

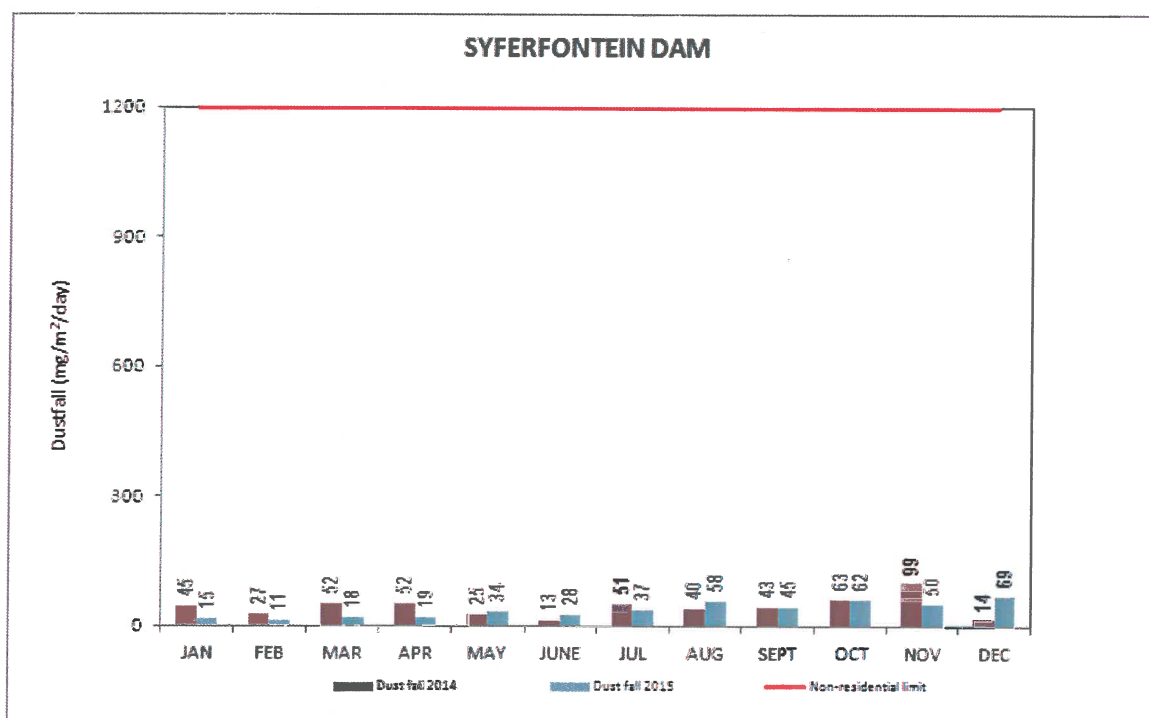
6.1.21 Site 21 – Syferfontein Dam

This site was commissioned in May 2012 and is classified as a Non-residential site.

During the monitoring period of January to December 2015, all the monitoring months recorded dust fallout below the NON-RESIDENTIAL threshold limit. The month of December 2015 recorded the highest dust fall rate at 69 mg/m²/day, while February 2015 recorded the lowest dust fallout at 11 mg/m²/day.

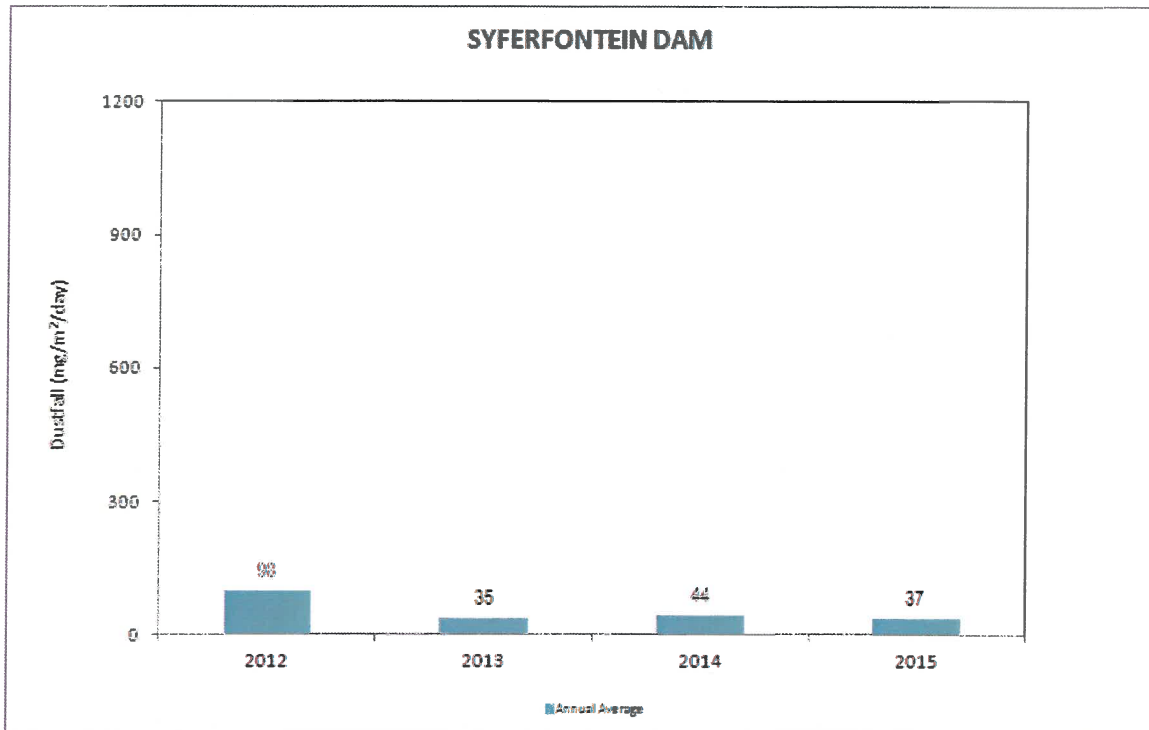
The results for 2014 are included to show the trend in dust fallout from the previous year. All the months experienced dust fallout equivalent to the 2014 results.

Figure 49: Dust fall rates recorded for Site 21 (Syferfontein Dam) for January to December 2015.



Annually averaged dust fallout from when monitoring began is shown below. The highest annually averaged dust fallout was recorded in 2012 at 98 mg/m²/day, while the lowest dust fall average was recorded in the year 2013 at 35 mg/m²/day.

Figure 50: Annually averaged dust fallout at Site 21 (Syferfontein Dam) from 2012 to 2015



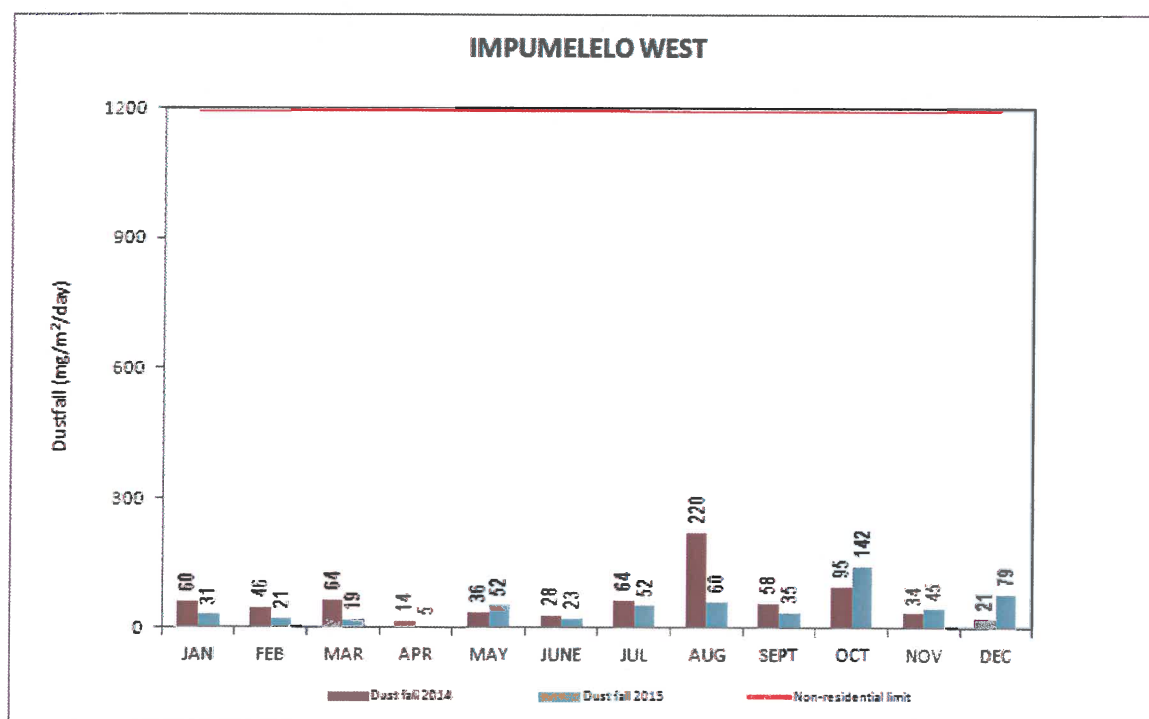
6.1.22 Site 22 – Impumelelo West

This site was commissioned in April 2012 and is classified as a Non-residential site.

During the monitoring period of January to December 2015, all the monitoring months recorded dust fallout below the NON-RESIDENTIAL threshold limit. The month of October 2015 recorded the highest dust fallout at 142 mg/m²/day. April 2015 recorded the lowest dust fall rate at 5 mg/m²/day.

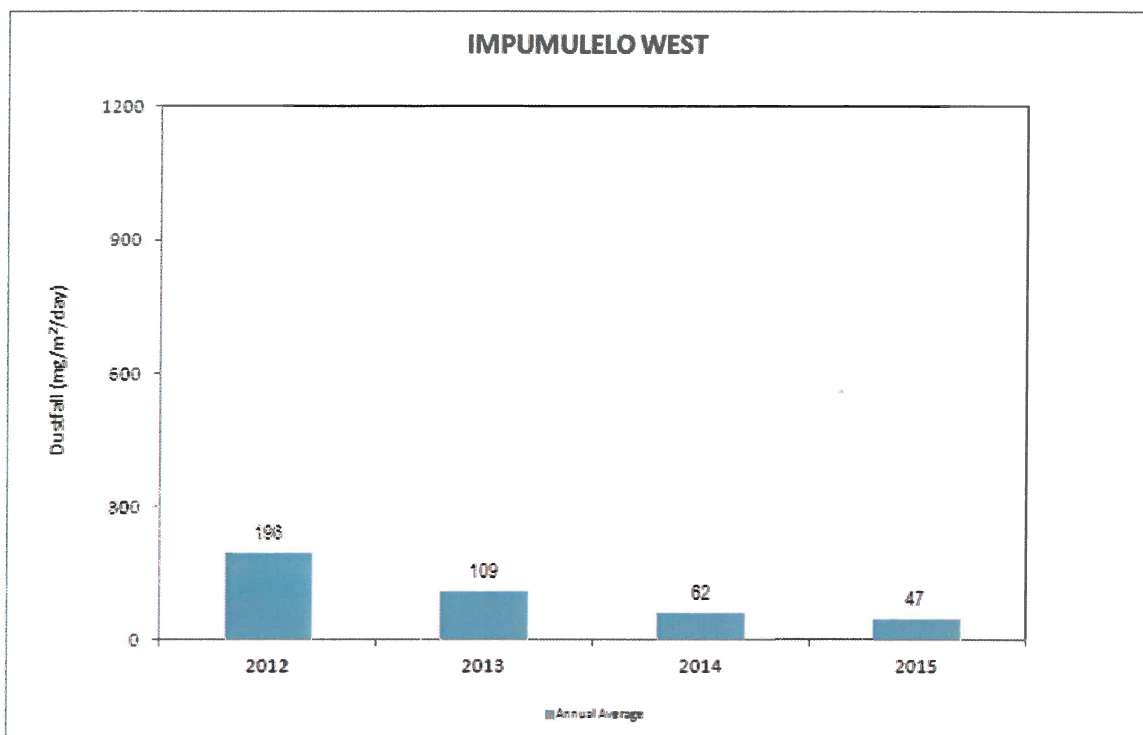
The results for 2014 are included to show the trend in dust fallout from the previous year. All the 2015 months experienced dust fallout equivalent to the 2014 results.

Figure 51: Dust fall rates recorded for Site 22 (Impumelelo West) for January to December 2015.



Annually averaged dust fallout from when monitoring began is shown below. The highest annually averaged dust fallout was recorded in 2012 at 196 mg/m²/day, while the lowest dust fall average was recorded in the year 2015 at 47 mg/m²/day.

Figure 52: Annually averaged dust fallout at Site 22 (Impumelelo West) from 2012 to 2015



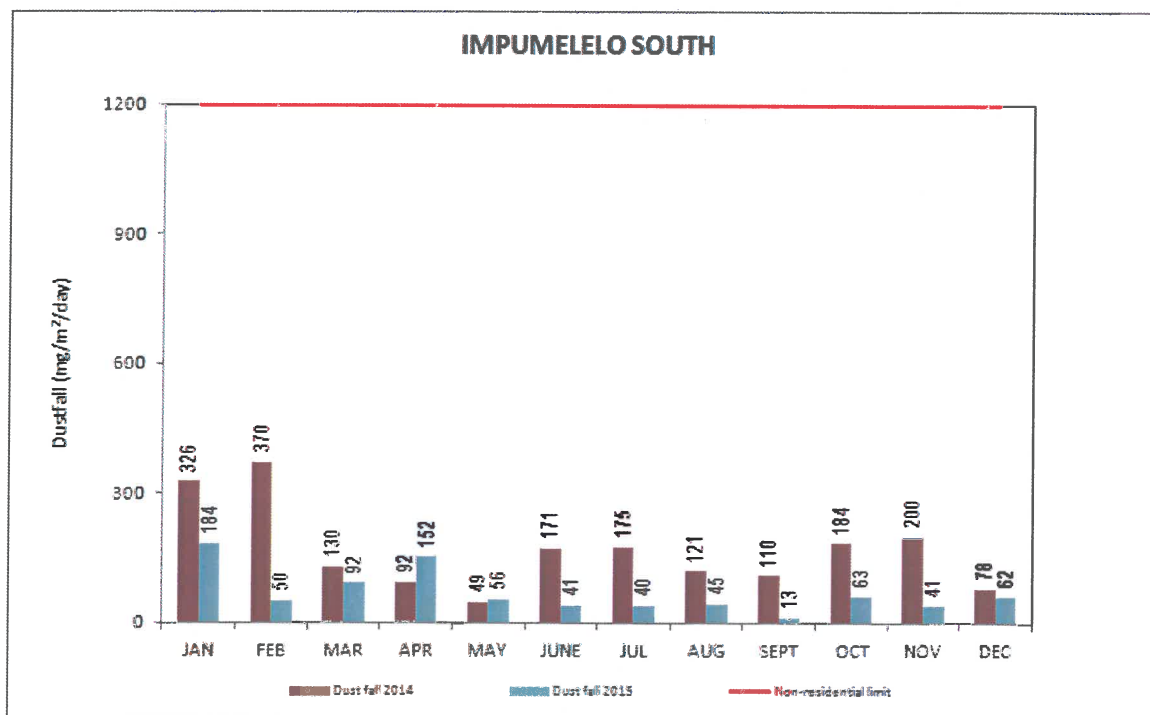
6.1.23 Site 23 – Impumelelo South

This site was commissioned in April 2012 and is classified as a Non-residential site.

During the monitoring period of January to December 2015, all the monitoring months recorded dust fallout below the NON-RESIDENTIAL threshold limit. The month of January 2015 recorded the highest dust fall rate at 184 mg/m²/day, while September 2015 recorded the lowest dust fallout at 13 mg/m²/day.

