



**Oman Broadband COMPANY:
ENVIRONMENT AND SOCIAL
MANAGEMENT PLAN**

**Draft Document for Disclosure &
Consultation**

Oman Broadband COMPANY

Prepared by ERM

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LIST OF ACRONYMS

AQ	Air Quality
CMUX	Customer Multiplexers
ERM	Environmental Resources Management
ESA	Environmental and Social Assessment
ESMP	Environmental and Social Management Plan
CHSMP	Community Health and Safety Management Plan
FTTH	Fibre to the Home
ILO	International Labour Organisation
MoH	Ministry of Health
MoM	Ministry of Manpower
MECA	Ministry of Environment and Climate Affairs
NAP	Network Access Point
NOC	Network Operations Centre
NV	Noise and Vibration
Oman Broadband	Oman Broadband Company
OPGW	Optical Ground Wire
PRO	Public Relation Officer
QHSSE	Quality, Health, Safety, Security and Environment
RfP	Request for Proposal
RIM	Remote Integrated Multiplexers
SGW	Soil and Groundwater
SOC	Service Operations Centre
STI	Sexually Transmitted Infection
TRA	Telecom Regulatory Authority
VOC	Volatile Organic Carbons
WM	Waste Management
WrMP	Workers Management Plan

1 OVERVIEW

1.1 INTRODUCTION

1.1.1 *Project Categorization*

The Project has been classified as ‘Category B’ under the Environmental and Social Standards (ESS) of the AIIB. This classification, ‘Category B’, was confirmed by the site visit conducted by Environmental Resources Management (ERM) to Oman Broadband Company (Oman Broadband or the Company) in August, 2017 when the current and future practices and activities have been studied.

As per the AIIB’s ESS, a Project is categorized B when: it has a limited number of potentially adverse environmental and social impacts; the impacts are not unprecedented; few if any of them are irreversible or cumulative; they are limited to the Project area; and can be successfully managed using good practice in an operational setting. In this case the impacts will be managed through the development of this ESMP.

1.1.2 *Objectives of the ESMP*

This Environmental and Social Management Plan (ESMP) provides the framework for management and mitigation of the environmental and social impacts associated with the Company’s rollout of a fibre optic broadband cable network to an estimated 401,017 homes/premises by the end of 2020 (the Project).

Prior to this study, no formal Environmental and Social Impact Assessment (ESIA) has been conducted for the Project and therefore this document includes a high-level environmental and social assessment (ESA) of potential risks and impacts associated with Project activities. Further, the ESMP details how the organizational capacity and resources will be structured to implement the measures proposed in this ESMP.

This document also contains a summary of the existing environmental, health, safety and social permitting framework, project context and relevant procedures (as of August 2017). This information is used to inform the mitigation measures that have been included in the management plan.

The following table summarises the Site Visit agenda and a list of the interviewees during our site visit.

Table 1.1 Site Visit Agenda

Date	Personnel
01.08.17	<p>Opening Meeting Finance Advisor: Dominique Reverdy General Accountant: Laith Mohammed Al Jufaili HR Department HR Expert: Usman Ali Senior Specialist Policy & Reward: Saif Al Shidhani</p> <p>Supply Chain Management Department GM Supply Chain Management: Salah AL-Balushi Senior Manager Contracts: Hamid Al Abdali Projects Department Manager Project Delivery: Eng Yarjan Amitan Al Balushi Operations and Maintenance GM Operations & Maintenance: Majid Al Kharusi Corporate Strategy Commercial and Strategy Advisor: Dubravko Horvatic Sr. Specialist Event Branding & Communications: Khalid Al Hashimi QHSE Department QHSE Specialist: Mazin Al Saadi QHSE Specialist: Ali Al Khamisi</p>
02.08.17	<p>Site Visit</p> <ul style="list-style-type: none"> • Haya Water Operational Activities at New Industrial Area • Worker Accommodation (Contractors) • House Connection (Muscat)
03.08.17	<p>Site Visit</p> <ul style="list-style-type: none"> • POP and Connection activities • Oman Broadband Direct Contracted Construction Activities (Muscat Greater Area) <p>Meeting with Oman Broadband Contractors</p> <ul style="list-style-type: none"> • Stalin (QHSE - officer) • M.K Math

During the site visit, a representative sample of construction sites, worker accommodation and contractors were visited or met with. The aim was to visit all types of construction sites which Oman Broadband are working at including:

- construction was being undertaken by Haya Water which would then be handed over to Oman Broadband to pull cables;
- a site where technical work was being undertaken to pull and joining cables;
- connection activities within individual households; and
- construction work undertaken by Oman Broadband's direct contractors including local works in a town and connection activities between villages.

