IMPACT ASSESSMENT

CONSTRUCTION

Impact number	Receptor	Mitigation Measure Description	Stage	Character	Ease of Mitigation	Pre-Mitigation							Post-Mitigation						
						(M+	E+	R+	D)x	P=	S	Rating	(M+	E+	R+	D)x	P=	S	Rating
Impact 1:	Social Impact: Economic Development	No mitigation measures however, the positive impact can be enhanced by engagement with local authorities and business organisations to investigate the possibility of procuring construction materials, goods and products from local suppliers where feasible by AMSA.	Construction	Positive		3	3	3	2	5	**55**	**P2**	4	3	3	2	5	**60**	**P2**
					Significance	**P2 - Medium**							**P2 - Medium**						
Impact 2:	Employment during construction	No mitigation measures however, the risk can be enhanced. Non-locals should only be hired when specialist skills, which are unavailable locally, are required. The following aspects in this regard should receive priority: —Residents and communities should be employed wherever possible; —Local construction companies should be used whenever possible, especially for unskilled and semi-skilled work and —Local workers should be used and mentored as far as possible.	Construction	Positive		4	3	3	2	4	**48**	**P2**	4	3	3	2	4	**48**	**P2**
					Significance	**P2 - Medium**							**P2 - Medium**						
Impact 3:	Traffic	—Trucks will be fitted with tracking devices to maintain speed limits and improve safety by monitoring driver behaviour. —A complaints register will be available to any stakeholder who might want to complain about construction trucks. —A toll-free number will be provided on construction trucks, allowing drivers to report bad driving. —The gravel roads will be kept wet when trucks access the site to reduce dust. —Vehicles will be regularly serviced to reduce exhaust emissions. —Appropriate traffic signals at intersections to manage traffic flow will be introduced.	Construction	Negative		4	3	3	2	5	**60**	**N2**	4	2	3	2	3	**33**	**N2**
					Significance	**N2 - Medium**							**N2 - Medium**						
Impact 4:	Dust and Exhaust Emissions	—Implementation of a fugitive dust management plan —Monitoring of dust emissions to determine effectiveness of controls and impacts on the receiving environment. —Exposed areas created by the construction activities will be kept wet during construction to minimise dust emissions from the site activities. —Strict speed limits on dust roads will be enforced to prevent dust. —A complaints register will be available to stakeholders to report any dust complaints. —Construction material stockpiles will be restricted to designated areas where these can be managed. —No waste burning, such as plastic bags, cement bags, and litter, will be permitted. —All materials to the site must be transported so they do not fall off the construction vehicle. It may be necessary to cover or wet construction materials. —Vehicles and machines must be maintained to minimise exhaust emissions.	Construction	Negative		2	2	3	3	4	**40**	**N2**	2	1	3	2	3	**24**	**N1**
					Significance	**N2 - Medium**							**N1 - Low**						
Impact 5:	Noise Emissions during construction	—Conduct occupational health surveys to ensure that the noise emissions do not exceed the acceptable occupational limits (85 dBA). —All issues/complaints must be recorded in the complaints register. —Planning decommissioning activities in consultation with local communities so that activities with the greatest potential to generate noise are planned during periods of the day that will result in least disturbance. Information regarding construction activities should be provided to all local communities. Such information includes: —Proposed working times; —Anticipated duration of activities; —Explanations on activities to take place and reasons for activities; and —Contact details of a responsible person on site should complaints arise. —When working near a potential sensitive receptor, limit the number of simultaneous activities to a minimum as far as possible; —Using noise control devices, such as temporary noise barriers and deflectors for high impact activities, and exhaust muffling devices for combustion engines; —Selecting equipment with the lowest possible sound power levels; —Ensuring equipment is well-maintained to avoid additional noise generation; —A drop height policy should be implemented onsite to reduce the level of noise generation when handling materials. All equipment operators should be trained in the policy such that drop height reduction is implemented onsite; —It is recommended that a maximum speed of 40 km/h should be set on all unpaved roads; —Ensure a reduction in unnecessary traffic volumes by developing plans to optimise vehicle usage and movement; —Encouraging the receipt of materials during non-peak traffic hours to avoid traffic build-up and associated noise; and —Vehicles should not be allowed to idle for more than five minutes when not in use.	Construction	Negative		2	2	3	2	4	**36**	**N2**	2	2	3	2	3	**27**	**N1**
					Significance	**N2 - Medium**							**N1 - Low**						
Impact 6:	Influx of jobseekers	—As part of onboarding construction workers, training should be provided on preventing Gender Based Violence, Sexual Assault and Sexual Harassment. —The Project must engage with communities using a dedicated community liaison officer and have an effective stakeholder engagement plan, including a grievance mechanism for communities to access and lodge complaints. —Local employment should be a priority for the construction contractor to lessen the number of men away from their homes. —No recruitment should occur at the Project gate to prevent informal settlements around the Project site. Increased security in the Project area should be provided to regulate access to the site and prevent informal settlements.	Construction	Negative		2	3	3	2	3	**30**	**N2**	1	3	3	2	3	**27**	**N1**
					Significance	**N2 - Medium**							**N1 - Low**						
Impact 7:	Living cultural heritage	—If archaeological resources are uncovered during excavation, work must cease near the find, and the Environmental Compliance Officer (ECO) must contact Heritage Western Cape to determine the best way forward. —AMSA is a publicly listed company and is responsible to its shareholders. Everyone has an opportunity to benefit from the Project by purchasing shares in the company. —AMSA will not target one community or organisation for benefit above another. —AMSA will follow a fair process to identify CSI initiatives it will support.	Construction	Negative		2	2	3	2	2	**18**	**N1**	2	1	3	2	2	**16**	**N1**
					Significance	**N1 - Low**							**N1 - Low**						
Impact 8:	Impacts to palaeontological resources - Langebaan Formation capping calcrete	—The HWC Chance Fossil Finds Procedure must be implemented for the duration of construction activities. —Construction personnel to be alert for rare fossil bones and follow Fossil Finds Procedure. —Cease construction on (chance) discovery of fossil bones and protect fossils from further damage. —Contact appointed palaeontologist providing information and images. —Palaeontologist will assess information and establish suitable response, such as the importance of the find and recommendations for preservation, collection and record keeping. —Exposed fossiliferous sections in earthworks recorded and sampled by appointed palaeontologist.	Construction	Negative		2	1	5	5	3	**39**	**N2**	2	1	5	5	3	**39**	**N2**
					Significance	**N2 - Medium**							**N2 - Medium**						

