land grant organizations; ditch associations; and Indian nations, tribes or pueblos;

ii. providing notice by certified mail, return receipt requested, to the owner of the discharge, use or reuse site if the applicant is not the owner;

iii. posting at a place conspicuous to the public and near the discharge or proposed discharge site, and

iv. publishing a synopsis of the notice in English and in Spanish in a newspaper of general circulation in the county the proposed discharge, use, or reuse.

(b) Within 15 days of completion of the public notice requirements, the applicant shall submit to the department proof of notice, including an affidavit of mailing(s) and the list of property owner(s), proof of publication, and an affidavit of posting, as appropriate.

(c) Within 30 days of determining an application for a permit or modification is administratively complete, the department shall post a notice on its website and shall mail notice to any affected local, state, federal, tribal or pueblo governmental agency, political subdivisions, ditch associations and land grants, as identified by the department. The notice shall include the information listed in Subsection C (13)(d) of 20.6.8.400 NMAC.

(d) The notice required under Subsection (a) of 20.6.8.400 NMAC shall include:

i. the name and address of the applicant;

ii. the location of the discharge, use or reuse, including a street address, if available, and sufficient information to locate the facility with respect to surrounding landmarks;
iii. a brief description of the activities that produce the discharge, use or reuse described in the application;
iv. a brief description of the expected quality and volume of the discharge;
v. the address and phone number within the department by which interested persons may obtain information, submit comments, and request to be placed on a facility-specific mailing list for future notices; and
vi. a statement that the department will accept comments and statements of interest regarding the application and will create a facility-specific mailing list for persons who wish to receive future notices.

(13) Draft permit

(a) Permit issuance or denial determination. Within 90 days of an application being found administratively complete, the department shall make a tentative determination with respect to the issuance or denial of a permit. If the department determines that the permit should be issued, then a draft permit shall be prepared, including but not limited to permit conditions, effluent and control limits, proposed monitoring and reporting requirements, tentative determinations reached with respect to:

i. Permit effluent and control limits established under subsection D of 20.6.8.400 NMAC shall be presumed protective of human health and the environment.
ii. Permit effluent limits that deviate from standards under subsection D 20.6.8.400 NMAC, shall be deemed protective of human health and the environment if the effluent or control limit is no less stringent than that prescribed by 20.6.8.400.D, or if the limit is otherwise based on the best professional judgment of the department.
iii. If the permit authorizes a discharge to surface water, that permit effluent and control limits prevent the impairment or degradation of existing surface water quality standards.
iv. A proposed schedule of compliance, where appropriate; and
v. Project specific conditions and restrictions in addition to those specified in these regulations that are necessary to satisfy the requirements of the Clean Water Act or the New Mexico Water Quality Act.

(b) Permit denial. If the department determines that the permit should be denied, it shall give written notice of this action to the applicant, including an explanation of the cause for denial.

(c) If the department approves, approves subject to conditions, or disapproves an application for a Class II permit, renewal or modification, or modifies or terminates a Class II permit, appeal therefrom shall be in accordance with the provisions of Sections 74-6-5(N), (O) and (P), NMSA 1978. The filing of an appeal does not act as a stay of any provision of the Act, the regulations, or any permit issued pursuant to the Act, unless otherwise ordered by the department or the Commission.

(d) The department shall provide, by certified mail and email, a copy of the draft permit or notice of intent to deny to the applicant and shall provide notice of the draft permit or notice of intent to deny by:

i. posting on the department's website;
ii. publishing notice in a newspaper of general circulation in the location of the facility; and
iii. mailing to any affected local, state, or federal governmental agency, ditch associations and land grants, as identified by the department.

(e) Following the public notice of the draft permit or notice of intent to deny, and prior to a final decision by the department, there shall be a period of at least 30 days during which written comments may be submitted to the department and/or a public hearing may be requested in writing. The 30-day comment period shall begin on the date of publication of notice in the newspaper. Requests for a hearing shall be in writing and shall set forth the reasons why a hearing should be held. A public hearing

shall be held if the Secretary determines there is substantial public interest. The department shall notify the applicant and any person requesting a hearing of the decision whether to hold a hearing and the reasons therefore in writing.

(f) If the Secretary determines on the basis of substantial public interest that a hearing is to be held, notice of the hearing shall be given by the department at least 30 days prior to the hearing in accordance with Subsection 12(b) of 20.6.8.400 NMAC. The notice shall include the time and place of the hearing and a brief description of the hearing procedures. The hearing shall be held pursuant to 20.6.2.3110 NMAC.

(14) Permit Terms and Conditions: All permits will contain the following standard conditions:

(a) A permit is subject to a rebuttable presumption that the facility owner or operator is responsible for and agrees to mitigate environmental damages flowing directly from the release, from the facility, of an analyte identified in the permit to surface or ground water in concentrations exceeding an applicable permit limit.

(b) Term. All permits issued under this Part are valid for five years. The initial permit term shall commence upon approval by the department, unless otherwise stated in the permit. However, the permit shall expire on the 366th day, if the owner or operator fails to commence operations or demonstrate substantial progress towards commencing operations under a permit within 365 days of permit issuance. The permittee must reapply at least 180 days prior to the permit expiration date. The terms and conditions of an expired permit shall remain in force until the effective date of a new permit, provided the following conditions are met:

i. The permittee has submitted a timely and complete application for renewal; and

ii. The department, through no fault of the permittee, does not issue a renewal permit with an effective date on or before the expiration date of the previous permit.

(c) Duty to comply. The permittee must comply with all conditions of the permit. Any willful permit noncompliance constitutes a violation of the Produced Water Act and New Mexico Water Quality Act and is grounds for enforcement; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

(d) Duty to mitigate. The permittee shall take all reasonable steps to minimize or prevent any use or discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

(e) Proper operation and maintenance. The permittee shall adhere to the operation plan and properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also include adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

(f) Permit actions. The permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

(g) Property rights. A permit does not convey any property rights of any sort, or any exclusive privilege.

(h) Duty to provide information. The permittee shall furnish to the department, within a reasonable time, any information which the department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with the permit. The permittee shall also furnish to the department upon request, copies of records required to be kept by this permit.

(i) Duty to provide samples for continued non-targeted and targeted analysis. The permittee shall, consistent with subsection D(2) of 20.6.8.400 NMAC, furnish samples of its untreated and treated produced water to the New Mexico State University or a qualified commercial laboratory once annually for non-targeted analysis for contaminants of emerging concern and for targeted analysis of the analytes listed in Appendix 1. Permittee shall provide a report to the department of any identified contaminant of emerging concern and of detection of any analyte listed in Appendix 1 that was not detected in prior sampling events, including sampling events conducted as part of the feasibility study.

(j) Inspection and entry. The permittee shall allow the department, or an authorized representative (including an authorized contractor acting as a representative of the secretary), upon presentation of credentials and other documents as may be required by law, to:

i. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit.

ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit.

iii. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

iv. Sample or monitor at reasonable times, for the purposes of assuring permit compliance any substances or parameters at any location.

(k) Anticipated noncompliance. The permittee shall give advance notice to the department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

(l) Transfers. This permit is not transferable to any person except after notice to the department on a form prepared by the department and presentation to the department of financial assurance in accordance with Subsection E of 20.6.8.400 NMAC. A permit transferee shall be subject to the same terms and conditions as was the predecessor permittee. The department may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary.

(m) Other information. Where the permittee becomes aware that it failed to submit any relevant facts in a notice or submitted incorrect information in a notice or in any report to the department, it shall promptly submit such facts or information.

(15) Special Conditions: The department may impose special conditions as necessary.