In this way, all potential risks and impacts of the construction activities could be identified for consideration in the ESMP. In addition, worker accommodation was visited to identify risks associated with worker accommodation and contractors interviewed to determine their approach to managing environmental and social issues.

This ESMP therefore covers the following:

- identification of the Project's potentially adverse environmental and social risks and impacts;
- determination of the requirements for ensuring that those risks and impacts are addressed in an effective and timely manner; and
- description of the means for meeting those requirements.

The development and approval of the ESMP is a necessary pre-condition to the Asian Infrastructure and Investment Bank (AIIB)'s approval of the Project financing.

1.1.3 *Limitations*

The recommendations and control measures contained in this document are based upon information provided by Oman Broadband Company SAOC (Oman Broadband) and upon the assumption that all provided information is correct and that all relevant information has been provided.

This ESMP does not relieve the Company, its Contractors or any other party involved in the Project from their specific legal responsibilities with respect to compliance with safety, health, environmental and social regulations and standards. Where there are conflicts or differences stipulated in Oman Broadband, AIIB or applicable legal requirements, the more stringent will prevail.

1.1.4 *Structure*

The ESMP comprises this document and outlines the environmental and social management processes and procedures applicable to the project and includes the topics which are common to all environmental, health, safety and social disciplines.

The ESMP is structured as follows:

- Chapter 1 – Overview;
- Chapter 2 – Administrative Framework;
- Chapter 3 – Environmental and Social Impacts;
- Chapter 4 – Environmental and Social Management Plans;
- Chapter 5 – Measures for Health, Safety and Labour;
- Chapter 6 – Disclosure and Consultation;
- Chapter 7 – Grievance Redress Mechanism; and
- Chapter 8 – ESMP Implementation Resources.

1.2 *PROJECT PROPONENT*

Oman Broadband was registered under the name of Oman Broadband Company (Oman Broadband) SAOC in 2015 as one major milestone of the Cabinet-approved *National Broadband Strategy*.

Oman Broadband was founded in 2014 as a joint-stock company wholly owned by the Government of the Sultanate of Oman. Oman Broadband is focused upon the deployment of a broadband infrastructure, providing equal and open access to telecommunication service providers on a wholesale basis, enabling end users to efficiently leverage high speed fibre connectivity in Oman.

Oman Broadband provides and maintains a broadband infrastructure for service providers (Omantel / Ooredoo) in the Sultanate.

Oman Broadband works in co-operation with other infrastructure service providers such as water, electricity, gas and sanitation companies to unlock the potential of amenities available in the Sultanate.

Furthermore, Oman Broadband is seeking to achieve the optimal use of existing unused infrastructure such as fibre optic lines, networks and national assets, to unify efforts and integration of government investments with private sector investment in these services, and avoid any duplication or conflicts of interest.

1.2.1 *Role of Contractors & Sub-Contractors*

Oman Broadband utilize contractors (and their sub-contractors) to undertake the site based activities such as excavation activities, laying cables etc. In some cases, the same subcontractors are also being used by other utility services such as the wastewater services company 'Haya Water' with whom Oman Broadband often works with in close association.