Impact 9:	Production	—The developer should encourage contractor to increase the local procurement practices and promote the employment of people from local communities, as far as feasible, to maximise the benefits to the local economies. —The developer should engage with local authorities and business organisations to investigate the possibility of procuring construction materials, goods and products from local suppliers were feasible.	Construction	Positive		4	3	5	2	4	**56**	**P2**	4	3	5	2	4	**56**	**P2**
					Significance	**P2 - Medium**							**P2 - Medium**						
Impact 10:	Gross Domestic Product	—The developer should encourage contractor to increase the local procurement practices and promote the employment of people from local communities, as far as feasible, to maximise the benefits to the local economies. —The developer should engage with local authorities and business organisations to investigate the possibility of procuring construction materials, goods and products from local suppliers were feasible. —Employ labour-intensive methods in construction where feasible.	Construction	Positive		3	3	5	2	4	**52**	**P2**	3	3	5	2	4	**52**	**P2**
					Significance	**P2 - Medium**							**P2 - Medium**						
Impact 11:	Household Income and Livelihoods	—Recruit local labour as far as feasible to increase the benefits to the local households. —Employ labour intensive methods in construction where feasible. —Sub-contract to local construction companies where possible. —Use local suppliers where feasible and arrange with local SMME's and BBBEE compliant enterprises to provide transport, catering, and other services to the construction crews.	Construction	Positive		3	3	5	2	4	**52**	**P2**	3	3	5	2	4	**52**	**P2**
					Significance	**P2 - Medium**							**P2 - Medium**						
Impact 12:	Government Revenue	None envisioned	Construction	Positive		3	3	5	2	4	**52**	**P2**	3	3	5	2	4	**52**	**P2**
					Significance	**P2 - Medium**							**P2 - Medium**						
Impact 13:	Impact on Terrestrial Biodiversity	—As much of the proposed Project infrastructure as possible should be located on areas of modified habitat. —All vegetation clearing for the Project should be restricted to the proposed Project footprints only, with no clearing permitted outside of these areas. —The footprints to be cleared of vegetation should be clearly demarcated prior to construction to prevent unnecessary clearing outside of these areas. No heavy vehicles should travel beyond the marked works zone. —Temporary facilities associated with construction, such as contractor site offices, portable toilets, storage and laydown areas, should be located on land that is currently transformed or developed. —Removed topsoil should be stockpiled and used to rehabilitate all non-operational disturbed areas. —A comprehensive rehabilitation/ landscaping protocol should be developed and implemented to stabilise and revegetate all non-operational sites that have been disturbed by construction. —Implement an Alien Invasive Plant control and eradication plan that focuses on controlling and eradicating all AIS occurring throughout all project phases. —Surveys of each development footprint should be conducted to identify and record the number of flora SCC that require rescue and relocation; —No vegetation clearing or rescue and relocation operations should be allowed until the correct permits have been obtained. —Rescued plants should be relocated to an adjacent area of similar natural habitat, and correctly cared for after relocation until such a time as out-	Construction	Negative		1	2	3	2	2	**16**	**N1**	1	2	3	2	1	**8**	**N1**
					Significance	**N1 - Low**							**N1 - Low**						
Impact 14:	Aquatic Biodiversity	—Limit vegetation removal to the infrastructure footprint area only. Where removed or damaged, bare areas should be revegetated as soon as possible, and monitored for alien invasive species colonisation – where this occurs, it should be controlled immediately. —Runoff from construction areas should be designed and managed to ensure that sediments do not reach watercourses in the wider catchment during rainfall events. —The implementation of the recommended mitigation measures should be monitored on an at least annual basis, to audit their efficacy in addressing potential impacts, so that adaptive management actions can be timeously undertaken as necessary, to ensure that potential impacts on the receiving environment are avoided/minimised.	Construction	Negative		2	2	3	2	2	**18**	**N1**	2	2	3	2	1	**9**	**N1**
					Significance	**N1 - Low**							**N1 - Low**						

