



BUSINESS SUCCESS CONSULTING

Environmental Sustainability

Section 8

8. ENVIRONMENTAL MANAGEMENT PLAN FOR THE PROPOSED CONSTRUCTION OF HP ACADEMY

8.0 EMP Administration

This section of the report serves to prescribe mitigation measures to reduce, limit, eliminate or compensate for impacts, to acceptable or insignificant levels. In setting mitigation measures, the practical implications of executing these measures are considered. With early planning at all level of implementation, both the cost and the impacts can be effectively eliminated or minimized to insignificant levels.

This section also outlines the roles and responsibilities of all stakeholders to ensure that the EMP is fully implemented. The HP Academy will ensure the successful implementation of the EMP and its administration.

TABLE 1: ASSESSMENT OF IMPACTS ASSOCIATED WITH SOCIOECONOMIC IMPACTS AND MITIGATION

Socioeconomic impact	Nature	The proposed school will support the socio-economic development for people of Omulondo village. This school will significantly contribute to meeting the needs of high schools and vocational
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		training institution in the Oshikoto Region. Positive Impact
	Extent	Local
	Duration	Permanent: more than 10 years
	Frequency	10 to 100 years.
	Reversibility	
	Likelihood of Occurrence	Highly likely: Is expected to occur in most circumstances
	Mitigation	<p>There is no strict mitigation measures that have been identified. However it is critical that HP should timely and continuously communicate and distribute information to the local community to reduce potential sense of social marginalization but to make the community understand and participate in the benefits associated with the construction of this school. As;</p> <ul style="list-style-type: none"> • Provision of High Quality and Safe Education Infrastructure for all • Improved access to quality education and training for all • Training and employment of the local people without jobs • Social and economic benefits
	Responsible party	School Management

TABLE 2: ASSESSMENT OF IMPACTS WITH **DUST** IMPACTS AND MITIGATION

Dust Impacts	Nature	Dust might arise during the excavation of trenches were the foundation will be laid, the clearing of vegetation and levelling of land will also result in dust. Negative impact
	Extent	Site specific. Depending on the wind speed
	Duration	Short term
	Frequency	Less than a year
	Reversibility	This impact will mostly be limited to the construction phase, hence This impact is reversible: naturally
	Likelihood of Occurrence	Likely to occur
	Mitigation	<ul style="list-style-type: none"> • Dust suppression techniques should be employed if the specific activity is likely to create dusty atmospheric conditions in excess of the periodic extremes. • Avoid activities that create excessive dust on extremely windy days. Personnel are required to wear personal protection equipment (PPE) such as dust masks if excessive dust is created for prolonged working periods. • Using water to suppress dust is not an option since the country is experiencing a severe drought.
Responsible party	SHE officer and Site Manager	

TABLE 7: ASSESSMENT OF IMPACTS ASSOCIATED WITH **NOISE** IMPACTS AND MITIGATION

Noise impact	Nature	Construction vehicles and equipment such as Loader Backhoes, Concrete mixer, other machineries used in the construction phase can be a nuisance and disturbance. Negative impact
	Extent	Site specific
	Duration	Short term
	Frequency	Less than a year
	Reversibility	Noise will have an impact on animals such as birds and reptiles. For example Birds are known to abandon their nests if subjected to continuous noise. However they can return if the noise stops. Hence, this impact is reversible: naturally
	Likelihood of Occurrence	Likely
	Mitigation	<ul style="list-style-type: none"> • Noise should be reduced by switching off machines that are not used and at sleeping hours. • All employees on site must be equipped with proper PPE (ear plugs, ear mufflers) to be used when the noise above 80 Hz. • Service equipment and trucks regularly to avoid excess noise
Responsible party	SHE officer and Site Manager	

TABLE 8 : ASSESSMENT OF IMPACTS ASSOCIATED WITH SEWAGE AND MITIGATION

	Nature	Sewage will be generated by the hostel residents, teacher's houses and the school ablution facilities. It is therefore very important to construct appropriate infrastructure for the management this type of waste. Failure to manage waste properly will result in
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Sewage impact		pollution and this might have a detrimental impact on the people's well-being and the quality of the environment, especially those that live in the vicinity of the HP. Negative impact
	Extent	Local
	Duration	Long term
	Frequency	Less than a year
	Reversibility	The impact is Reversible: artificially
	Likelihood of Occurrence	Likely: Will probably occur during the life of the project
	Mitigation	<ul style="list-style-type: none"> • A Septic tank should be constructed and all sewer drainage system should be constructed and connected to that septic tank. • The sewer lines should be inspected regularly to look for any leakages. • A registered contracted should be hired to remove the solid waste and prevent overload and to do maintenance. • Developing a Sewerage Waste Management Plan. • The septic tank capacity should allow additions classrooms, hostel or teacher houses.
Responsible party	SHE officer, Site Manager and School Management	