In selecting contractors Oman Broadband undertake the following activities:

- Issue an Invitation To Tender (ITT) inviting suitably qualified companies to bid on the required works, which comprise QHSE and permitting requirements to be met by bidders. As Oman Broadband have been working with several contractors the ITT is sent to companies that Oman Broadband have worked with previously.
- Selection of the preferred contractor based on the proposals submitted considering technical ability, track record and cost.
- Contracting of the preferred contractor includes the following requirements:

- Contractor HSE Guidelines, requiring compliance with all Oman Broadband HSE Procedures (such as working in confined spaces, excavation, manual handling etc).
- Conditions of Contract: which includes the need to abide by the above, provide all required PPE for the workforce, preferential hiring of Omanis (where they are suitably qualified), acquiring all required permits and quality inspection. In addition, the contract gives Oman Broadband the right to audit the contractor including on HSE requirements. Finally, the contract requires the contractor to abide by the requirements of Omani Laws which will include those related to labour and working conditions.
- Monitoring of contractor while on site via the Oman Broadband QHSE team to ensure that the requirements of the contract are being met with a focus on the HSE elements.

Box 1.1 *Notice on Oman Broadband Procurement Policy*

Oman Broadband has included as a part of the Procurement Policy, an addendum on HSE Specification (C2), which has the following sections:

- **General Compliance:** This includes requirements on full compliance to Contractor Guidelines for Health & Safety Standards document Rev 00 (*Document No Document No: GUD-FXI-001*) issued by Oman Broadband.
- **Special Compliance:** This section comprises of additional requirements on health and safety requirements such as pursuing a 'zero-accident' policy, establishing first aid and medical facilities on-site, developing emergency response plans, etc.

1.3 *PROJECT DESCRIPTION*

1.3.1 *Objective*

The objective of the Project is to finance the Oman Broadband Company SAOC (Oman Broadband) in relation to its rollout of a fibre optic broadband cable network to an estimated 369,439 homes/premises by the end of 2021. It is comprised of laying cables of c. 4,097 km and drop cables of c. 9,535 km, and installing supporting infrastructure such as fibre distribution hubs. This Project will make 80 percent of Muscat, the capital city of Oman, ready for connection with high speed broadband.

Figure 1.1 *Fibre Roll-out in Muscat*



Fibre Roll-out in Muscat

1.3.2 *Project Principles*

Fibre Network Roll-out Plan: Oman Broadband's nationwide fibre optic rollout plans have been designed using two principles:

- **Impact based Roll-out:** Oman Broadband will consider key usage patterns, population densities and projected statistics that chart the future demand for high speed broadband services in the Sultanate.
- **Efficient Roll-out:** Oman Broadband will work with other Government owned entities to decrease cost of infrastructure deployment, taking into account already available infrastructure that can be commercially utilised.

The Project involves the installation of fibre optic cables and associated infrastructure, such as telephone exchange nodes (transmitters and receivers), remote integrated multiplexers (RIM) or customer multiplexers (CMUX), and premises receivers, covering Muscat and other urban areas of Oman, with future plans for country-wide expansion. The Project will utilise the current infrastructure, such as existing telecom line conduits or pipe chases, to the fullest extent possible for installing the new services.

1.3.3 *Operating Model*

Before the creation of Oman Broadband, Haya Water, the water treatment company deploying sewage across Muscat, was mandated to deploy telecom ducts alongside those pipes, as well as fibre optics within the ducts when possible, to prepare for the national Fibre to the Home (FTTH) rollout. Upon creation of Oman Broadband, Haya Water was requested to transfer all telecom

assets, as well as all willing telecom unit staff to the new National Broadband Company. This represented the foundations of Oman Broadband, both in terms of network asset and human resources.

Oman Broadband is positioned at the lower layer of the FTTH and mobile value chain. It provides fibre access or fibre backhaul to its customers.

Figure 1.2 *Oman Broadband Operating Model*



Regarding fibre access, Oman Broadband operates by covering the country area by area, i.e. passing in front of each house before releasing one given area (Homes Passed). Once an area is released, service operators can offer broadband services within the area. Oman Broadband then has 10 days to provide final connection to the end user (Home connection).

Oman Broadband Homes Passed objectives vary by area type:

- Muscat: 80% by 2020, full coverage by 2030;
- Other urban areas: full coverage by 2030; and
- Rural areas: 30% by 2030.

