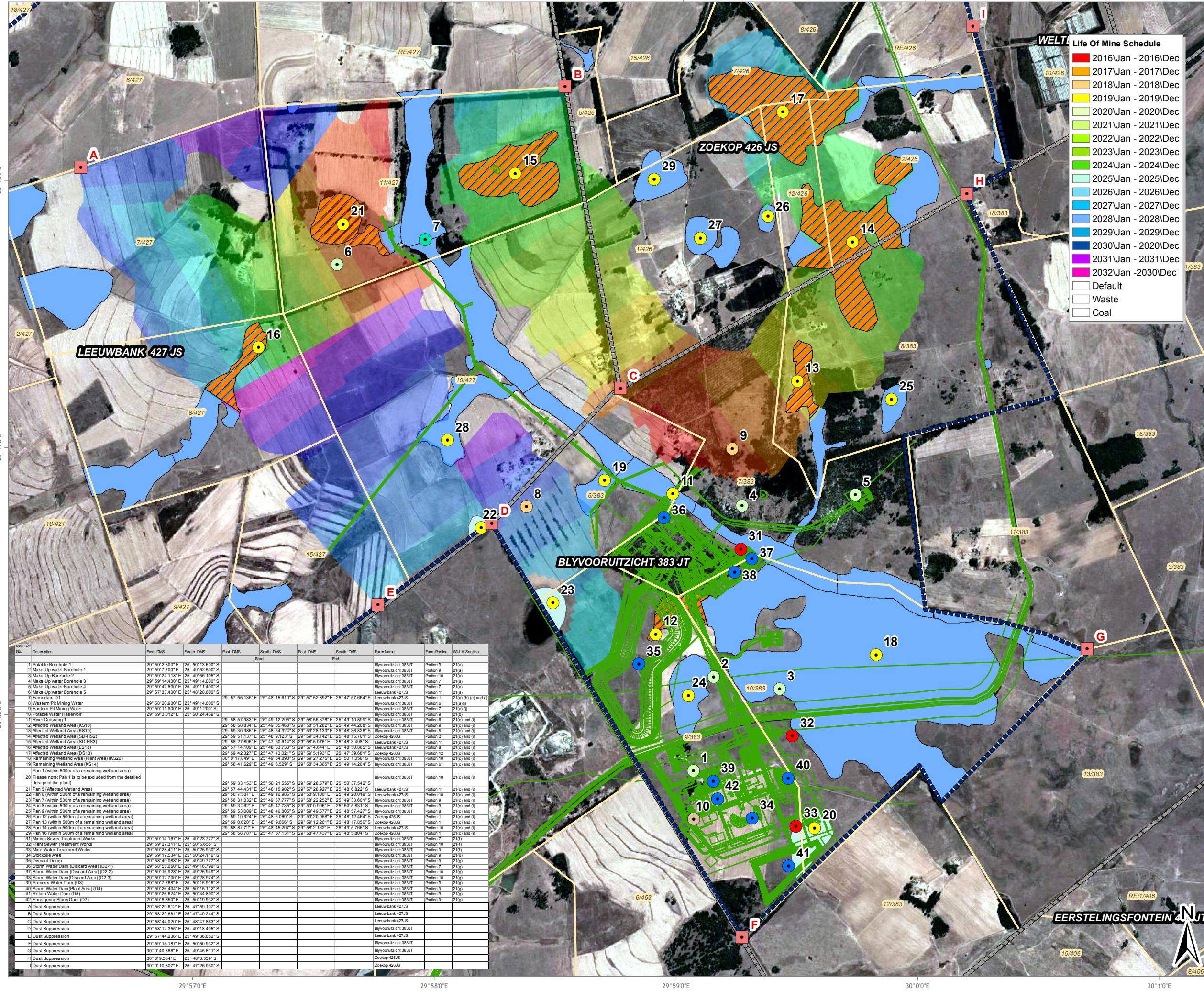


NBC BELFAST PROJECT: OPEN CAST PITS WATER USE LICENSE APPLICATION SUMMARY



LEGEND

- Dust Suppression Points

WULA Section

- 21(a)
- 21(a)/ (b)/ (c) and (i)
- 21(a) / (j)
- 21(b)
- 21(c) and (i)
- 21(e)
- 21(f)
- 21(g)

