

New Mexico Environment Department

Above Ground Use of Reclaimed Domestic
Wastewater

January 2007

Wastewater Quality Requirements and Monitoring Frequencies by Class of Reclaimed Wastewater

Class of Reclaimed Wastewater	Wastewater Quality Parameter	Wastewater Quality Requirements		Wastewater Monitoring Requirements	
		30-Day Average	Maximum	Sample Type	Measurement Frequency
Class 1A	BOD ₅	10 mg/l	15 mg/l	Minimum of 6-hour composite	3 tests per week for major WWTP ¹ ; 1 test per 2 weeks for minor WWTP
	Turbidity	3 NTU	5 NTU	Continuous	Continuous
	Fecal Coliform or E. coli	5 CFU/100 ml ----	23 CFU/100 ml ----	Grab sample at peak flow	3 tests per week for major WWTP; 1 test per week for minor WWTP
	TRC or UV Transmissivity	Monitor Only	Monitor Only	Grab sample or reading at peak flow	Record values at peak hourly flow when bacteria samples are collected
Class 1B	BOD ₅	30 mg/l	45 mg/l	Minimum of 6-hour composite	3 tests per week for major WWTP ¹ ; 1 test per 2 weeks for minor WWTP
	TSS	30 mg/l	45 mg/l	Minimum of 6-hour composite	3 tests per week for major WWTP ¹ ; 1 test per 2 weeks for minor WWTP
	Fecal Coliform or E. coli	100 CFU/100 ml ----	200 CFU/100 ml ----	Grab sample at peak flow	3 tests per week for major WWTP; 1 test per week for minor WWTP
	TRC or UV Transmissivity	Monitor Only	Monitor Only	Grab sample or reading at peak flow	Record values at peak hourly flow when bacteria samples are collected

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Class of Reclaimed Wastewater	Wastewater Quality Parameter	Wastewater Quality Requirements		Wastewater Monitoring Requirements	
		30-Day Average	Maximum	Sample Type	Measurement Frequency
Class 2	BOD ₅	30 mg/l	45 mg/l	Minimum of 6-hour composite for major WWTP; Grab sample for minor WWTP	1 test per week for major WWTP; 1 test per month for minor WWTP
	TSS	30 mg/l	45 mg/l	Minimum of 6-hour composite for major WWTP; Grab sample for minor WWTP	1 test per week for major WWTP; 1 test per month for minor WWTP
	Fecal Coliform or E. coli	200 CFU/100 ml ---- 126 CFU/100 ml	400 CFU/100 ml ---- 252 CFU/100 ml	Grab sample at peak hourly flow	1 test per week for major WWTP; 1 test per month for minor WWTP
	TRC or UV Transmissivity	Monitor Only	Monitor Only	Grab sample or reading at peak hourly flow	Record values at peak hourly flow when Fecal Coliform samples are collected

Wastewater Quality Requirements and Monitoring Frequencies by Class of Reclaimed Wastewater

Class of Reclaimed Wastewater	Wastewater Quality Parameter	Wastewater Quality Requirements		Wastewater Monitoring Requirements	
		30-Day Average	Maximum	Sample Type	Measurement Frequency
Class 3	BOD ₅	30 mg/l	45 mg/l	Minimum of 3-hour composite for major WWTP ⁵ ; Grab sample for minor WWTP	1 test per week for major WWTP; 1 test per month for minor WWTP
	TSS	75 mg/l	90 mg/l	Minimum of 3-hour composite for major WWTP; Grab sample for minor WWTP	1 test per week for major WWTP; 1 test per month for minor WWTP
	Fecal Coliform or E. coli	1,000 CFU/100 ml ---- 630 CFU/100 ml	5,000 CFU/100 ml ---- 3150 CFU/100 ml	Grab sample at peak hourly flow	1 test per week for major WWTP; 1 test per month for minor WWTP
	TRC or UV Transmissivity	Monitor Only	Monitor Only	Grab sample or reading at peak hourly flow	Record values at peak hourly flow when Fecal Coliform samples are collected

Approved Uses for Reclaimed Wastewater by Class

Class of Reclaimed Wastewater	Approved Uses
Class 1A	All Class 1 uses. No setback limit to dwelling unit or occupied establishment.
	Backfill around potable water pipes
	Irrigation of food crops ¹
Class 1B	Impoundments (recreational or ornamental)
	Irrigation of parks, school yards, golf courses
	Irrigation of urban landscaping ²
	Snow making
	Street cleaning
	Toilet flushing
	Backfill around non-potable piping
Class 2	Concrete mixing
	Dust control
	Irrigation of fodder, fiber, and seed crops for milk-producing animals
	Irrigation of roadway median landscapes
	Irrigation of sod farms
	Livestock watering
Class 3	Soil compaction
	Irrigation of fodder, fiber, and seed crops for non-milk-producing animals
	Irrigation of forest trees (silviculture)

^[1] Irrigation of food crops should only be allowed for food crops when there is no contact between the edible portion of the crop and the wastewater. Spray irrigation is prohibited for food crops.

^[2] If reclaimed wastewater is applied using spray irrigation, the setback limitation of Table 3 "Spray Irrigation" should be observed.

Access Restrictions and Set Back Requirements

Class of Reclaimed Wastewater	Spray Irrigation	Flood Irrigation and Surface Drip Irrigation
Class 1A	<ul style="list-style-type: none"> No access control No setback to dwelling unit or occupied establishment Low pressure/low trajectory irrigation system only 	<ul style="list-style-type: none"> No access control
Class 1B	<ul style="list-style-type: none"> No access control; irrigate at times when public exposure is unlikely 100-ft setback from dwelling unit or occupied establishment Low pressure/low trajectory irrigation system only 	<ul style="list-style-type: none"> No access control; irrigate at times when public exposure is unlikely
Class 2	<ul style="list-style-type: none"> Access restricted by perimeter fencing using 4-strand barbed wire and locking gate or other NMED approved access controls 100-ft setback from dwelling unit or occupied establishment Low pressure/low trajectory irrigation system only 	<ul style="list-style-type: none"> Access restricted by perimeter fencing using 4-strand barbed wire and locking gate, or other NMED approved access controls
Class 3	<ul style="list-style-type: none"> Access restricted by perimeter fencing using 4-strand barbed wire and locking gate 500-ft setback from dwelling unit or occupied establishment Low pressure/low trajectory irrigation system only 	<ul style="list-style-type: none"> Access restricted by perimeter fencing using 4-strand barbed wire and locking gate 100-ft setback to dwelling unit or occupied establishment.

Additional Permit Conditions

Treatment facilities that provide reclaimed wastewater to parks, golf courses, schools and other areas where human exposure is likely must have an emergency storage pond or alternate disposal method where reclaimed wastewater can be diverted during periods when conditions are unfavorable for approved uses or when the quality requirements defined in this guidance document cannot be met.

The guidance document does not address protection of groundwater from nitrogen (nitrate) impacts. A Total Nitrogen limit and an annual nitrogen loading limit will be specified in the Discharge Permit.

Resources

NMED Ground Water Quality Bureau

- <https://www.env.nm.gov/gwb/>

NMED Ground Water Quality Bureau

- Above Ground Use of Reclaimed Domestic Wastewater – January 2007
- https://www.env.nm.gov/gwb/documents/NMED_REUSE_1-24-07.pdf

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