D. Effluent Limits and Monitoring

(1) Effluent and Control limits:

(a) A Class II permit shall include effluent limits for analytes identified as present in the untreated produced water during permittee's feasibility study. Permit effluent limits shall be set in accordance with the standards at 20.6.2.3103 NMAC or the National Recommended Water Quality Criteria for Human Health and for Aquatic life, published under 33 U.S.C. § 1314, as appropriate based on the proposed reuse. For an analyte identified in the feasibility study for which a standard does not exist, the department will set a permit effluent limit based on the best available scientific information, including all reasonably available and pertinent data or information, informed by Appendix 1 and the information provided by the applicant under subsection C(2) of 20.6.8.400 NMAC.

(b) A Class II permit shall include control limits for those analytes identified in Table 1, which limits shall be established by the department and based on the best available scientific information, including all reasonably available and pertinent data or information using the control limit reference ranges in Table 1 and the information provided by the applicant under subsection C(2) of 20.6.8.400 NMAC as references to aid in establishing appropriate permit control limits.

(2) Monitoring frequency: A Class II permit to use treated produced water shall adhere to the following monitoring requirements:

(a) The permittee shall, once annually, collect a sample (grab or 24-hour composite) representative of the untreated and treated produced water and conduct a targeted analysis for each analyte

listed in Appendix 1 and a nan-targeted analysis of both the untreated and treated produced water samples and provide the results of the analysis to New Mexico State University and the department.

(b) Permittee shall conduct real-time or daily, as indicated in Table 1, monitoring of Tier 1 indicators contained in Table 1 using corresponding analytical methods listed in Table 1 or at 40 CFR Part 136 for purposes of determining compliance with permit control limits. Permittee may use an alternative analytical method, only upon approval in writing by the department. Permittee shall once daily use a 24-hour composite sample for purposes of determining compliance with Table 1 control limits.

i. Instantaneous monitoring tools shall be calibrated according to manufacturing requirements.

(c) If a result of the monitoring performed under Subsection D(2)(b) of 20.6.8.400 NMAC exceeds an indicator's permit control limit, the permittee shall collect a composite sample within 12 hours and another composite sample within 24 hours of notification of the result and have both samples analyzed for the indicator as confirmation.

i. If the average of the initial and the two confirmation samples exceeds the indicator's permit control limit or the confirmation samples are not collected and analyzed pursuant to this subsection, permittee shall notify the department within 24 hours and submit composite samples to a third-party accredited laboratory for analysis of the indicator. If the results from the third-party laboratory reveal that the result would cause the running seven-day average of the last seven days of monitoring results to exceed the indicator's permit control limit, permittee shall notify the department within 24 hours and immediately suspend delivery of the treated produced water. If the results from the third-party laboratory reveal that the result would not cause the running seven-day average of the last seven days of monitoring results to exceed the indicator's permit control limit but the results still remain above the applicable control limit, permittee shall collect composite samples twice daily and have the samples analyzed for purposes of determining compliance with the control limit until ten consecutive daily results are below the indicator's permit control limit. If the average of the initial and the two confirmation samples does not exceed the indicator's permit control limit, permittee may return to the monitoring schedule in place immediately prior to the exceedance.

(d) Permittee shall collect samples (grab or 24-hour composite) representative of the treated produced water and conduct weekly, as well as in response to an upset, monitoring of all Tier 2 indicators contained in Table 1, using a corresponding analytical method listed in Table 1 or at 40 CFR Part 136. Permittee may use an alternative analytical method, only upon approval in writing by the department.

(e) If a result of the monitoring performed under Subsection D(2)(d) of 20.6.8.400 NMAC exceeds an indicator's permit control limit, the permittee shall collect a sample within 24 hours and another sample within 48 hours of notification of the result and have both samples analyzed for the indicator as confirmation.

i. If the average of the initial and the two confirmation samples exceeds the indicator's permit control limit or the confirmation samples are not collected and analyzed pursuant to this subsection, permittee shall notify the department within 24 hours and initiate daily monitoring of that indicator until seven consecutive daily results are below the indicator's permit control limit. If at any time a result causes, or would cause, a running seven-day average of daily results to exceed the indicator's permit control limit, permittee shall notify the department within 24 hours and immediately suspend delivery of the treated produced water.

(f) A permittee may decrease monitoring frequency as follows:

i. The monitoring frequency under subsection D(2)(d) of 20.6.8.400 NMAC may be decreased from weekly to monthly for a particular indicator, based on a review of no less than the most recent year of weekly analytical results of the monitoring conducted pursuant to Subsection D(2)(c) of 20.6.8.400 NMAC showing no violation of permit control limits for that indicator;

ii. After two years of annual monitoring for an analyte has been completed under subsection D(2)(a) of 20.6.8.400 NMAC showing the analyte has not been detected in any of the

required sampling events under that subsection, upon notice to the department, permittee may eliminate that analyte from future analysis under D(2)(a) of 20.6.8.400 NMAC; and

iii. If an analyte has been removed from the analysis under subsection D(2)(f)(ii) of 20.6.8.400 NMAC due to lack of detection and the analyte is subsequently detected, the testing frequency prescribed under subsection D(2)(a) of 20.6.8.400 NMAC shall be required and remain applicable for that analyte.

(g) Monitoring for Contaminants of Emerging Concern: If a chemical or contaminant is detected as a result of monitoring of the untreated or treated produced water under subsection D(2) of 20.6.8.400 NMAC, which chemical or contaminant did not appear in the untreated or treated water during the feasibility study or in the analysis prepared under subsection C(2) of 20.6.8.400 NMAC, such shall be reported to the department within thirty days of detection. The department may require additional monitoring, analysis and reporting of emerging contaminants as a permit condition.

(h) Monitoring under this subsection D of 20.6.8.400 NMAC must be conducted according to test procedures approved by EPA under 40 CFR Part 136 for an analyte, contaminant or a surrogate, unless another method is approved by the department.

(3) Table 1

Indicator	**Analytical Methods,** also see 40 CFR Part 136	**Control Limit Reference Range**
Tier 1		
Temperature, ˚C (real-time)	SM 2550 B–2010 / EPA 170.1	Range:
pH (real-time)	SM 4500–H+ B–2011 / EPA 150.1 / SW-846 9040/9045	Range:
Electrical conductivity (real-time)	SM 2510 B–2011 (Conductivity Meter) / EPA 120.1	Range:
Dissolved oxygen (DO) (real-time)	SM 2580 B-1997 / ASTM D 1498	Range:
Turbidity (real-time)	SM 2130B / EPA 180.1	Range:
Total organic carbon (TOC) (daily)	SM 5310 B-2000 (Combustion) / EPA 415.1 / EPA 415.2 / SW-846 9060A	Range:
Tier 2 - weekly or/and under changes in operating conditions		
Total dissolved solids (TDS)	SM 2540 C-1997 (Gravimetric) / EPA 160.1	Range:
Total ammonia (as N)	SM 4500-NH3 / EPA 350.1	Range:
Boron	EPA 200.7 / SW-846 6010	Range:
Sodium	EPA 200.7 / SW-846 6010 or 7000	Range:
Chloride	EPA 300.0 / EPA 300.1 / SW-846 9056A	Range:
Hardness (Ca and Mg)	SM 2340B	Range:
Gross Alpha/Beta (Radionuclides)	EPA 900.0 / SW 9310 Mod	Range:
Benzene, toluene, ethylbenzene, xylenes (as	SW-846 8260 latest version	Range:

BTEX)		
Polycyclic aromatic hydrocarbons (PAHs)	SW-846 8270 latest version	Range: (for naphthalene as an indicator)

(4) Whole Effluent Toxicity Testing ("WET Testing"). A permit to discharge treated produced water into a surface water under subsection C of 20.6.8.400 NMAC shall monitor the treated produced water for acute and chronic toxicity pursuant to this Section utilizing a WET test method approved by the U.S. EPA and listed at 40 CFR 136.3.

