

APPENDIX 3
ENVIRONMENTAL
PERFORMANCE

**APPENDIX 3A
METEOROLOGICAL
MONITORING DATA**

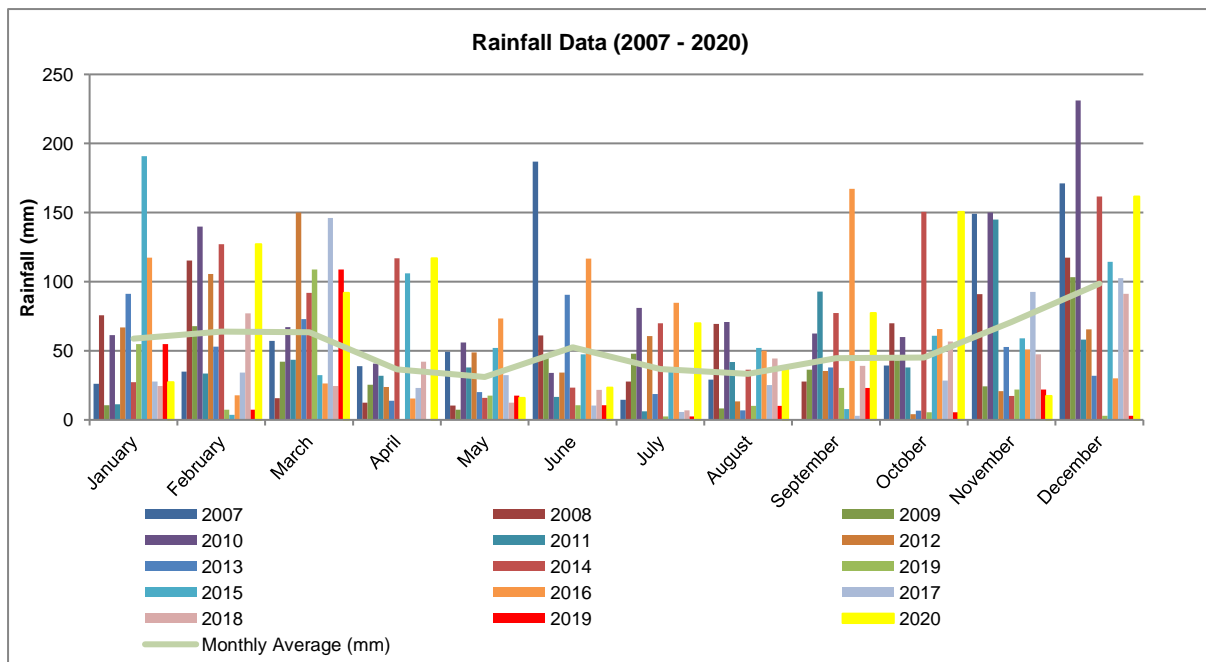
2020 Summary of Rainfall Data

	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Rainfall (mm)	2020	27.2	127	92	117	16	23.4	70	36.4	77.2	150.6	17.4	161.6
Cumulative Rainfall (mm)	2020	27.2	154.2	246.2	363.2	379.2	402.6	472.6	509	586.2	736.8	754.2	915.8

