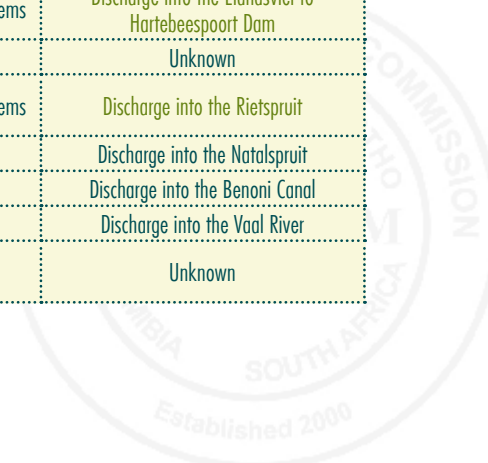


UPPER VAAL WMA

Name of waste water treatment works	Position		Peak rated design flow capacity* (ML/day)	Treatment process description	Effluent disposal process
	Longitude	Latitude			
Ancor WCW	26°15'58"	28°28'57"	13.50	Biofilters and activated sludge	Discharge into the Blesbokspruit
Benoni WCW	26°12'37"	28°18'53"	18	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	26°26'40"	28°26'52"	3.59	Biofilters and activated sludge	Discharge into the Blesbokspruit
Blyvooruitzicht Gold Mines WCW	26°23'15"	27°23'25"	Unknown	Unknown	Discharge into the Wonderfonteinspruit
Bushkoppies	26°18'35"	27°56'10"	200	Activated sludge	Discharge into the Harringtonspruit
Carletonville (Oberholzer)	26°09'50"	27°21'30"	8	Biological filtration system (activated sludge and oxidation dam)	Discharge into the Wonderfonteinspruit
Daveyton WCW	26°08'14"	28°27'47"	16	Conventional	Discharge into the Blesbokspruit
Deelkraal Mine	26°28'20"	27°18'00"	Unknown	Unknown	Discharge into the Loopspruit
Dekema	26°19'35"	28°10'00"	36	Biofilters and activated sludge	Discharge into the Natalspruit
Doomfontein Gold Mine WCW	26°24'35"	27°19'50"	Unknown	Unknown	Discharge into the Wonderfonteinspruit
Elandsrand	26°27'45"	27°21'45"	Unknown	Unknown	Discharge into the Varkenslaagtespruit
Ennerdale WCW (Jhb Water)	Unknown	Unknown	8	Activated sludge	Unknown
Ermelo STW	26°30'	29°59'	Unknown	Activated sludge, biosystems and air blowing system	Discharge into the Klein Drinkwaterspruit
Flip Human	26°10'51"	27°46'14"	50	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	26°16'25"	27°55'30"	150	Activated sludge	Discharge into the Harringtonspruit
Grundlingh WCW	26°23'66"	28°28'14"	2.71	Biofilters and activated sludge	Discharge into Nigel Dam
Hannes van Niekerk	Unknown	Unknown	26.5	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

UPPER VAAL WMA

Name of waste water treatment works	Position		Peak rated design flow capacity* (Mℓ/day)	Treatment process description	Effluent disposal process
	Longitude	Latitude			
Heidelberg WCW	26°32'23"	28°19'44"	8	Biofilters	Discharge into the Blesbokspruit
Impumelelo WCW in Lesedi Local Municipality (Heidelberg)	Unknown	Unknown	12	Unknown	Unknown
Jan Smuts WCW	26°13'18"	28°22'27"	9	Biofilters and activated sludge	Discharge into Jan Smuts Dam
JP Marais WCW	26°10'08"	28°23'42"	21	Biofilters and activated sludge	Discharge into the Benoni Canal
Kokosi WCW (new) services Kokosi, Fochville and Greenspark areas	Unknown	Unknown	7.5	Activated sludge	Discharge into the Loopspruit
Khutsong	26°21'11"	27°18'32"	7.5	Activated sludge	Discharge into the Wonderfonteinspruit
Klerksdorp	26°53'80"	26°37'10"	21.9	Activated sludge	Discharge into the Schoonspruit
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	Unknown	Discharge into the Loopspruit
Leeuwkuil	Unknown	Unknown	41	Activated sludge and biofiltration systems	Discharge into the Vaal River
McComb WCW	26°12'49"	28°27'53"	9	Activated sludge	Discharge into the Benoni Canal
Meyerton	26°34'30"	28°58'30"	Unknown	Unknown	Discharge into the Fouriespruit
Olifantsvlei (construction of an additional 50 Mℓ/d has begun. To be completed by 2015)	26°19'05"	27°53'55"	200, currently being upgraded	Activated sludge	Discharge into the Klip River
Palmiefontein	Unknown	Unknown	Unknown	Unknown	Unknown
Parys STW	Unknown	Unknown	Unknown	Biological filters	Unknown
Potchefstroom	26°44'50"	27°05'40"	23.75	Biological filtration and activated sludge	Discharge into the Wonderfonteinspruit
Randfontein	Unknown	Unknown	20	Activated sludge and biofiltration systems	Discharge into the Elandsvlei to Hartebeespoort Dam
Ratanda WCW	26°09'34"	28°28'36"	5	Unknown	Unknown
Rietspruit WCW (in Vanderbijlpark for Emfuleni Municipality)	Unknown	Unknown	36	Activated sludge and biofiltration systems	Discharge into the Rietspruit
Rondebult	26°17'45"	28°13'20"	36	Activated sludge	Discharge into the Natalspruit
Rynfield WCW	26°09'34"	28°28'36"	13	Activated sludge	Discharge into the Benoni Canal
Standerton STW	26°57'27"	29°13'56"	Unknown	None	Discharge into the Vaal River
Sebokeng WCW (Emfuleni Local Municipality)	Unknown	Unknown	100	Activated sludge	Unknown



UPPER VAAL WMA

Name of waste water treatment works	Position		Peak rated design flow capacity* (Mℓ/day)	Treatment process description	Effluent disposal process
	Longitude	Latitude			
Standerton (Sakhile)	26°57'27"	29°13'56"	Unknown	None	Discharge into the Vaal River
Tsakane WCW	26°22'35"	28°21'58"	7.72	Biofilters and activated sludge	Discharge into the Kaydalespruit
Vlakplaats	26°21'15"	28°11'00"	83	Activated sludge	Discharge into the Natalspruit
Waterval	26°26'30"	28°05'45"	105	Activated sludge	Discharge into the Klip River
Wedela	26°29'13"	27°22'30"	2	Activated sludge	Discharge into the Loopspruit
Welgedacht	Unknown	Unknown	77 increasing to 177 in the near future	Unknown	Discharge into the Blesbokspruit
Welverdiend	26°22'17"	27°15'21"	1	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	26°27'00"	27°25'30"	Unknown	Unknown	Re-use

WCW: Water care works

STW: Sewage treatment works

Source: SSI Engineers and Environmental Consultants, 2002. *Upper Vaal Water Management Area, Water Resources Situation Assessment* Volume 3 using the Water Affairs document *1st Order Strategy to Develop Community Water Supply and Sanitation*. Updated (in green) using the *Infrastructure Masterplan for West Rand* (Aganang Consulting 2008) and *Green Drop Report* (South African Department of Water Affairs) and confirmed by municipal officials.