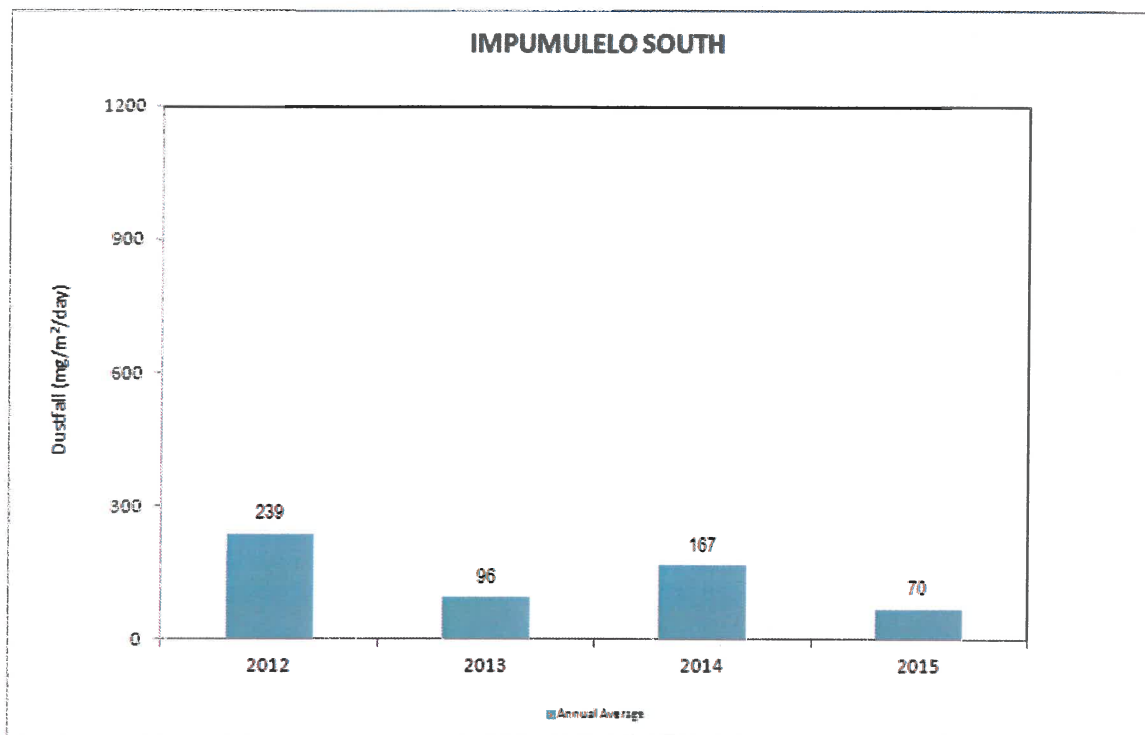
February 2015 recorded a significant decrease in dust fallout compared to the 2014 results. All the remaining months recorded dust fallout equivalent to the 2014 results.

Figure 53: Dust fall rates recorded for Site 23 (Impumelelo South) for January to December 2015.



Annually averaged dust fallout from when monitoring began is shown below. The highest annually averaged dust fallout was recorded in 2012 at 239 mg/m²/day, while the lowest dust fall average was recorded in the year 2015 at 70 mg/m²/day.

Figure 54: Annually averaged dust fallout at Site 23 (Impumelelo South) from 2012 to 2015



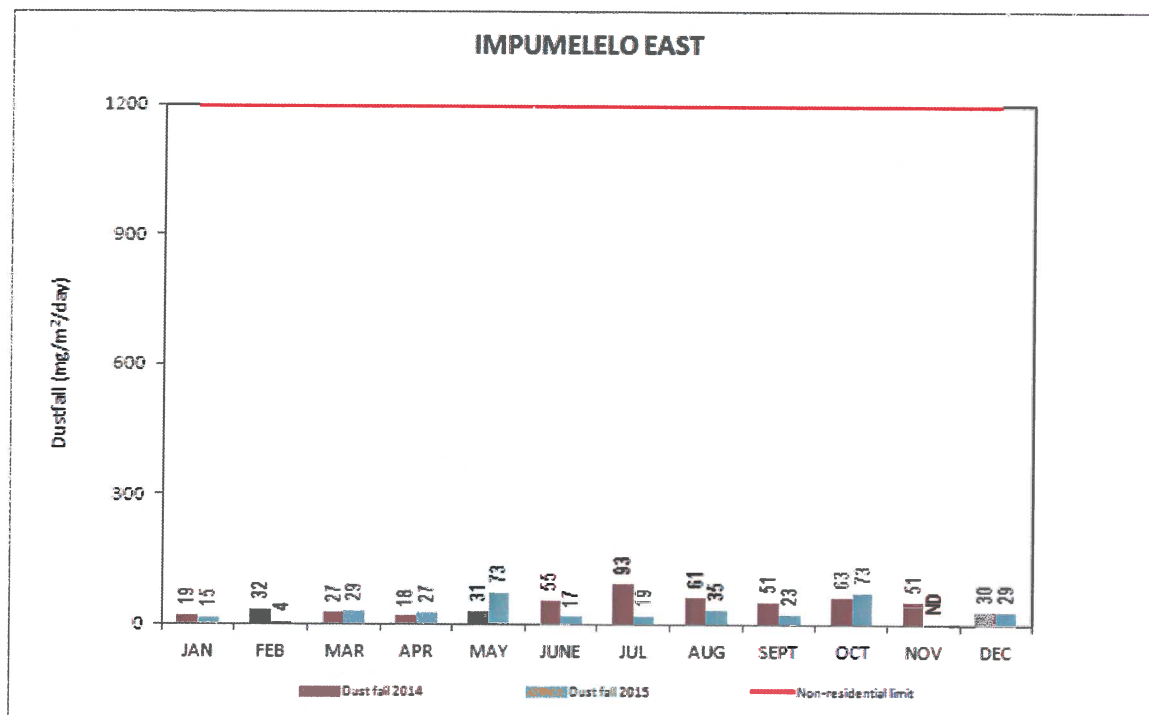
6.1.24 Site 24 – Impumelelo East

This site was commissioned in April 2012 and is classified as a Non-residential site.

During the monitoring period of January to December 2015, there was no data recorded during November 2015 as the sample was contaminated by a dead bird. All the remaining monitoring months recorded dust fallout below the NON-RESIDENTIAL threshold limit. The months of May and October 2015 recorded the highest dust fall rate at 73 mg/m²/day, while February 2015 recorded the lowest dust fallout at 4 mg/m²/day.

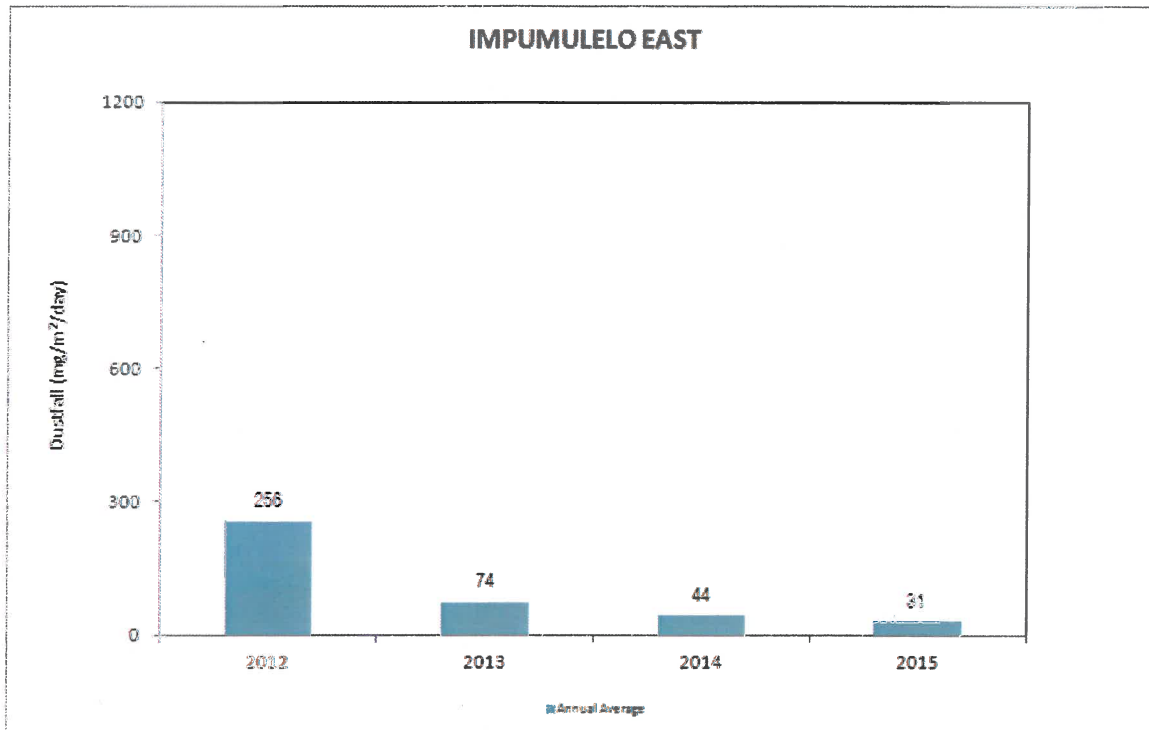
The results for 2014 are included to show the trend in dust fallout from the previous year. All the 2015 months experienced dust fallout equivalent to the 2014 results.

Figure 55: Dust fall rates recorded for Site 24 (Impumelelo East) for January to December 2015.



Annually averaged dust fallout from when monitoring began is shown below. The highest annually averaged dust fallout was recorded in 2012 at 256 mg/m²/day, while the lowest dust fall average was recorded in the year 2015 at 31 mg/m²/day.

Figure 56: Annually averaged dust fallout at Site 24 (Impumelelo East) from 2012 to 2015



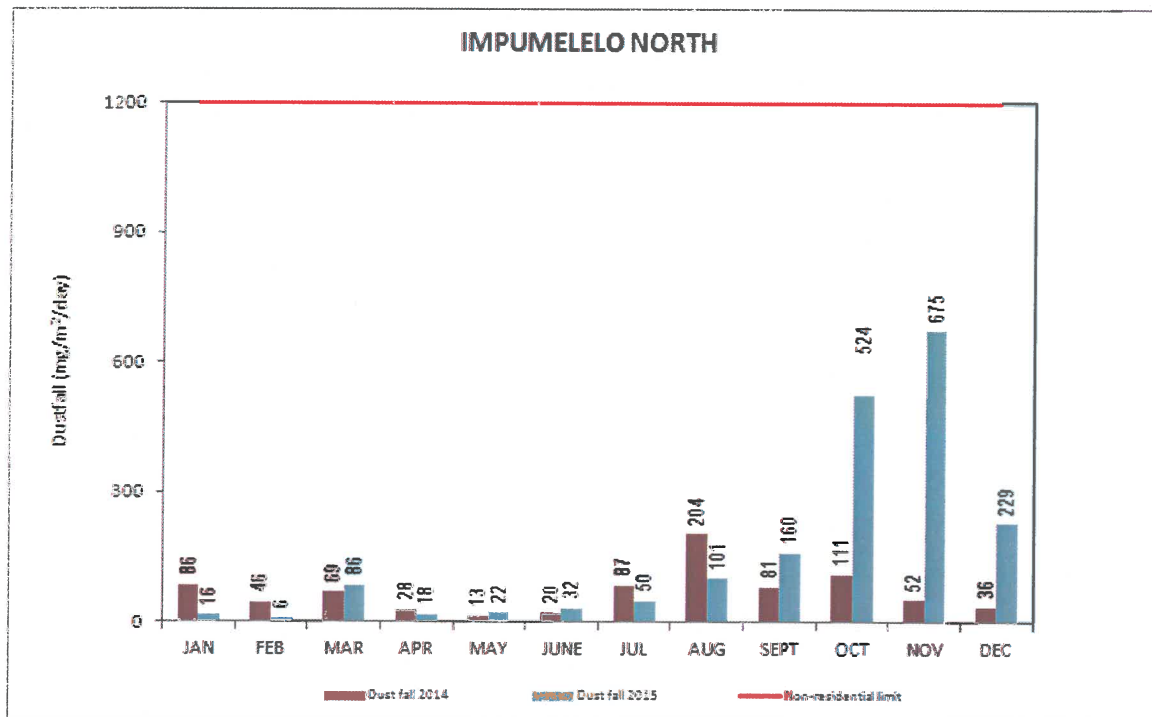
6.1.25 Site 25 – Impumelelo North

This site was commissioned in May 2012 and is classified as a Non-residential site.

During the monitoring period of January to December 2015, all the monitoring months recorded dust fallout below the NON-RESIDENTIAL threshold limit. The month of October 2015 recorded the highest dust fall rate at 675 mg/m²/day, while February 2015 recorded the lowest dust fallout at 6 mg/m²/day.

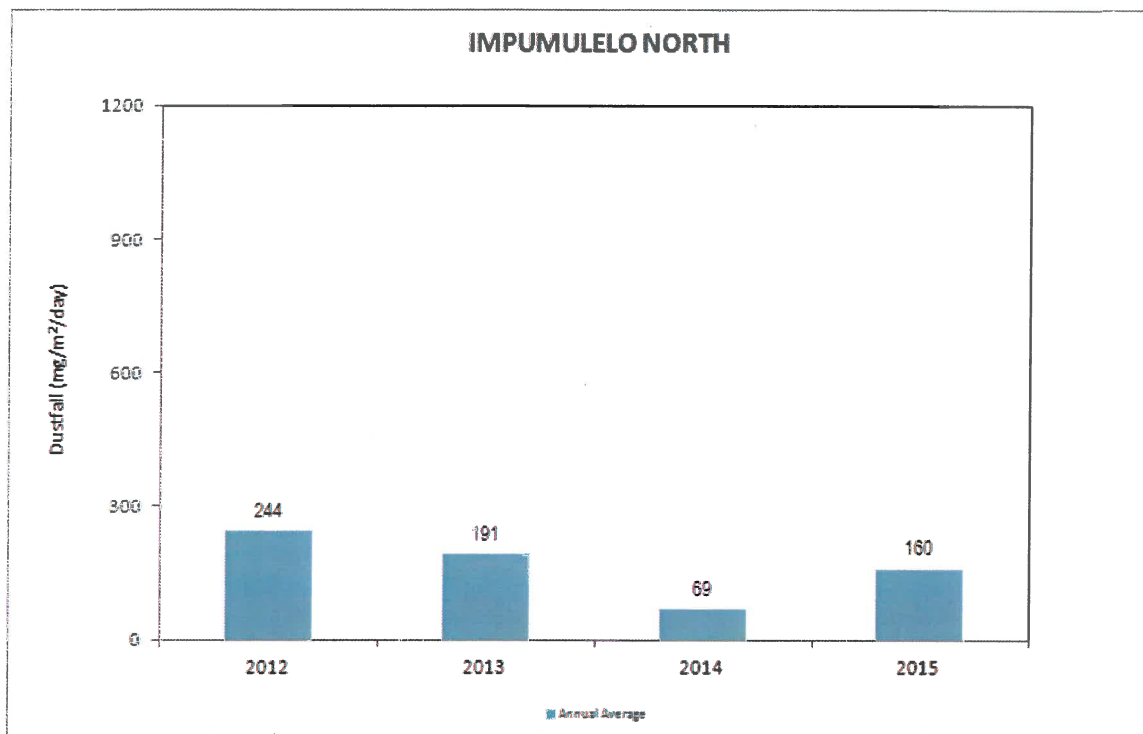
October and November 2015 recorded significant increase in dust fallout compared to the 2014 results. All the remaining months recorded dust fallout equivalent to the 2014 results.

Figure 57: Dust fall rates recorded for Site 25 (Impumelelo North) for January to December 2015.



Annually averaged dust fallout from when monitoring began is shown below. The highest annually averaged dust fallout was recorded in 2012 at 244 mg/m²/day, while the lowest dust fall average was recorded in the year 2014 at 69 mg/m²/day.