Historical Rainfall

Monthly	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Monthly Average (mm)
Jan	67	26.2	75.8	10.6	61.4	11.4	66.8	91.2	54.8	190.8	117.4	27.8	24.4	54.8	27.2	62.9
Feb	76.6	35	115.2	67.8	139.8	33.6	105.6	53	7.4	3.6	17.8	34.2	77	7.4	127	55.3
Mar	9.2	57.2	15.6	42.2	67.2	43.4	150	73	108.8	32.4	26.4	146	24.6	108.8	92	64.6
Apr	20.8	38.8	12.4	25.4	40.6	32	23.8	13.8	0	106	15.4	23	42.2	0	117	28.2
May	0.8	49.2	10.4	7.4	56	38	48.8	20	17.6	52	73.4	32.4	12.4	17.6	16	31.1
June	37.2	186.8	61	44.8	34	16.6	34.2	90.6	10.6	47.4	116.6	10.4	21.6	10.6	23.4	51.6
July	51	14.6	27.8	48	81	6.2	60.6	18.6	2.6	38.2	84.8	5.8	6.8	2.6	70	32.0
Aug	7	29.2	69.4	8.2	70.8	41.8	13.4	6.8	10.2	52	50	25.2	44.4	10.2	36.4	31.3
Sept	15.6	0.2	27.8	36.2	62.4	92.8	35.4	38	23	7.8	167.2	3	39	23	77.2	40.8
Oct	1.8	39.4	70	43	60	38	4.2	6.6	5.6	60.8	65.8	28.4	56.8	5.6	150.6	34.7
Nov	70	149.2	91	24.2	150	145	20.8	52.8	22	59	50.8	92.6	47.4	22	17.4	71.2
Dec	NA	171.2	117.4	103.2	231.2	58	65.6	31.8	3	114.4	30	102.6	91.2	3	161.6	86.4
Total	357	797	693.8	461	1054.4	556.8	629.2	496.2	265.6	764.4	815.6	531.4	487.8	265.6	915.8	-

