

**TABLE 9. CALCULATED GROUNDWATER PLUME AREAS
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Concentration Range (mg/L)	Calculated Plume Area (Acres) ¹			Change in Plume Area Between 2020 and 2025 ²
	2016	2020	2025	
NORTHERN AREA				
Nitrate				
10-30	3,848.0	2,165.1	3,662.7	Increase
30-70	302.7	225.3	648.1	Increase
70-100	12.9	26.8	15.2	Decrease
>100	0.0	7.2	0.0	Decrease
Cumulative	4,163.6	2,417.2	4,326.0	Increase
Chloride				
1,015-2,000	1,557.3	798.7	2,488.9	Increase
2,000-3,000	68.3	5.4	0.0	Decrease
>3,000	0.9	0.0	0.0	Increase
Cumulative	1,626.5	804.1	2,488.9	Increase
TDS				
3,178-4,000	1,739.8	780.9	1,681.0	Increase
4,000-6,000	553.1	318.4	1,402.5	Increase
>6,000	28.6	0.0	0.0	Increase
Cumulative	2,321.5	1,099.4	3,083.6	Increase
CENTRAL AREA				
Nitrate				
10-30	1,211.5	1,065.4	1,052.3	Stable
30-70	686.7	566.4	719.6	Increase
70-100	75.2	0.0	11.3	Increase
>100	14.7	0.0	0.0	Stable
Cumulative	1,988.2	1,631.8	1,783.1	Stable
Chloride				
1,781-1,800	2.9	1.9	0.0	Decrease
1,800-1,900	10.1	0.0	0.0	Stable
>1,900	2.3	0.0	0.0	Stable
Cumulative	15.3	1.9	0.0	Decrease
TDS				
5,328-5,500	6.6	0.0	0.0	Stable
>5,500	2.8	0.0	0.0	Stable
Cumulative	9.4	0.0	0.0	Stable
SOUTHERN AREA - REGIONAL AQUIFER				
Nitrate				
10-30	0.2	5.3	12.1	Increase
Chloride				
503-600	35.7	7.9	52.2	Increase
> 600	0.4	0.0	22.3	Increase
Cumulative	36.1	7.9	74.5	Increase

**TABLE 9. CALCULATED GROUNDWATER PLUME AREAS
DONA ANA DAIRIES, DONA ANA COUNTY, NEW MEXICO**

Concentration Range (mg/L)	Calculated Plume Area (Acres) ¹			Change in Plume Area Between 2020 and 2025 ²
	2016	2020	2025	
TDS				
> 2,552	0.0	0.0	0.0	Stable
SOUTHERN AREA - PERCHED AQUIFER				
Nitrate				
10-30	60.1	157.0	79.6	Decrease
30-70	35.0	94.5	23.4	Decrease
70-100	12.6	44.0	5.7	Decrease
>100	5.2	10.7	1.9	Decrease
Cumulative	112.9	306.2	110.6	Decrease
Chloride				
503-600	41.1	82.9	97.4	Increase
600-700	41.5	87.8	70.2	Decrease
700-800	50.2	94.2	49.7	Decrease
800-900	82.9	98.8	50.1	Decrease
900-1000	28.8	47.0	0.0	Decrease
>1000	0.0	0.0	0.0	Increase
Cumulative	244.5	327.8	267.4	Decrease
TDS				
2,552-2,700	29.6	12.2	5.2	Decrease
2,700-3,000	25.1	18.0	5.3	Decrease
3,000-3,300	8.9	15.9	1.2	Decrease
>3,300	1.9	4.4	0.0	Decrease
Cumulative	65.5	50.5	11.7	Decrease

Notes:

¹ = Area was calculated based on results of interpolation by kriging performed using concentrations from abatement plan and discharge plan monitoring wells during the February/March sampling event. Modeling was based on 2016 existing conditions calculated in the Stage 2 Abatement Plan.

² = Change is defined as an increase or decrease of 10% or more. An increase or decrease of less than 10% is defined as stable.

> = Greater than

mg/L = Milligrams per liter

TDS = Total dissolved solids