- Mineral Rights Area
- Infrastructure
- Parent Farms
- Farm Portions
- Affected Wetlands Areas
- Remaining Wetlands Area

Data Sources: Google Earth™ mapping service: 2014
 Imagery Date: 10-04-2013 Infrastructure and Wetlands from Client
 WULA points from Environmental Scientists (T. Hendry)

0 0.25 0.5 1 Kilometers

SCALE: 1:25 000

FIGURE NO.:	MAP NUMBER: 13-266-03
DRAWN BY: NK NDALA GIS TECHNICIAN	REVIEWED BY: T. HENDRY ENV SCIENTIST
DATUM: WGS84 PROJECTION: GEOGRAPHIC	DATE: 11 FEBRUARY 2014
PROJECT: NBC BELFAST PROJECT CLIENT: EXXARO RESOURCES LIMITED	

GCS
Water & Environmental
Consultants

63 Wessel Road Woodmead
PO Box 2597 Rivonia 2128
South Africa
Tel: +27 (0) 11 803 5726
Fax: +27 (0) 11 803 5745
E-mail: jhb@gcs-sa.biz
www.gcs-sa.biz

Map Ref No.	Description	East_DMS	South_DMS	East_DMS	South_DMS	East_DMS	South_DMS	Farm Name	Farm Portion	WULA Section
1	Potable Borehole 1	29° 59' 2.800" E	25° 50' 13.600" S					Blyvooruitzicht 383JT	Portion 9	21(a)
2	Make-Up water Borehole 1	29° 59' 7.700" E	25° 49' 52.500" S					Blyvooruitzicht 383JT	Portion 9	21(a)
3	Make-Up water Borehole 2	29° 59' 14.118" E	25° 49' 55.100" S					Blyvooruitzicht 383JT	Portion 10	21(a)
4	Make-Up water Borehole 3	29° 59' 14.400" E	25° 49' 14.000" S					Blyvooruitzicht 383JT	Portion 7	21(a)
5	Make-Up water Borehole 4	29° 59' 42.500" E	25° 49' 11.400" S					Blyvooruitzicht 383JT	Portion 7	21(a)
6	Make-Up water Borehole 5	29° 57' 33.400" E	25° 48' 20.800" S					Leeuw bank 427,5	Portion 11	21(a)
7	Farm dam D1	29° 58' 20.900" E	25° 49' 14.600" S					Blyvooruitzicht 383JT	Portion 6	21(a)(g) and (i)
8	Western Pit Mining Water	29° 59' 11.000" E	25° 49' 11.200" S					Blyvooruitzicht 383JT	Portion 7	21(a)(g)
9	Potable Water Reservoir	29° 59' 3.012" E	25° 50' 24.469" S					Blyvooruitzicht 383JT	Portion 9	21(b)
10	River Crossing 1	29° 58' 57.983" E	25° 49' 12.289" S	29° 58' 56.376" E	25° 49' 10.899" S			Blyvooruitzicht 383JT	Portion 6	21(c) and (i)
12	Affected Wetland Area (KS16)	29° 58' 58.834" E	25° 48' 35.468" S	29° 58' 51.282" E	25° 49' 44.268" S			Blyvooruitzicht 383JT	Portion 9	21(c) and (i)
13	Affected Wetland Area (KS19)	29° 59' 30.989" E	25° 48' 38.324" S	29° 58' 26.133" E	25° 48' 30.529" S			Blyvooruitzicht 383JT	Portion 9	21(c) and (i)