Rainfall Data 2007-2020



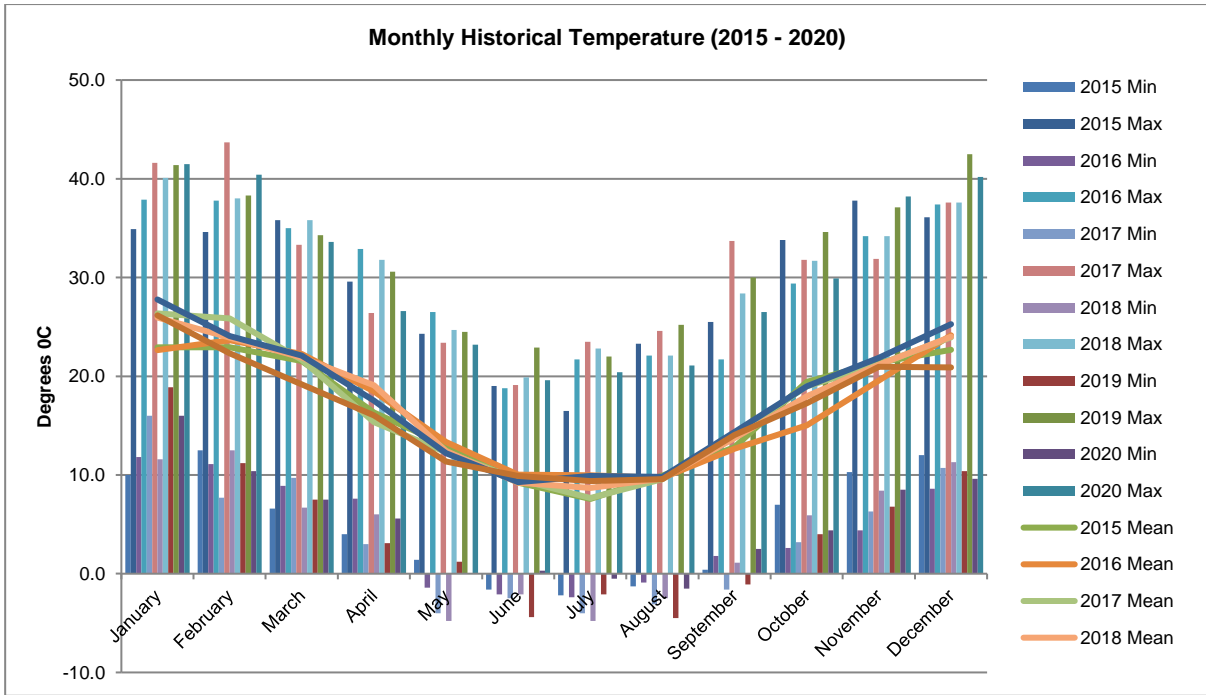
2020 Summary of Temperature Data

2020	Air Temperature (°C at 2 m)			Air Temperature (°C at 10 m)			Air Temperature (°C at 60 m)		
	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean
January	15.0	42.7	26.6	16.0	41.5	26.2	16.7	40.5	25.9
February	10.4	41.3	22.8	10.4	40.4	22.3	12.7	39.4	22.2
March	10.3	34.2	19.6	7.5	33.6	19.2	11.9	32.9	19.3
April	5.1	27.0	16.1	5.6	26.6	16.0	6.7	26.1	16.5
May	0.0	23.7	11.3	0.0	23.2	11.3	1.7	22.5	11.9
June	-0.3	20.2	9.7	0.3	19.6	9.9	2.0	19.6	10.3
July	-1.1	20.6	9.2	-0.5	20.4	9.4	1.3	19.8	9.8
August	-2.2	21.6	9.4	-1.5	21.1	9.5	0.0	20.4	9.7
September	2.0	27.3	13.9	2.5	26.5	14.0	3.4	25.7	14.3
October	4.0	30.5	17.2	4.4	29.9	17.3	6.0	29.1	17.3
November	7.9	38.6	21.0	8.5	38.2	20.9	9.5	37.2	20.8
December	9.3	40.7	21.1	9.6	40.2	20.9	10.6	39.3	20.6

Historical Temperature Data

	2013			2014			2015			2016		
	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean
January	14.3	41.9	25.6	12.5	41.8	24.8	10.0	34.9	22.9	11.8	37.9	22.7
February	10.4	34.2	22.0	19.2	20.9	30.4	12.5	34.6	22.9	11.1	37.8	23.6
March	9.3	31.4	20.5	7.5	29.6	20.1	6.6	35.8	21.6	8.9	35.0	22.2
April	4.0	28.8	16.2	3.6	30.0	16.9	4.0	29.6	16.3	7.6	32.9	18.5
May	0.2	27.1	12.4	1.2	26.3	12.2	1.4	24.3	13.0	-1.4	26.5	13.3
June	-0.2	18.7	10.0	-0.9	19.6	9.9	-1.6	19.0	9.2	-2.1	18.8	10.0
July	-2.2	20.3	9.6	-3.7	21.3	8.0	-2.2	16.5	7.6	-2.4	21.7	10.0
August	1.6	25.0	12.9	-3.1	20.6	9.8	-1.3	23.3	9.9	-0.9	22.1	9.7
September	2.0	30.0	15.2	-0.2	29.7	13.6	0.4	25.5	12.8	1.8	21.7	12.7
October	1.5	33.6	17.7	1.6	35.9	18.8	7.0	33.8	19.4	2.6	29.4	15.0
November	5.9	35.2	19.6	6.9	41.9	22.7	10.3	37.8	21.4	4.4	34.2	19.6
December	5.1	38.5	23.1	11.1	35.0	22.6	12.0	36.1	22.7	8.6	37.4	24.1