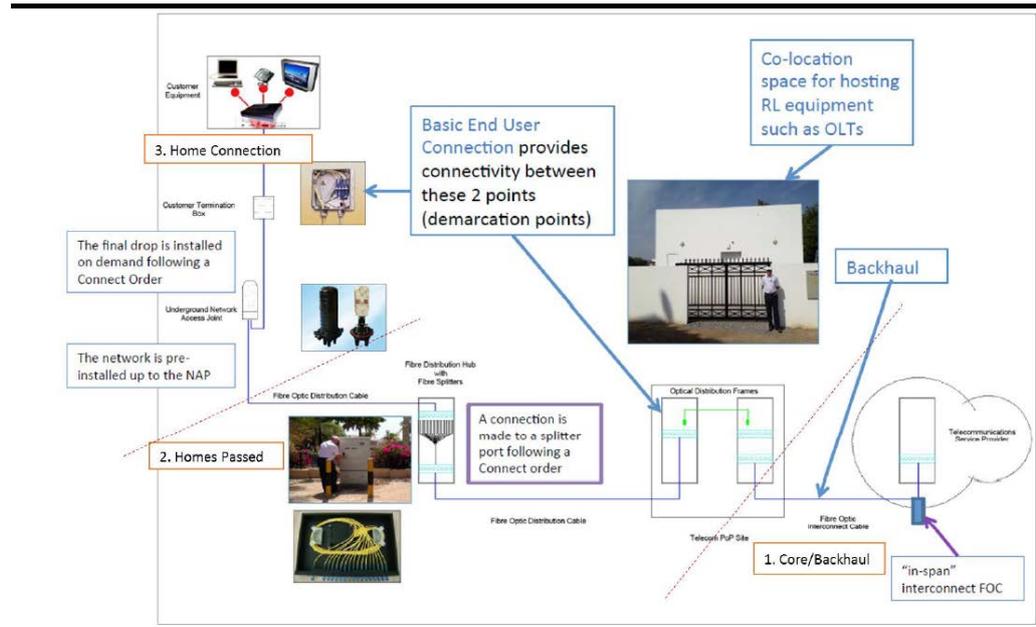
1.3.4 *Key Project Activities*

In relation to operating model, Oman Broadband outsources all civil work and fibre deployment to numerous companies (contractors), selected according to an open tender process (see *Section 1.2.1* above).

Primarily, three types of assignments in relation of fibre deployment exist:

- Rollout of core network;
- Rollout of Homes Passed or access network (up to Network Access Point-NAP); and
- Rollout of Home Connections.

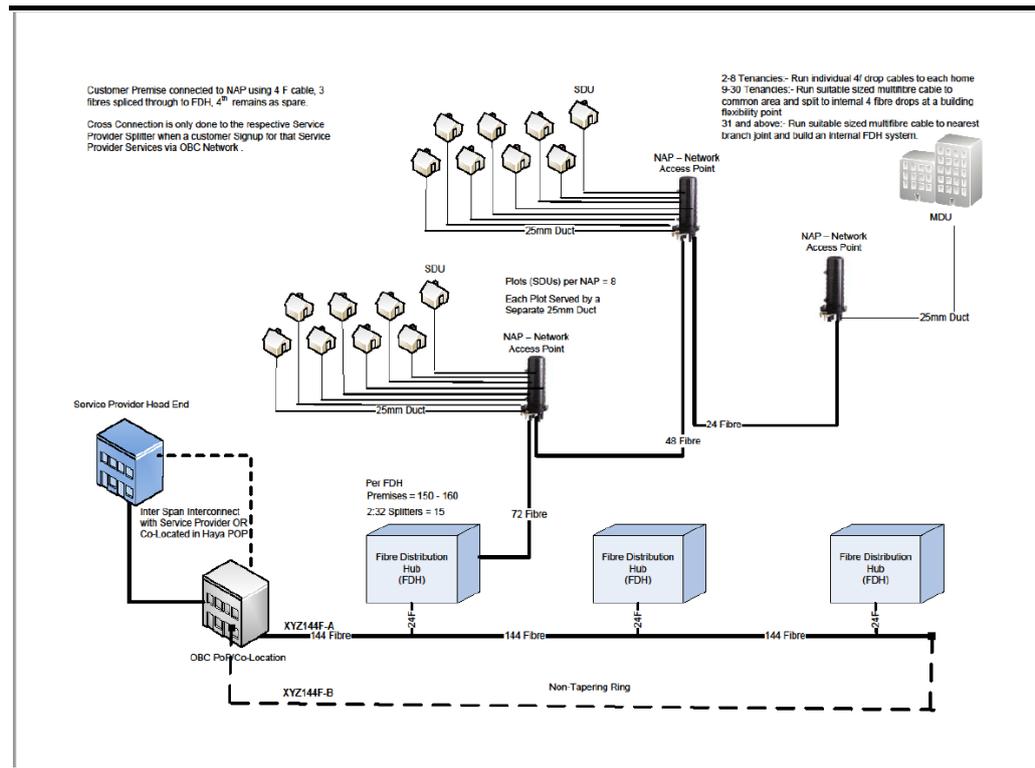
Figure 1.3 Schematic Representation of Network Segments