Figure 58: Annually averaged dust fallout at Site 25 (Impumelelo North) from 2012 to 2015



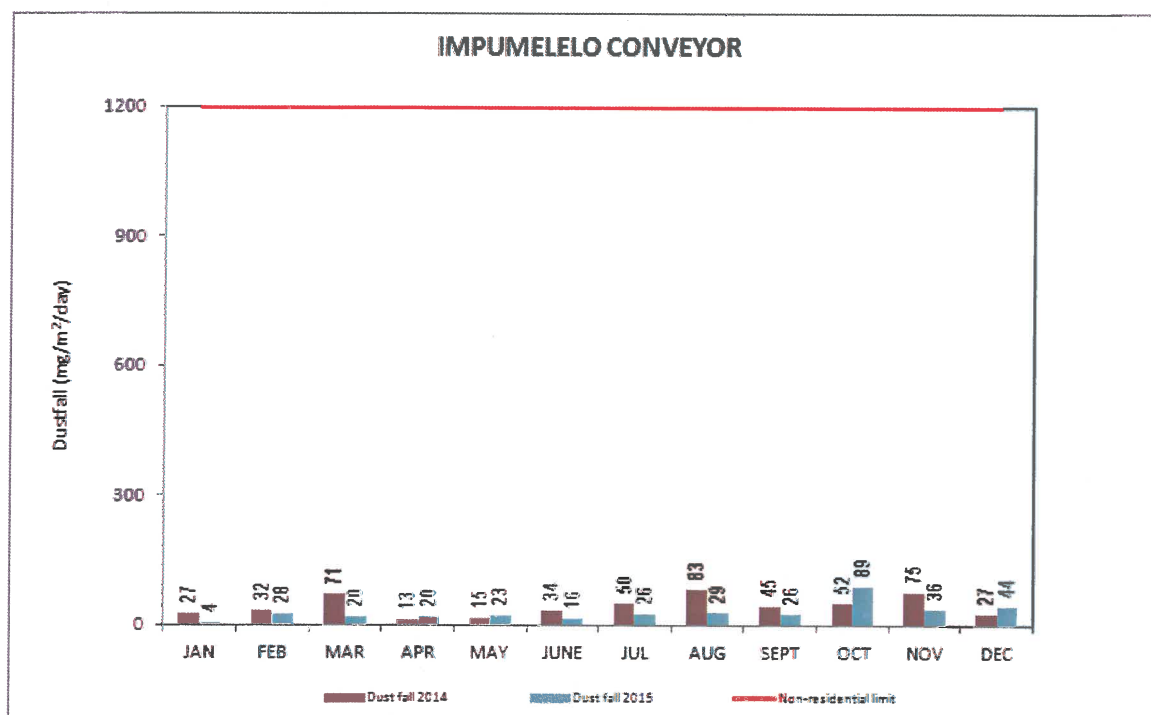
6.1.26 Site 26 – Impumelelo Conveyor

This site was commissioned in October 2012 and is classified as a Non-residential site.

During the monitoring period of January to December 2015, all the months recorded dust fall rates below the NON-RESIDENTIAL threshold limit. The month of October 2015 recorded the highest dust fall rate at 89 mg/m²/day while the month of January 2015 recorded the lowest dust fall rate at 4 mg/m²/day

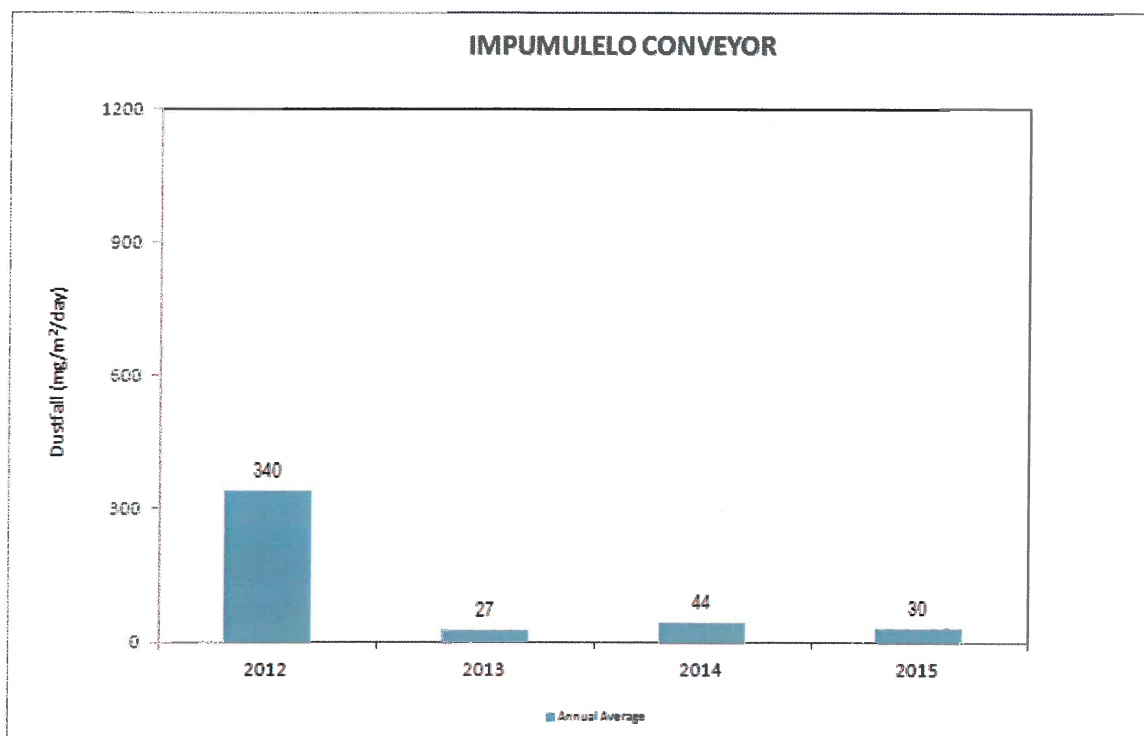
The results for 2014 are included to show the trend in dust fallout from the previous year. All the 2015 months experienced dust fallout equivalent to the 2014 results.

Figure 59: Dust fall rates recorded for Site 26 (Impumelelo Conveyor) for January to December 2015.



Annually averaged dust fallout from when monitoring began is shown below. The highest annually averaged dust fallout was recorded in 2012 at 340 mg/m²/day, while the lowest dust fall average was recorded in the year 2013 at 27 mg/m²/day. There was a significant decrease in dustfall levels between 2012 and 2013.

Figure 60: Annually averaged dust fallout at Site 26 (Impumelelo Conveyor) from 2012 to 2015.



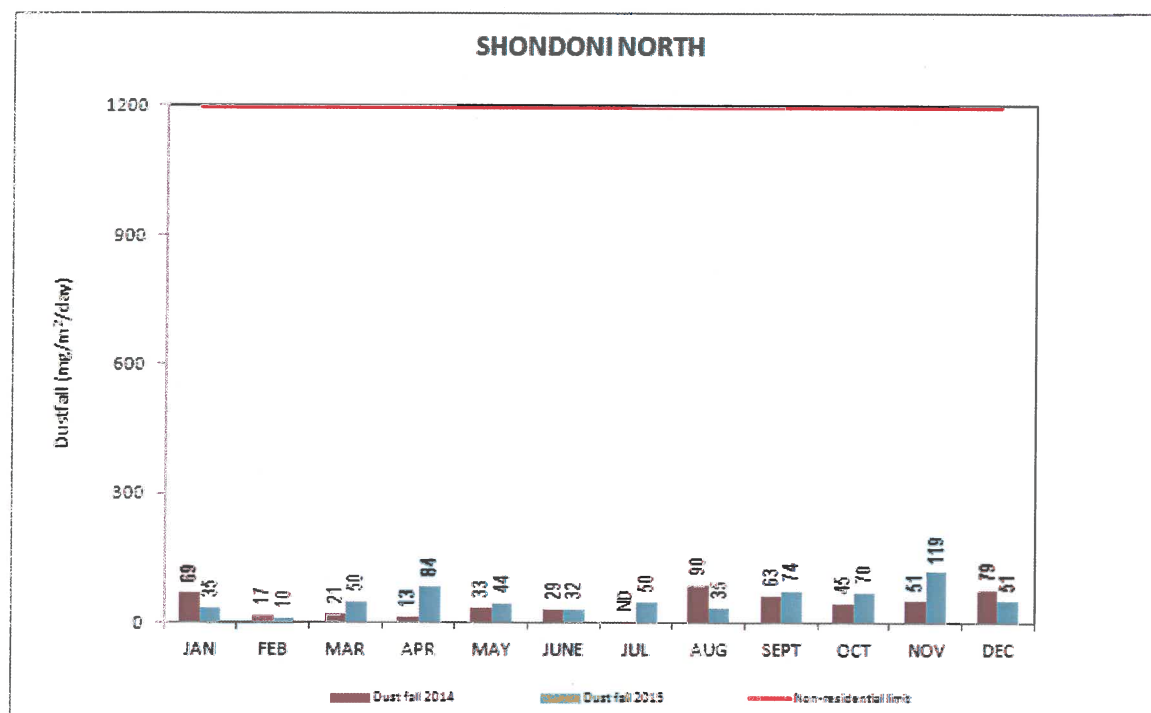
6.1.27 Site 27 – Shondoni North

This site was commissioned in October 2012 and is classified as a Non-residential site.

During the monitoring period of January to December 2015, all the months recorded dust fall rates below the NON-RESIDENTIAL threshold limit. The month of November 2015 recorded the highest dust fall rate at 119 mg/m²/day while the month of February 2015 recorded the lowest dust fall rate at 10 mg/m²/day

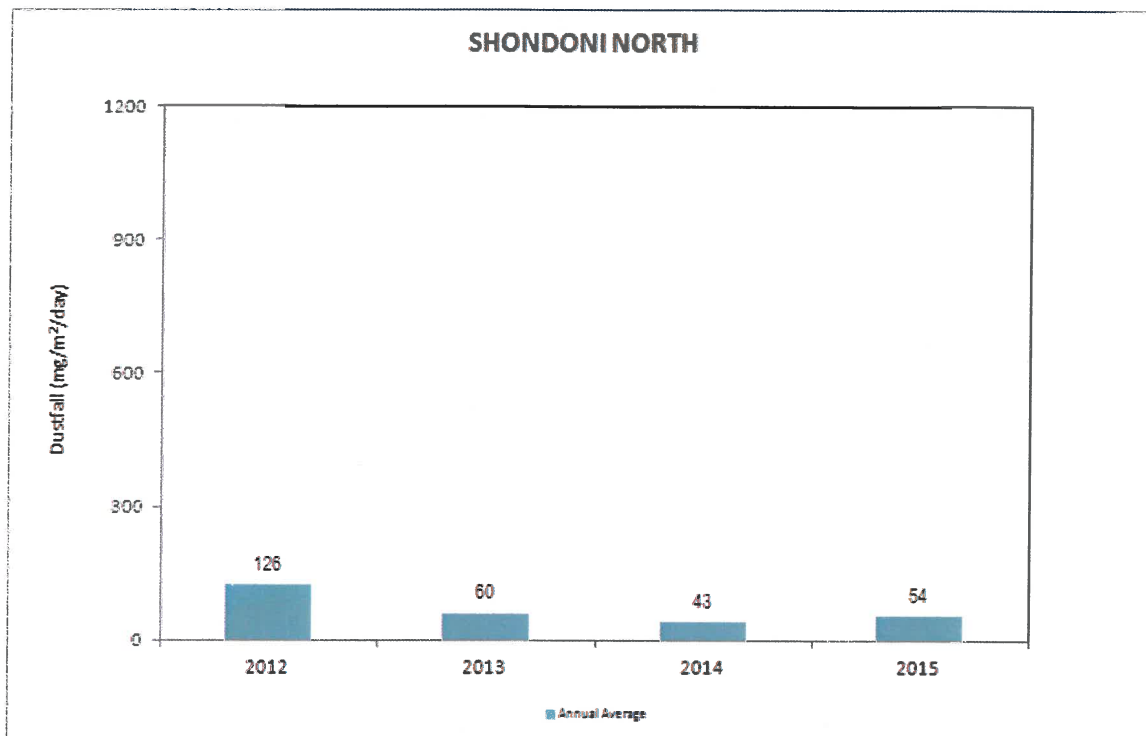
The results for 2014 are included to show the trend in dust fallout from the previous year. All the 2015 months experienced dust fallout equivalent to the 2014 results.

Figure 61: Dust fall rates recorded for Site 27 (Shondoni North) for January to December 2015.



Annually averaged dust fallout from when monitoring began is shown below. The highest annually averaged dust fallout was recorded in 2012 at 126 mg/m²/day, while the lowest dust fall average was recorded in the year 2014 at 43 mg/m²/day.

Figure 62: Annually averaged dust fallout at Site 27 (Shondoni North) from 2012 to 2015.



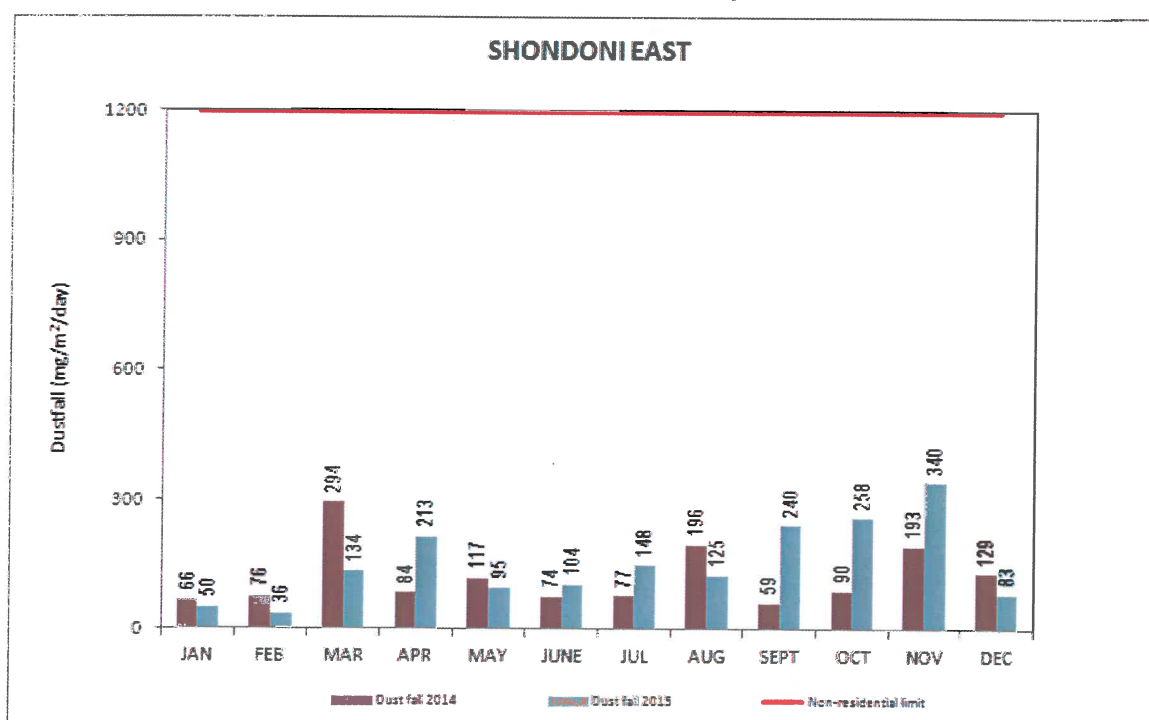
6.1.28 Site 28 – Shondoni East

This site was commissioned in October 2012 and is classified as a Non-residential site.

During the monitoring period of January to December 2015, all the months recorded dust fall rates below the NON-RESIDENTIAL threshold limit. The month of November 2015 recorded the highest dust fall rate at 340 mg/m²/day while the month of February 2015 recorded the lowest dust fall rate at 36 mg/m²/day.