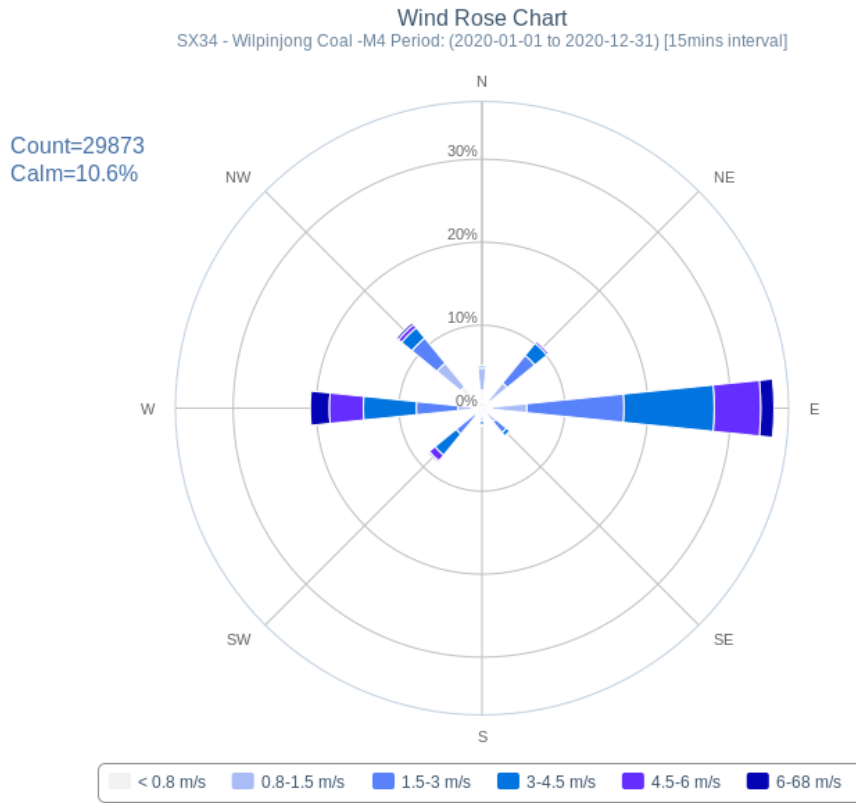
	2017			2018			2019		
	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean
January	16.0	41.6	26.4	11.6	40.1	25.9	18.9	41.4	27.8
February	7.7	43.7	25.9	12.5	38.0	23.9	11.2	38.3	24.1
March	9.7	33.3	21.7	6.7	35.8	21.9	7.5	34.3	22.1
April	3.0	26.4	15.3	6.0	31.8	19.1	3.1	30.6	17.5
May	-4.0	23.4	12.3	-4.8	24.7	12.4	1.2	24.5	12.2
June	-2.5	19.1	9.5	-2.1	19.9	9.2	-4.4	22.9	9.3
July	-4.0	23.5	7.7	-4.8	22.8	8.7	-2.1	22.0	9.9
August	-3.1	24.6	9.6	-2.5	22.1	9.6	-4.5	25.2	9.8
September	-1.6	33.7	14.1	1.1	28.4	13.7	-1.1	30.0	14.3
October	3.2	31.8	19.0	5.9	31.7	18.0	4.0	34.6	19.0
November	6.3	31.9	21.2	8.4	34.2	21.2	6.8	37.1	21.9
December	10.7	37.6	23.9	11.3	37.6	24.0	10.4	42.5	25.3



2020 Average Wind Speeds & Directions

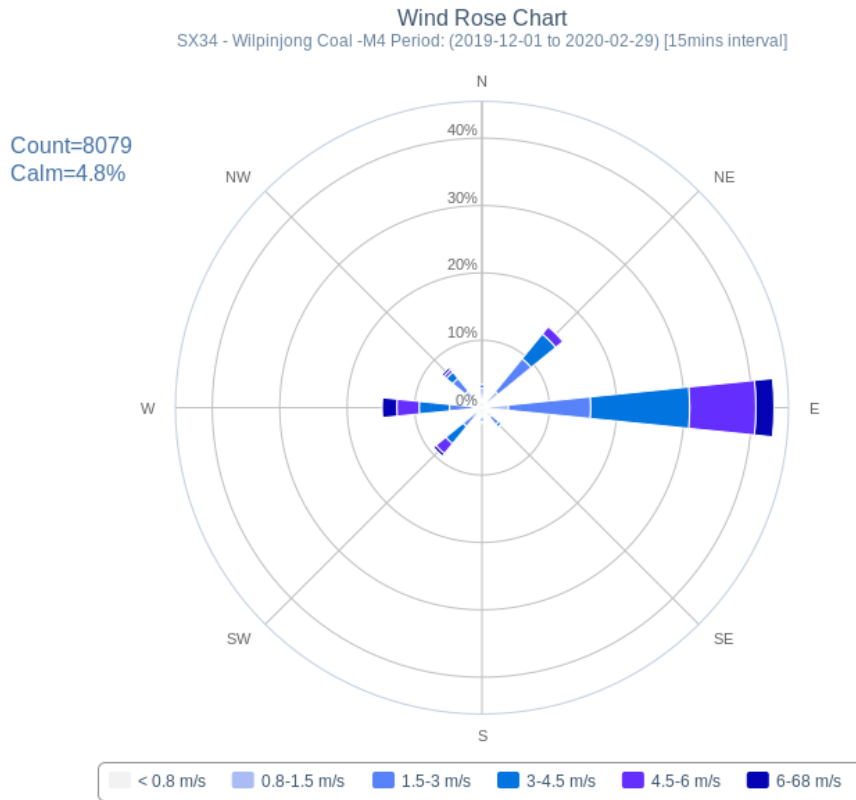
Month	Ave Wind Speed (m/s)	Max Wind Speed (m/s)	Ave Wind Dir.
January	2.2	6.2	137.32
February	2.5	5.9	131.96
March	2.4	5.1	132.26
April	1.6	5.1	200.03
May	1.7	4.8	193.10
June	1.5	4.4	158.37
July	1.2	4.3	167.32
August	2.3	5.7	228.23
September	1.9	5.5	194.33
October	1.5	5.1	166.29
November	1.9	5.6	157.97
December	2.5	6.2	125.19

