

**Tropicana Detention Basin  
Las Vegas Wash and Tributaries  
(Tropicana and Flamingo Washes)  
Nevada**

**Pertinent Data<sup>1</sup>**

Completion Date . . . . .	June 1998
Stream System . . . . .	Blue Diamond Wash
Drainage Area . . . . .	172.12 mi <sup>2</sup>
<b>Dam</b>	
Embankment (earthfill)	
Crest elevation <sup>2</sup> . . . . .	2,290.03 ft
Crest length . . . . .	2,779.92 ft
Crest width . . . . .	19.69 ft
Maximum height above streambed . . . . .	38.66 ft
Maximum height above downstream fill . . . . .	9.84 ft
Spillway (over entire dam embankment)	
Crest elevation . . . . .	2,290.03 ft
Crest length . . . . .	2,779.92 ft
Maximum height above downstream fill . . . . .	9.84 ft
Elevation of maximum water surface . . . . .	2,291.29 ft
Design discharge . . . . .	12,996 ft <sup>3</sup> /s
Outlet Works	
Width of conduit . . . . .	9.84 ft
Height of box culvert (range) . . . . .	8.69 to 6.89 ft
Length of box culvert . . . . .	1001.80 ft
Bulkhead constrictor plate width . . . . .	4.20 ft
Bulkhead constrictor plate height . . . . .	3.94 ft
Height of open conduit (range) . . . . .	7.22 to 6.00 ft
Length of open conduit . . . . .	245.99 ft
Intake elevation . . . . .	2,251.60 ft
<b>Dike (auxiliary dam)</b>	
Embankment (earthfill)	
Crest elevation (excluding spillway) . . . . .	2,282.64 ft
Crest length . . . . .	1,472.77 ft
Crest width . . . . .	19.69 ft
Maximum height above streambed . . . . .	28.97 ft
Spillway (over entire dike embankment)	
Crest elevation . . . . .	2,280.18 ft
Crest length . . . . .	705.38 ft
Design discharge . . . . .	6,203 ft <sup>3</sup> /s
Outlet works (ungated)	
Diameter of (two) outlet conduits . . . . .	3.94 ft
Length of each conduit . . . . .	146.42 ft
Intake elevation . . . . .	2,254.19 ft
<b>Reservoir (both bays combined)</b>	
Area at dam spillway crest . . . . .	52.74 acres
Gross capacity at dam spillway crest . . . . .	824.48 ac-ft
<b>Storage allocation below dam spillway crest</b>	
Flood control . . . . .	824.48 ac-ft
Sedimentation . . . . .	0 ac-ft
<b>100-year flood (reservoir design flood)</b>	
Inflow volume (24-hour) . . . . .	1,669.0 ac-ft
Peak inflow . . . . .	6,700 ft <sup>3</sup> /s
Peak outflow . . . . .	497 ft <sup>3</sup> /s
Peak elevation . . . . .	2,289.67 ft
Drawdown time . . . . .	4.5 days
<b>Probable maximum flood (spillway design flood)</b>	
Inflow volume (24-hour) . . . . .	1,732.0 ac-ft
Peak inflow . . . . .	13,985 ft <sup>3</sup> /s
Peak outflow . . . . .	12,986 ft <sup>3</sup> /s
Peak elevation . . . . .	2,291.34 ft
Spillway flow duration . . . . .	6 hours

1. All SI-to-English conversions based on Federal Standard 376B.
2. All elevations based on NAVD88 datum.

**Tropicana Detention Basin  
Las Vegas Wash and Tributaries  
(Tropicana and Flamingo Washes)  
Nevada**

**Pertinent Data  
(Metric Units)**

Completion Date . . . . .	June 1998
Stream System . . . . .	Blue Diamond Wash
Drainage Area . . . . .	445.8km <sup>2</sup>
<b>Dam</b>	
Embankment (earthfill)	
Crest elevation . . . . .	698.000 m
Crest length . . . . .	847.321 m
Crest width . . . . .	6.000 m
Maximum height above streambed . . . . .	11.785 m
Maximum height above downstream fill . . . . .	3.000 m
Spillway (over entire dam embankment)	
Crest elevation . . . . .	698.000 m
Crest length . . . . .	847.321 m
Maximum height above downstream fill . . . . .	3.000 m
Elevation of maximum water surface . . . . .	698.385 m
Design discharge . . . . .	368 m <sup>3</sup> /s
Outlet Works	
Width of conduit . . . . .	3.000 m
Height of box culvert (range) . . . . .	2.650 to 2.100 m
Length of box culvert . . . . .	305.349 m
Bulkhead constrictor plate width . . . . .	1.28 m
Bulkhead constrictor plate height . . . . .	1.20 m
Height of open conduit (range) . . . . .	2.200 to 1.830 m
Length of open conduit . . . . .	74.978 m
Intake elevation . . . . .	686.287 m
<b>Dike (auxiliary dam)</b>	
Embankment (earthfill)	
Crest elevation (excluding spillway) . . . . .	695.750 m
Crest length . . . . .	448.900 m
Crest width . . . . .	6.000 m
Maximum height above streambed . . . . .	8.829 m
Spillway (over entire dike embankment)	
Crest elevation . . . . .	695.000 m
Crest length . . . . .	215.000 m
Design discharge . . . . .	175.65 m <sup>3</sup> /s
Outlet works (ungated)	
Diameter of (two) outlet conduits . . . . .	1.200 m
Length of each conduit . . . . .	44.63 m
Intake elevation . . . . .	687.077 m
<b>Reservoir (both bays combined)</b>	
Area at dam spillway crest . . . . .	213,440 m <sup>2</sup>
Gross capacity at dam spillway crest . . . . .	1,017,000 m <sup>3</sup>
<b>Storage allocation below dam spillway crest</b>	
Flood control . . . . .	1,017,000 m <sup>3</sup>
Sedimentation . . . . .	0 m <sup>3</sup>
<b>100-year flood (reservoir design flood)</b>	
Inflow volume (24-hour) . . . . .	2,058,695 m <sup>3</sup>
Peak inflow . . . . .	189.72 m <sup>3</sup> /s
Peak outflow . . . . .	14.07 m <sup>3</sup> /s
Peak elevation . . . . .	697.89 m
Drawdown time . . . . .	4.5 days
<b>Probable maximum flood (spillway design flood)</b>	
Inflow volume (24-hour) . . . . .	2,136,405 m <sup>3</sup>
Peak inflow . . . . .	396 m <sup>3</sup> /s
Peak outflow . . . . .	368 m <sup>3</sup> /s
Peak elevation . . . . .	698.40 m
Spillway flow duration . . . . .	6 hours

1. All elevations based on NAVD88 datum.