(5) Acute Toxic WET testing requirements: Acute toxicity of treated produced water shall be determined in adherence to species-applicable EPA Test Methods, found at "*Methods for Measuring The Acute Toxicity of Effluents and Receiving Waters To Freshwater and Marine Organisms*" (5th Ed., 2002, EPA 821-R-02-012), or latest edition thereof if adopted by EPA at 40 CFR Part 136, incorporated here by reference, and as prescribed in this subsection D(5). If these protocols prove unworkable, the department may grant exceptions in writing upon the permittee's request with justification. Acute toxicity due to discharges shall not occur within the wastewater mixing zone in any surface water of the state with an existing or designated aquatic life use. Acute toxicity of treated produced water shall be determined using at least two of the species in Table 2 and shall be conducted in whole effluent and a series of effluent dilutions, as appropriate based on the receiving surface water.

Table 2

	EPA Test Method	**Freshwater Species Tested**
Acute Toxicity-Freshwater WET Methods (Static Renewal/NOEC)	**2000.0**	Pimephales promela,
	2002.0	*Daphnia, Ceriodaphnia dubia*
	2021.0	*Daphnia pulex* and *Daphnia magna*

(a) Lethal Concentration: The LC50 (Lethal Concentration 50) is defined as the effluent dilution at which 50% of the organisms survive.

(b) Scope and Frequency:

i. The permittee shall test the effluent for lethality in accordance with the following provisions. Such testing will determine whether there is a greater than 50% survival of the appropriate test organisms for a 24-hour period.

ii. Acute WET testing shall be conducted once per quarter.

iii. The permittee must perform and report a valid test for a test species during the prescribed reporting period. An invalid test must be repeated during the same reporting period. An invalid test is defined as any test failing to satisfy the test acceptability criteria, procedures, and quality assurance requirements specified in the test methods.

iv. If a test fails to meet an LC50 of greater than 100%, the testing frequency for that test species will increase to monthly until such time compliance with the WET limit is demonstrated for three consecutive months, at which time the permittee may return to the quarterly testing frequency.

v. If a test fails to meet an LC50 of greater than 100%, the permittee shall collect another confirmation sample within 48 hours of notification of the result and conduct an additional WET test using the same method as the failed test.

vi. If the confirmation sample fails to meet an LC50 of greater than 100%, permittee shall notify the department within 24 hours and immediately suspend delivery of treated produced

water.

vii. Permittee may recommence the discharge of treated produced water after demonstrating to the department that permittee has identified the cause of the failed WET tests, corrected the condition(s) that led to the failed test, and that subsequent sampling has been conducted and such samples have passed WET testing.

viii. A notice is required to be submitted to the department upon a demonstration of lethality that requires an increase in monitoring frequency. Additionally, upon three consecutive tests passing, a notice is required to be submitted to the department to revert to the quarterly monitoring frequency.

ix. If none of the first eight consecutive quarterly tests demonstrates toxicity, the permittee may submit this information to the department and, upon approval, reduce the testing frequency to once per six months for the invertebrate test species and once per year for the vertebrate test species. A request for a monitoring frequency reduction shall be submitted in a written notice to the department. The notice shall include written correspondence from the department supporting the reduction in monitoring frequency.

x. If one or more of the first eight consecutive quarterly tests demonstrates significant toxicity, the permittee shall continue quarterly testing for that species until the permit is reissued. If a testing frequency reduction had been previously granted and a subsequent test demonstrates significant toxicity, the permittee will resume a quarterly testing frequency.

(c) Required Toxicity Testing Conditions.

i. Test Acceptance – The permittee shall repeat any toxicity test, including the control and all the effluent dilutions, if the control fails to meet a mean survival equal to or greater than 90%.

Table 3

Condition/Criteria	***Ceriodaphnia dubia, Daphnia pulex or Daphnia manga***	***Pimephales promelas***
# of replicates per concentration	4	2
# of organisms per replicate	5	10
# of organisms per concentration	20	20
# of test concentrations per effluent	5 and a control	5 and a control
Holding time	36 hours for first use	36 hours for first use
Test Acceptability Criteria	≥90% survival of all control organisms.	≥90% survival of all control organisms.
Coefficient of Variation	40% or less, unless significant effects are exhibited.	40% or less, unless significant effects are exhibited.

(d) Samples:

i. The permittee shall collect one grab sample from the outfall being tested.

ii. The permittee shall collect the grab sample such that the sample is representative of any periodic episode of chlorination, biocide usage, or other potentially toxic substance

being discharged on an intermittent basis.

iii. The permittee shall initiate the toxicity tests within 36 hours after collection of the grab sample. The sample shall be maintained at a temperature of 0-6 degrees Centigrade during collection, shipping, and storage.

(e) WET Test Reporting to Establish Permit Compliance:

i. The permittee shall prepare a full report of the results of all WET tests conducted pursuant to this Subsection.

ii. The permittee shall report the LC50 WET values for the 30-day average and the 7-day minimum under Parameter No. 51711 for the water flea and Parameter No. 51714 for the fathead minnow. If more than one valid test was performed during the reporting period, the LC50s will be averaged arithmetically and reported as the daily average LC50. The data submitted should reflect the lowest LC50 results during the reporting period.

(6) Chronic WET Testing: Chronic toxicity of treated produced water to aquatic life shall be determined using the procedures specified in U.S. environmental protection agency "*Short-Term Methods For Estimating The Chronic Toxicity Of Effluents And Receiving Waters To Freshwater Organisms*" (4th Ed., 2002, EPA821-R-02-013), or latest edition thereof if adopted by EPA at 40 CFR Part 136, which is incorporated here by reference, and as prescribed in this subsection D(6). If these protocols prove unworkable, the department may grant exceptions in writing upon the permittee's request with justification. Chronic toxicity due to discharge of treated produced water shall not occur at the critical low flow, or any flow greater than the critical low flow, in any surface water of the state with an existing or designated aquatic life use more than once every three years. Chronic toxicities of treated produced water shall be determined using the species in Table 4 tested in ambient surface water or whole effluent and a series of effluent dilutions, as appropriate based on the receiving surface water and as determined by the department.

Table 4

	EPA Test Method	**Freshwater Species Tested**
Chronic Toxicity-Freshwater WET Methods	**1000**	Fathead minnow, *Pimephales promelas,* larval survival and growth
	1002	Daphnid, *Ceriodaphnia dubia,* survival and reproduction

(a) Scope and Frequency

i. Chronic WET testing shall be conducted once per quarter.

ii. Chronic static renewal 7-day survival and growth test using *Pimephales promelas* (fathead minnow (Method 1000.0). A minimum of four replicates with ten organisms per replicate shall be used in the control and in each dilution.

iii. Chronic static renewal survival and reproduction test using *Ceriodaphnia dubia* (Method 1002.0). A minimum of ten replicates with minimal eight organisms per replicate shall be used in the control and in each dilution. This test shall be conducted once per quarter. The permittee must perform and report a valid test for each test species during the prescribed reporting period. An invalid test must be repeated during the same reporting period. An invalid test is defined as any test failing to satisfy the test acceptability criteria, procedures, and quality assurance requirements specified in the test methods.

iv. Should a test demonstrate significant toxicity (that is, there is a statistically significant difference in survival or growth at the critical dilution when compared to the survival or growth in the control), the testing frequency for that test species shall increase to monthly until three consecutive tests pass (do not demonstrate statistically significant toxicity), at which time the testing frequency of once per quarter resumes. A notice is required to be submitted to the department upon a demonstration of

significant toxicity that requires an increase in monitoring frequency. Additionally, upon three consecutive tests passing, a notice is required to be submitted to the department to revert to the once per quarter monitoring frequency.

v. Should a test demonstrate toxicity (that is, there is a statistically significant difference in survival or growth at the critical dilution when compared to the survival or growth in the control), the permittee shall collect another sample within 48 hours of notification of the result and conduct an additional WET test using the same method as the failed test.