In order to utilise synergies with other state-owned entities and in case excavations are planned in certain areas by such entities, civil work is excluded from Oman Broadband's scope and only fibre cable deployment is conducted by Oman Broadband's direct contractors. Service Operations Centre (SOC) and Network Operations Centre (NOC) are fully insourced, while field maintenance is again outsourced to subcontractors, just like network deployment. SOC and NOC are coordinating all activities towards Oman Broadband's customers (Service Providers) and are responsible for clearing faults (coordinating contracted/outsourced maintenance teams).

In the case of backhaul product, shared infrastructure such as optical ground wire (OPGW) is used. Single point of contact towards service providers remains Oman Broadband, though maintenance of shared infrastructure is in the domain of infrastructure owner (i.e. in case of OPGW, Electricity Transmission Company).

Figure 1.4 High level network architecture



In 2016, Oman Broadband started to execute civil works outside Muscat, based on the opportunities arising from shared civil works with other utility companies and in line with the Masterplan. As per Oman Broadband's communication, all the civil works in Muscat, except for Bawsher, to be conducted until 2020 will be led by Haya Waters, while Oman Broadband will directly manage civil works in Bawsher and outside Muscat until then. After that, Oman Broadband will likely manage directly all civil works for the Project.

Based on the above, three construction scenarios were observed during the site visit in August 2017 which inform the basis of the ESMP:

- Excavation of trenches by Haya Waters the sewage company, including laying cabling ducts for use by Oman Broadband when pulling cables. In such case Oman Broadband reviews the quality of the works undertaken prior to handover of the infrastructure. Furthermore, when the work is being undertaken by Haya Waters, Oman Broadband has limited to no oversight of the activities on site or of the contractor management.
- Excavations of trenches directly being undertaken by Oman Broadband contractors to lay cabling ducts. This digging of trenches involves different topographies such as rocky terrains, residential areas (paved concrete areas) and sandy soils. The rocky terrain requires excavators to aid in excavation. The depth of the excavation trenches for the current Project is reported to be a maximum of 65 cm. In these cases, Oman Broadband is responsible for

the digging of the trenches, laying of the cabling ducts as well as reinstating the soil.

- Laying of cables for house connections in residential areas, which involve digging a trench from the home owner's perimeter into their residence for direct connection. This involves removing tiles or other items in the landowner's property and potentially outside the immediate boundary and then reinstating the tiles after the cables have been laid and the work is completed successfully. This is undertaken in discussion and agreement with the home owner who wishes to receive broadband services.

1.3.5 Workers Accommodation

It is understood that contractor's workers are housed in *villas* located in proximity to the sites. The villas have basic amenities such as a kitchen, bathroom and other common areas. The rooms are shared by two or three workers depending on the size of the room. The contractors use these villas to house all their workers some of whom may not be involved in Oman Broadband contracts.

Oman Broadband workers are mainly desk based technical people who reside in Oman and therefore live in their own homes, not in accommodation provided by Oman Broadband.

1.3.6 Contractor Management

Oman Broadband hire contractors to undertake all their construction activities, which are not undertaken by Haya Water. The contractors are selected on the basis of a tendering process which includes consideration of technical issues, cost as well as consideration of health and safety requirements and labor laws. Oman Broadband's requirements related to these issues are included in the contracts that are drawn up. The preferred contractor is then monitored in terms of their performance on these issues by the Supply Chain Management and QHSE Departments respectively.