14	Affected Wetland Area (SD-HS2)	29° 59' 51.137" E	25° 48' 9.123" S	29° 59' 34.142" E	25° 48' 15.701" S			Zoekop 426,5	Portion 2	21(c) and (i)
15	Affected Wetland Area (SD-HS3)	29° 58' 27.998" E	25° 47' 30.614" S	29° 58' 51.076" E	25° 48' 3.988" S			Leeuw bank 427,5	Portion 11	21(c) and (i)
16	Affected Wetland Area (DS13)	29° 57' 14.109" E	25° 48' 33.733" S	29° 57' 4.644" E	25° 48' 50.895" S			Leeuw bank 427,5	Portion 8	21(c) and (i)
17	Affected Wetland Area (DS13)	29° 59' 42.327" E	25° 47' 43.021" S	29° 59' 5.193" E	25° 47' 39.881" S			Zoekop 426,5	Portion 12	21(c) and (i)
18	Affected Wetland Area (Plant Area) (KS20)	30° 0' 17.849" E	25° 49' 54.880" S	29° 59' 27.278" E	25° 50' 1.058" S			Blyvooruitzicht 383JT	Portion 10	21(c) and (i)
19	Remaining Wetland Area (DS14)	29° 58' 41.829" E	25° 49' 6.329" S	29° 58' 34.369" E	25° 49' 14.204" S			Blyvooruitzicht 383JT	Portion 6	21(c) and (i)
Pan 1 (within 500m of a remaining wetland area)										
Please note: Pan 1 is to be excluded from the detailed design of the plant										
20	Pan 1 (Affected Wetland Area)	29° 59' 33.193" E	25° 50' 21.555" S	29° 59' 28.579" E	25° 50' 37.542" S			Blyvooruitzicht 383JT	Portion 10	21(c) and (i)
21	Pan 2 (Affected Wetland Area)	29° 59' 44.431" E	25° 48' 15.902" S	29° 59' 28.927" E	25° 48' 9.822" S			Leeuw bank 427,5	Portion 11	21(c) and (i)
22	Pan 3 (within 500m of a remaining wetland area)	29° 58' 7.507" E	25° 49' 16.989" S	29° 58' 9.700" E	25° 49' 20.019" S			Leeuw bank 427,5	Portion 10	21(c) and (i)
23	Pan 4 (within 500m of a remaining wetland area)	29° 58' 31.032" E	25° 49' 37.777" S	29° 58' 22.252" E	25° 49' 33.801" S			Blyvooruitzicht 383JT	Portion 9	21(c) and (i)
24	Pan 5 (within 500m of a remaining wetland area)	29° 59' 3.262" E	25° 49' 37.738" S	29° 59' 0.906" E	25° 50' 5.811" S			Blyvooruitzicht 383JT	Portion 9	21(c) and (i)
25	Pan 6 (within 500m of a remaining wetland area)	29° 59' 53.089" E	25° 48' 46.805" S	29° 59' 48.577" E	25° 48' 57.427" S			Blyvooruitzicht 383JT	Portion 8	21(c) and (i)
26	Pan 7 (within 500m of a remaining wetland area)	29° 59' 19.924" E	25° 48' 6.069" S	29° 59' 20.058" E	25° 48' 12.464" S			Zoekop 426,5	Portion 1	21(c) and (i)
27	Pan 8 (within 500m of a remaining wetland area)	29° 59' 0.620" E	25° 48' 6.069" S	29° 59' 12.201" E	25° 48' 17.856" S			Zoekop 426,5	Portion 9	21(c) and (i)