(1) If the second sample demonstrates toxicity, permittee shall notify the department within 24 hours and immediately suspend delivery of treated produced water.

(2) Permittee may recommence delivery of treated produced water after demonstrating to the department that permittee has identified the cause of the failed chronic WET tests, corrected the condition(s) that led to the failed test, and that subsequent sampling has been conducted and such samples have passed chronic WET testing.

vi. If none of the first eight consecutive quarterly tests demonstrates toxicity, the permittee may submit this information to the department and, upon approval, reduce the testing frequency to once per six months for the invertebrate test species and once per year for the vertebrate test species. A request for a monitoring frequency reduction shall be submitted in a written notice to the department. The notice shall include written correspondence from the department supporting the reduction in monitoring frequency.

vii. If one or more of the first eight consecutive quarterly tests demonstrates significant toxicity, the permittee shall continue quarterly testing for that species until the permit is reissued. If a testing frequency reduction had been previously granted and a subsequent test demonstrates significant toxicity, the permittee will resume a quarterly testing frequency.

(b) Required Toxicity Testing Conditions: The permittee shall repeat any toxicity test, including the control and all effluent dilutions, which fails to meet any of the following criteria:

i. Control survival in fathead minnow, *Pimephales promelas*, and the daphnid, *Ceriodaphnia dubia*, tests must be 80% or greater.

ii. At the end of the test, the average dry weight of surviving seven-day-old fathead minnows in control chambers must equal or exceed 0.25 mg.

iii. In *Ceriodaphnia dubia* controls, 60% or more of the surviving females must have produced their third brood in 7 ± 1 days, and the number of young per surviving female must be 15 or greater.

iv. If these criteria are not met, the test must be repeated.

(c) Statistical Interpretation

i. For the *Ceriodaphnia dubia* survival test, the statistical analyses used to determine if there is a significant difference between the control and the critical dilution shall be Fisher's Exact Test as described in EPA/821/R-02-013 or the most recent update thereof, or the Test of Significant Toxicity, as described in EPA833-R-10-004, or the most recent update thereof.

ii. For the *Ceriodaphnia dubia* reproduction test and the Fathead minnow larval survival and growth test, the statistical analyses used to determine if there is a significant difference between the control and the critical dilution shall be in accordance with the methods for determining the No Observed Effect Concentration (NOEC) as described in EPA/821/R- 02-013 or the most recent update thereof.

iii. If the conditions of Test Acceptability are met and the percent survival of the test organism is equal to or greater than 80% in the critical dilution concentration and all lower dilution concentrations, the test shall be considered to be a passing test, and the permittee shall report a survival NOEC of not less than the critical dilution for the DMR reporting requirements

(7) Dilution Water: Following written notice to the department, the permittee may use dilution water with chemical and physical characteristics similar to that of the receiving water.

(a) Dilution water used in the toxicity tests will be receiving water collected as close to

the point of discharge as possible but unaffected by the discharge. The permittee shall substitute synthetic dilution water of similar pH, hardness, and alkalinity to the closest downstream perennial water for;

(b) toxicity tests conducted on effluent discharges to receiving water classified as intermittent streams; and

(c) toxicity tests conducted on effluent discharges where no receiving water is available due to zero flow conditions.

(d) If the receiving water is unsatisfactory as a result of instream toxicity (fails to fulfill the test acceptance criteria of Item 2.a), or otherwise upon approval by the department, the permittee may substitute synthetic dilution water for the receiving water in all subsequent tests provided the unacceptable receiving water test met the following stipulations:

(e) a synthetic dilution water control which fulfills the test acceptance requirements was run concurrently with the receiving water control;

(f) the test indicating receiving water toxicity has been carried out to completion (i.e., 7 days);

(g) the permittee includes all test results indicating receiving water toxicity with the full report; and

(h) the synthetic dilution water shall have a pH, hardness, and alkalinity similar to that of the receiving water or closest downstream perennial water not adversely affected by the discharge, provided the magnitude of these parameters will not cause toxicity in the synthetic dilution water.

(8) Samples

(a) The permittee shall collect a minimum of three grab samples from the outfall being tested. The second and third grab samples will be used for the renewal of the dilution concentrations for each toxicity test.

(b) The permittee shall initiate the toxicity tests within 36 hours after collection of the first grab sample. The holding time for any subsequent grab sample shall not exceed 72 hours. Samples shall be maintained at a temperature of 0-6 degrees Centigrade during collection, shipping, and storage.

(c) If the outfall being tested ceases discharging during the collection of effluent samples, the requirements for the minimum number of effluent samples, and the sample holding time are waived during that sampling period. However, the permittee must have collected an effluent grab sample volume sufficient to complete the required toxicity tests with renewal of the effluent. The sample collection duration and the static renewal protocol associated with the abbreviated sample collection must be documented in the full report.

(9) Reporting

(a) The permittee shall annually, or otherwise as prescribed in the permit, prepare a full report of the results of tests conducted in accordance with Subsection D of 20.6.8.400 NMAC and provide reports to the department at intervals prescribed in the permit.

(10) Recordkeeping: The permittee shall retain records of all monitoring information, including:

(a) calibration and maintenance records

(b) original strip chart recordings and / or digital recordings for continuous monitoring instrumentation,

(c) copies of reports required by this Part,

(d) records of data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application.

(e) records of monitoring information shall include:

i. the date, exact place, and time of sampling or measurements;
ii. the individual(s) who performed the sampling or measurements;
iii. the date(s) analyses were performed;
iv. the individual(s) who performed the analyses;
v. the analytical techniques or methods used; and

vi. the results of such analyses.

(11) Reporting requirements

(a) Planned changes: The permittee shall provide notice to the department as soon as possible of any planned physical alterations or additions to the permitted facility and shall provide notice to the department of any updates to its Operations Plan, Transportation and Release Prevention Plan, or its Waste management Plan.

(b) Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this Part or in the permit.

(c) Compliance schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule issued by the department shall be submitted no later than 15 days following each schedule date.

(d) Effluent and Control limit exceedance reporting:

i. The permittee shall report to the department any permit effluent or control limit exceedance within 24 hours from the time the permittee becomes aware of the circumstance, including reporting any upset, which results in an exceedance of a permit effluent or control limit.

ii. A report shall also be provided to the department within 5 days of the time the permittee becomes aware of the circumstances. The report shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

(e) Other noncompliance. The permittee shall report all instances of noncompliance not reported above, at the time monitoring reports are submitted. The reports shall contain the information listed in the above paragraph.

(f) All notices, reports, or information submitted to the department shall be signed and certified by a manager responsible for the produced water treatment facility.

E. Closure, Abatement, and Financial Assurance

(1) All treated produced water facilities shall provide financial assurance for closure and, if applicable, abatement, in compliance with this Part.

(a) No new permit shall be issued for any regulated facility unless the applicant provides financial assurance that is equal to or exceeds the cost estimates for closure and, if applicable, abatement.

i. The department may deny a permit application if the documentation or proposed forms of financial assurance do not ensure that adequate funds will be available to provide for closure and, if applicable, abatement.

ii. A permit may be transferred to a new permittee only if the new permittee demonstrates compliance with the financial assurance requirements of this Part.