During the site visit undertaken to inform the development of this ESMS, the labor and working conditions, including health and safety management, of contractor staff appeared to be aligned with the national labor laws.

ADMINISTRATIVE FRAMEWORK

This *Chapter* presents a summary of the national and international legal requirements and standards relevant to this ESMP.

2.1 OMANI LEGAL REQUIREMENTS AND STANDARDS

2.1.1 Key Regulatory Authorities

Telecom Regulatory Authority (TRA)

Telecom Regulatory Authority (TRA) is the national authority responsible for the regulation of telecom and postal sectors. TRA was established to create a regulatory environment with the main activity being the translation of government policies into regulation, together with their enforcement, with purpose of ensuring provision of sustainable and competitive service offers to the benefit of the end users, both in terms of fair pricing and highest quality.

Although the tutelary authority for the telecom sector, TRA is not responsible for issuance of permits required to commence construction.

Ministry of Environment and Climate Affairs

MECA is the primary body responsible for all environmental issues in the Sultanate, providing licensing, permits and clearances by the mandate of the Royal Decree No. 90/2007. MECA's role is to monitor industry's compliance with legislation and check their requirements to meet the environmental clearance criteria. Environmental Impact Assessments and other environmental status reports are reviewed by MECA for environmental clearance.

MECA have three specialised divisions formulating strategies, policies and taking action on the required official mandate. The three divisions are as follows:

- General Directorate of Environmental Affairs;
- General Directorate of Climate affairs; and
- General Directorate of Nature Conservation.

Permission from MECA would be required by Oman Broadband in case the site passes through any area of ecological/ biodiversity importance. These permissions are typically not required for current Oman Broadband construction activities.

The Ministry of Regional Municipalities and Water Resources

The Ministry of Regional Municipalities and Water Resources is responsible for developing the policies and legislative frameworks in line with the local, regional and global developments in the municipal and water fields.

The Project needs approvals from the relevant municipalities prior to the commencement of the construction activities. The Municipality must be contacted for approval depends on the location of the Project site, i.e. within which jurisdiction it falls (e.g Muscat, Salalah, etc.)

Ministry of Health

The Ministry of Health (MOH) is the Sultanate's main agency responsible for provision, coordination and stewardship of the health sector. It develops policies and programs for the health sector. It implements these in coordination with other related ministries, health service institutions under the government, as well as in the private sector. Occupational health issues for all work places for the current project are regulated by the Ministry of Health.

Ministry of Manpower

The Ministry of Manpower (MOM) was established by Royal Decree (No. 108/2001), issued on 20/Shah`ban 1422 AH. (6/11/2001). The Ministry proposes and implements manpower policies in line with the State's economic and social objectives. The Ministry's mission is to regulate the labour market with contributions from all three stakeholders (government, employers and employees) and to increase the percentage of national manpower in the private sector, to enhance its role in supporting the national economy.

The Ministry of Manpower deals with working hours, freedom of association/trade union and other occupational health and safety related matters in Oman. This is applicable for the Oman Broadband employees as well as contractor workers.

Ministry of Transport and Communications

The Ministry of Transport and Communications plays a pivotal and essential role in laying the foundations of the country's infrastructure by facilitating means and ways of communications. On top of its priorities comes the function of opening, paving, and maintaining roads, in addition to constructing ports and airports to meet the needs of the Sultanate, according to the plans and strategies that the government adopts. The Ministry acts on developing and updating the level of services at the facilities and sectors which fall under its supervision in order to activate their role in serving the national economy.

Ministry of Heritage and Culture

The Ministry of National Heritage was established through the Royal Decree number 12/76. Later in 2002, the name of the Ministry was changed to the Ministry of Heritage and Culture.

Some of the key responsibilities of the Ministry include discovering and maintaining archaeological sites and finds, in addition to supervising archaeological expeditions and applying relevant laws to protect archaeological materials. The listing, restoring, conserving and using historical castles and buildings to emphasise their significance in the cultural history of Oman are also amongst their primary duties.