Annual Wind Rose 2020



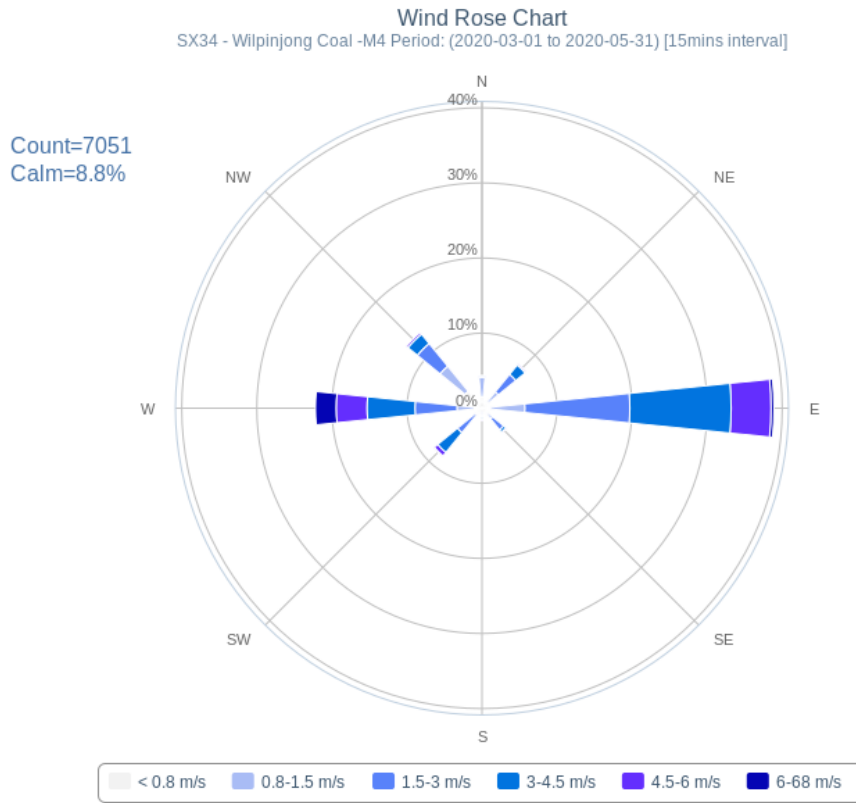
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Summer Wind Rose December 2019 - February 2020



