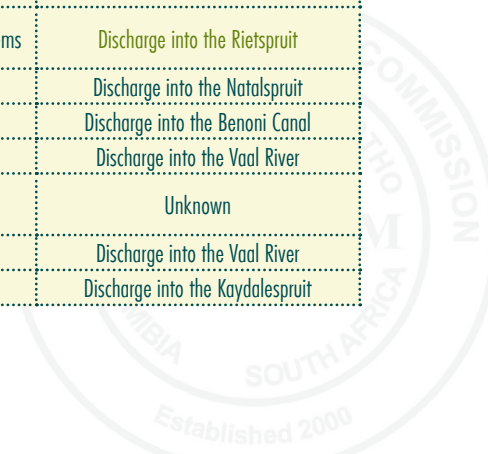


UPPER VAAL WMA

Name of wastewater treatment works	Position		Peak rated design flow capacity (Mℓ/day)	Treatment process description	Effluent disposal process
	Latitude	Longitude			
Ancor WCW	28° 28' 57"	26° 15' 58"	13.50	Biofilters and activated sludge	Discharge into the Blesbokspruit
Benoni WCW	28° 18' 53"	26° 12' 37"	18.00	Activated sludge	Discharge into the Benoni Canal
Bethal STW	Unknown	Unknown	Unknown	Biofilters and activated sludge	Unknown
Bethlehem WCW	Unknown	Unknown	Unknown	Biofilters and activated sludge	Discharge into Jordaan
Bickley WCW	28° 26' 52"	26° 26' 40"	3.59	Biofilters and activated sludge	Discharge into the Blesbokspruit
Blyvooruitzicht Gold Mines WCW	27° 23' 25"	26° 23' 15"	Unknown	Unknown	Discharge into the Wonderfonteinspruit
Bushkoppies	27° 56' 10"	26° 18' 35"	200.00	Activated sludge	Discharge into the Harringtonspruit
Carletonville (Oberholzer)	27° 21' 30"	26° 09' 50"	8.00	Biological filtration system (activated sludge and oxidation dam)	Discharge into the Wonderfonteinspruit
Daveyton WCW	28° 27' 47"	26° 08' 14"	16.00	Conventional	Discharge into the Blesbokspruit
Deelkraal Mine	27° 18' 00"	26° 28' 20"	Unknown	Unknown	Discharge into the Loopspruit
Dekema	28° 10' 00"	26° 19' 35"	36.00	Biofilters and activated sludge	Discharge into the Natalspruit
Doornfontein Gold Mine WCW	27° 19' 50"	26° 24' 35"	Unknown	Unknown	Discharge into the Wonderfonteinspruit
Elandsrand	27° 21' 45"	26° 27' 45"	Unknown	Unknown	Discharge into the Varkenslaagtespruit
Ennerdale WCW (Johannesburg Water)	Unknown	Unknown	8.00	Activated sludge	Unknown
Ermelo STW	29° 59'	26° 30'	Unknown	Activated sludge, biosystems and air blowing system	Discharge into the Klein Drinkwaterspruit
Flip Human	27° 46' 14"	26° 10' 51"	50.00	Activated sludge systems	Discharge into the Wonderfonteinspruit
Fochville WCW decommissioned, built new Kokosi WCW as shown below	Unknown	Unknown	Unknown	Activated sludge	Discharge into the Loopspruit
Goudkoppies	27° 55' 30"	26° 16' 25"	150.00	Activated sludge	Discharge into the Harringtonspruit
Grundlingh WCW	28° 28' 14"	26° 23' 66"	2.71	Biofilters and activated sludge	Discharge into Nigel Dam
Hannes van Niekerk	Unknown	Unknown	26.50	Activated sludge systems and biofiltration systems	Discharge into the Wonderfonteinspruit
Harrismith STW (1)	Unknown	Unknown	3.90	Biofilters and activated sludge	Discharge into the Wilge River
Tshiame STW (Harrismith 2)	Unknown	Unknown	Unknown	Unknown	Unknown
Heidelberg WCW	28° 19' 44"	26° 32' 23"	8.00	Biofilters	Discharge into the Blesbokspruit