28	Pan 9 (within 500m of a remaining wetland area)	29° 58' 8.072" E	25° 48' 45.201" S	29° 58' 2.162" E	25° 49' 5.766" S			Leeuw bank 427,5	Portion 10	21(c) and (i)
29	Pan 10 (within 500m of a remaining wetland area)	29° 58' 58.787" E	25° 47' 57.131" S	29° 58' 47.437" E	25° 48' 5.804" S			Zoekop 426,5	Portion 1	21(c) and (i)
31 Mining Sewer Treatment Works										
32	Plant Sewer Treatment Works	29° 59' 27.311" E	25° 50' 5.555" S					Blyvooruitzicht 383JT	Portion 10	21(f)
33	Mine Water Treatment Works	29° 59' 28.411" E	25° 50' 25.930" S					Blyvooruitzicht 383JT	Portion 9	21(f)
34	Sludge Area	29° 59' 17.234" E	25° 50' 24.110" S					Blyvooruitzicht 383JT	Portion 9	21(f)
35	Discard Dump	29° 58' 49.988" E	25° 49' 49.777" S					Blyvooruitzicht 383JT	Portion 9	21(g)
36	Storm Water Dam (Discard Area) (D2-1)	29° 58' 55.050" E	25° 49' 16.799" S					Blyvooruitzicht 383JT	Portion 7	21(g)
37	Storm Water Dam (Discard Area) (D2-2)	29° 58' 18.808" E	25° 49' 15.449" S					Blyvooruitzicht 383JT	Portion 10	21(g)
38	Storm Water Dam (Discard Area) (D2-3)	29° 59' 12.700" E	25° 49' 28.974" S					Blyvooruitzicht 383JT	Portion 10	21(g)
39	Process Water Dam (D3)	29° 59' 7.768" E	25° 50' 15.916" S					Blyvooruitzicht 383JT	Portion 9	21(g)
40	Storm Water Dam (Plant Area) (D4)	29° 59' 26.404" E	25° 50' 15.112" S					Blyvooruitzicht 383JT	Portion 9	21(g)
41	Return Water Dam (D5)	29° 59' 26.624" E	25° 50' 34.860" S					Blyvooruitzicht 383JT	Portion 9	21(g)
42	Emergency Slurry Dam (D7)	29° 59' 8.850" E	25° 50' 19.932" S					Blyvooruitzicht 383JT	Portion 9	21(g)
A	Dust Suppression	29° 58' 29.612" E	25° 47' 59.107" S					Leeuw bank 427,5		
B	Dust Suppression	29° 58' 29.681" E	25° 47' 40.244" S					Leeuw bank 427,5		
C	Dust Suppression	29° 58' 44.020" E	25° 49' 47.867" S					Leeuw bank 427,5		
D	Dust Suppression	29° 58' 12.365" E	25° 49' 16.469" S					Blyvooruitzicht 383JT		
E	Dust Suppression	29° 57' 44.236" E	25° 49' 36.852" S					Leeuw bank 427,5		
F	Dust Suppression	29° 59' 15.187" E	25° 50' 50.932" S					Blyvooruitzicht 383JT		
G	Dust Suppression	30° 0' 40.360" E	25° 49' 45.611" S					Blyvooruitzicht 383JT		
H	Dust Suppression	30° 0' 9.684" E	25° 48' 3.639" S					Zoekop 426,5		
I	Dust Suppression	30° 0' 10.807" E	25° 47' 26.030" S					Zoekop 426,5		