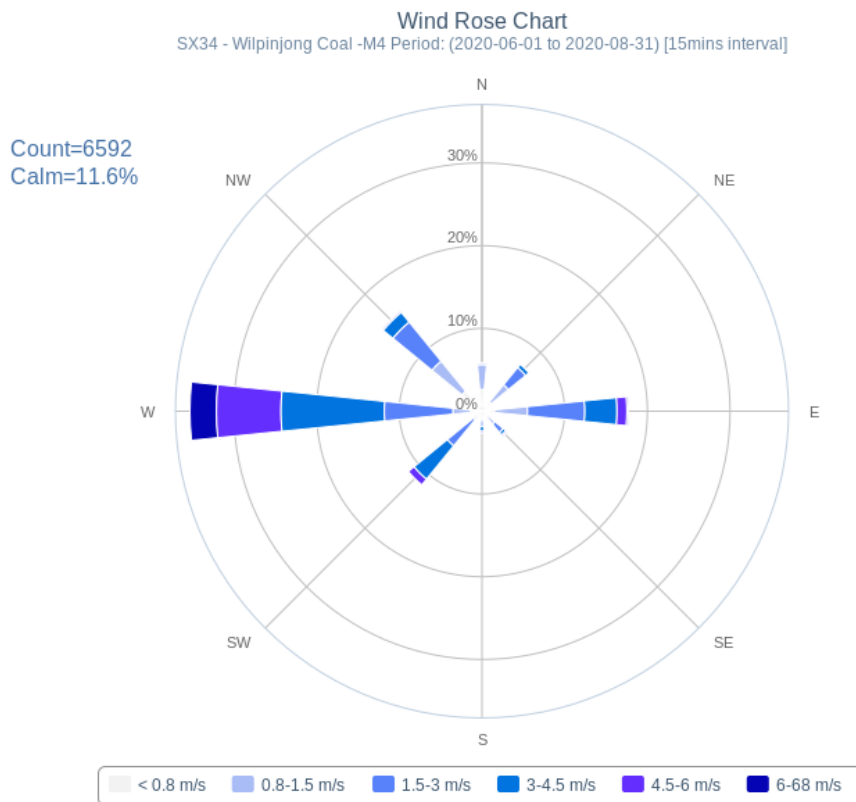
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Autumn Wind Rose 2020