OPERATIONAL

Impact number	Receptor	Description	Stage	Character	Ease of Mitigation	Pre-Mitigation							Post-Mitigation						
						(M+	E+	R+	D)x	P=	S		(M+	E+	R+	D)x	P=	S	
Impact 1:	Economic Development	No mitigation measures however, the risk can be enhanced by engagement with local authorities and business organisations in order to investigate the possibility of procuring construction materials, goods and products from local suppliers were feasible by AMSA	Operation	Positive		4	3	3	4	4	**56**	**P2**	4	3	3	4	5	**70**	**P3**
						P2 - Medium							**P3 - High**						
Impact 2:	Employment	No mitigation measures however, the risk can be enhanced. It is suggested that non-locals should only be hired when specialist skills, which are unavailable locally, are required. The following aspects in this regard should receive priority: —Residents and communities should be employed wherever possible; —Local companies should be used whenever possible, especially for unskilled and semi-skilled work. —Local workers should be used and mentored as far as possible. —Rigorous and transparent recruitment processes should be followed, and regular audits should be undertaken to establish whether workers are locals. —Employ labour-intensive methods in construction where feasible. —Sub-contract to local construction companies particularly SMMEs and BBBEE compliant enterprises where possible —Use local suppliers where feasible and arrange with the local SMMEs to provide transport, catering, and other services to the construction crews. —Employ labour-intensive methods in construction where feasible. —Sub-contract to local construction companies particularly SMMEs and BBBEE compliant enterprises where possible —Use local suppliers where feasible and arrange with the local SMMEs to provide transport, catering, and other services to the construction crews. —Employ previously retrenched employees of Saldanha Steel Works.	Operation	Positive		4	3	3	4	4	**56**	**P2**	4	3	3	4	4	**56**	**P2**
					Significance	**P2 - Medium**							**P2 - Medium**						
Impact 3:	Traffic	—Trucks will be fitted with tracking devices to maintain speed limits and improve safety by monitoring driver behaviour. —A complaints register will be available to any stakeholder who might want to complain about trucks. —A toll-free number will be provided on trucks, allowing drivers to report bad driving. —The gravel roads will be kept wet when trucks access the site to reduce dust. —Vehicles will be regularly serviced to reduce exhaust emissions. —Turning lanes will be provided when trucks coming to the logistics hub must turn off public roads. —Appropriate traffic signals at intersections to manage traffic flow will be introduced.	Operation	Negative		4	1	3	3	5	**55**	**N2**	3	1	3	3	4	**40**	**N2**
					Significance	**N2 - Medium**							**N2 - Medium**						