On a case-by-case basis permits may be required from the Ministry of Heritage and Culture if the construction site passes through any culturally sensitive sites.

Royal Oman Police

The Royal Oman Police (ROP), also known as Oman Police is the main law and order agency for the Sultanate of Oman. It maintains a helicopter fleet and also carries on the duties of safeguarding the long Omani coastline. The key roles of ROP include regulating the transport of explosives and assistance in oil spill emergencies.

This is the main regulatory authority responsible for managing traffic related issues of the project. In most cases, permission is required from the ROP prior to start of the construction works.

2.2***OMANI POLICIES, LEGAL REQUIREMENTS AND STANDARDS APPLICABLE TO THIS ESMP****Oman Broadband Strategy*

Oman Broadband is the Government arm mandated with building and developing the necessary broadband infrastructure in the Sultanate as stipulated in the third pillar of the National Broadband Strategy. This strategy mandates Oman Broadband to be acting as a new commercial entity to manage and operate national broadband infrastructure. The strategy further grants Oman Broadband the responsibility for the process of implementation and expansion of broadband networks in the Sultanate, according to the Government's vision, operator's needs, and technology updates in telecom industry. It also mentions that Oman Broadband will be a key member of any shared infrastructure project.

Oman Broadband works in tandem with the concerned authorities and private sector partners to deliver that vision, thereby future proofing the online economy and investing in the digital potential of the nation. One year after the launch of the strategy, Oman Broadband has become the essential stakeholder in Oman's route to digital society, providing wholesale access to its extensive fibre network to the three broadband service providers, Omantel, Ooredoo and Awasr.

In addition, Oman Broadband need to abide by the legal requirements outlined in *Table 2.1*.

Table 2.1 Legal Requirements

SECTORS	POLICY/PROCLAMATION/REGULATION	DESCRIPTION	APPLICABILITY TO THE PROJECT ESMP
Social	RD 35/2003 The Labour Law	<p>This is the framework labour law in Oman and contains provisions relating to working conditions.</p> <p>The Labour Law sets out various provisions regarding employee working hours and overtime. The Labour Law imposes requirements on employers to:</p> <ul style="list-style-type: none"> • Protect their employees from injury and dangers at the work place; and • Acquaint employees with the protective measures adopted in the workplace. <p>It also imposes requirements regarding reporting and inspections that apply to all employers. In addition, there are specific provisions regulating work on construction sites.</p>	Oman Broadband and its contractors must abide by the provisions of the Labour Law at all times.
	Ministerial Decision No. 570/2012	The regulation governing the formation, activity and registration of labour trade unions and federations and the General Federation of Oman Trade Unions	Although it was reported that trade unions are not present within Oman Broadband, they may be existing in contractor and sub-contractor offices. Where employees of either Oman Broadband or its Contractors express the will to establish trade union representation and within the boundary of the applicable law and regulations they ought to be supported in this endeavour.
	Omanisation programme	<p>The objective of the Omanisation programme is to replace expatriates with trained Omani personnel. This programme has been in operation since 1988. By the end of 1999, the number of Omanis in government services exceeded the set target of 72%, and in most departments reached 86% of employees. The Ministry of Manpower has also stipulated fixed Omanisation targets in six areas of the private sector; there is no specific mention of the hydrocarbon sector. The sectors with the respective target percentages are as follows:</p> <ul style="list-style-type: none"> • Telecom – 80% • Transport, storage and communications – 60% • Finance, insurance and real estate – 45% • Industrial – 35% • Hotels and restaurants – 30% • Wholesale or retail trading – 20% • Contracting – 15% 	Oman Broadband has a current Omanisation rate of 95% and is well in line with the national targets as a part of the Omanisation programme.
	RD 6/1980 National Heritage Protection Law	Protection of archaeological and cultural heritage sites	This is applicable due to the presence of known cultural heritage sites, such as ancient villages and <i>falaj</i> (ancient traditional water channels) within project sites.
	Oman Broadband Strategy	<p>Oman Broadband is the Government arm mandated with building and developing the necessary broadband infrastructure in the Sultanate as stipulated in the third pillar of the National Broadband Strategy. This strategy mandates Oman Broadband to be acting as a new commercial entity to manage and operate national broadband infrastructure. The strategy further grants Oman Broadband the responsibility for the process of implementation and expansion of broadband networks in the Sultanate, according to the Government's vision, operator's needs, and technology updates in telecom industry. It also mentions that Oman Broadband will be a key member of any shared infrastructure project.</p> <p>The Sultanate of Oman approached development of the National Broadband Strategy to ensure that:</p> <ul style="list-style-type: none"> • Every resident in Oman has access to high-speed broadband at affordable prices • All businesses in Oman have access to world-class broadband services which make them globally competitive • There is competitive supply of broadband wherever possible. 	The project is a result of the National Broadband strategy and is instrumental in the successful implementation of the strategy.
Environmental	RD 114/ 2001 Law on Conservation of the Environment and Prevention of Pollution	This is the framework environmental law in Oman.	The Project generally involves disturbance to the environment and therefore conservation and prevention of pollution are important
	RD 29/2000 Law of Protection of Water Resources	Sets out measures for the protection of both water quality and quantity, and establishes that water is a national resource.	This is applicable due to the dust suppression measures being used on-site.
	MD 17/1993 on the Management of Solid Non-Hazardous Waste	This Decree requires that the approval of the Ministry of Health must be obtained for all projects involving the collection, storage, handling, transport and disposal of solid non-hazardous waste.	The Project generates solid non-hazardous wastes and therefore the management of such waste must be in accordance with the relevant regulations.