(b) An operator shall submit documentation of the financial assurance to the department as part of any permit application for a produced water treatment facility and shall update documentation of financial assurance as required under the closure plan and if applicable, abatement plan, of this Subsection.

(2) Closure Requirements

(a) At least one hundred eighty (180) days prior to the anticipated date for initiation of closure of a regulated facility, the operator shall notify the department in writing of the operator's intention to close a treated produced water facility;

(b) A permit applicant shall submit a closure plan with each permit application for a produced water treatment facility, which closure, and associated closure cost estimate, shall be prepared and certified by a professional engineer. Additionally, a permittee shall submit a revised closure plan to the department whenever changes to facility operations, conditions, or anticipated closure necessitate changes to the plans.

(c) The closure plan shall:

i. Describe the work necessary to minimize or eliminate, to the extent necessary to protect human health and the environment, the post-closure escape of leachate, surface runoff, or waste decomposition products to the groundwater, surface water, or the atmosphere.

ii. Minimize the need for post-closure maintenance and controls; and

iii. Include a cost estimate.

(d) The closure plan cost estimate shall contain an itemized written estimate of the cost of completing all work described in the closure plan, be based on the cost required for a third-party contractor to complete the work described in the closure of the facility and account for the following factors:

i. The size and topography of the site;

ii. The total waste material storage capacity at the site, if any;

iii. Availability of cover and fill material needed for site grading;

iv. The type of waste to be received at the site;

v. Disposal method and sequential disposal plan;

vi. The location of the site and the character of the surrounding area;

vii. Requirements for surface drainage;

viii. Environmental monitoring system;

ix. Structures and other improvements to be dismantled and removed. Salvage values cannot be used to offset demolition costs;

x. Off-site disposal requirements;

xi. Vector control requirements; and

xii. A minimum of fifteen percent (15%) variable contingency fee to cover other closure costs as determined appropriate by the department.

(e) The closure plan cost estimate shall be updated, revised, and submitted to the department with any permit renewal application submitted for the project.

(f) The closure plan and closure plan cost estimate shall be prepared and certified by a licensed professional engineer. Such a closure plan and closure plan cost estimate shall be presumed sufficient.

(3) Abatement Plan: Upon notice from the department, a permit to discharge or use treated produced water shall be subject to and comply with subsection 20.6.2.4106 – 20.6.2.4112 NMAC. If the department determines that an abatement plan is required, the department may require submission of financial assurance which is equal to or exceeds the estimated costs to conduct the actions required by the abatement plan.

(4) Post-closure Inspection:

(a) The department shall inspect all closed treated produced water facilities to determine if the closure is complete and adequate in accordance with the approved plan after being notified by the operator that closure has been completed. The department shall provide written inspection results to the operator of a closed facility after the inspection. If the closure is not satisfactory, the department shall specify necessary construction or such other steps that may be appropriate to bring unsatisfactory sites into compliance with the closure plan.

(b) Notification by the department that the closure is satisfactory does not relieve the operator of responsibility for corrective action in accordance with regulations of the department to prevent or abate problems caused by the treated produced water facility that are subsequently discovered.

(c) Within sixty (60) days after receiving certification from the owner or operator that closure has been accomplished in accordance with the closure plan and the provisions of this Part, the department shall verify that proper closure has occurred. Unless the department has reason to believe that closure has not been in accordance with the closure plan, the department shall notify the owner or operator in writing that financial assurance is no longer required to be maintained for closure of the particular facility and shall release applicable financial assurance.

(5) Financial Assurance Requirements

(a) The amount of financial assurance required for treated produced water facilities shall be equal to or exceed the combined cost estimate for closure.

(b) The proposed forms and amounts of financial assurance shall be presumed adequate if each satisfies the requirements of this Part and are certified by a registered professional engineer. A finding of adequacy may be rebutted if the department reasonably determines that the form or amount of financial assurance is inadequate to provide for closure, in which case the department will determine what, if any amendment to the form or amount of financial assurance is necessary to provide for closure and post-closure.

(c) If the department determines that the form or amount of financial assurance is inadequate to provide for closure:

i. The department shall notify the operator of any deficiency in the cost estimate, and the operator shall revise and resubmit the cost estimate to the department within thirty (30) days of the department's determination; or

(6) Forms of Financial Assurance

(a) An owner or operator of a treated produced water facility shall provide financial assurance in an amount at least equal to the established financial assurance amount for closure in one or a combination of the following:

i. Surety Bond;
ii. Letter of Credit;
iii. Cash Account.

(b) Surety Bond: A surety bond shall be executed by the applicant and a corporate surety licensed to do business in the state and shall not be subject to cancellation.

(c) Letter of Credit: A letter of credit shall be issued by a bank organized or authorized to do commercial banking business in the United States, shall be irrevocable for a term of not less than five years unless the applicant shows good cause for a shorter time period and shall provide for automatic renewal for successive, like terms upon expiration unless the issuer has notified the division in writing of non-renewal at least 90 days before its expiration date. The letter of credit shall be payable to the state of New Mexico in part or in full upon receipt from the Secretary or the Secretary's authorized representative of demand for payment accompanied by a notice of forfeiture. Demand may be issued 30 days prior to expiration of the letter of credit if the permittee has not provided replacement financial assurance by that time.

(d) Cash Account: An applicant shall provide financial assurance in the form of a federally insured or equivalently protected cash account or accounts in a financial institution, provided that the permittee and the financial institution shall execute as to each such account a collateral assignment of the account to the department, which shall provide that only the department may authorize withdrawals from the account. In the event of forfeiture, the department may direct payment of all or part of the balance of such cash account (excluding interest accrued on the account) to itself or its designee for the produced water treatment facility's closure.

[20.6.8.400 NMAC – N, mm-dd-yy]

20.6.8.401 FEES AND FORMS:

A. Fees: An applicant or permittee shall pay fees to the department's water quality management fund pursuant to this section in lieu of 20.6.2.3114 NMAC.

(1) An applicant for a Class II permit to use treated produced water, a Class II permit renewal, Class II permit renewal and modification, or Class II permit modification for the use of treated produced water shall remit an application fee of one thousand dollars ($1,000). The application fee is not refundable and may not be applied toward a future application for a permit to use treated produced water.

(2) An application for a Class I permit to use treated produced water, a Class I permit renewal, Class I permit renewal and modification, or Class I permit modification for the use of treated produced water, or a permittee requesting amendment to a permit to use treated produced water separate from a permit renewal or modification shall remit with the application or request a fee of five hundred dollars ($500). This fee is not refundable and may not be applied toward a future application for a permit to use treated produced water.

B. Forms: Any forms required under this Part shall be made available by the agency within 60 days of the effective date of this Rule.

[20.6.8.401 NMAC – N, mm-dd-yy]

20.6.4.402 UNDERGROUND INJECTION CONTROL WELLS FOR DISPOSAL OF PRODUCED WATER, TREATED PRODUCED WATER AND TREATED PRODUCED WATER EFFLUENT.

A. All untreated produced water within the State of New Mexico is considered water associated with oil and gas production and may be disposed of in a Class II Underground Injection Control Well.

B. Treated produced water and effluent or wastes resulting from the treatment of produced water involved in a project permitted under 20.6.4.400 NMAC may be disposed of in Class I, Class II or Class V Underground Injection Control Well.