TABLE 9: ASSESSMENT OF IMPACTS ASSOCIATED WITH HEALTH AND SAFETY IMPACTS AND MITIGATION

	Nature	The potential impacts on human health and safety resulting from project activities could include occupational accidents and injuries, vehicle accidents, exposure to weather extremes, adverse
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Health and safety		health effects from dust generation and emissions, contact with hazardous materials. Negative
	Extent	Site specific
	Duration	Medium term
	Frequency	Less than a year
	Reversibility	
	Likelihood of Occurrence	Rare
	Mitigation	<ul style="list-style-type: none"> • Procedures for dealing with injuries or accidents must be in place and all contact details for emergency personnel should be available. • There should be a compulsory safety induction programme (tool box talk) for all employees • Proper PPE should be issued to avoid injury or death.
	Responsible party	SHE officer and Site Manager

TABLE 10: ASSESSMENT OF IMPACTS ASSOCIATED WITH **BIODIVERSITY LOSS IMPACTS AND MITIGATION**

Biodiversity loss	Nature	There is no protected plant species that were observed onsite. However one specie of <i>Pechuel-loeschea leubnitziae</i> and patches of grass <i>Eragrostis trichophora</i> specie were observed at the construction site. Negative impact
	Extent	Site specific
	Duration	Long term (resulting in permanent change in the natural biodiversity on site)
	Frequency	1 to 10 years

	Reversibility	Irreversible: permanent damage
	Likelihood of Occurrence	Highly likely
	Mitigation	<ul style="list-style-type: none"> • The impact will also be low due to the fact that there is no plant species that is endemic to the area. • Avoid unnecessary clearing of vegetation. Only clear areas that are in the path where the buildings are constructed. • A fauna and flora survey was conducted to identify the presence of any key flora and fauna species of importance onsite but none was found. Also, no species of fruit bearing trees were identified. • HP should plant more trees to improve the environment.
	Responsible party	SHE officer and Site Manager

TABLE 11: ASSESSMENT OF IMPACTS ASSOCIATED WITH SOLID AND HAZARDOUS WASTE MANAGEMENT AND MITIGATION

	Nature	Potential impacts from improper housekeeping practices during construction (such as illegal disposal of waste to land) could contaminate and pollute the soil which in turn could pollute the Environment and the visual appearance. Solid waste (lumber, steel scrap, plastics, cement bags, bricks, general rubbish, domestic waste etc.) will be
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Solid and hazardous waste management		generated during the construction phase. Negative impact
	Extent	Site Specific
	Duration	Medium term: months, less than a year
	Frequency	Less than a year
	Reversibility	Waste produced during the construction phase can be reduced by proper housekeeping. Hence it is reversible: artificially
	Likelihood of Occurrence	Possible
	Mitigation	<ul style="list-style-type: none"> • Firstly minimize the generation of waste materials, as far as practicable • Cleanup program should be implemented to ensure waste is removed from open areas or construction site • Developing a Solid Waste Management Plan. • Collection and disposal of solid waste should be done by a competent contractor to the approved landfill. • Ensure that there are clearly labelled bins/containers in designated areas for waste with sorting of recyclables, plastic wastes.
	Responsible party	SHE officer and Site Manager

9. DECOMMISSIONING, CONCLUSION AND RECOMMENDATIONS

9.1 Decommissioning

A separate EIA process should be conducted before considering at all the decommissioning of the project.

9.2 Conclusion

The proposed construction of HP Academy is an important project to the development goals and aspirations of the receiving local communities, region, Namibia as a whole as well as to the proponent, Dr. Hilda Nakakuwa.

Overall, the economic benefits of the project outweigh the limited negative impacts on the natural environment. The project is expected to perform positively if all mitigation measures are adhered to.

9.3 Recommendations

It is recommended **that:**

- i. The Ministry of Environment, Forestry and Tourism should consider issuing an Environmental Clearance Certificate for the Proposed Construction of HP Academy at Omulonda Village in Oshikoto Region.**
- ii. The HP Academy will oversee, supervise, monitor and control all activities at the construction site thereby ensuring that the extraction is conducted in an orderly and safe manner, hence safeguarding the environment in the interest of the current and future generations to come.**