Construction Phase

Potential Impact		Extent (E)	Duration (D)	Magnitude (M)	Probability (P)	Significance (S=(E+D+M)*P)		Status (+ve or -ve)	Confidence
Geology	**Nature of impact:**	No environmental impact on geology is identified.							
T1: Alteration of Topography	**Nature of impact:**	T1: Alteration of Topography							
	Without Mitigation	1	4	4	4	**36**	**Medium**	-	High
	degree to which impact can be reversed:	Medium							
	degree of impact on irreplaceable resources:	Low							
	With Mitigation	1	3	2	3	**18**	**Low**		High
Impact C1: Carbon Footprint	**Nature of impact:**								
	Without Mitigation	1	2	2	4	**20**	**Low**	-	High
	degree to which impact can be reversed:	Low							
	degree of impact on	Low							

Potential Impact		Extent (E)	Duration (D)	Magnitude (M)	Probability (P)	Significance (S=(E+D+M)*P)		Status (+ve or -ve)	Confidence
	irreplaceable resources:								
	With Mitigation	1	2	2	4	**20**	**Low**	-	High
Impact SL1: Contamination of soils	**Without Mitigation**	2	2	2	4	**24**	**Low**	-	High
	degree to which impact can be reversed:	Medium							
	degree of impact on irreplaceable resources:	Low							
	With Mitigation	1	2	2	4	**20**	**Low**	-	High
Impact SL2: Change in Land Capability	**Without Mitigation**	1	2	2	3	**15**	**Low**	-	High
	degree to which impact can be reversed:	Medium							
	degree of impact on irreplaceable resources:	Low							
	With Mitigation	1	2	2	3	**15**	**Low**	-	High

Potential Impact		Extent (E)	Duration (D)	Magnitude (M)	Probability (P)	Significance (S=(E+D+M)*P)		Status (+ve or -ve)	Confidence
Impact FL1: Loss of Diversity of Indigenous Floral Communities	**Without Mitigation**	1	5	4	4	**40**	**Medium**	-	High
	degree to which impact can be reversed:	Medium							
	degree of impact on irreplaceable resources:	Low							
	With Mitigation	1	5	2	3	**24**	**Low**	-	High
Impact FA1: Loss of Habitat for Faunal Communities Including Species of Conservation Concern	**Without Mitigation**	2	5	8	4	**60**	**Medium**	-	High
	degree to which impact can be reversed:	Medium							
	degree of impact on irreplaceable resources:	Low							
	With Mitigation	1	5	6	3	**36**	**Medium**	-	High
Impact AQ 1: Impact of PM10 Concentrations on Receptors	**Without Mitigation**	2	2	4	4	**32**	**Medium**	-	High
	degree to which impact can be reversed:	High							

Potential Impact		Extent (E)	Duration (D)	Magnitude (M)	Probability (P)	Significance (S=(E+D+M)*P)		Status (+ve or -ve)	Confidence
	degree of impact on irreplaceable resources:	Low							
	With Mitigation	2	2	2	3	**18**	**Low**	-	High
Impact AQ 2: Impact of PM2.5 Concentrations on Receptors	**Without Mitigation**	2	2	4	4	**32**	**Medium**	-	High
	degree to which impact can be reversed:	High							
	degree of impact on irreplaceable resources:	Low							
	With Mitigation	2	2	2	3	**18**	**Low**	-	High
Impact H1: Surface Water Contamination	**Without Mitigation**	2	2	6	4	**40**	**Medium**	-	High
	degree to which impact can be reversed:	Low							
	degree of impact on irreplaceable resources:	Medium							
	With Mitigation	1	2	4	3	**21**	**Low**	-	High