Schematic Water Distribution Network (Maximum m³/day)

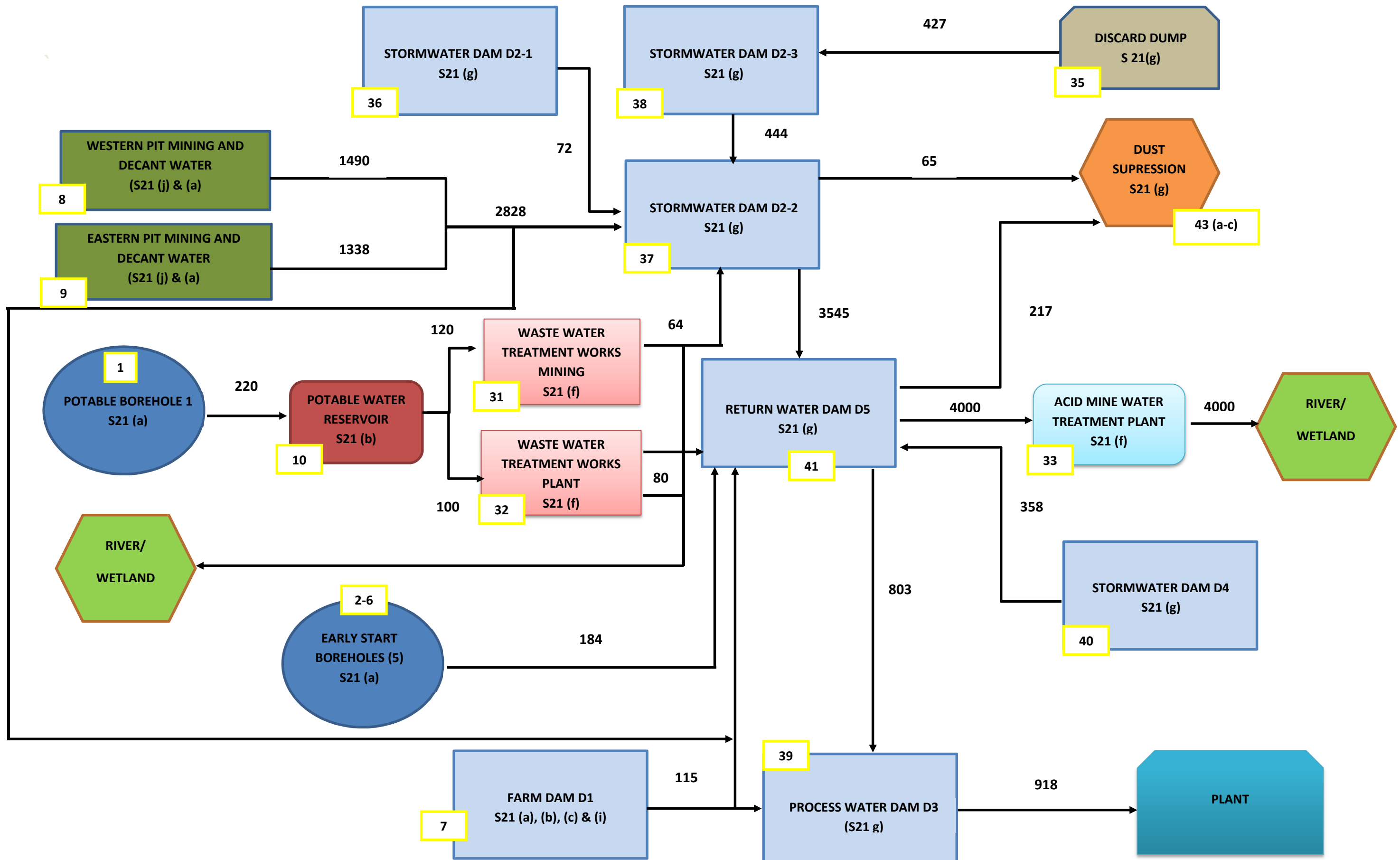


Table 1: Summary of Water Uses

Section 21(a)				
Map Ref No.	Water Use Description	Volume to be abstracted (m ³ /day)	Co-ordinate	Farm portion
1	Potable Borehole 1	70	25° 50' 13.6" S 29° 59' 2.8" E	Blyvooruitzicht 383 Portion 9
2	Make-Up water Borehole 1	70	25° 49' 52.5" S 29° 59' 7.7" E	Blyvooruitzicht 383 Portion 9
3	Make-Up water Borehole 2	70	25° 49' 55.1" S 29° 59' 24.1" E	Blyvooruitzicht 383 Portion 10
4	Make-Up water Borehole 3	70	25° 49' 14.0" S 29° 59' 14.4" E	Blyvooruitzicht 383 Portion 7
5	Make-Up water Borehole 4	70	25° 49' 11.4" S 29° 59' 42.5" E	Blyvooruitzicht 383 Portion 7
6	Make-Up water Borehole 5	70	25° 48' 20.6" S 29° 57' 33.4" E	Leeuwbank 427 Portion 11
7	Abstraction from the Farm Dam D1	115	25° 48' 15.6" S 29° 57' 55.1" E	Leeuwbank 427 Portion 11
8	Western Pit Mining Water	1490	25° 49' 14.6" S 29° 58' 20.9" E	Blyvooruitzicht 383 Portion 6
9	Eastern Pit Mining Water	1338	25° 49' 1.2" S 29° 59' 11.9" E	Blyvooruitzicht 383 Portion 7

Section 21(b)					
Map Ref No.	Water Use Description	Storage Capacity (m ³)	Volume used (m ³ /day)	Co-ordinate	Farm portion
7	Farm Dam D1	138 200	115	25° 48' 15.6" S 29° 57' 55.1" E	Leeuwbank 427 Portion 11
10	Potable Water Reservoir	2000	N/A	25° 50' 24.4" S 29° 59' 3.0" E	Blyvooruitzicht 383 Portion 9

Section 21(c) and (i)			
Map Ref No.	Water Use Description	Co-ordinate	Farm Portion