Impact 4:	Dust and Exhaust Emissions	—Conduct occupational health surveys to ensure dust emissions do not exceed the acceptable occupational health limits. —Provide workers with dust masks and, where appropriate, ventilators where dust emissions exceed the acceptable occupational health limits. —Workers will be made aware of a complaints register should they wish to report dust issues. —Strict speed limits on dust roads will be enforced to prevent dust generated by trucks. —Truckload beds will be covered with tarpaulin to prevent dust from these areas. —Train wagons carrying manganese will be covered to prevent dust. —A complaints register will be available to stakeholders to report any dust complaints. —Any commodities stockpiles will be restricted to designated areas where these can be managed, such as the warehouse. —Manganese stockpiles will be kept wet or treated with a dust-a-cide to reduce and manage dust. —Conveyor belts will be covered where possible to reduce dust.	Operation	Negative		3	2	3	4	4	48	N2	3	2	3	4	2	24	N1
					Significance	**N2 - Medium**							**N1 - Low**						
Impact 5:	Noise Emissions	—Ensure that all vehicles and machines are adequately maintained to minimise any potential noise emissions. —Retrofit silencers to any machinery that has the potential to emit noise at levels higher than the acceptable emissions limits. —Conduct occupational health surveys to ensure that the noise emissions do not exceed the acceptable occupational limits (85 dBA). —All issues/complaints must be recorded in the complaints register. —Workers will be provided hearing protection should they work in environments that exceed the acceptable occupational limits. —Workers will be made aware of a complaints register should they wish to report noise issues. —The public will be aware of the complaints register where they can register noise-related complaints	Operation	Negative		1	2	3	4	4	40	N2	1	2	3	4	2	20	N1
					Significance	**N2 - Medium**							**N1 - Low**						
Impact 6:	Health	—The mitigation measures mentioned for dust impacts must be implemented to manage and reduce manganese dust exposure and impacts. —Workers working with manganese must be regularly monitored for health impacts caused by exposure to manganese dust. They should be monitored long-term to identify any impacts from long-term extended exposures to manganese dust.	Operation	Negative		4	2	5	5	4	64	N3	4	1	3	4	3	36	N2
					Significance	**N3 - High**							**N2 - Medium**						
Impact 7:	Production	—The developer should encourage contractor to increase the local procurement practices and promote the employment of people from local communities, as far as feasible, to maximise the benefits to the local economies. —The developer should engage with local authorities and business organisations to investigate the possibility of procuring construction materials, goods and products from local suppliers were feasible.	Operation	Positive		3	3	5	4	4	60	P2	3	3	5	4	4	60	P2
					Significance	**P2 - Medium**							**P2 - Medium**						
Impact 8:	Gross Domestic Product	—The developer should encourage the contractor to increase the local procurement practices and promote the employment of people from local communities, as far as feasible, to maximise the benefits to the local economies; and —The developer should engage with local authorities and business organisations to investigate the possibility of procuring construction materials, goods and products from local suppliers were feasible.	Operation	Positive		3	3	5	4	4	60	P2	3	3	5	4	4	60	P2
					Significance	**P2 - Medium**							**P2 - Medium**						
Impact 9:	Household Income	—Where possible, the local labour supply should be considered for employment opportunities to increase the positive impact on the area's economy. —As far as feasible, local small and medium enterprises should be approached to investigate the opportunities for supply inputs required for the maintenance and operation of the facility. —Employ previously retrenched employees of Saldanha Steel Works	Operation	Positive		2	3	5	4	4	56	P2	3	3	5	4	4	60	P2
					Significance	**P2 - Medium**							**P2 - Medium**						
Impact 10:	Northern Cape and Government Revenue	None envisioned as the impact is positive.	Operation	Positive		2	3	5	4	4	56	P2	2	3	5	4	4	56	P2
					Significance	**P2 - Medium**							**P2 - Medium**						
Impact 11:	Impact on Improved Level of Export in the Saldanha Bay Local Municipality	Opportunity can be enhanced by ensuring that operations continue for as long as possible as project operation will have a positive impact on the provincial and local economy	Operation	Positive		5	3	5	4	4	68	P3	5	3	5	4	4	68	P3
					Significance	**P3 - High**							**P3 - High**						
Impact 12:	Terrestrial Biodiversity: Increased fragmentation and loss of terrestrial ecological	—Works onsite should be confined to the proposed development footprint. No work-related activities should occur on the adjacent vegetated area. —Staff to receive awareness training that no clearing of vegetation is conducted beyond the footprint of the warehouse.	Operation	Negative		1	2	3	5	2	22	N1	1	2	3	5	1	11	N1
					Significance	**N1 - Low**							**N1 - Low**						

