

Figure 2: Flow measurement stations

Table 14: In-stream water quality data for Kromdraaispruit

		pH	EC	TDS	PAcid	MALK	Ca	Mg	Na	K	SO4	Cl	F	Fe	Mn	Al	N	TEMP	SUS	
	Units		mS/m	mg/L		mg CaCO3/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L N	°C	mg/L	
WP32	5th Percentile	3.16	2.00	61.20	2.57	1.59	12.24	0.12	3.52	0.48	14.00	1.00		0.10	0.13	0.10		2.70	2.00	
	50th Percentile	4.17	118.40	1674.00	47.00	22.00	384.52	25.93	27.21	2.99	197.00	4.00		0.30	5.30	2.44		21.18	27.00	
	95th Percentile	9.13	276.85	2976.80	220.60	430.55	700.89	52.07	72.10	6.00	1565.00	39.77		1.79	21.69	18.40		25.38	273.60	
WP53	5th Percentile	2.69	2.70	64.00	2.00	1.50	12.63	1.38	1.89	0.76	27.00	2.00	0.40	0.10	0.10	0.10				
	50th Percentile	6.21	76.60	545.00	12.00	30.29	129.49	7.73	14.63	2.06	366.50	4.00	0.40	0.21	0.43	0.44				
	95th Percentile	7.40	169.60	1731.00	234.69	72.50	452.92	17.61	34.79	4.43	888.15	37.21	0.40	7.18	2.17	22.43				
WP54	5th Percentile	2.17	12.97	83.65	11.80	1.90	23.78	1.57	2.65	0.92	64.65	1.10	3.60	7.79	0.61	2.94	125.10			
	50th Percentile	2.70	148.65	1014.50	449.00	61.00	37.29	6.42	16.19	1.26	629.50	6.00	258.14	39.20	2.50	46.21	252.00			
	95th Percentile	3.46	320.93	4190.95	4280.28	545.40	562.93	61.49	47.94	5.54	1982.95	75.10	1483.08	213.40	13.01	146.23	473.40			
WP55	5th Percentile	3.83	15.00	110.00	4.00	1.00	39.08	2.24	2.66	1.48	18.90	2.00	0.81	0.10	0.10	0.10				
	50th Percentile	6.68	182.60	2223.50	26.00	24.00	542.80	35.16	29.41	3.60	361.00	4.38	0.81	0.36	3.83	0.55				
	95th Percentile	9.25	338.41	3814.75	414.68	87.04	784.97	79.12	75.28	6.45	2100.90	36.60	0.81	79.84	35.80	10.97				
Interim RWQO's		6.5 – 8.4	70	450			80	20	20	50	120	20	0.5	1	0.18	0.02	6			

Note: Shaded areas highlight parameters which exceed the Interim RWQOs for the catchment.

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Table 15: In-stream water quality data for the Klipspruit/Brugspruit