7	Rehabilitation of Farm dam D1	Start 25° 48' 15.6" S 29° 57' 55.1" E End 25° 47' 57.6" S 29° 57' 52.8" E	Leeuwbank 427 Portion 11
11	River Crossing 1	Start 25° 49' 12.295" S 29° 58' 57.983" E End 25° 49' 10.899" S 29° 58' 56.376" E	Blyvooruitzicht 383 Portion 6
12	Affected Wetland Area 1 (KS16)	Start 25° 49' 35.468" S 29° 58' 58.834" E End 25° 49' 44.268" S 29° 58' 51.282" E	Blyvooruitzicht 383 Portion 9
13	Affected Wetland Area 2 (KS19)	Start 25° 48' 54.324" S 29° 59' 30.986" E End 25° 48' 36.826" S 29° 59' 28.133" E	Blyvooruitzicht 383 Portion 8
14	Affected Wetland Area 3 (SD-HS2)	Start 25° 48' 9.123" S 29° 59' 51.137" E End 25° 48' 15.701" S 29° 59' 34.142" E	Zoekop 426 Portion 2

Section 21(c) and (i)			
Map Ref No.	Water Use Description	Co-ordinate	Farm Portion
15	Affected Wetland Area 4 (SD-HS3)	Start 25° 47' 50.614" S 29° 58' 27.896" E End 25° 48' 3.498" S 29° 58' 5.076" E	Leeuwbank 427 Portion 11
16	Affected Wetland Area 5 (LS13)	Start 25° 48' 33.733" S 29° 57' 14.109" E End 25° 48' 50.865" S 29° 57' 4.644" E	Leeuwbank 427 Portion 8
17	Affected Wetland Area 6 (DS13)	Start 25° 47' 43.021" S 29° 59' 42.327" E End 25° 47' 39.681" S 29° 59' 5.193" E	Zoekop 426 Portion 12
18	Remaining Wetland Area 1 (Plant Area) (KS20)	Start 25° 49' 54.890" S 30° 0' 17.849" E End 25° 50' 1.058" S 29° 59' 27.275" E	Blyvooruitzicht 383 Portion 10
19	Remaining Wetland Area 2 (KS14)	Start 25° 49' 6.529" S 29° 58' 41.629" E End 25° 49' 14.204" S 29° 58' 34.365" E	Blyvooruitzicht 383 Portion 6
20		Start 25° 50' 21.555" S 29° 59' 33.153" E	Blyvooruitzicht 383 Portion 10