Potential Impact		Extent (E)	Duration (D)	Magnitude (M)	Probability (P)	Significance (S=(E+D+M)*P)		Status (+ve or -ve)	Confidence
Impact GW1: Groundwater Contamination	**Without Mitigation**	2	3	6	4	**44**	**Medium**	-	High
	degree to which impact can be reversed:	Low							
	degree of impact on irreplaceable resources:	Medium							
	With Mitigation	1	1	4	4	**24**	**Low**	-	High
Impact EN1: Noise as a Result of Construction Activities	**Without Mitigation**	1	2	4	3	**21**	**Low**	-	High
	degree to which impact can be reversed:	High							
	degree of impact on irreplaceable resources:	Low							
	With Mitigation	1	2	2	3	**15**	**Low**	-	High
Impact ACH 1: Impact on Archaeological and Cultural Heritage	**Without Mitigation**	1	5	4	2	**20**	**Low**	-	High
	degree to which impact can be reversed:	Low							

Potential Impact		Extent (E)	Duration (D)	Magnitude (M)	Probability (P)	Significance (S=(E+D+M)*P)		Status (+ve or -ve)	Confidence
	degree of impact on irreplaceable resources:	High							
	With Mitigation	1	1	2	2	**8**	**Low**	-	High
Impact SES 1: Employment Opportunities	**Without Mitigation**	3	2	4	3	**27**	**Low**	+	High
	degree to which impact can be reversed:	Not Applicable							
	degree of impact on irreplaceable resources:	Not Applicable							
	With Mitigation	3	2	4	4	**36**	**Medium**	+	High
Impact SES 2: Local Economic Development Opportunities	**Without Mitigation**	3	2	4	3	**27**	**Low**	+	High
	degree to which impact can be reversed:	Not Applicable							
	degree of impact on irreplaceable resources:	Not Applicable							
	With Mitigation	3	2	4	4	**36**	**Medium**	+	High

Potential Impact		Extent (E)	Duration (D)	Magnitude (M)	Probability (P)	Significance (S=(E+D+M)*P)		Status (+ve or -ve)	Confidence
Impact SES 3: Nuisances	**Without Mitigation**	2	2	4	3	**24**	**Low**	-	High
	degree to which impact can be reversed:	Medium							
	degree of impact on irreplaceable resources:	Low							
	With Mitigation	2	2	2	2	**12**	**Low**	-	High
Impact V1: Visual Impact	**Without Mitigation**	1	2	2	4	**20**	**Low**	-	High
	degree to which impact can be reversed:	High							
	degree of impact on irreplaceable resources:	Low							
	With Mitigation	1	2	2	4	**20**	**Low**	-	High
Impact HM 1: Hazardous Materials Management	**Without Mitigation**	2	2	6	4	**40**	**Medium**	-	High
	degree to which impact	Low							

Potential Impact		Extent (E)	Duration (D)	Magnitude (M)	Probability (P)	Significance (S=(E+D+M)*P)		Status (+ve or -ve)	Confidence
	can be reversed:								
	degree of impact on irreplaceable resources:	Low							
	With Mitigation	1	2	2	3	**15**	**Low**	-	High

Operational Phase

Potential Impact		Extent (E)	Duration (D)	Magnitude (M)	Probability (P)	Significance (S=(E+D+M)*P)		Status (+ve or -ve)	Confidence
Geology	**Nature of impact:**	No environmental impact on geology is identified or anticipated							
Topography	**Nature of impact:**	No environmental impact on topography is identified or anticipated.							
Impact C2: Carbon Footprint	**Nature of impact:**								
	Without Mitigation	4	5	2	5	**55**	**Medium**	-	High
	degree to which impact can be reversed:	Low							

Potential Impact		Extent (E)	Duration (D)	Magnitude (M)	Probability (P)	Significance (S=(E+D+M)*P)		Status (+ve or -ve)	Confidence
	degree of impact on irreplaceable resources:	Low							
	With Mitigation	4	5	2	5	**55**	**Medium**	-	High
Impact C3: Local Climate Change	**Without Mitigation**	4	5	2	5	**55**	**Medium**	-	High
	degree to which impact can be reversed:	Low							
	degree of impact on irreplaceable resources:	Low							
	With Mitigation	4	5	2	5	**55**	**Medium**	-	High
Impact SL3: Contamination of soils	**Without Mitigation**	2	3	4	4	**36**	**Medium**	-	High
	degree to which impact can be reversed:	High							
	degree of impact on irreplaceable resources:	Medium							