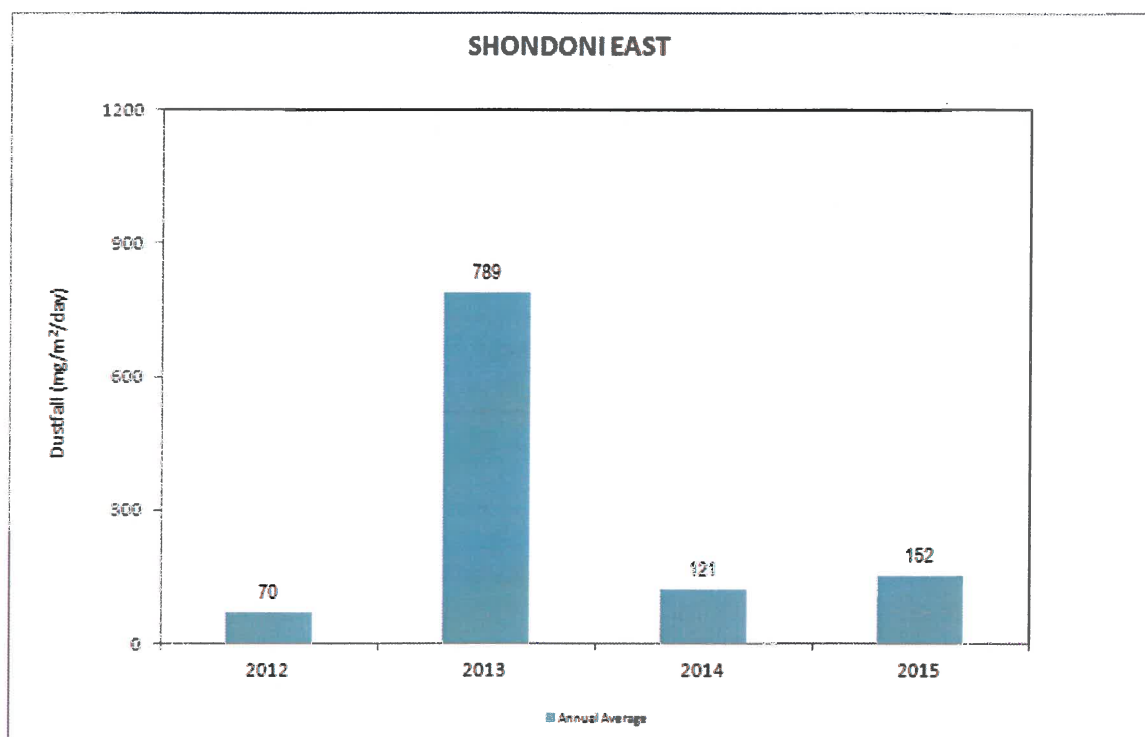
The results for 2014 are included to show the trend in dust fallout from the previous year. All the 2015 months experienced dust fallout equivalent to the 2014 results.

Figure 63: Dust fall rates recorded for Site 28 (Shondoni East) for January to December 2015.



Annually averaged dust fallout from when monitoring began is shown below. The highest annually averaged dust fallout was recorded in 2013 at 789 mg/m²/day, while the lowest dust fall average was recorded in the year 2012 at 70 mg/m²/day. There was a significant increase in dustfall between 2012 and 2013 followed by a significant decrease in 2014.

Figure 64: Annually averaged dust fallout at Site 28 (Shondoni East) from 2012 to 2015.



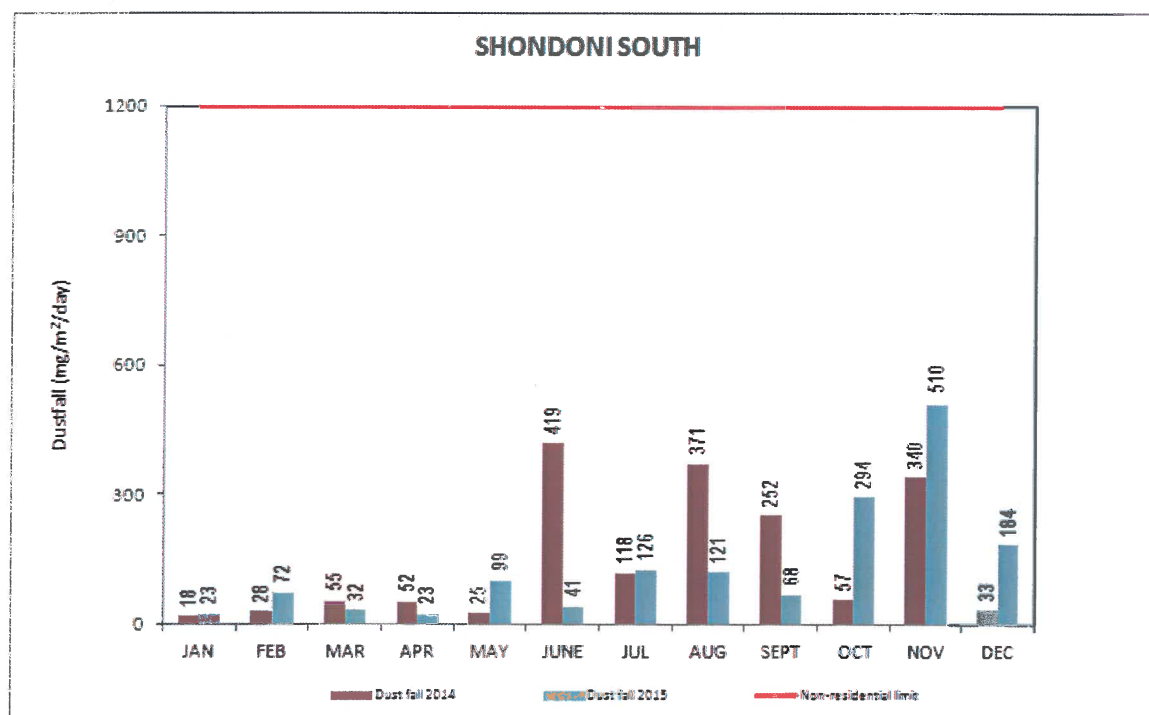
6.1.29 Site 29 – Shondoni South

This site was commissioned in October 2012 and is classified as a Non-residential site.

During the monitoring period of January to December 2015, all the months recorded dust fall rates below the NON-RESIDENTIAL threshold limit. The month of November 2015 recorded the highest dust fall rate at 510 mg/m²/day while the months of January and April 2015 both recorded the lowest dust fall rates at 23 mg/m²/day.

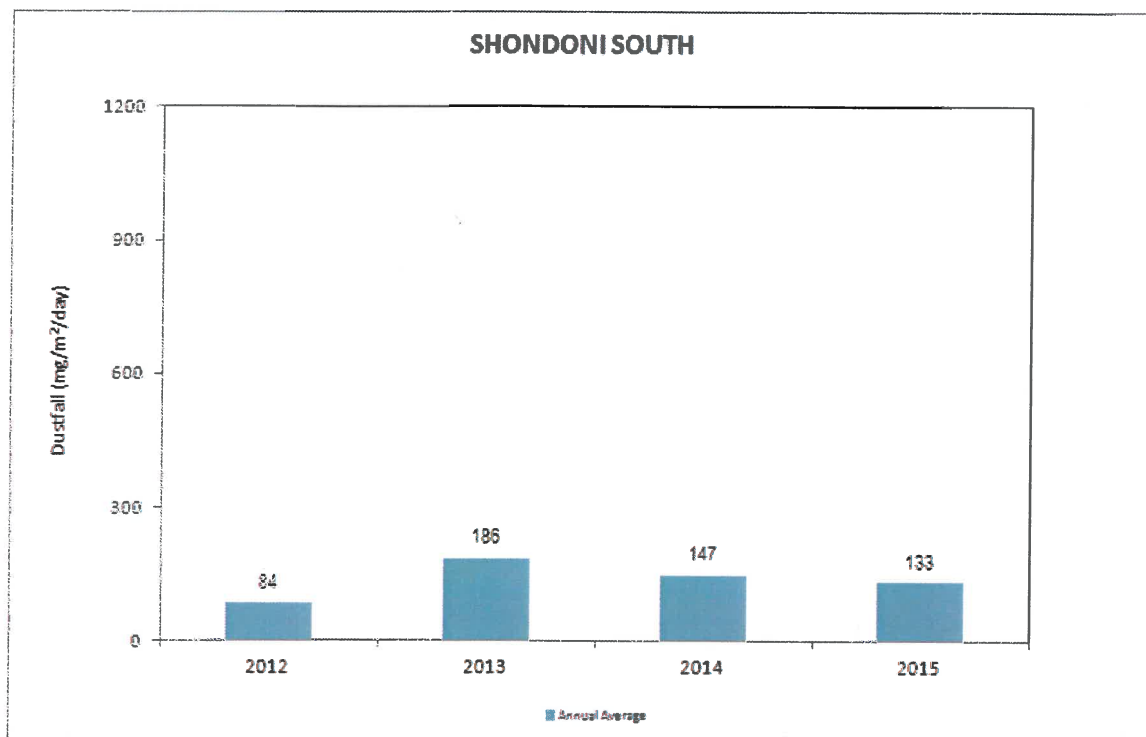
June and August 2015 recorded significant decrease in dust fallout compared to the 2014 results. October 2015 recorded significant increase in dust fallout compared to the 2014 results. All the remaining months recorded dust fallout equivalent to the 2014 results.

Figure 65: Dust fall rates recorded for Site 29 (Shondoni South) for January to December 2015.



Annually averaged dust fallout from when monitoring began is shown below. The highest annually averaged dust fallout was recorded in 2013 at 186 mg/m²/day, while the lowest dust fall average was recorded in the year 2012 at 84 mg/m²/day.

Figure 66: Annually averaged dust fallout at Site 29 (Shondoni South) from 2012 to 2015.



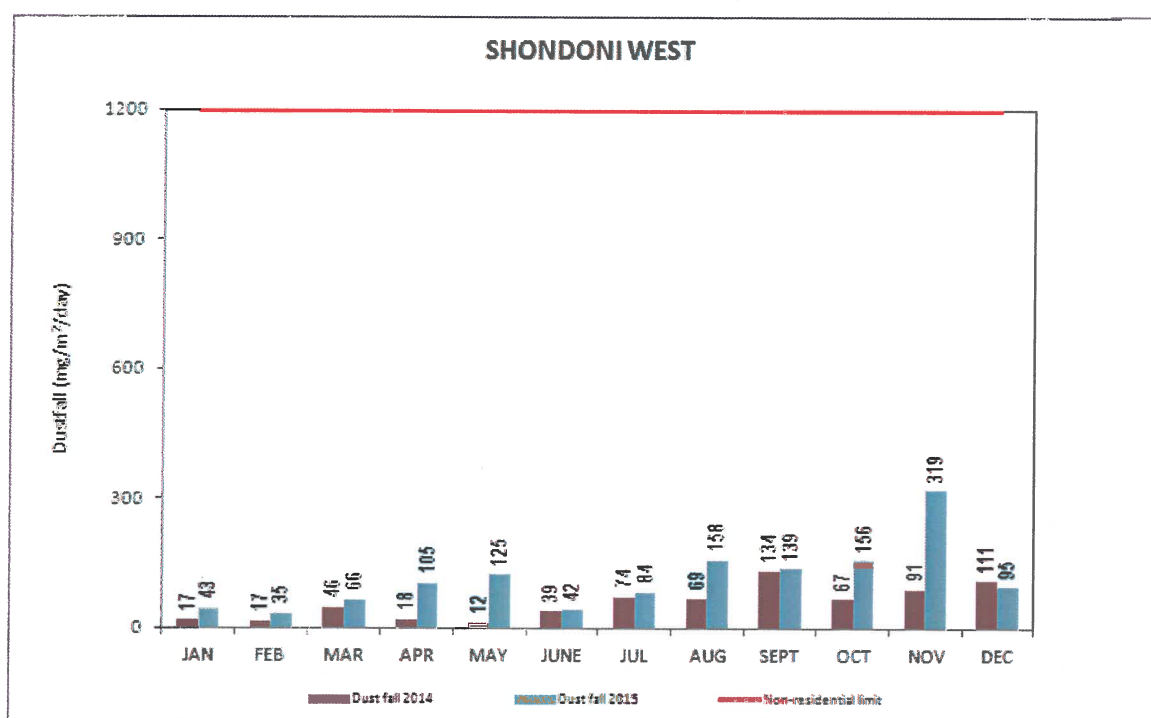
6.1.30 Site 30 – Shondoni West

This site was commissioned in October 2012 and is classified as a Non-residential site.

During the monitoring period of January to December 2015, all the monitoring months recorded dust fallout below the NON-RESIDENTIAL threshold limit. The month of November 2015 recorded the highest dust fall rate at 319 mg/m²/day, while February 2015 recorded the lowest dust fallout at 35 mg/m²/day.

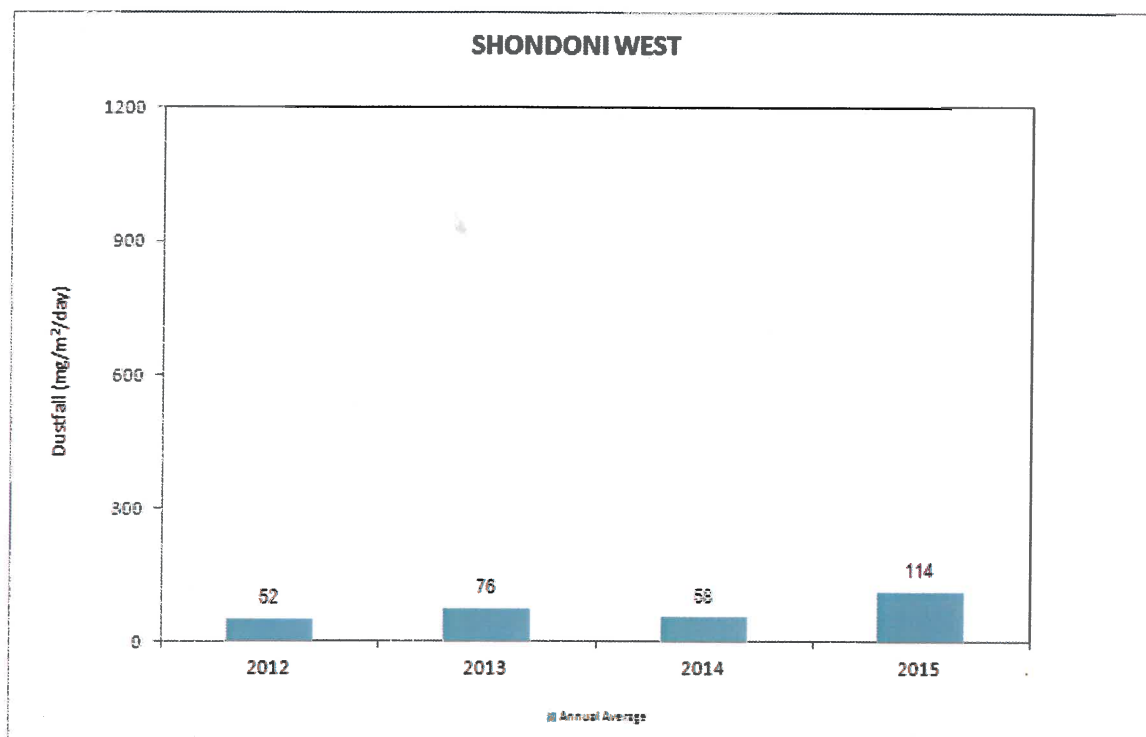
November 2015 recorded a significant increase in dust fallout compared to the 2014 results. All the remaining months recorded dust fallout equivalent to the 2014 results.

Figure 67: Dust fall rates recorded for Site 30 (Shondoni West) for January to December 2015.



Annually averaged dust fallout from when monitoring began is shown below. The highest annually averaged dust fallout was recorded in 2015 at 114 mg/m²/day, while the lowest dust fall average was recorded in the year 2012 at 52 mg/m²/day.

Figure 68: Annually averaged dust fallout at Site 30 (Shondoni West) from 2012 to 2015.