Section 21(c) and (i)			
Map Ref No.	Water Use Description	Co-ordinate	Farm Portion
	Pan 1 (within 500m of a remaining wetland area) Please note: Pan 1 is to be excluded from the detailed design of the plant)	End 25° 50' 37.542" S 29° 59' 28.579" E	
21	Pan 5 (Affected Wetland Area)	Start 25° 48' 15.902" S 29° 57' 44.431" E End 25° 48' 6.822" S 29° 57' 28.927" E	Leeuwbank 427 Portion 11
22	Pan 6 (within 500m of a remaining wetland area)	Start 25° 49' 16.986" S 29° 58' 7.507" E End 25° 49' 20.019" S 29° 58' 9.100" E	Leeuwbank 427 Portion 10
23	Pan 7 (within 500m of a remaining wetland area)	Start 25° 49' 37.777" S 29° 58' 31.032" E End 25° 49' 33.601" S 29° 58' 22.252" E	Blyvooruitzicht 383 Portion 9
24	Pan 8 (within 500m of a remaining wetland area)	Start 25° 49' 47.735" S 29° 59' 3.262" E End 25° 50' 5.831" S 29° 59' 0.906" E	Blyvooruitzicht 383 portion 9
25	Pan 9 (within 500m of a remaining wetland area)	Start 25° 48' 46.805" S 29° 59' 53.089" E End 25° 48' 57.427" S 29° 59' 49.577" E	Blyvooruitzicht 383 Portion 8

Section 21(c) and (i)			
Map Ref No.	Water Use Description	Co-ordinate	Farm Portion
26	Pan 12 (within 500m of a remaining wetland area)	Start 25° 48' 6.069" S 29° 59' 19.924" E End 25° 48' 12.464" S 29° 59' 20.058" E	Zoekop 426 Portion 1
27	Pan 13 (within 500m of a remaining wetland area)	Start 25° 48' 9.666" S 29° 59' 0.620" E End 25° 48' 17.856" S 29° 59' 12.201" E	Zoekop 426 Portion 1
28	Pan 14 (within 500m of a remaining wetland area)	Start 25° 48' 45.207" S 29° 58' 8.072" E End 25° 49' 5.766" S 29° 58' 2.162" E	Leeuwbank 427 Portion 10
29	Pan 16 (within 500m of a remaining wetland area)	Start 25° 47' 57.131" S 29° 58' 58.787" E End 25° 48' 5.804" S 29° 58' 47.437" E	Zoekop 426 Portion 1

*Section 21(e)				
Map Ref No.	Water Use Description	Disposal Quantity	Co-ordinate	Farm portion
30	Irrigation of mine gardens (Office Area)	144 m ³ /day (64 + 80)	25° 50' 6.011" S 29° 59' 18.172" E	Blyvooruitzicht 383 Portion 9

*Water Use 30 (Section 21 (e) for irrigation of the mine gardens has been removed from the applied water uses as per ICMA's recommendations (Refer to Minutes dated 27 February 2014 attached).

Section 21(f)				
Map Ref No.	Water Use Description	Disposal Quantity	Co-ordinate	Property description
31	Sewerage Water Treatment Works (Mining Area)	80 m ³ /day (29 200 m ³ /annum)	25° 49' 23.777" S 29° 59' 14.167" E	Blyvooruitzicht 383 Portion 7
32	Sewerage Water Treatment Works (Plant Area)	64 m ³ /day (23 360 m ³ /annum)	25° 50' 5.655" S 29° 59' 27.311" E	Blyvooruitzicht 383 Portion 10
33	Acid Mine Water Treatment Works	4000 m ³ /day (1 460 000 m ³ /annum)	25° 50' 25.930" S 29° 59' 28.411" E	Blyvooruitzicht 383 Portion 9