Potential Impact		Extent (E)	Duration (D)	Magnitude (M)	Probability (P)	Significance (S=(E+D+M)*P)		Status (+ve or -ve)	Confidence
	With Mitigation	1	1	2	3	**12**	**Low**	-	High
Impact FL2: Loss of Diversity of Indigenous Floral Communities	**Without Mitigation**	1	3	4	3	**24**	**Low**	-	High
	degree to which impact can be reversed:	Medium							
	degree of impact on irreplaceable resources:	Low							
	With Mitigation	1	1	2	3	**12**	**Low**	-	High
Impact FA2: Loss of Fauna	**Nature of impact:**								
	Without Mitigation	1	3	4	3	**24**	**Low**	-	High
	degree to which impact can be reversed:	Medium							
	degree of impact on irreplaceable resources:	Low							
	Mitigation Measures								

Potential Impact		Extent	Duration	Magnitude	Probability	Significance		Status	Confidence
		(E)	(D)	(M)	(P)	(S=(E+D+M)*P)		(+ve or -ve)	
	With Mitigation	1	3	4	2	**16**	**Low**	-	High
Impact AQ 3: Impact of PM10 Concentrations on Receptors	**Without Mitigation**	2	5	2	3	**27**	**Low**	-	High
	degree to which impact can be reversed:	High							
	degree of impact on irreplaceable resources:	Low							
	With Mitigation	2	5	2	2	**18**	**Low**	-	High
Impact AQ 4: Impact of PM2.5 Concentrations on Receptors	**Without Mitigation**	2	5	2	2	**18**	**Low**	-	High
	degree to which impact can be reversed:	High							
	degree of impact on irreplaceable resources:	Low							
	With Mitigation	1	5	2	1	**8**	**Low**	-	High
Impact AQ 5: Impact of SO2	**Without Mitigation**	2	5	4	3	**33**	**Medium**	-	High

Potential Impact		Extent (E)	Duration (D)	Magnitude (M)	Probability (P)	Significance (S=(E+D+M)*P)		Status (+ve or -ve)	Confidence
Concentrations on Receptors	**degree to which impact can be reversed:**	Low							
	degree of impact on irreplaceable resources:	Medium							
	With Mitigation	1	5	2	2	**16**	**Low**	-	High
Impact AQ 6: Impact of NOx Concentrations on Receptors	**Without Mitigation**	1	5	2	1	**8**	**Low**	-	High
	degree to which impact can be reversed:	Medium							
	degree of impact on irreplaceable resources:	Medium							
	With Mitigation	1	5	0	1	**6**	**Low**	-	High
Impact H2: Surface Water Contamination	**Without Mitigation**	1	3	4	4	**32**	**Medium**	-	High
	degree to which impact can be reversed:	Medium							

Potential Impact		Extent (E)	Duration (D)	Magnitude (M)	Probability (P)	Significance (S=(E+D+M)*P)		Status (+ve or -ve)	Confidence
	degree of impact on irreplaceable resources:	Medium							
	With Mitigation	1	2	2	3	**15**	**Low**	-	High
Impact GW2: Groundwater Contamination	**Without Mitigation**	3	3	6	4	**48**	**Medium**	-	High
	degree to which impact can be reversed:	Medium							
	degree of impact on irreplaceable resources:	Medium							
	With Mitigation	1	2	4	4	**28**	**Low**	-	High
Impact EN2: Acoustic Impact on Neighbouring Workers Accommodation	**Without Mitigation**	2	4	4	3	**30**	**Low**	-	High
	degree to which impact can be reversed:	High							
	degree of impact on irreplaceable resources:	Low							

Potential Impact		Extent	Duration	Magnitude	Probability	Significance		Status	Confidence
		(E)	(D)	(M)	(P)	(S=(E+D+M)*P)		(+ve or -ve)	
	With Mitigation	2	4	4	3	**30**	**Low**	-	High
Impact EN3: Acoustic Impact on Residential Receptors	**Without Mitigation**	2	4	4	2	**20**	**Low**	-	High
	degree to which impact can be reversed:	High							
	degree of impact on irreplaceable resources:	Low							
	With Mitigation	2	4	4	2	**20**	**Low**	-	High
Impact SES 4: Retention of Existing Employees	**Without Mitigation**	2	4	4	4	**40**	**Medium**	+	High
	degree to which impact can be reversed:	Not Applicable							
	degree of impact on irreplaceable resources:	Not Applicable							
	With Mitigation	2	4	6	4	**48**	**Medium**	+	High
	Without Mitigation	2	4	2	3	**24**	**Low**	+	High