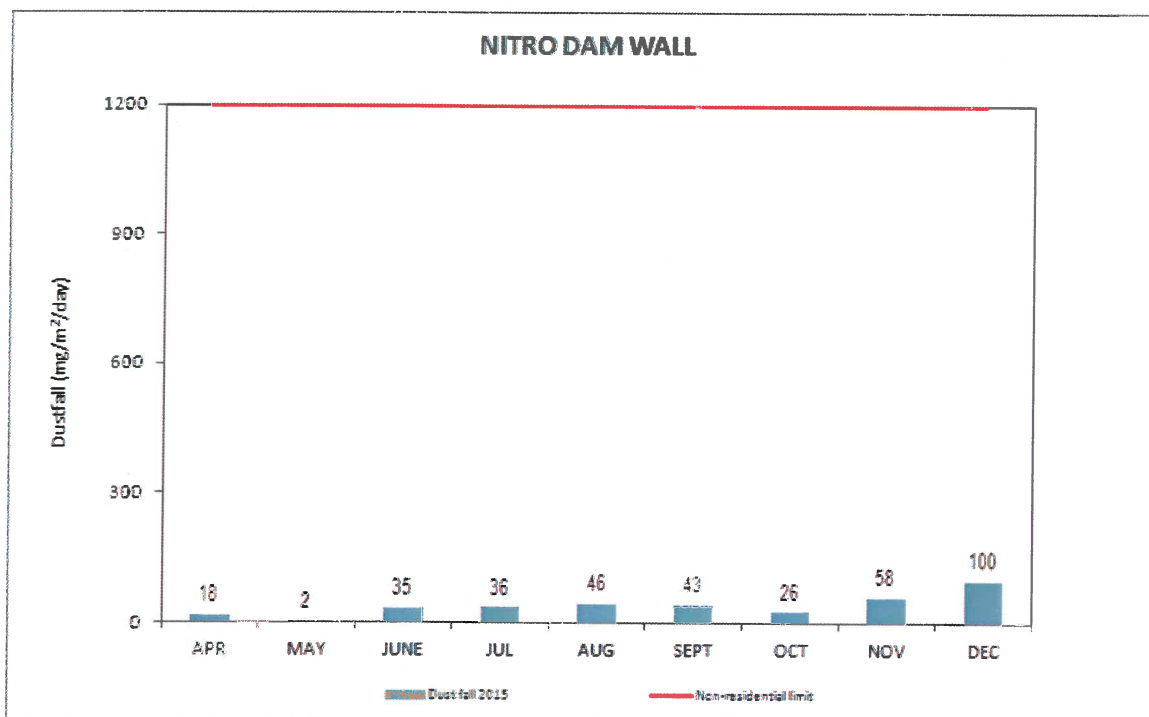


6.1.31 Site 31 – Nitro Dam Wall

This site was commissioned in April 2015 and is classified as a Non-residential site.

During the monitoring period of April to December 2015, all the months recorded dust fall rates below the NON-RESIDENTIAL threshold limit. The month of December 2015 recorded the highest dust fall rate at 100 mg/m²/day while the month of May 2015 recorded the lowest dust fall rate at 2 mg/m²/day. The annual average dust fallout for 2015 was 40 mg/m²/day

Figure 69: Dust fall rates recorded for Site 31 (Nitro Dam Wall) for April to December 2015.

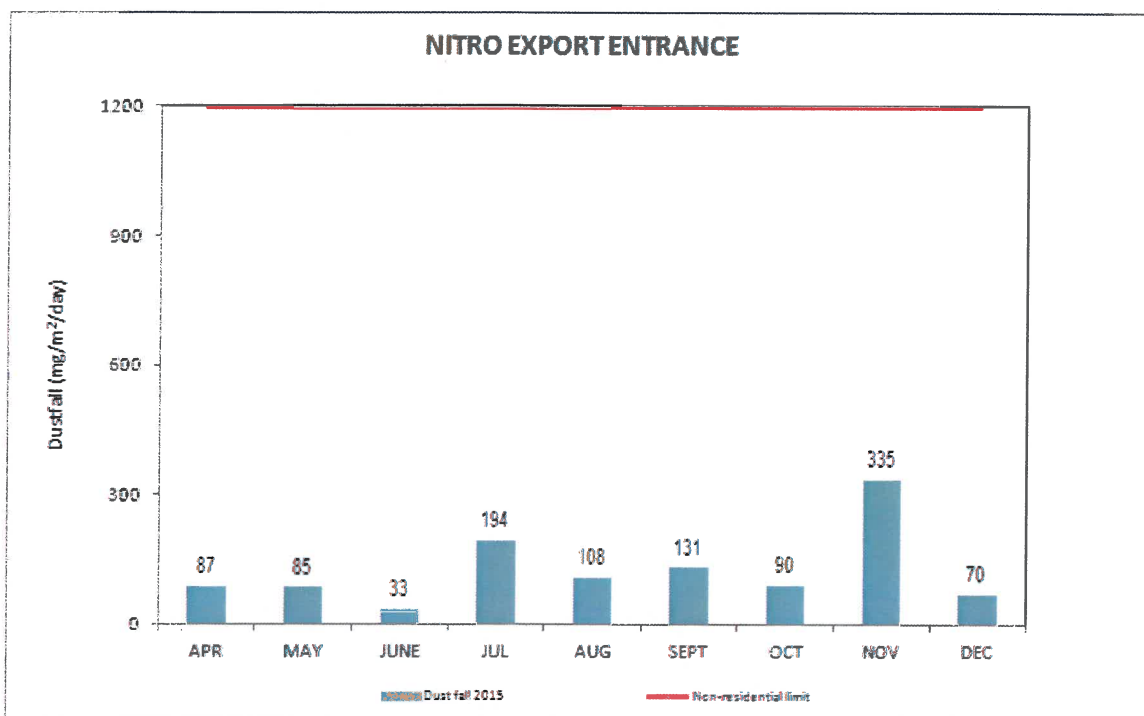


6.1.32 Site 32 – Nitro Export Entrance

This site was commissioned in April 2015 and is classified as a Non-residential site.

During the monitoring period of April to December 2015, all the months recorded dust fall rates below the NON-RESIDENTIAL threshold limit. The month of November 2015 recorded the highest dust fall rate at 335mg/m²/day while the month of June 2015 recorded the lowest dust fall rate at 33 mg/m²/day. The annual average dust fallout for 2015 was 126 mg/m²/day

Figure 70: Dust fall rates recorded for Site 32 (Nitro Export Entrance) for April to December 2015.

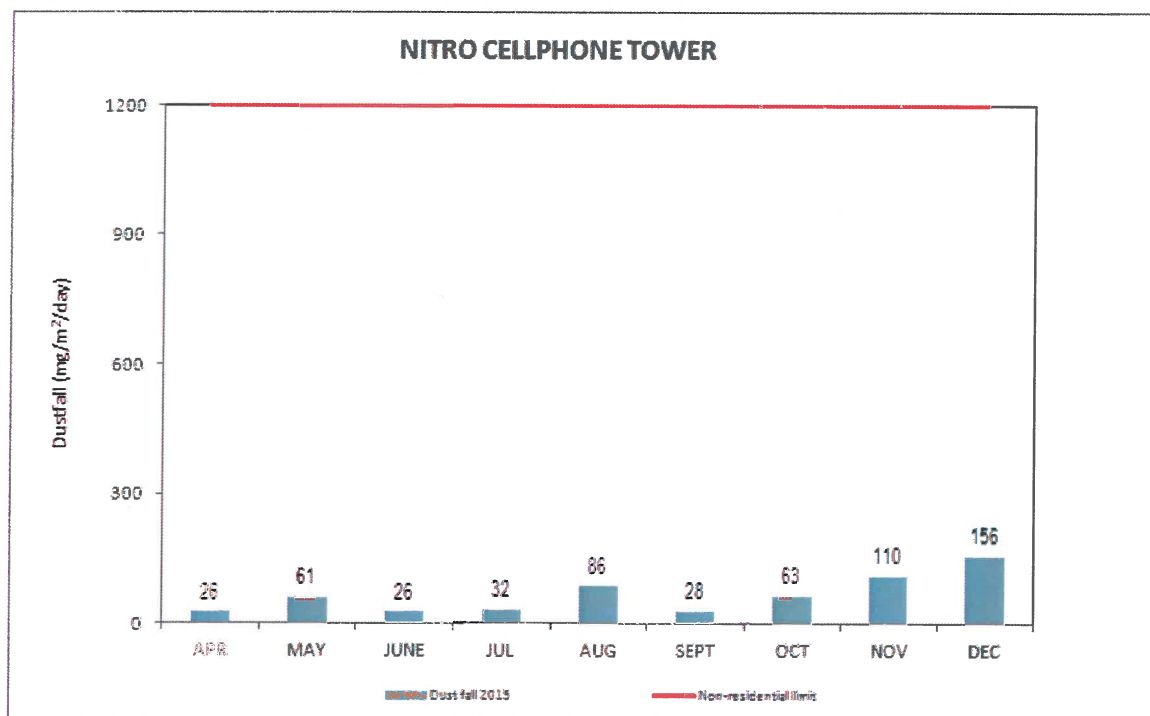


6.1.33 Site 33 – Nitro Cellphone Tower

This site was commissioned in April 2015 and is classified as a Non-residential site.

During the monitoring period of April to December 2015, all the months recorded dust fall rates below the NON-RESIDENTIAL threshold limit. The month of December 2015 recorded the highest dust fall rate at 156 mg/m²/day while the month of April 2015 recorded the lowest dust fall rate at 26 mg/m²/day. The annual average dust fallout for 2015 was 65 mg/m²/day

Figure 71: Dust fall rates recorded for Site 33 (Nitro Cellphone Tower) for April to December 2015.

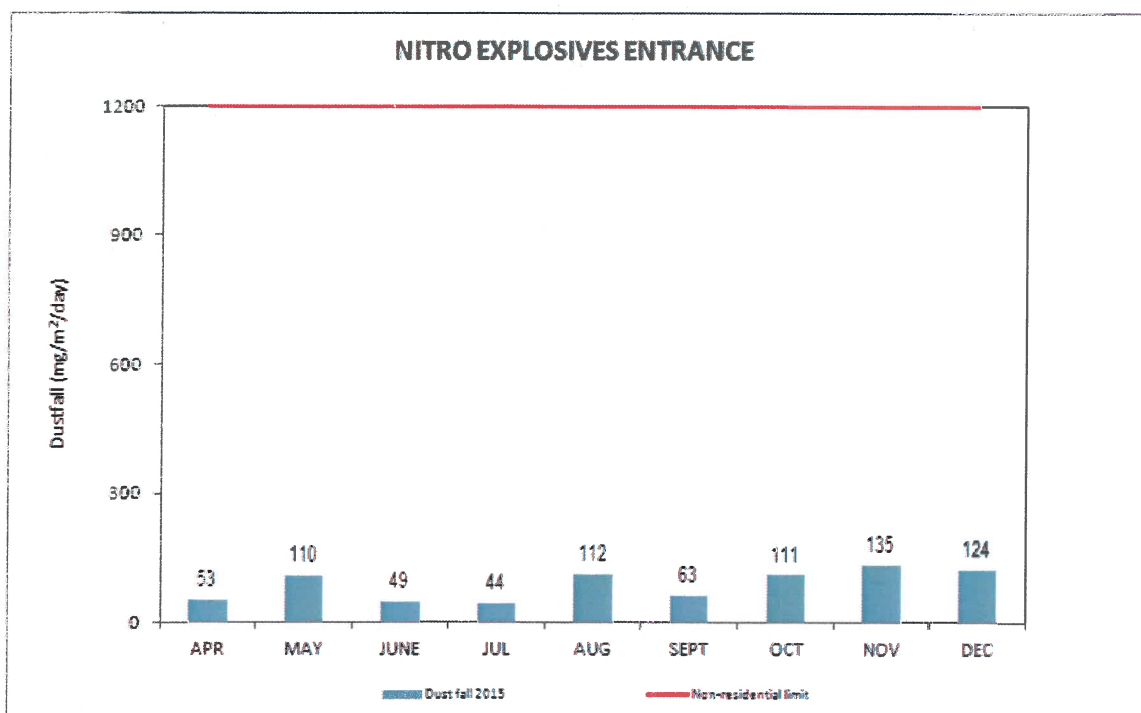


6.1.34 Site 34 – Nitro Explosives Entrance

This site was commissioned in April 2015 and is classified as a Non-residential site.

During the monitoring period of April to December 2015, all the months recorded dust fall rates below the NON-RESIDENTIAL threshold limit. The month of November 2015 recorded the highest dust fall rate at 135 mg/m²/day while the month of July 2015 recorded the lowest dust fall rate at 44 mg/m²/day. The annual average dust fallout for 2015 was 89 mg/m²/day

Figure 72: Dust fall rates recorded for Site 34 (Nitro Explosives Entrance) for April to December 2015.

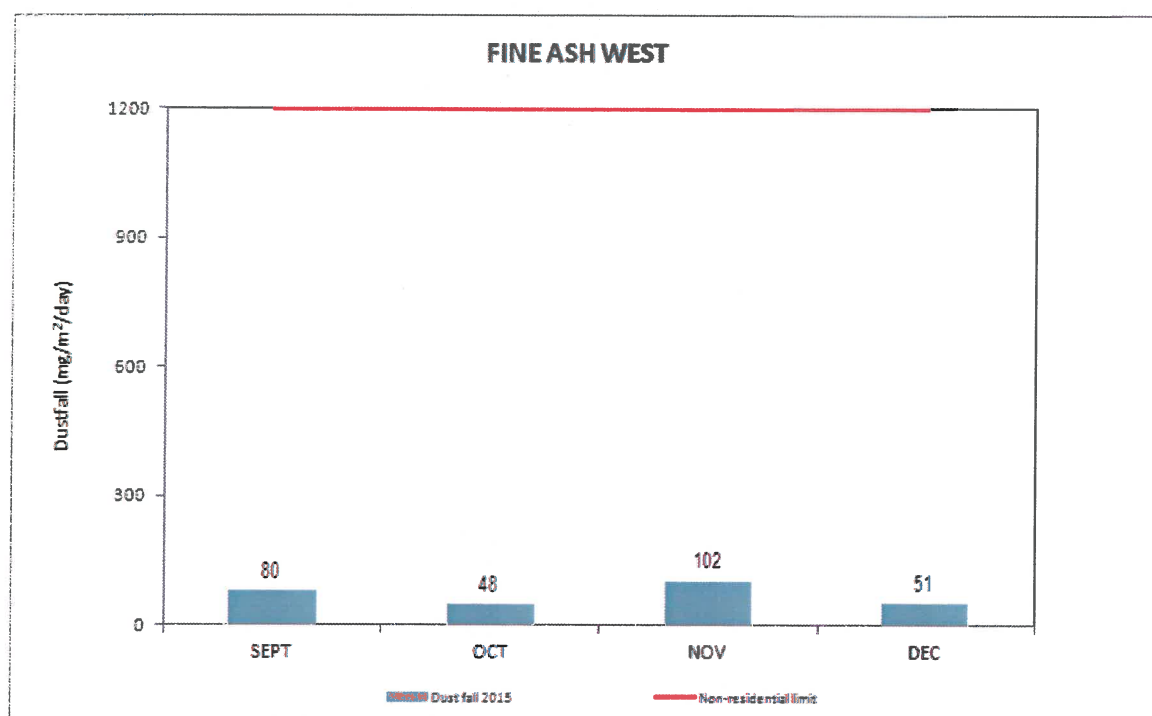


6.1.35 Site 35 – Fine Ash West

This site was commissioned in September 2015 and is classified as a Non-residential site.

During the monitoring period of September to December 2015, all the months recorded dust fall rates below the NON-RESIDENTIAL threshold limit. The month of November 2015 recorded the highest dust fall rate at 102 mg/m²/day while the month of October 2015 recorded the lowest dust fall rate at 48 mg/m²/day. The annual average dust fallout for 2015 was 71 mg/m²/day

Figure 73: Dust fall rates recorded for Site 35 (Fine Ash West) for September to December 2015.

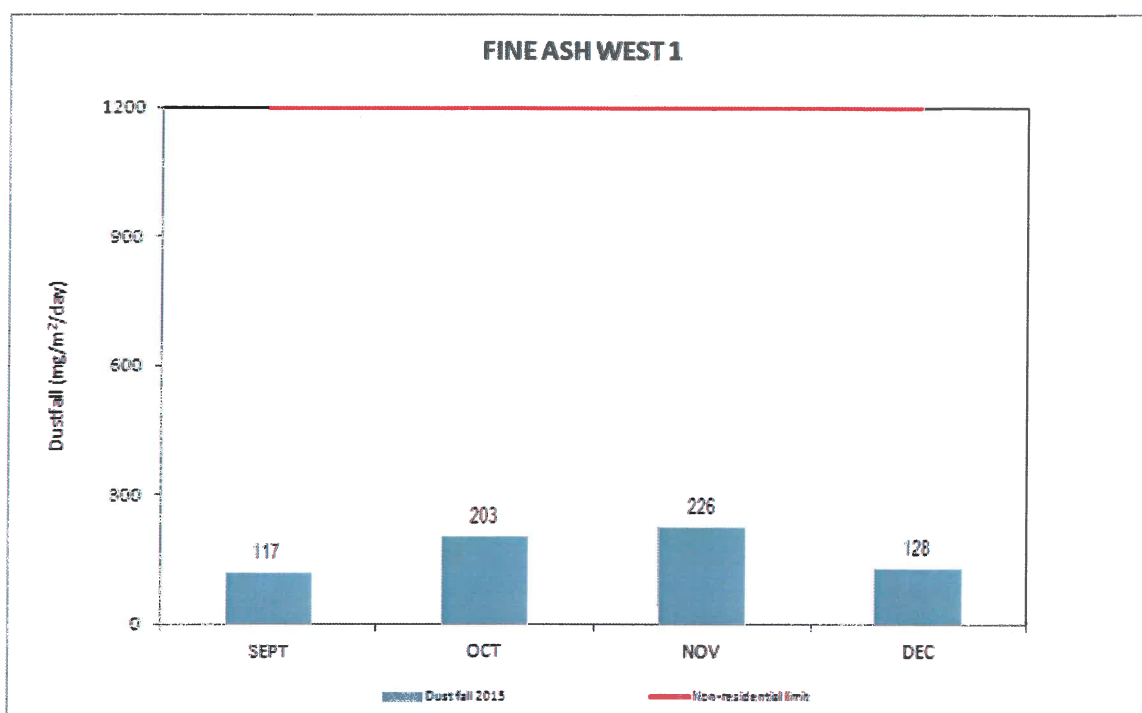


6.1.36 Site 36 – Fine Ash West 1

This site was commissioned in September 2015 and is classified as a Non-residential site.