C. Class II Underground Injection Control wells may be reclassified as Class I or Class V Underground Injection Control Wells for the disposition of treated produced water and effluent from the treatment of produced water as follows:

(1) The operator of a Class II Underground Injection Control Well may submit a written request to the department and the Oil Conservation Division to reclassify a Class II Underground Injection Control Well to a Class I or Class V well. Such request must contain evidence showing that the operator has consent from all owners of the well, owners of the surface estate within a 2.5 mile radius of the well's surface hole location, and evidence that the well does not penetrate, or inject into or above, and will not affect ground water having 10,000 mg/l of less TDS and that wellbore construction, mechanical integrity and operation are suitable for the disposal of treated produced water and effluent from the treatment of produced water. The written request must also confirm that the operator of the well has agreed to operate the well in compliance with the department's rules and regulations for Class I or Class V Underground Injection Control Wells, as applicable, including but not limited to the financial assurance requirements and payment of any application fees.

(2) The department, in consultation with the Oil Conservation Division of the Energy Minerals and Natural Resources department may grant the request if the conversion will not result in an increased risk of movement of fluids into ground water having 10,000 mg/l or less TDS.

(3) If the request is granted, the Oil Conservation Division shall provide copies of any well files for the well to the department and shall take responsibility for the regulation of the well.

[20.6.8.402 NMAC – N, mm-dd-yy]

20.6.8.403-20.6.8.899 [RESERVED]
[20.6.8.401-20.6.8.899 NMAC – N, mm-dd-yy]

20.6.8.900 REFERENCES: [RESERVED]
[20.6.8.900 NMAC – N, mm-dd-yy]

Appendix 1

Category	Analyte	effluent limit range (in mg/L, or as otherwise noted)		Suggested reference value
		Lower bound	Upper bound	
Metals/Elements	Aluminum			
Metals/Elements	Antimony			
Metals/Elements	Arsenic			
Metals/Elements	Barium			
Metals/Elements	Beryllium			
Metals/Elements	Boron			
Metals/Elements	Cadmium			
Metals/Elements	Calcium			
Metals/Elements	Chromium			
Metals/Elements	Cobalt			
Metals/Elements	Copper			
Metals/Elements	Gold			
Metals/Elements	Iron			
Metals/Elements	Lead			
Metals/Elements	Lithium			
Metals/Elements	Magnesium			

Metals/Elements	Manganese			
Metals/Elements	Molybdenum			
Metals/Elements	Nickel			
Metals/Elements	Phosphorus			
Metals/Elements	Potassium			
Metals/Elements	Selenium			
Metals/Elements	Silver			
Metals/Elements	Sodium			
Metals/Elements	Strontium			
Metals/Elements	Thallium			
Metals/Elements	Tin			
Metals/Elements	Titanium			
Metals/Elements	Uranium (total)			
Metals/Elements	Vanadium			
Metals/Elements	Zinc			
Metals/Elements	Zirconium			
Metals/Elements	Mercury			
Metals/Elements - speciated	Hexavalent Chromium			
Anions	Bromide			

Anions	Chloride			
Anions	Fluoride			
Anions	Sulfate			
Anions	Nitrate Nitrogen			
Anions	Nitrite Nitrogen			
Anions	Phosphate			
Anions	Bicarbonates (HO3-)			
Anions	Iodine			
Wet Chemistry, Other	Oil and Grease			
Wet Chemistry, Other	Ammonia Nitrogen			
Wet Chemistry, Other	Total Organic Carbon			
Wet Chemistry, Other	Total Dissolved Solids			
Wet Chemistry, Other	Total Suspended Solids			
Wet Chemistry, Other	M. B. A. S.			
Wet Chemistry, Other	Turbidity			
Wet Chemistry, Other	Alkalinity, total and bicarbonate			
Wet Chemistry, Other	COD			
Wet Chemistry, Other	pH			
Wet Chemistry, Other	ORP			
Wet Chemistry, Other	Asbestos			
Wet Chemistry, Other	Cyanide, total recoverable			
Radionuclides	Radium-226			

Radionuclides	Radium-228			
Radionuclides	Gross Alpha/Beta			
Radionuclides	U 235, 236, 238			
Radionuclides	Strontium 90			
Organic - VOC	1,1,1,2-Tetrachloroethane			
Organic - VOC	1,1,1-Trichloroethane			
Organic - VOC	1,1,2,2-Tetrachloroethane			
Organic - VOC	Freon 113			
Organic - VOC	1,1,2-Trichloroethane			
Organic - VOC	1,1-Dichloroethane			
Organic - VOC	1,1-Dichloroethene			
Organic - VOC	1,2-Dichlorobenzene			
Organic - VOC	1,3-Dichlorobenzene			
Organic - VOC	1,4-Dichlorobenzene			
Organic - VOC	1,2,3-Trichlorobenzene			
Organic - VOC	1,2,3-Trichloropropane			
Organic - VOC	1,2,4-Trichlorobenzene			
Organic - VOC	1,2,4-Trimethylbenzene			
Organic - VOC	1,2-Dibromo-3-chloropropane			
Organic - VOC	1,2-Dibromoethane			
Organic - VOC	1,2-Dichloroethane			
Organic - VOC	1,2-Dichloropropane			
Organic - VOC	1,3,5-Trimethylbenzene			
Organic - VOC	1,3-Dichloropropane			
Organic - VOC	2,2-Dichloropropane			
Organic - VOC	2-Butanone			
Organic - VOC	2-Chloroethyl Vinyl Ether			
Organic - VOC	2-Chlorotoluene			
Organic - VOC	2-Hexanone			
Organic - VOC	2-Nitropropane			
Organic - VOC	2-Propanol			
Organic - VOC	4-Chlorotoluene			
Organic - VOC	4-Methyl-2-pentanone			

Organic - VOC	Acetone			
Organic - VOC	Acetonitrile			
Organic - VOC	Acrolein			
Organic - VOC	Acrylonitrile			
Organic - VOC	Allyl Chloride			
Organic - VOC	Benzene			
Organic - VOC	Bromobenzene			
Organic - VOC	Bromochloromethane			
Organic - VOC	Bromodichloromethane			
Organic - VOC	Bromoform			
Organic - VOC	Bromomethane			
Organic - VOC	Carbon Disulfide			
Organic - VOC	Carbon Tetrachloride			
Organic - VOC	Chlorobenzene			
Organic - VOC	Chloroethane			
Organic - VOC	Chloroform			
Organic - VOC	Chloromethane			
Organic - VOC	2-Chloro-1,3-butadiene			
Organic - VOC	cis-1,2-Dichloroethene			
Organic - VOC	cis-1,3-Dichloropropene			
Organic - VOC	Cyclohexane			
Organic - VOC	Dibromochloromethane			
Organic - VOC	Dichlorodifluoromethane			
Organic - VOC	Ethyl Acetate			
Organic - VOC	Ethyl ether			
Organic - VOC	Ethyl Methacrylate			
Organic - VOC	Ethylbenzene			
Organic - VOC	n-Heptane			
Organic - VOC	n-Hexane			
Organic - VOC	Methyl Iodide			
Organic - VOC	Isobutyl Alcohol			
Organic - VOC	Isopropyl acetate			
Organic - VOC	Isopropylbenzene			
Organic - VOC	m+p-Xylene			
Organic - VOC	Methacrylonitrile			
Organic - VOC	Methyl Acetate			
Organic - VOC	Methyl Methacrylate			