		pH	EC	TDS	PAcid	MALK	Ca	Mg	Na	K	SO4	Cl	F	Fe	Mn	Al	N	TEMP	SUS
	Units		mS/m	mg/L		mg CaCO3/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L N	°C	mg/L
WP25	5th Percentile	2.50	10.95	42.65	2.50	6.11	13.18	6.73	5.46	1.48	16.10	1.00	0.34	0.10	0.10	0.10		2.51	10.40
	50th Percentile	4.26	146.80	1212.00	36.50	85.00	165.20	54.48	46.74	4.58	370.00	14.00	0.34	0.67	4.28	0.55		22.10	198.00
	95th Percentile	7.60	349.94	3457.85	558.50	268.46	528.97	149.56	82.43	9.18	2241.29	25.58	0.34	41.07	17.40	15.55		25.24	994.20
WP26	5th Percentile	2.50	6.70	224.85	2.44	2.00	46.97	6.73	3.62	2.08	18.00	1.00	1.33	0.10	0.51	0.10		3.38	3.75
	50th Percentile	4.36	256.52	2406.00	67.97	17.10	503.49	68.19	33.35	3.54	534.10	6.92	1.33	0.60	7.88	2.89		22.20	82.50
	95th Percentile	7.80	376.00	4000.25	732.25	427.15	792.43	118.94	55.12	6.81	2757.35	72.90	1.33	62.35	16.72	57.81		25.09	992.00
WP27	5th Percentile	2.30	6.65	268.15	2.00	3.00	63.19	0.57	3.80	2.61	23.30	2.00	1.30	0.10	0.10	0.10		2.77	10.80
	50th Percentile	4.25	276.15	3330.50	92.00	28.25	617.93	59.60	32.40	4.21	344.50	6.84	1.30	0.77	9.42	2.36		22.26	212.00
	95th Percentile	8.97	412.35	4428.25	892.00	428.53	945.64	135.11	56.91	7.27	2955.05	84.00	1.30	42.09	17.72	83.24		25.12	1188.80
WP31	5th Percentile	2.56	1.00	42.00	4.36	3.92	3.92	1.54	1.70	0.69	11.70	1.00	0.31	0.10	0.22	0.48		2.46	1.00
	50th Percentile	3.19	75.45	679.00	218.13	18.00	28.68	6.57	12.18	1.66	247.00	4.00	0.31	21.27	0.99	41.59		21.45	18.00
	95th Percentile	6.47	259.22	2494.00	888.40	459.20	129.61	59.74	30.87	4.39	828.00	58.00	0.31	162.74	46.21	125.95		25.79	96.75
WP59	5th Percentile	3.20	6.57	77.10	2.00	1.74	7.75	2.71	7.06	1.36	36.33	5.00	0.45	0.10	0.12	0.10			
	50th Percentile	3.98	118.85	674.50	27.00	13.76	68.41	25.10	68.23	6.29	445.82	36.21	0.45	0.23	1.60	0.77			
	95th Percentile	6.40	187.25	1243.00	152.00	163.60	98.39	38.32	159.20	11.50	872.00	87.93	0.45	1.90	5.37	15.11			
WP66	5th Percentile	4.72	2.00	148.60	1.00	4.15					8.90			0.10	0.10	0.10			
	50th Percentile	6.30	31.50	148.60	6.00	47.00					89.00			0.66	0.21	0.29			
	95th Percentile	7.54	56.25	148.60	18.40	74.00					178.70			14.26	1.27	0.70			
WP80	5th Percentile	2.75	18.33	118.50	6.30	4.50	11.00	6.53	4.64	1.43	15.00	2.53	0.32	1.06	1.98	2.73			
	50th Percentile	3.22	181.77	1578.00	251.09	148.00	91.55	52.18	59.67	6.15	253.00	43.39	7.44	6.22	23.89	25.36			
	95th Percentile	4.25	276.19	2460.40	745.55	629.00	245.37	79.66	280.96	12.30	1487.55	237.57	58.94	33.29	72.40	83.48			
Interim RWQO's		6 - 9	100	680					150		250	100	1	0.3	0.2	0.1			

Note: Shaded areas highlight parameters which exceed the Interim RWQOs for the catchment.