During the monitoring period of September to December 2015, all the months recorded dust fall rates below the NON-RESIDENTIAL threshold limit. The month of November 2015 recorded the highest dust fall rate at 226 mg/m²/day while the month of September 2015 recorded the lowest dust fall rate at 117 mg/m²/day. The annual average dust fallout for 2015 was 169 mg/m²/day

Figure 74: Dust fall rates recorded for Site 36 (Fine Ash West 1) for September to December 2015.

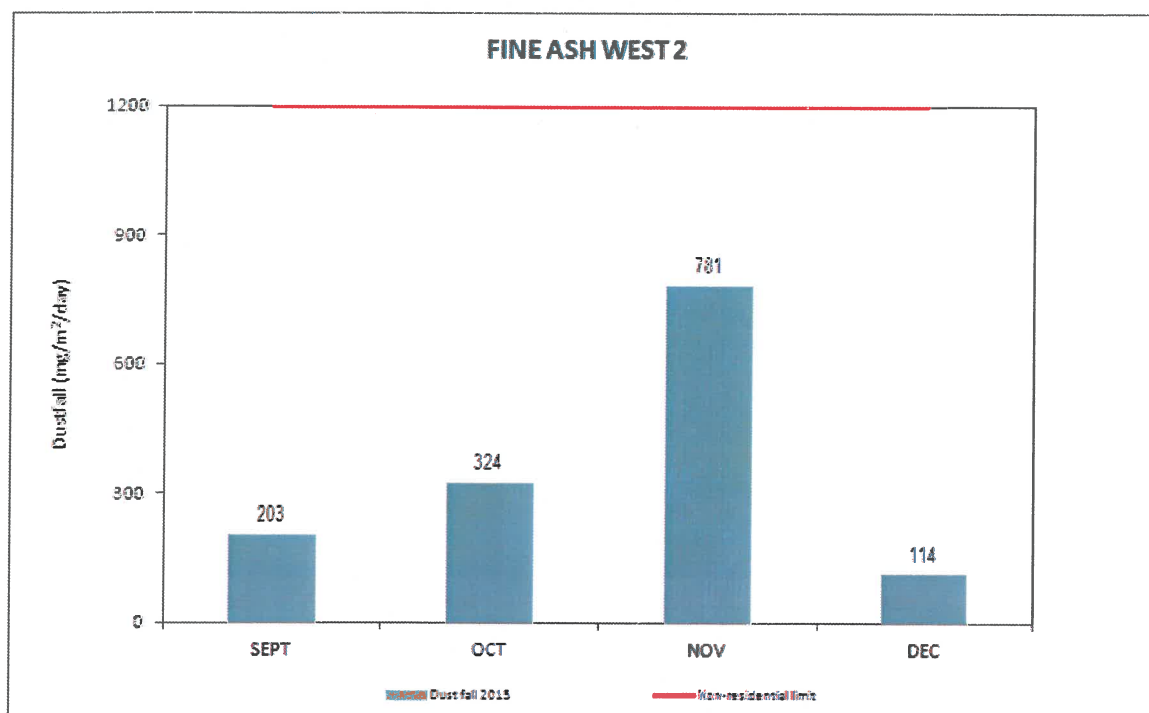


6.1.37 Site 37 – Fine Ash West 2

This site was commissioned in September 2015 and is classified as a Non-residential site.

During the monitoring period of September to December 2015, all the monitoring months recorded dust fallout below the NON-RESIDENTIAL threshold limit. The month of November 2015 recorded the highest dust fallout at 781 mg/m²/day. December 2015 recorded the lowest dust fallout at 114 mg/m²/day. There was a significant increase in dust fall between October and November 2015 and a significant decrease between November and December 2015. The annual average dust fallout for 2015 was 355 mg/m²/day

Figure 75: Dust fall rates recorded for Site 37 (Fine Ash West 2) for September to December 2015.

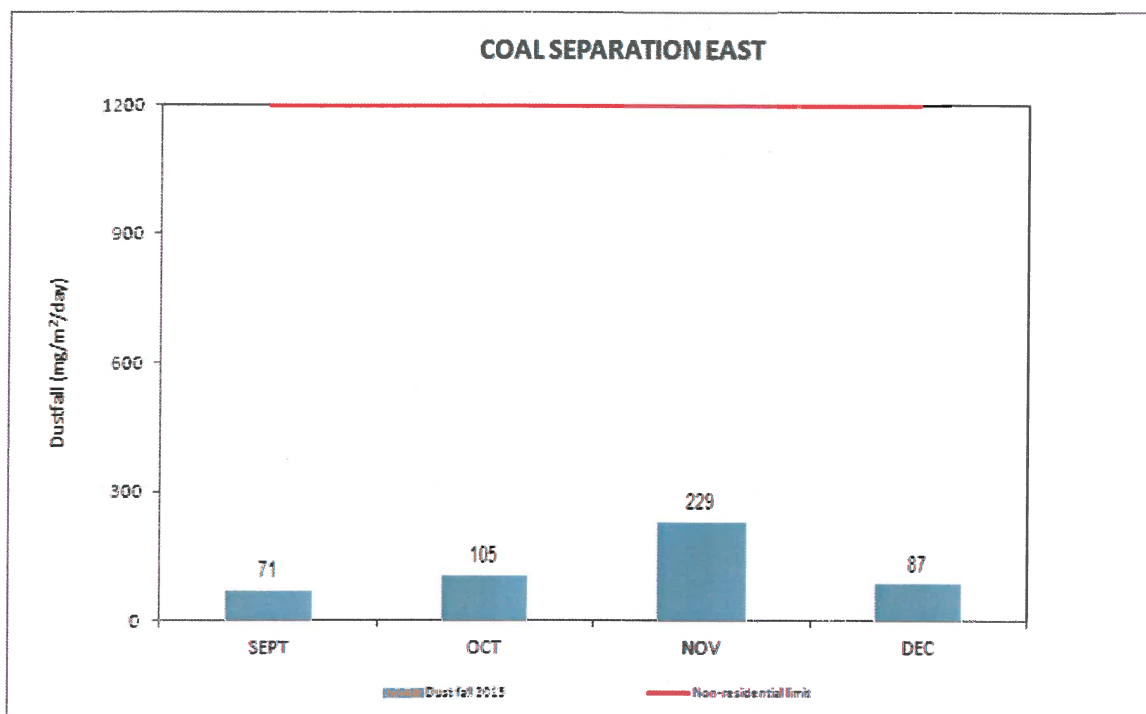


6.1.38 Site 38 – Coal Separation East

This site was commissioned in September 2015 and is classified as a Non-residential site.

During the monitoring period of September to December 2015, all the months recorded dust fall rates below the NON-RESIDENTIAL threshold limit. The month of November 2015 recorded the highest dust fall rate at 229 mg/m²/day while the month of September 2015 recorded the lowest dust fall rate at 71 mg/m²/day. The annual average dust fallout for 2015 was 123 mg/m²/day

Figure 76: Dust fall rates recorded for Site 38 (Coal Separation East) for September to December 2015.

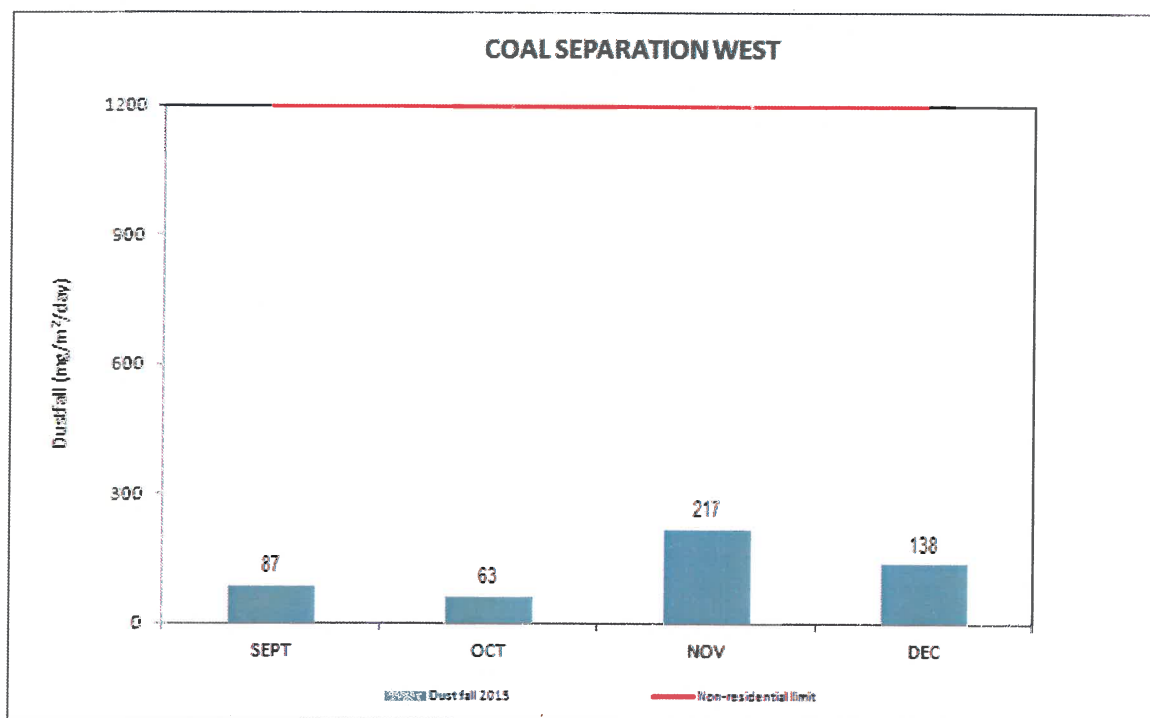


6.1.39 Site 39 – Coal Separation West

This site was commissioned in September 2015 and is classified as a Non-residential site.

During the monitoring period of September to December 2015, all the months recorded dust fall rates below the NON-RESIDENTIAL threshold limit. The month of November 2015 recorded the highest dust fall rate at 217 mg/m²/day while the month of October 2015 recorded the lowest dust fall rate at 63 mg/m²/day. The annual average dust fallout for 2015 was 126 mg/m²/day

Figure 77: Dust fall rates recorded for Site 39 (Coal Separation East) for September to December 2015.

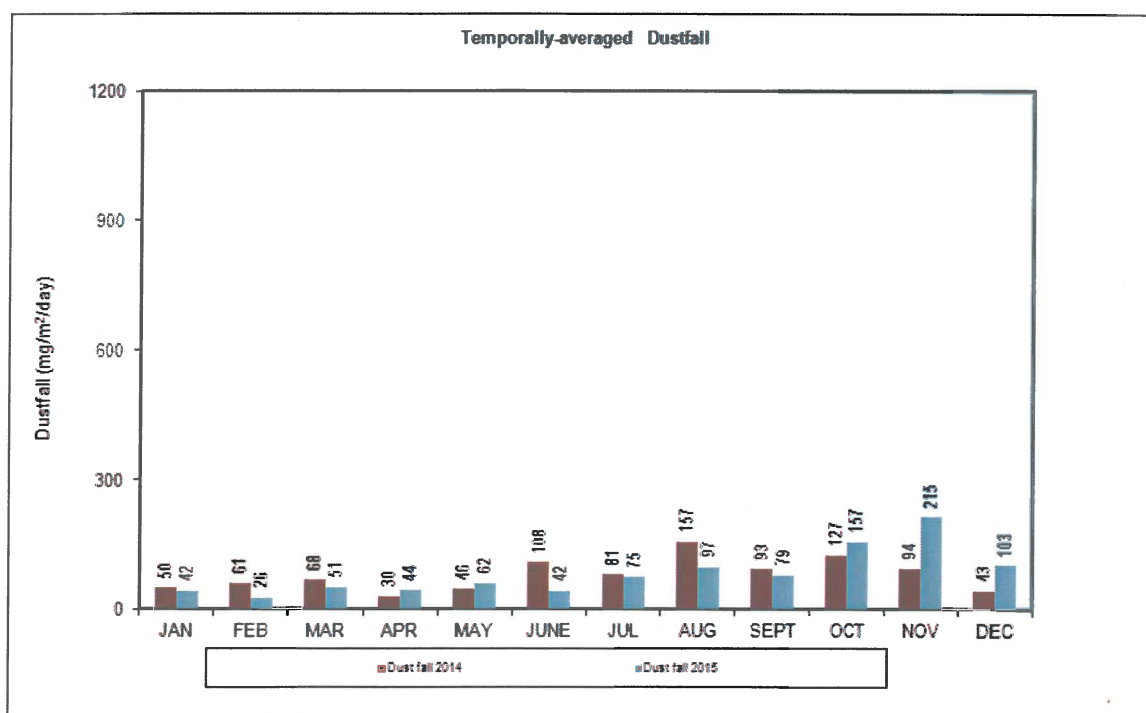


6.2 Temporal averages in dust fall rates

Temporal-averages dust fall rates for all stations for the January to December 2015 period are presented in Figure 78. The averaging of dust fall levels across all the Sasol Secunda sampling sites facilitates an easier analysis of the overall seasonal trends in dust fall levels.

The highest temporal average was recorded in November 2015 at 215 mg/m²/day while February 2015 recorded the lowest temporal average at 26 mg/m²/day. All the months recorded temporal averages equivalent to the 2014 dust fallout.

Figure 78: Temporal Average Variations in dust fall rates.