Organic - VOC	Methyl Tertiary Butyl Ether			
Organic - VOC	Methylcyclohexane			
Organic - VOC	Dibromomethane			
Organic - VOC	Methylene Chloride			
Organic - VOC	n-Butylbenzene			
Organic - VOC	n-Propylbenzene			
Organic - VOC	o-Xylene			
Organic - VOC	Pentachloroethane			
Organic - VOC	p-Isopropyltoluene			
Organic - VOC	Propionitrile			
Organic - VOC	sec-Butylbenzene			
Organic - VOC	Styrene			
Organic - VOC	t-Butyl alcohol			
Organic - VOC	tert-Butylbenzene			
Organic - VOC	Tetrachloroethene			
Organic - VOC	Tetrahydrofuran			
Organic - VOC	Toluene			
Organic - VOC	Total VOC TICs			
Organic - VOC	trans-1,2-Dichloroethene			
Organic - VOC	trans-1,3-Dichloropropene			
Organic - VOC	trans-1,4-Dichloro-2-butene			
Organic - VOC	Trichloroethene			
Organic - VOC	Trichlorofluoromethane			
Organic - VOC	Vinyl Acetate			
Organic - VOC	Vinyl Chloride			
Organic - VOC	Xylene (Total)			
Organic - VOC - TPH	TPH by GC/FID water C6-C10			
Organic - SVOC - TPH	TPH by GC/FID water C10-C28			
Organic - SVOC - TPH	TPH by GC/FID water C28-C40			
Organic - SVOC - TPH	n-Decane			
Organic - SVOC - TPH	n-Docosane			
Organic - SVOC - TPH	n-Eicosane			
Organic - SVOC - TPH	n-Hexadecane			
Organic - SVOC - TPH	n-Tetradecane			
Organic - SVOC - TPH	n-Octadecane			
Organic - SVOC - General	1,1'-Biphenyl			

Organic - SVOC - General	1,2,4,5-Tetrachlorobenzene			
Organic - SVOC - General	1,2,4-Trichlorobenzene			
Organic - SVOC - General	1,2-Dichlorobenzene			
Organic - SVOC - General	1,2-Diphenylhydrazine			
Organic - SVOC - General	1,3,5-Trinitrobenzene			
Organic - SVOC - General	1,3-Dichlorobenzene			
Organic - SVOC - General	1,3-Dinitrobenzene			
Organic - SVOC - General	1,4-Dichlorobenzene			
Organic - SVOC - General	1,4-Dioxane			
Organic - SVOC - General	1,4-Naphthoquinone			
Organic - SVOC - General	1-Chloronaphthalene			
Organic - SVOC - General	1-Methylnaphthalene			
Organic - SVOC - General	1-Naphthylamine			
Organic - SVOC - General	2,2'-oxybis(1-Chloropropane)			
Organic - SVOC - General	2,3,4,6-Tetrachlorophenol			
Organic - SVOC - General	2,4,5-Trichlorophenol			
Organic - SVOC - General	2,4,6-Trichlorophenol			
Organic - SVOC - General	2,4-Dichlorophenol			
Organic - SVOC - General	2,4-Dimethylphenol			
Organic - SVOC - General	2,4-Dinitrophenol			
Organic - SVOC - General	2,4-Dinitrotoluene			

Organic - SVOC - General	2,6-Dichlorophenol			
Organic - SVOC - General	2,6-Dinitrotoluene			
Organic - SVOC - General	2-Acetylaminofluorene			
Organic - SVOC - General	2-Butoxyethanol			
Organic - SVOC - General	2-Chloronaphthalene			
Organic - SVOC - General	2-Chlorophenol			
Organic - SVOC - General	2-Methylnaphthalene			
Organic - SVOC - General	2-Methylphenol			
Organic - SVOC - General	2-Naphthylamine			
Organic - SVOC - General	2-Nitroaniline			
Organic - SVOC - General	2-Nitrophenol			
Organic - SVOC - General	2-Picoline			
Organic - SVOC - General	o-Toluidine			
Organic - SVOC - General	3,3'-Dichlorobenzidine			
Organic - SVOC - General	3,3'-Dimethylbenzidine			
Organic - SVOC - General	3-Methylcholanthrene			
Organic - SVOC - General	3-Nitroaniline			
Organic - SVOC - General	4,6-Dinitro-2-methylphenol			
Organic - SVOC - General	4-Aminobiphenyl			

Organic - SVOC - General	4-Bromophenyl-phenylether			
Organic - SVOC - General	4-Chloro-3-methylphenol			
Organic - SVOC - General	4-Chloroaniline			
Organic - SVOC - General	4-Chlorophenyl-phenylether			
Organic - SVOC - General	4-Methylphenol			
Organic - SVOC - General	4-Nitroaniline			
Organic - SVOC - General	4-Nitrophenol			
Organic - SVOC - General	4-Nitroquinoline-1-oxide			
Organic - SVOC - General	5-Nitro-o-toluidine			
Organic - SVOC - General	6-Methylchrysene			
Organic - SVOC - General	7,12-Dimethylbenz[a]anthracene			
Organic - SVOC - PAH	Acenaphthene			
Organic - SVOC - PAH	Acenaphthylene			
Organic - SVOC - General	Acetophenone			
Organic - SVOC - General	Acrylamide			
Organic - SVOC - General	a-methylstyrene			
Organic - SVOC - General	Aniline			
Organic - SVOC - PAH	Anthracene			
Organic - SVOC - General	Aramite			
Organic - SVOC - General	Atrazine			

Organic - SVOC - General	Benzaldehyde			
Organic - SVOC - General	Benzidine			
Organic - SVOC - PAH	Benzo(b)fluoranthene			
Organic - SVOC - PAH	Benzo(a)anthracene			
Organic - SVOC - PAH	Benzo(a)pyrene			
Organic - SVOC - PAH	Benzo(g,h,i)perylene			
Organic - SVOC - PAH	Benzo(k)fluoranthene			
Organic - SVOC - General	Benzoic acid			
Organic - SVOC - General	Benzyl alcohol			
Organic - SVOC - General	bis(2-Chloroethoxy)methane			
Organic - SVOC - General	bis(2-Chloroethyl)ether			
Organic - SVOC - General	bis(2-Chloroisopropyl)ether			
Organic - SVOC - General	bis(2-Ethylhexyl)phthalate			
Organic - SVOC - General	Butylbenzylphthalate			
Organic - SVOC - General	Caprolactam			
Organic - SVOC - General	Carbazole			
Organic - SVOC - General	Chlorobenzilate			
Organic - SVOC - PAH	Chrysene			
Organic - SVOC - General	Diallate trans/cis			
Organic - SVOC - PAH	Dibenz(a,h)anthracene			
Organic - SVOC - General	Dibenz(a,h)acridine			
Organic - SVOC - General	Dibenz(a,j)acridine			

Organic - SVOC - General	Dibenzofuran			
Organic - SVOC - General	Diethylphthalate			
Organic - SVOC - General	Dimethoate			
Organic - SVOC - General	Dimethylphthalate			
Organic - SVOC - General	p-Dimethylaminoazobenzene			
Organic - SVOC - General	Di-n-butylphthalate			
Organic - SVOC - General	Di-n-octylphthalate			
Organic - SVOC - General	Dinoseb			
Organic - SVOC - General	Diphenyl ether			
Organic - SVOC - General	Disulfoton			
Organic - SVOC - General	Ethyl methanesulfonate			
Organic - SVOC - General	Famphur			
Organic - SVOC - General	Fluoranthene			
Organic - SVOC - PAH	Fluorene			
Organic - SVOC - General	Hexachlorobenzene			
Organic - SVOC - General	Hexachlorobutadiene			
Organic - SVOC - General	pronamide			
Organic - SVOC - General	Hexachloroethane			
Organic - SVOC - General	Hexachloropropene			
Organic - SVOC - PAH	Indene			
Organic - SVOC - PAH	Indeno(1,2,3-cd)pyrene			