UPPER VAAL WMA

Name of wastewater treatment works	Position		Peak rated design flow capacity (Mℓ/day)	Treatment process description	Effluent disposal process
	Latitude	Longitude			
Impumelelo WCW in Lesedi Local Municipality (Heidelberg)	Unknown	Unknown	12.00	Unknown	Unknown
Jan Smuts WCW	28° 22' 27"	26° 13' 18"	9.00	Biofilters and activated sludge	Discharge into Jan Smuts Dam
JP Marais WCW	28° 23' 42"	26° 10' 08"	21.00	Biofilters and activated sludge	Discharge into the Benoni Canal
Kokosi WCW (new) services Kokosi, Fochville and Greenspark areas	Unknown	Unknown	7.50	Activated sludge	Discharge into the Loopspruit
Khutsong	27° 18' 32"	26° 21' 11"	7.50	Activated sludge	Discharge into the Wonderfonteinspruit
Klerksdorp	26° 37' 10"	26° 53' 80"	21.90	Activated sludge	Discharge into the Schoon Spruit
Kloof Mine WCW	Unknown	Unknown	Unknown	Maturation ponds	No discharge proved
Kroonstad STW	Unknown	Unknown	Unknown	Activated sludge and biological seep beds	Unknown
Leeudoorn Mine WCW	Unknown	Unknown	4.00	Unknown	Discharge into the Loopspruit
Leeuwkuil	Unknown	Unknown	41.00	Activated sludge and biofiltration systems	Discharge into the Vaal River
McComb WCW	28° 27' 53"	26° 12' 49"	9.00	Activated sludge	Discharge into the Benoni Canal
Meyerton	28° 58' 30"	26° 34' 30"	Unknown	Unknown	Discharge into the Fouriespruit
Olifantsvlei (construction of an additional 50 Mℓ/d has begun. To be completed by 2015)	27° 53' 55"	26° 19' 05"	200, currently being upgraded	Activated sludge	Discharge into the Klip River
Palmietfontein	Unknown	Unknown	Unknown	Unknown	Unknown
Parys STW	Unknown	Unknown	Unknown	Biological filters	Unknown
Potchefstroom	27° 05' 40"	26° 44' 50"	23.75	Biological filtration and activated sludge	Discharge into the Wonderfonteinspruit
Randfontein	Unknown	Unknown	20.00	Activated sludge and biofiltration systems	Discharge into the Elandsvlei to Hartebeespoort Dam
Ratanda WCW	28° 28' 36"	26° 09' 34"	5.00	Unknown	Unknown
Rietspruit WCW (in Vanderbijlpark for Emfuleni Municipality)	Unknown	Unknown	36.00	Activated sludge and biofiltration systems	Discharge into the Rietspruit
Rondebult	28° 13' 20"	26° 17' 45"	36.00	Activated sludge	Discharge into the Natalspruit
Rynfield WCW	28° 28' 36"	26° 09' 34"	13.00	Activated sludge	Discharge into the Benoni Canal
Standerton STW	29° 13' 56"	26° 57' 27"	Unknown	None	Discharge into the Vaal River
Sebokeng WCW (Emfuleni Local Municipality)	Unknown	Unknown	100.00	Activated sludge	Unknown
Standerton (Sakhile)	29° 13' 56"	26° 57' 27"	Unknown	None	Discharge into the Vaal River
Tsakane WCW	28° 21' 58"	26° 22' 35"	7.72	Biofilters and activated sludge	Discharge into the Kaydalespruit



UPPER VAAL WMA

Name of wastewater treatment works	Position		Peak rated design flow capacity (ME/day)	Treatment process description	Effluent disposal process
	Latitude	Longitude			
Vlakplaats	28° 11' 00"	26° 21' 15"	83.00	Activated sludge	Discharge into the Natalspruit
Waterval	28° 05' 45"	26° 26' 30"	105.00	Activated sludge	Discharge into the Klip River
Wedela	27° 22' 30"	26° 29' 13"	2.00	Activated sludge	Discharge into the Loopspruit
Welgedacht	Unknown	Unknown	77 increasing to 177 in the near future	Unknown	Discharge into the Blesbokspruit
Welverdiend	27° 15' 21"	26° 22' 17"	1.00	Activated sludge	Discharge into the Wonderfonteinspruit
West Driefontein (owned by a mine in Carletonville)	Unknown	Unknown	Unknown	Unknown	Discharge into the Loopspruit
Western Deep Levels Mine WCW	27° 25' 30"	26° 27' 00"	Unknown	Unknown	Re-use

WCW: Water care works

STW: Sewage treatment works

Sources: DWA, 2002a; updated (in green) using Aganang Consulting (2008) and DWA (2010/2011); confirmed by municipal offices