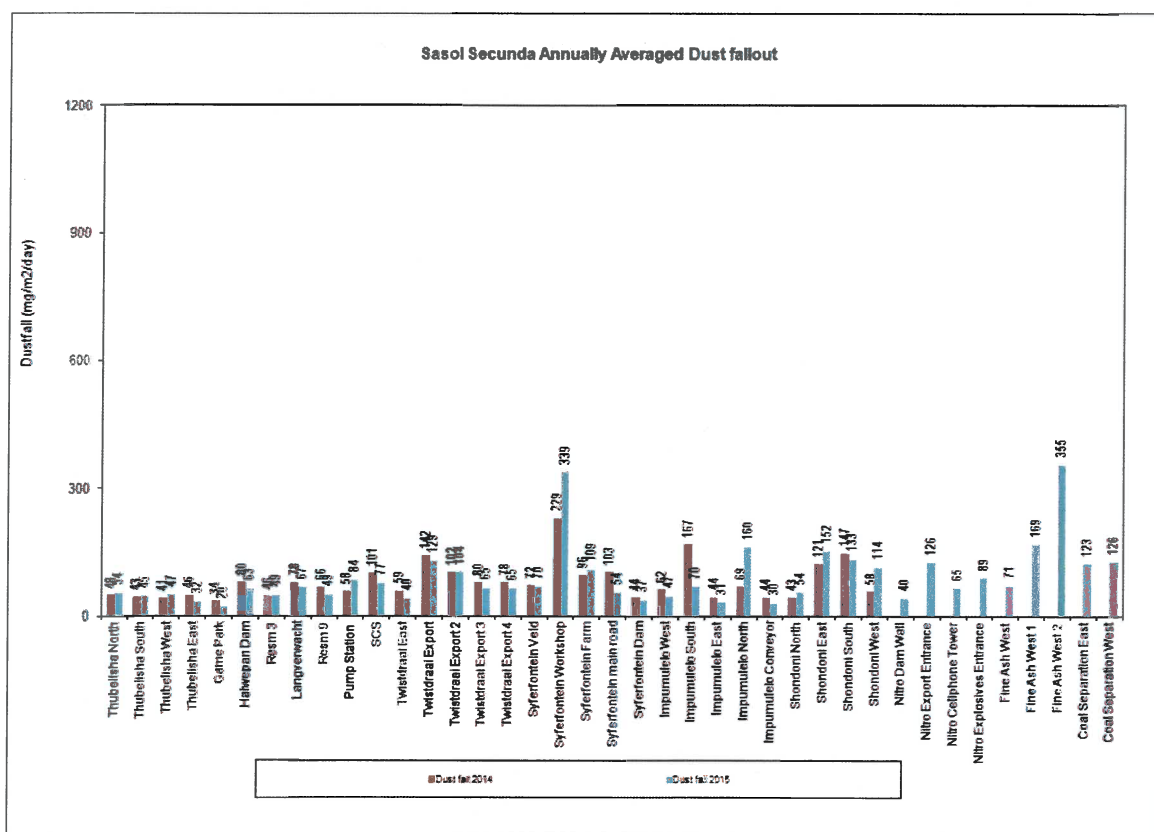


6.3 Annual averages in dust fall rates

Annual average dust fall rates observed at each of the Sasol Secunda single bucket sites during January to December 2015 are given in Figure 79.

Fine Ash West 2 recorded the highest annual average at 355 mg/m²/day. Game Park recorded the lowest annual average at 20 mg/m²/day. All the sites recorded 2015 annual averages equivalent to the 2014 results.

Figure 79: Annual average dust fall rates recorded at each site during the January to December 2015 period.



7 METEOROLOGICAL DATA*

7.1 Analysis of Meso-Scale Meteorological Data

The wind field and the intensity and frequency of occurrence of precipitation represent the most important meteorological parameters influencing emissions, dispersion and deposition of fugitive dust. Hourly average wind data and rain fall was obtained from the Sasol Secunda Weather station for the period under review.

SGS is not accredited for the acquisition and reporting meteorological data. The data has been provided by Sasol Secunda personnel and is reported as such. SGS will not take responsibility for any errors that may occur in the acquisition and transmission of data.

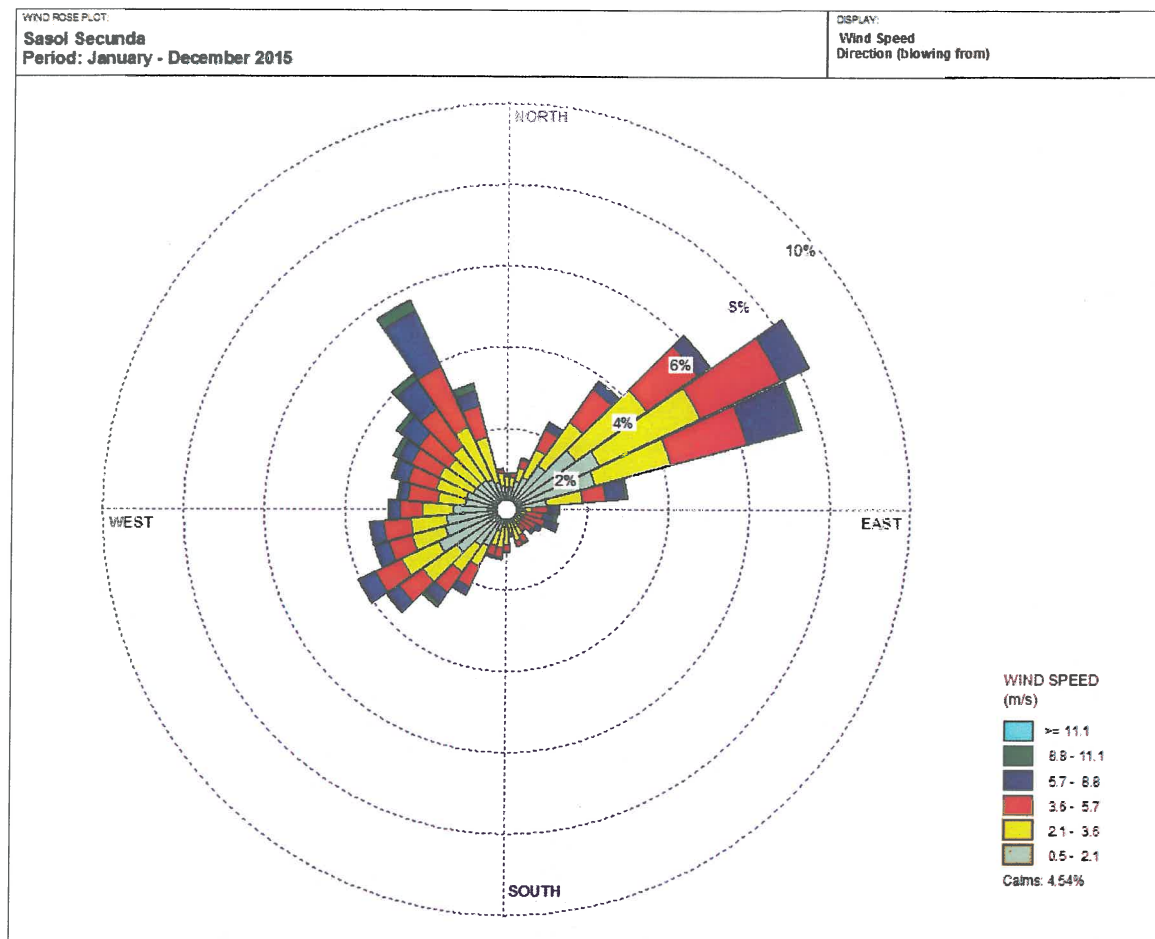
7.1.1 Surface Wind Field Analysis

The erosion and vertical dispersion of dust is a function of the wind field. The wind speed determines the dust generation potential, the distance of downwind transport, and the rate of dilution of pollutants. The generation of mechanical turbulence is similarly a function of the wind speed, in combination with the surface roughness.

Period average and monthly average wind roses for the January to December 2015 interval are given in Figure 80. The colours reflect the different categories of wind speeds; thus light green represents wind speeds between 0.5 to 2.1 m/s, yellow represents winds of 2.1 to 3.6 m/s, red represents 3.6 to 5.7 m/s, blue represents 5.7 to 8.8 m/s, green represents 8.8 to 11.1 m/s and light blue represents winds greater than 11.1 m/s. The dashed circles represent the frequency of occurrence of wind speed and direction categories. Wind speeds higher than 4 m/s will have an influence on dust mobility and are thus the winds of concern with respect to dust concentrations. The threshold wind speed (minimum speed required to transport dust particles) depends on the dust particle size.

Note: *Results marked "Not SANAS Accredited" in this report are not included in the SANAS Schedule of Accreditation for this laboratory.

Figure 80: Period average wind rose for the January to December 2015 monitoring period, based on wind field data from the Sasol Secunda Weather Station.



Over the annual period, winds in the Sasol Secunda region blew predominantly from the North East, with secondary winds from the North West.

Higher speed winds between 8.8 and 11.1 m/s were from North West.

Figure 81: Monthly wind roses for Sasol Secunda for the period January to June 2015.

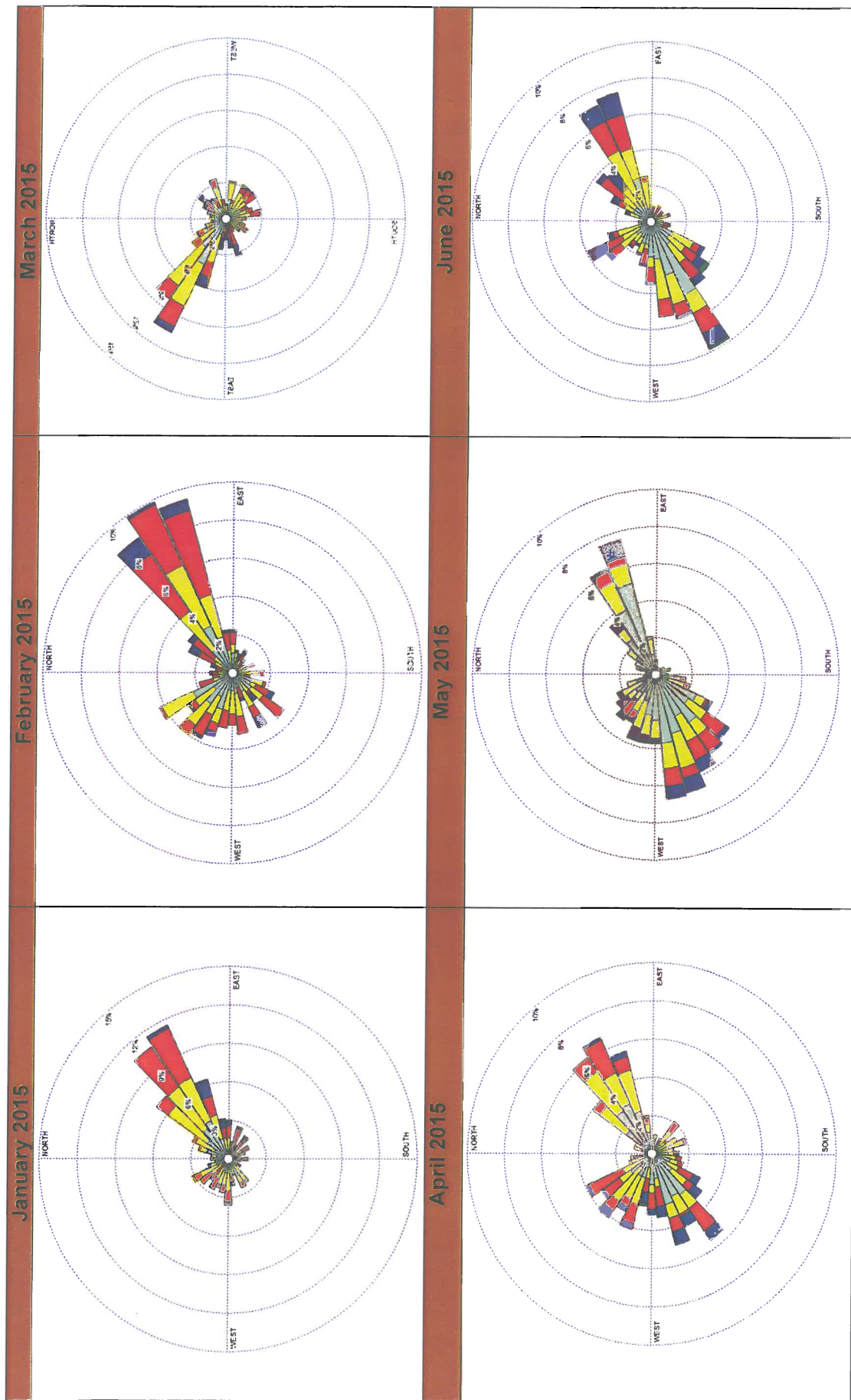
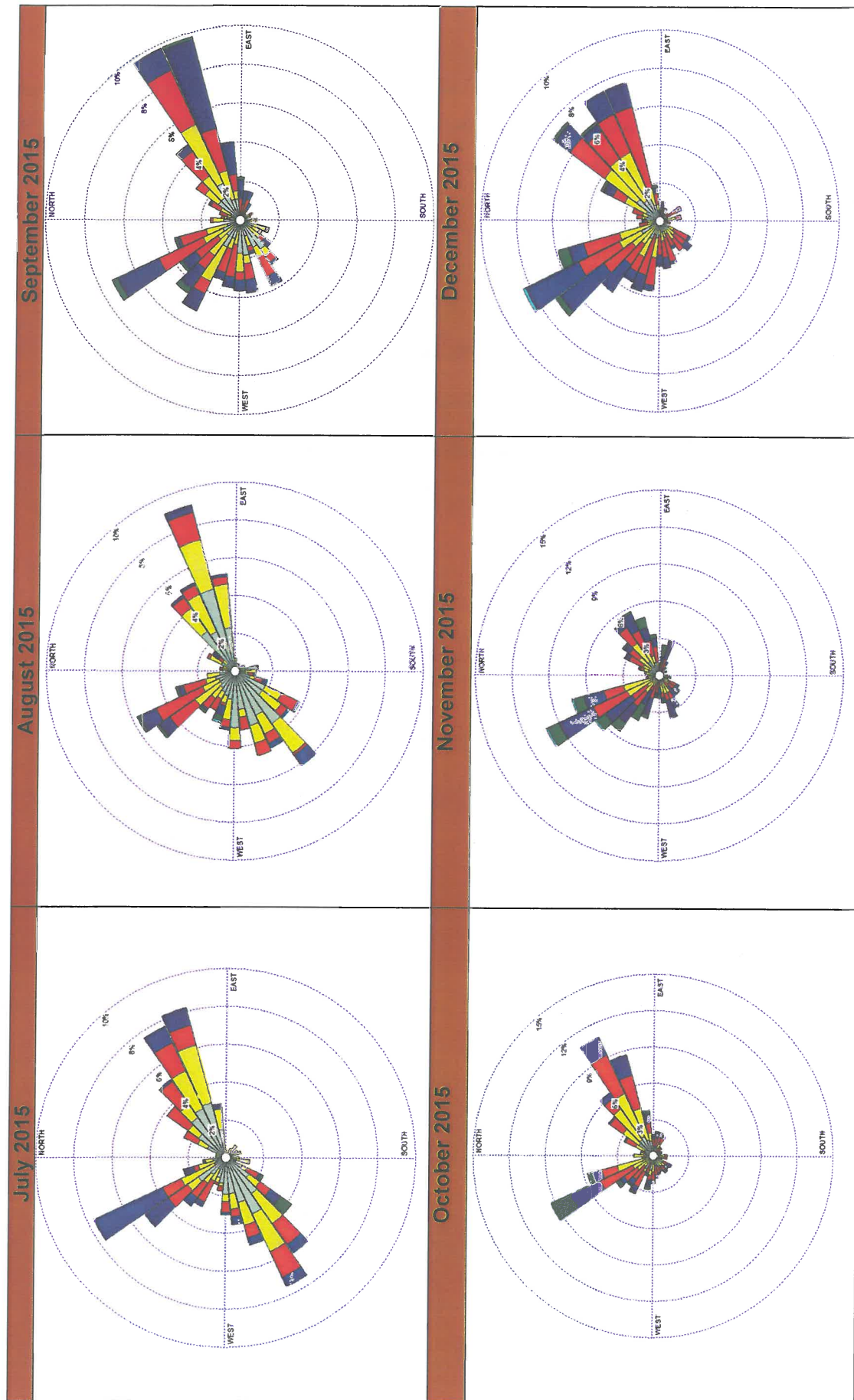


Figure 82: Monthly wind roses for Sasol Secunda for the period July to December 2015.