Potential Impact		Extent (E)	Duration (D)	Magnitude (M)	Probability (P)	Significance (S=(E+D+M)*P)		Status (+ve or -ve)	Confidence
Impact SES 5: Improvement in Ambient Air Quality	**degree to which impact can be reversed:**	Not Applicable							
	degree of impact on irreplaceable resources:	Not Applicable							
	With Mitigation	2	4	2	3	**24**	**Low**	+	High
Impact V2: Visual Impact	**Without Mitigation**	2	3	2	4	**28**	**Low**	-	High
	degree to which impact can be reversed:	High							
	degree of impact on irreplaceable resources:	Low							
	With Mitigation	2	2	2	3	**18**	**Low**	-	High
Impact HM 2: Loss of Primary Containment of SO3 Gas in the WSA Plant	**Without Mitigation**	2	1	4	2	**14**	**Low**	-	High
	degree to which impact can be reversed:	Low							

Potential Impact		Extent (E)	Duration (D)	Magnitude (M)	Probability (P)	Significance (S=(E+D+M)*P)		Status (+ve or -ve)	Confidence
	degree of impact on irreplaceable resources:	Low							
	With Mitigation	1	1	2	2	**8**	**Low**	-	High
Impact HM 3: Loss of Primary Containment of SO2 Gas in the WSA Plant	**Without Mitigation**	1	1	4	2	**12**	**Low**	-	High
	degree to which impact can be reversed:	Low							
	degree of impact on irreplaceable resources:	Low							
	With Mitigation	1	1	2	2	**8**	**Low**	-	High
Impact HM 4: Loss of Secondary Containment of Sulphuric Acid	**Without Mitigation**	1	1	2	2	**8**	**Low**	-	High
	degree to which impact can be reversed:	Low							
	degree of impact on irreplaceable resources:	Low							

Potential Impact		Extent (E)	Duration (D)	Magnitude (M)	Probability (P)	Significance (S=(E+D+M)*P)		Status (+ve or -ve)	Confidence
	With Mitigation	1	1	2	1	**4**	**Low**	-	High
Impact HM 5: Loss of Secondary Containment of Hydrated Lime / Effluent	**Without Mitigation**	1	1	2	2	**8**	**Low**	-	High
	degree to which impact can be reversed:	Low							
	degree of impact on irreplaceable resources:	Low							
	With Mitigation	1	1	2	1	**4**	**Low**	-	High

Closure Phase

Potential Impact		Extent (E)	Duration (D)	Magnitude (M)	Probability (P)	Significance (S=(E+D+M)*P)		Status (+ve or -ve)	Confidence
Geology	**Nature of impact:**	No environmental impact on geology is identified.							
Impact T2: Restoration of Topography	**Without Mitigation**	1	5	4	4	**40**	**Medium**	+	High
	degree to which impact can be reversed:	N/A							

Potential Impact		Extent (E)	Duration (D)	Magnitude (M)	Probability (P)	Significance (S=(E+D+M)*P)		Status (+ve or -ve)	Confidence
	degree of impact on irreplaceable resources:	N/A							
	With Mitigation								
Impact SL4: Contamination of soils	**Nature of impact:**								
	Without Mitigation	2	5	4	3	**33**	**Medium**	-	High
	degree to which impact can be reversed:	Medium							
	degree of impact on irreplaceable resources:	Low							
	With Mitigation	1	2	2	2	**10**	**Low**	-	High
Impact SL5: Quantity and Quality of Topsoil	**Without Mitigation**	3	3	4	4	**40**	**Medium**	-	High
	degree to which impact can be reversed:	Medium							
	degree of impact on	Medium							