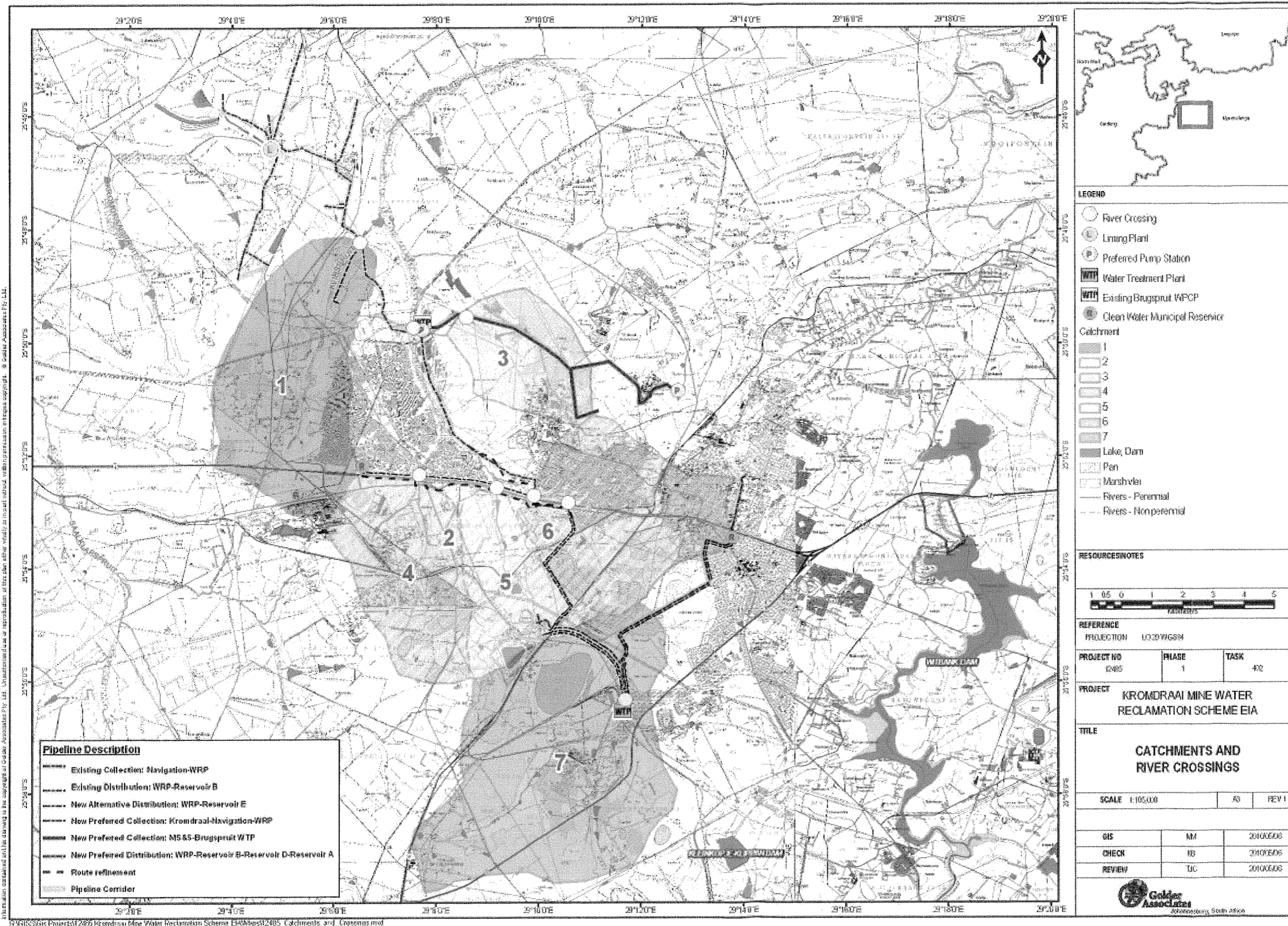
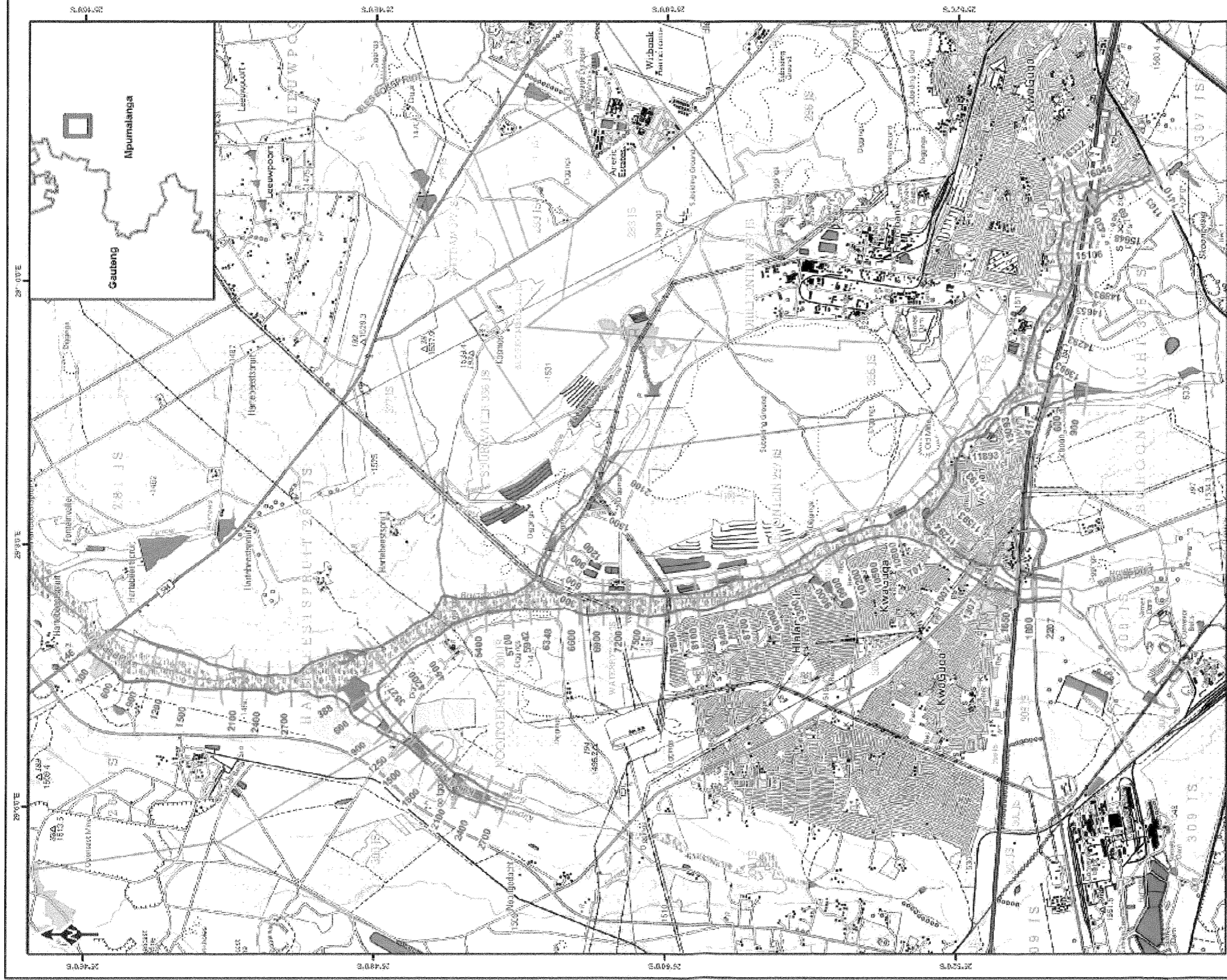


Figure 5: eMalahleni Mine Water Reclamation Project showing the pipeline route, pipeline / river crossings and their associated catchments

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LEGEND

- 50 year floodline
- 100 year floodline
- Contours
- Lake, Dam
- Fan
- Marsh wet
- Rivers - Perennial
- Rivers - Non perennial

RESOURCE NOTES



REFERENCE  
PROJECT ON 10/20/2008

PROJECT  
KROMDRAAMINE WATER  
RECLAMATION SCHEME EIA

TITLE  
BRUGSPRUIT  
FLOODLINES

**Golder Associates**  
Joburg, Cape Town, Durban

PROJECT No. 12485-9459-5 SCALE 1:40,000 1:25,000  
 DRAWN BY: J.S. DATE: 12/20/2008  
 CHECKED BY: J.S. DATE: 12/20/2008  
 REVIEWED BY: J.S. DATE: 12/20/2008

**FIGURE: B1**

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