Organic - SVOC - General	Isodrin			
Organic - SVOC - General	Isophorone			
Organic - SVOC - General	Isosafrole			
Organic - SVOC - General	Methapyrilene			
Organic - SVOC - General	Methyl methanesulfonate			
Organic - SVOC - General	Methyl parathion			
Organic - SVOC - PAH	Naphthalene			
Organic - SVOC - General	Nitrobenzene			
Organic - SVOC - General	N-Nitrosodiethylamine			
Organic - SVOC - General	N-Nitrosodimethylamine			
Organic - SVOC - General	N-Nitrosodi-n-butylamine			
Organic - SVOC - General	N-Nitroso-di-n-propylamine			
Organic - SVOC - General	N-Nitrosodiphenylamine			
Organic - SVOC - General	N-Nitrosomethylethylamine			
Organic - SVOC - General	N-Nitrosomorpholine			
Organic - SVOC - General	N-Nitrosopiperidine			
Organic - SVOC - General	N-Nitrosopyrrolidine			
Organic - SVOC - General	O,O,O-Triethylphosphorothioate			
Organic - SVOC - General	Parathion			

Organic - SVOC - General	Pentachlorobenzene			
Organic - SVOC - General	Pentachloronitrobenzene			
Organic - SVOC - General	Pentachlorophenol			
Organic - SVOC - General	Phenacetin			
Organic - SVOC - PAH	Phenanthrene			
Organic - SVOC - General	Phenol			
Organic - SVOC - General	p-Phenylenediamine			
Organic - SVOC - General	Phorate			
Organic - SVOC - General	Pronamide			
Organic - SVOC - PAH	Pyrene			
Organic - SVOC - General	Pyridine			
Organic - SVOC - General	Quinoline			
Organic - SVOC - General	Safrole			
Organic - SVOC - General	Tetraethyldithiopyrophosphate			
Organic - SVOC - General	1,2,3,4-Tetrahydronaphthalene			
Organic - SVOC - General	Thionazin			
Organic - SVOC - General	Benzenethiol			
Organic - SVOC - General	2,3-Dichloroaniline			
Organic - SVOC - General	a-Terpineol			
Organic - SVOC - Organic Acids	Isopropanol			

Organic - SVOC - Organic Acids	Acetic Acid			
Organic - SVOC - Organic Acids	Butyric Acid			
Organic - SVOC - Organic Acids	Citric Acid			
Organic - SVOC - Organic Acids	Ethanol			
Organic - SVOC - Organic Acids	Formic Acid			
Organic - SVOC - Organic Acids	Isobutyric acid			
Organic - SVOC - Organic Acids	Lactic acid			
Organic - SVOC - Organic Acids	Methanol			
Organic - SVOC - Organic Acids	Oxalic Acid			
Organic - SVOC - Organic Acids	Propionic Acid			
Organic - SVOC - Organic Acids	Pyruvic Acid			
Organic - SVOC - Organic Acids	Quinic Acid			
Organic - SVOC - Organic Acids	Succinic Acid			
Organic - SVOC - Organic Acids	Tartaric Acid			
Organic - SVOC - Carbonyl Compounds	Acetaldehyde			
Organic - SVOC - Carbonyl Compounds	Formaldehyde			
Organic - SVOC - Carbonyl Compounds	Glutaraldehyde			
Organic - SVOC - General	2-Methoxyethanol			
Organic - SVOC - General	Diethylene glycol			
Organic - SVOC -	Ethylene glycol			

General				
Organic - SVOC - General	Propylene glycol			
Organic - SVOC - General	Tetraethylene glycol			
Organic - SVOC - General	Triethylene glycol			
Organic - SVOC -	Bisphenol-A			
Organic - SVOC -	p-Nonylphenol (Technical mixture)			
Organic - SVOC -	Nonylphenol Diethoxylate (Technical mixture)			
Organic - SVOC -	Nonylphenol Monoethoxylate (Technical mixture)			
Organic - SVOC -	para-tert-Octylphenol			
Organic - SVOC - PFAS	Perfluorohexanesulfonic acid (PFHxS)			
Organic - SVOC - PFAS	Perfluorononanoic acid (PFNA)			
Organic - SVOC - PFAS	Perfluorooctanesulfonic acid (PFOS)			
Organic - SVOC - PFAS	Perfluorooctanoic acid (PFOA)			
Organic - SVOC - Explosives	Dinitrobenzene 1,3-			
Organic - SVOC - Explosives	Dinitrotoluene 2,4-			
Organic - SVOC - Explosives	Dinitrotoluene 2,6-			
Organic - SVOC - Explosives	Dinitrotoluene, 2-Amino-4,6-			
Organic - SVOC - Explosives	Dinitrotoluene, 4-Amino-2,6-			

Organic - SVOC - Explosives	Hexahydro-1,3,5-trinitro-1,3,5-triazine (RDX)			
Organic - SVOC - Explosives	Nitroglycerin			
Organic - SVOC - Explosives	Nitrotoluene, m-			
Organic - SVOC - Explosives	Nitrotoluene, o-			
Organic - SVOC - Explosives	Nitrotoluene, p-			
Organic - SVOC - Explosives	Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetra (HMX)			
Organic - SVOC - Explosives	PETN			
Organic - SVOC - Explosives	Tetryl (Trinitrophenylmethylnitramine)			
Organic - SVOC - Explosives	Trinitrobenzene, 1,3,5-			
Organic - SVOC - Explosives	Trinitrotoluene, 2,4,6-			
Organic - SVOC - Agent Breakdown Products	Diisopropyl methylphosphonate (DIMP)			
Organic - SVOC - Agent Breakdown Products	IMPA			
Organic - SVOC - Agent Breakdown Products	MPA			
Organic - SVOC - Agent Breakdown Products	Thioglycol			
Organic - SVOC - Polychlorinated biphenyls (PCBs	Aroclors			
Organic - SVOC - Polychlorinated biphenyls (PCBs)	WHO list of congeners			
Organic - SVOC - Pesticides/Herbicides	4,4-DDD			

Organic - SVOC - Pesticides/Herbicides	4,4-DDE			
Organic - SVOC - Pesticides/Herbicides	4,4-DDT			
Organic - SVOC - Pesticides/Herbicides	Aldrin			
Organic - SVOC - Pesticides/Herbicides	Alpha-BHC			
Organic - SVOC - Pesticides/Herbicides	b-BHC			
Organic - SVOC - Pesticides/Herbicides	Chlordane			
Organic - SVOC - Pesticides/Herbicides	d-BHC			
Organic - SVOC - Pesticides/Herbicides	Dieldrin			
Organic - SVOC - Pesticides/Herbicides	Endosulfan 1			
Organic - SVOC - Pesticides/Herbicides	Endosulfan 2			
Organic - SVOC - Pesticides/Herbicides	Endosulfan sulfate			
Organic - SVOC - Pesticides/Herbicides	Endrin			
Organic - SVOC - Pesticides/Herbicides	Endrin Aldehyde			
Organic - SVOC - Pesticides/Herbicides	Endrin Keytone			
Organic - SVOC - Pesticides/Herbicides	gamma-BHC (Lindane)			
Organic - SVOC - Pesticides/Herbicides	Heptachlor			
Organic - SVOC - Pesticides/Herbicides	Heptachlor Epoxide			
Organic - SVOC - Pesticides/Herbicides	Methoxychlor			
Organic - SVOC - Pesticides/Herbicides	Toxaphene			

Organic - SVOC - Pesticides/Herbicides	Glyphosate			
Organic - SVOC - Pesticides/Herbicides	Prometon			
Organic - SVOC - Dioxins	2,3,7,8-TCDD			