Potential Impact		Extent (E)	Duration (D)	Magnitude (M)	Probability (P)	Significance (S=(E+D+M)*P)		Status (+ve or -ve)	Confidence
	irreplaceable resources:								
	With Mitigation	2	2	4	3	**24**	**Low**	-	High
Impact SL6: Ongoing Rehabilitation not to Standard	**Without Mitigation**	1	4	4	4	**36**	**Medium**	-	High
	degree to which impact can be reversed:	High							
	degree of impact on irreplaceable resources:	Low							
	With Mitigation	1	1	2	3	**12**	**Low**	-	High
Impact SL7: Contradiction of SDF's	**Without Mitigation**	3	5	6	4	**56**	**Medium**	-	High
	degree to which impact can be reversed:	Medium							
	degree of impact on irreplaceable resources:	Low							
	With Mitigation	1	1	2	3	**12**	**Low**	-	High

Potential Impact		Extent (E)	Duration (D)	Magnitude (M)	Probability (P)	Significance (S=(E+D+M)*P)		Status (+ve or -ve)	Confidence
Impact SL8: Site-wide Rehabilitation	**Without Mitigation**	1	4	4	4	**36**	**Medium**	-	High
	degree to which impact can be reversed:	Medium							
	degree of impact on irreplaceable resources:	Low							
	With Mitigation	1	1	2	3	**12**	**Low**	-	High
Impact FL3: Invasive Species	**Without Mitigation**	2	5	6	4	**52**	**Medium**	-	High
	degree to which impact can be reversed:	High							
	degree of impact on irreplaceable resources:	Low							
	With Mitigation	1	1	2	4	**16**	**Low**	-	High
Impact FL4: Land Degradation	**Without Mitigation**	1	5	4	3	**30**	**Low**	-	High

Potential Impact		Extent (E)	Duration (D)	Magnitude (M)	Probability (P)	Significance (S=(E+D+M)*P)		Status (+ve or -ve)	Confidence
	degree to which impact can be reversed:	Medium							
	degree of impact on irreplaceable resources:	Medium							
	With Mitigation	1	1	2	2	**8**	**Low**	-	High
Impact AQ 7: Impact of PM10 Concentrations on Receptors	**Without Mitigation**	2	2	4	4	**32**	**Medium**	-	High
	degree to which impact can be reversed:	High							
	degree of impact on irreplaceable resources:	Low							
	With Mitigation	2	2	2	3	**18**	**Low**	-	High
Impact AQ 8: Impact of PM2.5 Concentrations on Receptors	**Without Mitigation**	2	2	4	4	**32**	**Medium**	-	High
	degree to which impact can be reversed:	High							

Potential Impact		Extent (E)	Duration (D)	Magnitude (M)	Probability (P)	Significance (S=(E+D+M)*P)		Status (+ve or -ve)	Confidence
	degree of impact on irreplaceable resources:	Low							
	With Mitigation	2	2	2	3	**18**	**Low**	-	High
Impact H3: Surface Water Contamination	**Without Mitigation**	3	4	6	4	**52**	**Medium**	-	High
	degree to which impact can be reversed:	Low							
	degree of impact on irreplaceable resources:	Medium							
	With Mitigation	1	1	4	2	**12**	**Low**	-	High
Impact GW3: Groundwater Contamination	**Without Mitigation**	3	4	6	4	**52**	**Medium**	-	High
	degree to which impact can be reversed:	Low							
	degree of impact on irreplaceable resources:	Medium							

Potential Impact		Extent (E)	Duration (D)	Magnitude (M)	Probability (P)	Significance (S=(E+D+M)*P)		Status (+ve or -ve)	Confidence
	With Mitigation	1	1	4	2	**12**	**Low**	-	High
Impact EN4: Noise as a Result of Closure Activities	**Without Mitigation**	1	2	4	3	**21**	**Low**	-	High
	degree to which impact can be reversed:	High							
	degree of impact on irreplaceable resources:	Low							
	With Mitigation	1	2	2	3	**15**	**Low**	-	High
Impact ACH 2: Impact on Archaeological and Cultural Heritage	**Without Mitigation**	1	5	4	3	**30**	**Low**	-	High
	degree to which impact can be reversed:	Low							
	degree of impact on irreplaceable resources:	Low							
	With Mitigation	1	1	0	2	**4**	**Low**	-	High
	Without Mitigation	3	4	4	3	**33**	**Medium**	-	High