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Winter Wind Rose 2020

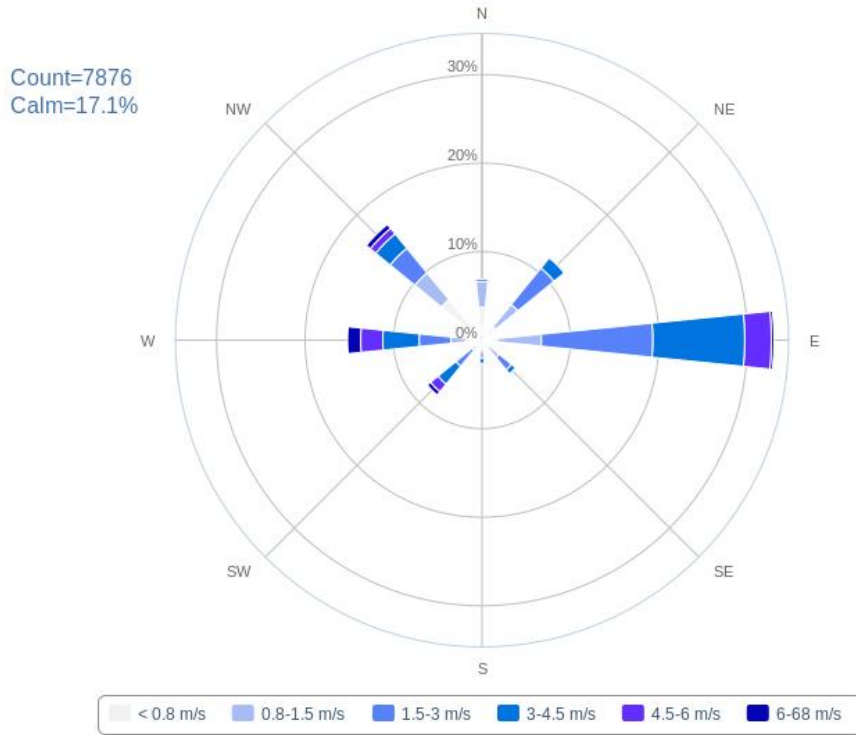


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Spring Wind Rose 2020

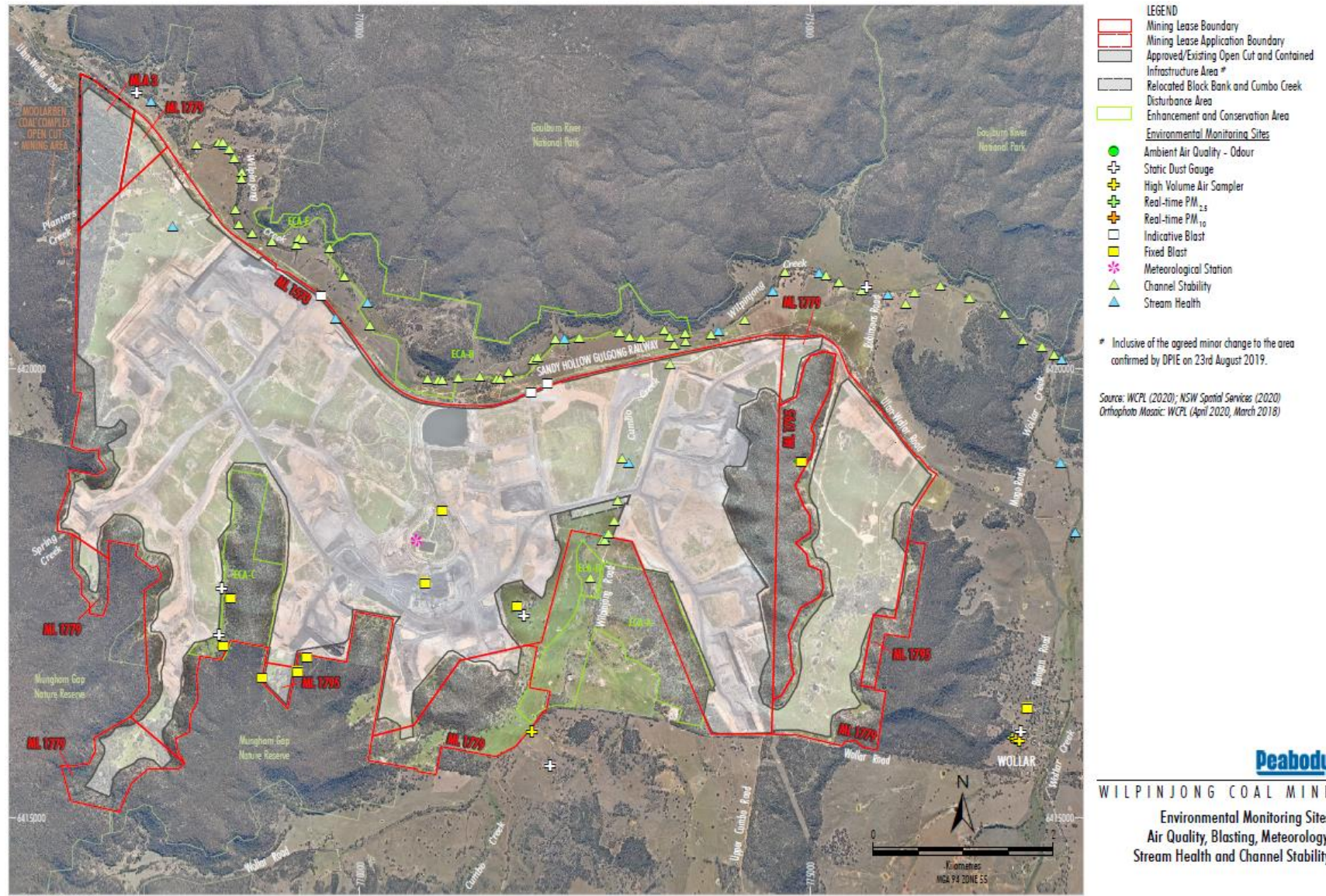
Wind Rose Chart

SX34 - Wilpinjong Coal -M4 Period: (2020-09-01 to 2020-11-30) [15mins interval]



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Location of WCPL's Meteorological Station



WL-12-11_EMS 2020_2054