Section 21(g)					
Map Ref No.	Water Use Description	Capacity (m ³)	Volume Disposed	Co-ordinates	Farm portion
34	Stockpile Area	3 Mil Tons (m ³ /annum)	3 Mil Tons (m ³ /annum)	25° 50' 24.1" S 29° 59' 17.5" E	Blyvooruitzicht 383 Portion 9
35	Discard Dump	N/A	360 kt/annum	25° 49' 49.7" S 29° 58' 49.0" E	Blyvooruitzicht 383 Portion 9
36	Storm Water Dam (Stockpile Area) (D2-1)	7 000m ³	Max:72 m ³ /day Average:57 m ³ /day	25° 49' 16.7" S 29° 58' 55.0" E	Blyvooruitzicht 383 Portion 7
37	Storm Water Dam (Discard Area) (D2-2)	19 000m ³	Max: 3545 m ³ /day Average: 2460 m ³ /day	25° 49' 25.9" S 29° 59' 16.9" E	Blyvooruitzicht 383 Portion 10
38	Storm Water Dam (Discard Area) (D2-3)	42 000m ³	Max: 444 m ³ /day Average: 347 m ³ /day	25° 49' 28.9" S 29° 59' 12.7" E	Blyvooruitzicht 383 Portion 10
39	Process Water Dam (D3)	10 846m ³	Max: 918 m ³ /day Average: 918 m ³ /day	25° 50' 15.9" S 29° 59' 7.7" E	Blyvooruitzicht 383 Portion 9
40	Storm Water Dam (Plant Area) (D4)	31 200m ³	Max: 289 m ³ /day Average: 229 m ³ /day	25° 50' 15.1" S 29° 59' 26.4" E	Blyvooruitzicht 383 Portion 9
41	Return Water Dam (D5)	520 000m ³	Max: 5157 m ³ /day Average: 3200 m ³ /day	25° 50' 34.8" S 29° 59' 26.6" E	Blyvooruitzicht 383 Portion 9
42	Emergency Slurry Dam (D7)	4300 m ³	Discharge only in an emergency	25° 50' 19.9" S 29° 59' 8.8" E	Blyvooruitzicht 383 Portion 9
43 (a)	Dust Suppression	N/A	Max: 126 m ³ /day	Corner point D: 25° 49'18.4"S 29° 58'12.4"E Corner point H: 25° 48'03.5"S 30° 0'09.06"E Corner point G: 25° 49'45.6"S 30° 0'40.4"E	Blyvooruitzicht 383 Portion 6, 7, 8, 9 and 10

				Corner point F: 25° 50'50.9"S 29° 59'15.2"E	
43 (b)	Dust Suppression	N/A	Max: 126 m ³ /day	Corner point A: 25° 47'59.1"S 29° 56'29.6"E Corner point B: 25° 47'40.2"S 29° 58'29.7"E Corner point C: 25° 48'47.9"S 29° 58'44.0"E Corner point E: 25° 49'36.9"S 29° 57'44.2"E	Leeuwbank 427 Portion 7, 8, 10, 11 and 15
43 (c)	Dust Suppression	N/A	Max: 30 m ³ /day	Corner point B: 25° 47'40.2"S 29° 58'29.7"E Corner point C: 25° 48'47.9"S 29° 58'44.0"E Corner point H: 25° 48'03.5"S 30° 0'09.06"E Corner point I: 25° 47'26.0"S 30° 0'10.8"E	Zoekop 426 Portion 1, 2, 5, 7, 12 and Remaining

Section 21(j)				
Map Ref No.	Water Use Description	Abstraction Volume	Co-ordinates	Farm portion
8	Western Pit Mining Water	1490	25° 49' 14.6" S 29° 58' 20.9" E	Blyvooruitzicht 383 Portion 6
9	Eastern Pit Mining Water	1338	25° 49' 1.2" S 29° 59' 11.9" E	Blyvooruitzicht 383 Portion 7