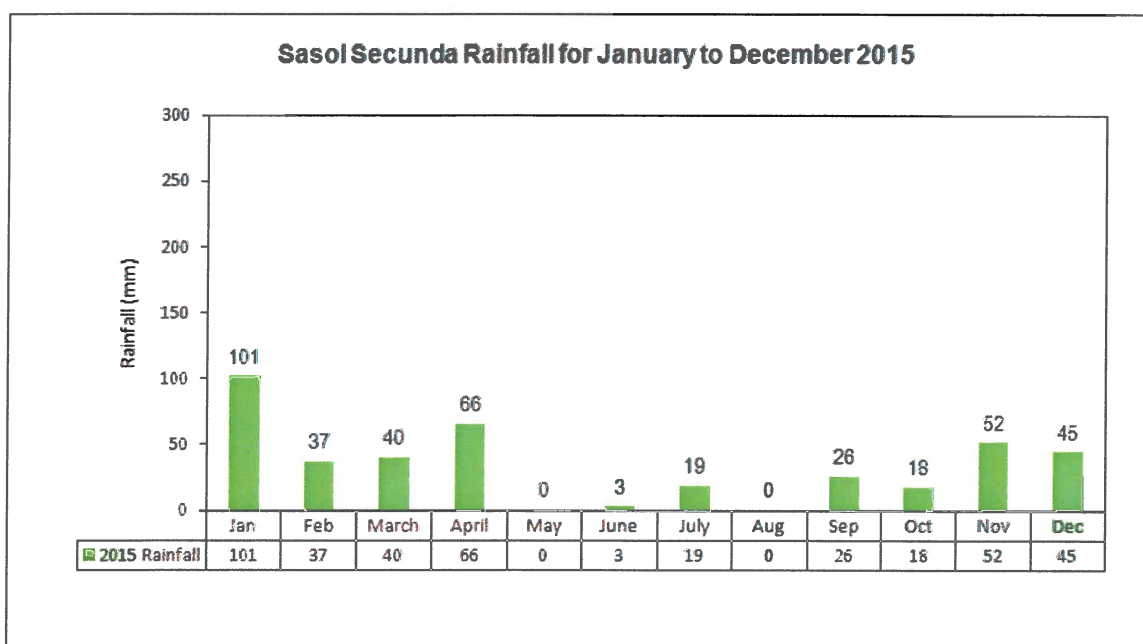


7.1.2 Precipitation*

Precipitation is important to air pollution studies since it represents an effective removal mechanism of atmospheric pollutants and inhibits dust generation potentials. Rainfall data was obtained from the Sasol Secunda weather station for the period under review. The cumulative rainfall is represented in Figure 83.

A total annual rainfall of 405 mm was calculated for the January to December 2015 monitoring period. No rainfall was recorded for May and August 2015. The highest rainfall experienced was during the month of January 2015 at 101 mm.

Figure 83: Total Monthly rainfall for January to December 2015.



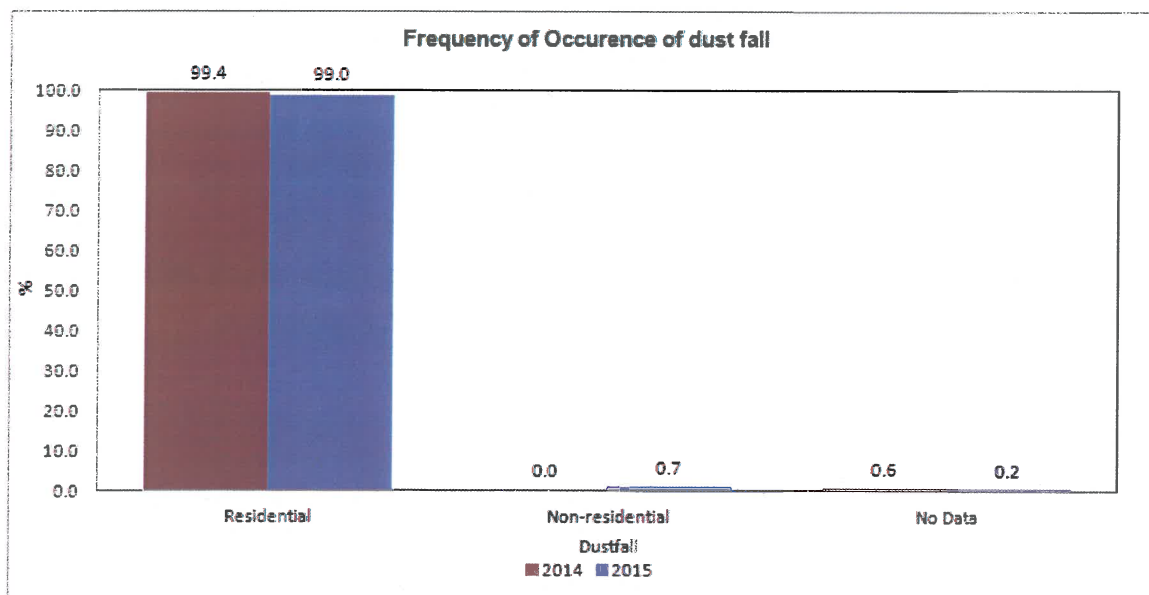
Note: *Results marked "Not SANAS Accredited" in this report are not included in the SANAS Schedule of Accreditation for this laboratory.

6 CLASSIFICATION OF RESULTS

Results obtained from the thirty nine single-bucket dust-monitors situated at Sasol Secunda for the period January to December 2015 are presented in the report. A synopsis of the frequency of occurrence of various categories of dust fall rates, based on samples collected for the single-bucket monitoring sites for the monitoring period in review is given in Figure 84.

Majority of dust falls for the period in review occurred within the RESIDENTIAL category at 99%. There were three occurrences of the NON-RESIDENTIAL category which accounted for 0.7% of the total during the monitoring period in review. The samples which recorded NO DATA accounted for 0.2% of the total during the monitoring period in review.

Figure 84: Synopsis of frequency of occurrence of RESIDENTIAL, NON-RESIDENTIAL dustfall and No Data, recorded during the 2014 and 2015 period.



8 CONCLUSIONS AND RECOMMENDATIONS

The results obtained from the thirty nine dust-monitoring sites situated at Sasol Secunda were presented and discussed for the period January to December 2015. Sample contamination by a dead bird was encountered on one occasion which resulted in data availability amounting to 99%.

The recommended sampling period of 30 ± 3 days was adhered to throughout the monitoring period of January to December 2015.

Dust fallout during the monitoring period was mostly below the RESIDENTIAL threshold limit. All the monitoring months recorded temporal average dust fall rates within the RESIDENTIAL range. Annually averaged dust fallout was also below the RESIDENTIAL threshold limit.

Majority of dust fall for the period in review were characterised by the RESIDENTIAL dust fall category.

It is recommended that the current sampling sites be retained for a further year. If there are additional sensitive locations (new operations or complaints), these should be indicated to SGS so that additional monitoring sites may be recommended, if appropriate.

APPENDIX 1

Results from May 2012 to December

2015

2012	Thubelisha North	Thubelisha South	Thubelisha West	Thubelisha East	Game Park	Halve pan Dam	Resm 3	Langverwa cht	Resm 9	Pump Station
May	ND	ND	ND	ND	230	304	38	89	346	146
June	188	139	204	58	29	83	31	65	118	132
July	244	154	303	341	183	299	35	149	355	39
Aug	272	361	363	450	227	445	156	238	326	338
Sep	ND	37	ND	242	140	229	113	64	503	45
Oct	ND	136	ND	406	171	315	261	219	314	435
Nov	123	139	91	113	66	92	122	101	97	163
Dec	26	11	34	ND	25	85	21	152	20	27

2012	SCS	Twistdraai Mine	Twistdraai Export	Twistdraai Export 2	Twistdraai Export 3	Twistdraai Export 4	Syferfontein Veld	Syferfontein Workshop	Syferfontein Farm	Syferfontein main road
May	44	26	486							
June	ND	65	214				164	30	45	109
July	65	72	414				57	202	282	277
Aug	255	418	319				210	379	424	ND
Sep	64	97	85				164	316	179	130
Oct	702	176	284				97	310	170	102
Nov	251	220	75	175	80	140	278	226	48	47
Dec	112	78	31	22	22	41	9	76	39	15

2012	Syferfontein Dam	Impumulelo West	Impumulelo South	Impumulelo East	Impumulelo North	Impumulelo Conveyor	Shondoni North	Shondoni East	Shondoni South	Shondoni West
May		242	386	458	298					
June	75	72	192	320	231					
July	36	212	289	314	545					
Aug	209	285	192	137	203					
Sep	136	209	225	207	165					
Oct	60	285	352	378	225					
Nov	146	246	248	225	264	340	242	99	151	52
Dec	22	16	24	10	21	ND	10	42	17	53

2013	Thubelisha North	Thubelisha South	Thubelisha West	Thubelisha East	Game Park	Halvepan Dam	Resm 3	Langvenwa cht	Resm 9	Pump Station
Jan	41	23	82	10	20	14	35	122	23	21
Feb	21	21	18	12	29	17	18	13	15	16
Mar	32	33	46	31	26	27	44	77	53	82
April	41	17	16	83	39	25	51	77	34	16
May	17	48	21	194	12	86	22	41	74	49
June	51	63	18	308	13	28	86	50	71	79
July	33	67	34	163	30	24	31	69	45	47
Aug	49	67	24	68	22	42	56	150	38	147
Sep	40	36	34	91	21	65	10	54	37	138
Oct	717	74	166	73	51	107	224	85	82	158
Nov	91	35	49	88	46	58	16	63	67	ND
Dec	11	32	71	18	20	12	8	39	43	14*

2013	SCS	Twistdraai Mine	Twistdraai Export	Twistdraai Export 2	Twistdraai Export 3	Twistdraai Export 4	Syferfontein Veld	Syferfontein Workshop	Syferfontein in Farm	Syferfontein main road
Jan	109	44	139	116	27	56	35	150	13	28
Feb	93	22	26	64	14	76	12	19	21	12
Mar	68	59	769	49	41	55	60	69	99	45
April	24	33	89	19	21	42	47	43	14	18
May	57	30	66	37	22	44	62	82	27	38
June	34	149	138	57	48	32	81	216	50	71
July	45	97	123	27	52	71	48	154	179	23
Aug	196	468	151	93	39	81	72	343	98	26
Sep	361	112	75	85	72	29	106	46	72	84
Oct	143	248	409	104	134	122	45	391	31	87
Nov	112	97	97	48	24	66	111	103	198	34
Dec	61	1129	52	60	53	35	41	163	22	30

2013	Syferfontein Dam	Impumulelo West	Impumulelo South	Impumulelo East	Impumulelo North	Impumulelo Conveyor	Shondoni North	Shondoni East	Shondoni South	Shondoni West
Jan	15	757	21	4	352	11	59	52	22	22
Feb	13	18	74	9	202	16	24	196	70	21
Mar	37	64	29	48	359	24	63	64	29	61
April	15	20	41	20	123	16	39	73	9	30
May	38	24	118	49	116	19	33	170	16	89
June	37	24	54	51	72	20	22	45	30	51
July	22	155	325	67	465	ND	136	6578	240	282
Aug	57	32	126	32	220	ND	42	ND	195	66
Sep	58	50	80	503	52	ND	86	ND	298	58
Oct	46	62	90	44	189	60	130	343	1200	125
Nov	56	55	126	36	121	47	29	359	95	78
Dec	24	43	64	23	27	30	61	12	21	35

2014	Thubelisha North	Thubelisha South	Thubelisha West	Thubelisha East	Game Park	Halvepan Dam	Resm 3	Langverwa cht	Resm 9	Pump Station
Jan	37	16	28	16	14	25	10	167	101	13
Feb	32	15	115	25	22	13	17	31	101	24
Mar	33	60	35	42	49	74	53	35	40	46
April	6	24	34	10	4	14	80	18	28	36
May	25	6	17	20	37	79	44	16	81	27
June	14	51	27	65	15	145	58	66	108	170
July	58	42	29	62	46	95	42	74	53	39
Aug	143	99	40	76	47	200	71	111	52	91
Sep	25	38	42	85	32	167	53	93	60	30
Oct	113	49	60	102	30	96	64	170	81	143
Nov	51	88	31	46	94	34	57	121	54	63
Dec	41	24	29	8	17	13	3	33	38	11

2014	SCS	Twistdraai Mine	Twistdraai Export	Twistdraai Export 2	Twistdraai Export 3	Twistdraai Export 4	Syferfontein Veld	Syferfontein Workshop	Syferfontein in Farm	Syferfontein main road
Jan	41	24	57	22	24	39	26	80	12	24
Feb	215	13	71	33	17	102	51	199	19	20
Mar	78	35	126	74	78	55	24	186	53	41
April	26	20	31	28	2	8	7	114	28	7
May	8	74	226	46	29	10	63	54	156	14
June	43	106	142	291	39	244	109	126	311	235
July	68	37	219	67	61	15	104	234	176	127
Aug	210	153	334	298	310	269	210	331	141	85
Sep	99	74	120	134	91	47	79	456	105	56
Oct	139	66	187	173	180	35	73	568	96	543
Nov	238	65	93	49	79	58	92	286	ND	51
Dec	46	38	95	12	43	57	22	110	59	28

2014	Syferfontein Dam	Impumulelo West	Impumulelo South	Impumulelo East	Impumulelo North	Impumulelo Conveyor	Shondoni North	Shondoni East	Shondoni South	Shondoni West
Jan	45	60	326	19	86	27	69	66	18	17
Feb	27	46	370	32	46	32	17	76	28	17
Mar	52	64	130	27	69	71	21	294	55	46
April	52	14	92	18	28	13	13	84	52	18
May	25	36	49	31	13	15	33	117	25	12
June	13	28	171	55	20	34	29	74	419	39
July	51	64	175	93	87	50	0	77	118	74
Aug	40	220	121	61	204	83	90	196	371	69
Sep	43	58	110	51	81	45	63	59	252	134
Oct	63	95	184	63	111	52	45	90	57	67
Nov	99	34	200	51	52	75	51	193	340	91
Dec	14	21	78	30	36	27	79	129	33	111

2015	Thubelisha North	Thubelisha South	Thubelisha West	Thubelisha East	Game Park	Halvepan Dam	Resm 3	Langverwa cht	Resm 9	Pump Station
Jan	40	7	21	17	18	79	38	49	25	12
Feb	19	10	13	15	19	33	29	32	22	13
Mar	35	18	20	24	15	74	21	34	43	44
April	11	14	12	17	18	48	21	15	16	56
May	59	60	16	10	18	132	6	38	28	62
June	29	6	20	25	19	49	27	41	46	34
July	43	54	42	22	34	27	53	29	56	69
Aug	62	105	48	24			56	62	33	125
Sep	46	32	42	38			26	49	36	39
Oct	83	53	126	47			97	137	38	108
Nov	142	148	159	112			159	163	181	368
Dec	76	37	51	38			60	158	66	83

2015	SCS	Twistdraai Mine	Twistdraai Export	Twistdraai Export 2	Twistdraai Export 3	Twistdraai Export 4	Syferfontein Veld	Syferfontein Workshop	Syferfontein in Farm	Syferfontein main road
Jan	41	18	49	99	37	98	24	139	20	18
Feb	26	14	25	42	20	24	7	103	17	22
Mar	42	23	59	25	61	72	35	289	30	25
April	44	18	54	36	15	38	50	104	39	15
May	68	69	136	95	32	34	88	114	69	79
June	47	31	61	31	99	26	13	234	42	19
July	42	39	110	103	65	51	79	417	221	49
Aug	186	92	175	301	73	91	103	297	124	40
Sep	76	30	121	52	54	80	71	317	113	70
Oct	95	40	224	132	81	104	159	980	348	192
Nov	172	39	302	171	198	99	114	638	138	93
Dec	81	69	237	161	50	65	91	432	148	28

2015	Syferfontein Dam	Impumulelo West	Impumulelo South	Impumulelo East	Impumulelo North	Impumulelo Conveyor	Shondoni North	Shondoni East	Shondoni South	Shondoni West
Jan	15	31	184	15	16	4	35	50	23	43
Feb	11	21	50	4	6	28	10	36	72	35
Mar	18	19	92	29	86	20	50	134	32	66
April	19	5	152	27	18	20	84	213	23	105
May	34	52	56	73	22	23	44	95	99	125
June	28	23	41	17	32	16	32	104	41	42
July	37	52	40	19	50	26	50	148	126	84
Aug	58	60	45	35	101	29	35	125	121	158
Sep	45	35	13	23	160	26	74	240	68	139
Oct	62	142	63	73	524	89	70	258	294	156
Nov	50	45	41	ND	675	36	119	340	510	319
Dec	69	79	62	29	229	44	51	83	184	95

ND – No data

2015	Nitro Dam Wall	Nitro Export Entrance	Nitro Cellphone Tower	Nitro Explosives Entrance	Fine Ash West	Fine Ash West 1	Fine Ash West 2	Coal Separation East	Coal Separation West
Jan									
Feb									
Mar									
April	18	87	26	53					
May	2	85	61	110					
June	35	33	26	49					
July	36	194	32	44					
Aug	46	108	86	112					
Sep	43	131	28	63	80	117	203	71	87
Oct	26	90	63	111	48	203	324	105	63
Nov	58	335	110	135	102	226	781	229	217
Dec	100	70	156	124	51	128	114	87	138