Potential Impact		Extent (E)	Duration (D)	Magnitude (M)	Probability (P)	Significance (S=(E+D+M)*P)		Status (+ve or -ve)	Confidence
Impact SES 6: Loss of Employment Opportunities	**degree to which impact can be reversed:**	Low							
	degree of impact on irreplaceable resources:	Not Applicable							
	With Mitigation	3	4	4	3	**33**	**Medium**	-	High
Impact V3: Visual Impact	**Without Mitigation**	2	5	6	4	**52**	**Medium**	-	High
	degree to which impact can be reversed:	Low							
	degree of impact on irreplaceable resources:	Low							
	With Mitigation	2	2	2	3	**18**	**Low**	-	High
Impact HM 6: Cessation of Hazardous Activities	**Without Mitigation**	1	5	4	3	**30**	**Low**	+	High
	degree to which impact can be reversed:	Not Applicable							

Potential Impact		Extent (E)	Duration (D)	Magnitude (M)	Probability (P)	Significance (S=(E+D+M)*P)		Status (+ve or -ve)	Confidence
	degree of impact on irreplaceable resources:	Low							
	With Mitigation	2	5	4	3	**33**	**Medium**	+	High

Cumulative

Potential Impact		Extent (E)	Duration (D)	Magnitude (M)	Probability (P)	Significance (S=(E+D+M)*P)		Status (+ve or -ve)	Confidence
Impact C4: Project Emissions for the National Inventory and Climate Change	**Nature of impact:**								
	Without Mitigation	4	5	2	5	**55**	**Medium**	-	High
	degree to which impact can be reversed:	Low							
	degree of impact on irreplaceable resources:	Low							
	With Mitigation	4	5	2	5	**55**	**Medium**	-	High
	Without Mitigation	2	2	4	4	**32**	**Medium**	-	High

Potential Impact		Extent (E)	Duration (D)	Magnitude (M)	Probability (P)	Significance (S=(E+D+M)*P)		Status (+ve or -ve)	Confidence
Impact AQ9: Cumulative PM10 Concentrations	**degree to which impact can be reversed:**	High							
	degree of impact on irreplaceable resources:	Low							
	With Mitigation	2	2	2	3	**18**	**Low**	-	High
Impact AQ10: Cumulative PM2.5 Concentrations	**Without Mitigation**	2	2	4	4	**32**	**Medium**	-	High
	degree to which impact can be reversed:	High							
	degree of impact on irreplaceable resources:	Low							
	With Mitigation	2	2	2	3	**18**	**Low**	-	High
Impact AQ11: Cumulative SO2 Concentrations	**Without Mitigation**	2	5	4	3	**33**	**Medium**	-	High
	degree to which impact can be reversed:	Low							

Potential Impact		Extent (E)	Duration (D)	Magnitude (M)	Probability (P)	Significance (S=(E+D+M)*P)		Status (+ve or -ve)	Confidence
	degree of impact on irreplaceable resources:	Medium							
	With Mitigation	1	5	2	2	**16**	**Low**	-	High
Impact EN5: Cumulative Noise	**Without Mitigation**	2	2	6	4	**40**	**Medium**	-	High
	degree to which impact can be reversed:	Medium							
	degree of impact on irreplaceable resources:	Low							
	With Mitigation	1	2	4	4	**28**	**Low**	-	High
Impact HM 7: Implementation of Proposed Project	**Without Mitigation**	2	4	4	4	**40**	**Medium**	+	High
	degree to which impact can be reversed:	Not Applicable							
	degree of impact on irreplaceable resources:	Low							

Potential Impact		Extent	Duration	Magnitude	Probability	Significance		Status	Confidence
		(E)	(D)	(M)	(P)	(S=(E+D+M)*P)		(+ve or -ve)	
	With Mitigation	3	4	6	4	**52**	**Medium**	+	High