DECOMMISSIONING

Impact number	**Receptor**	**Description**	**Stage**	**Character**	**Ease of Mitigation**	**Pre-Mitigation**							**Post-Mitigation**						
						(M+	**E+**	**R+**	**D)x**	**P=**	**S**		**(M+**	**E+**	**R+**	**D)x**	**P=**	**S**	
Impact 1:	Dust and Exhaust Emissions	—Conduct dust suppression via water spray during construction to minimise dust emissions from the site activities. —There must be strict speed limits on dust roads to prevent dust entrainment into the atmosphere. —All issues/complaints must be recorded in the complaints register. —All stockpiles must be restricted to designated areas and may not exceed a height of 2 m. —No burning of waste, such as plastic bags, cement bags and litter is permitted. —Exposed areas shall be re-vegetated or stabilised following activities. —All materials transported to site must be transported in such a manner that they do not fly or fall off the vehicle. This may necessitate covering or wetting friable materials. —Ensure that all vehicles and machines are adequately maintained to minimise exhaust emissions.	Decommissioning	Negative	Medium	3	2	3	2	4	40	N2	3	2	3	1	3	27	N1
					Significance	**N2 - Medium**							**N1 - Low**						

Impact 2:	Noise Emissions	—Conduct occupational health surveys to ensure that the noise emissions do not exceed the acceptable occupational limits (85 dBA). —All issues/complaints must be recorded in the complaints register. —Planning decommissioning activities in consultation with local communities so that activities with the greatest potential to generate noise are planned during periods of the day that will result in least disturbance. Information regarding construction activities should be provided to all local communities. Such information includes: —Proposed working times; —Anticipated duration of activities; —Explanations on activities to take place and reasons for activities; and —Contact details of a responsible person on site should complaints arise. —When working near a potential sensitive receptor, limit the number of simultaneous activities to a minimum as far as possible; —Using noise control devices, such as temporary noise barriers and deflectors for high impact activities, and exhaust muffling devices for combustion engines; —Selecting equipment with the lowest possible sound power levels; —Ensuring equipment is well-maintained to avoid additional noise generation; —A drop height policy should be implemented onsite to reduce the level of noise generation when handling materials. All equipment operators should be trained in the policy such that drop height reduction is implemented onsite; —It is recommended that a maximum speed of 40 km/h should be set on all unpaved roads; —Ensure a reduction in unnecessary traffic volumes by developing plans to optimise vehicle usage and movement; —Encouraging the receipt of materials during non-peak traffic hours to avoid traffic build-up and associated noise; and	Decommissioning	Negative	High	3	2	3	2	4	**40**	**N2**	2	1	3	3	3	**27**	**N1**
					Significance	**N2 - Medium**							**N1 - Low**						
Imapct 3:	Economy	—Engagements should happen with the local authorities to inform them that the operations will be closing. —A closure plan should be developed to transition businesses which will have become dependent on the logistics hub to other economic opportunities	Decommissioning	Negative		5	4	3	5	4	**68**	**N3**	3	3	3	4	4	**52**	**N2**
					Significance	**N3 - High**							**N2 - Medium**						
Imapct 4:	Job Losses	—A downscaling and retrenchment plan must be developed before the operation enters the decommissioning phase —Reskilling should be offered to workers so they can find alternative jobs. —Workers should be assisted in accessing the Unemployment Insurance Fund. —Local social services should know that the operation will be closing and that workers will need assistance	Decommissioning	Negative		5	4	3	5	4	**68**	**N3**	3	3	3	4	4	**52**	**N2**
					Significance	**N3 - High**							**N2 - Medium**						
CUMALATIVE																			
					Significance	**#N/A**							**#N/A**						
Impact 1:	Insufficient Port Infrastructure	AMSA should ensure that the Port can accommodate the additional commodities.		Negative	High	4	3	3	4	3	**42**	**N2**	3	2	2	3	2	**20**	**N1**
					Significance	**N2 - Medium**							**N1 - Low**						
Imapct 2:	Pressure on the Saldanha Municipality	—AMSA should inform the municipality of the Project and the potential for an influx of people looking for jobs so that the municipality can prepare for this. —Should the Project go ahead, AMSA will pay additional rates and taxes, which should offset some of the negative effects of the potential influx.		Negative	High	5	2	2	3	3	**36**	**N2**	4	2	2	4	2	**24**	**N1**