APPENDIX E: TERMS OF THE NUTRIENT MANAGEMENT PLAN INCORPORATED INTO THE PERMIT

I. PERMITTEE

In accordance with Parts III.2.b and f of NPDES Permit No. NMG010000, the following terms of the nutrient management plan (NMP) are hereby incorporated as site specific terms and conditions of the general permit for:

NMG010023
River Valley Dairy, LLC
1400 Le Chuga Road
Mesquite, NM 88048

For the purposes of this permit, "NMP" refers to the latest version of the NMP approved by EPA. Any changes to the NMP must be submitted to EPA in accordance with Part III.A.6 of the permit.

II. SITE SPECIFIC PERMIT TERMS

A. Adequate Storage

Table 1

STORAGE STRUCTURE	STORAGE PERIOD (days)	TOTAL CAPACITY (gallons)
Process Water Lagoon	90	3,144,462
Runoff Control Structure	14	3,522,449

Manure shall be stored in accordance with Section 3.3 (Dry Manure Storage) of the NMP.

B. Land Application

The permittee has selected the narrative rate approach to address rates of application. In accordance with Parts III.A.3.g.ii and III.A.7.f of NMG010000, the permittee shall calculate the amounts of manure and process wastewater to be land applied on land

application areas specified below using the methodology described in Section 10 and Appendix D of the NMP, and the following site specific permit terms.

Table 2

Land Application Area (Acres)	Outcome of the field-specific assessment of the potential for nitrogen and phosphorus transport (*1)	Crop	Annual Yield Goal (tons/ac)	Recommendation		Maximum Amount of Nutrients Derived from all Sources (*2)	
				Nitrogen (lbs N/ac)	Phosphorus (lbs P_2O_5/ton)	Nitrogen (lbs N/ac)	Phosphorus (lbs P_2O_5/ac)
Field A (LAA-A)	N-Based	Triticale (Wheat for green chop 70%)	10	140.2	NA	140.2	NA
		Sorghum/Sudangrass, for silage (70%)	16	157.2	NA	157.2	NA
		Wheat Silage (Wheat for green chop 70%)	10	140.2	NA	140.2	NA
		Corn-Field for Silage (dough 68%)	24	189.8	NA	189.8	NA
		Barley-6 row, for green cut (boot 69%)	10	136.7	NA	136.7	NA
		Oats for green chop (boot to early bloom 69%)	10	122.5	NA	122.5	NA
		Alfalfa, for hay	10	302.5	NA	302.5	NA
		Sorghum grain (moisture 11.18%)	107 (*3)	99.4	NA	99.4	NA

Field B (LAA-B)	N-Based	Triticale (Wheat for green chop 70%)	10	140.2	NA	140.2	NA
		Sorghum/Sudangrass, for silage (70%)	16	157.2	NA	157.2	NA
		Wheat Silage (Wheat for green chop 70%)	10	140.2	NA	140.2	NA
		Corn-Field for Silage (dough 68%)	24	189.8	NA	189.8	NA
		Barley-6 row, for green cut (boot 69%)	10	136.7	NA	136.7	NA
		Oats for green chop (boot to early bloom 69%)	10	122.5	NA	122.5	NA
		Alfalfa, for hay	10	302.5	NA	302.5	NA
		Sorghum grain (moisture 11.18%)	107 (*3)	99.4	NA	99.4	NA
Field C (LAA-C)	N-Based	Triticale (Wheat for green chop 70%)	10	140.2	NA	140.2	NA
		Sorghum/Sudangrass, for silage (70%)	16	157.2	NA	157.2	NA
		Wheat Silage (Wheat for green chop 70%)	10	140.2	NA	140.2	NA
		Corn-Field for Silage (dough 68%)	24	189.8	NA	189.8	NA
		Barley-6 row, for green cut (boot 69%)	10	136.7	NA	136.7	NA
		Oats for green chop (boot to early bloom 69%)	10	122.5	NA	122.5	NA
		Alfalfa, for hay	10	302.5	NA	302.5	NA
		Sorghum grain (moisture 11.18%)	107 (*3)	99.4	NA	99.4	NA

Field D (LAA-D)	N-Based	Triticale (Wheat for green chop 70%)	10	140.2	NA	140.2	NA
		Sorghum/Sudangrass, for silage (70%)	16	157.2	NA	157.2	NA
		Wheat Silage (Wheat for green chop 70%)	10	140.2	NA	140.2	NA
		Corn-Field for Silage (dough 68%)	24	189.8	NA	189.8	NA
		Barley-6 row, for green cut (boot 69%)	10	136.7	NA	136.7	NA
		Oats for green chop (boot to early bloom 69%)	10	122.5	NA	122.5	NA
		Alfalfa, for hay	10	302.5	NA	302.5	NA
		Sorghum grain (moisture 11.18%)	107 (*3)	99.4	NA	99.4	NA

Footnotes

*1 Outcome of the field-specific assessment of the potential for nitrogen and phosphorus transport must be recalculated at least annually using the most recent soil test results.

*2 Nutrient recommendation equals the maximum amount of nutrients derived from all sources for nitrogen. Nutrient recommendations and maximum amount of nutrients derived from all sources for nitrogen are dependent on the outcome of annual soil test results when determined by the above methodology. Determination of these values shall be reported to EPA and NMED in the annual report required by Part V of NMG010000.

*3 bu/ac

Table 3

Land Application Area	Acres
Field A (LLA-A)	15
Field B (LLA-B)	32
Field C (LLA-C)	29.1
Field D (LLA-D)	21

C. Site Specific Conservation Practices

Table 4

Agricultural Well Head, Surface Water, or Conduit to Surface Water	Setback Requirement
Mesquite Drain	Compliance alternative: Land application fields are bounded by elevated levies and irrigation ditch berms. Approximately 20-ft. vegetated buffers are utilized along the west side of Fields A, B, and C, and along the east and west sides of Field D.

D. Protocols for appropriate testing of manure, litter, and process wastewater

Manure and process wastewater shall be sampled in accordance with Section 9 (Nutrient Sampling Protocols) of the NMP.

E. Mortality Management

All mortalities shall be disposed of in accordance with Section 4.1 of the NMP. Composting of mortalities shall be done in accordance with the attached New Mexico State University Cooperative Extension Service Guide D-108 (Whole Animal Composting of Dairy Cattle).

F. Clean Water Diversion

Clean water diversion shall be achieved in accordance with Section 5 of the NMP.

G. Discharges to Water Quality Impaired Waters

The permittee discharges or proposes to discharge to the Rio Grande in segment number 20.6.4.101 of the Rio Grande Basin. A Total Maximum Daily Load (TMDL) for the main stem of the Lower Rio Grande for *E. coli* was approved by EPA on June 11, 2007. Compliance with the NMP is consistent with the assumptions of the TMDL.