SECTORS	POLICY/PROCLAMATION/REGULATION	DESCRIPTION	APPLICABILITY TO THE PROJECT ESMP
	MD 18/1993 on the Management of Hazardous Waste	This Decree governs the management of hazardous wastes and prescribes when permits for waste management activities are required.	The Project generates solid -hazardous wastes and therefore the management of such waste must be in accordance with the relevant regulations.
	MD 145/1993 on Wastewater Re-Use and Discharge	This Decree governs the treatment and disposal of waste water. The discharge to the environment of any waste water or sludge in whatever form or condition is prohibited without a permit.	Wastewater in the form of sewage or cleaning activities will result out of the project, and any such discharge needs to be in line with stipulated standards.
	MD 118/2004 on the Control of Air Pollution from Stationary Sources	Stipulates that owners must employ scientific methods specified by the ministry for the prevention of the emission of pollutants, and for their treatment and disposal.	The Project generates air emissions and therefore the management of such emissions must be in accordance with the relevant regulations.
	MD 80/1994 Noise Pollution control in Working Environment	Sets limits for workplace noise levels and makes provision for the issuance of permits where these levels are exceeded.	The Project generates noise emissions and therefore the management of such emissions must be in accordance with the relevant regulations.
	The Law Regulating the Circulation and Use of Chemicals (RD 46/1995)	This regulation defines a "chemical substance" as a substance listed as "dangerous" in the international classification standards of dangerous substances that have an effect on public health and the environment. However, this law excludes "explosives", the use and circulation of which is governed by separate legislation	The project involves chemical handling and on-site storage (although in very moderate quantities).
Health & Safety	RD 28/1993 Traffic Law	Regulation related to traffic movement	The project generates increase in traffic volumes in the construction sites and therefore this needs to be referred.
	MD 23/1998 Executive Regulations of the Traffic Law	Executive regulations of the above	Same as above
	MD 286/2008 Occupational Health and Industrial Safety Precautions	Framework law for occupational health and safety of employees and contractors.	The project involves occupational health and safety risks which have been addressed in the ESMP.

2.2.2 Approvals/Permissions

Depending on the location of the Project, several permissions or approvals are required prior to the start of any construction activity. While certain permits are mandatory to all sites (irrespective of the location), there are requirements that are site specific depending on the location and jurisdiction of the Project activities. *Table 2.2* outlines the authorities that need to provide permits prior to the start of construction activities.

Securing the permits is the responsibility of the contractors.

Though seeking these permits/approvals is a key administrative step, it is also an important part of the stakeholder engagement process followed by Oman Broadband.

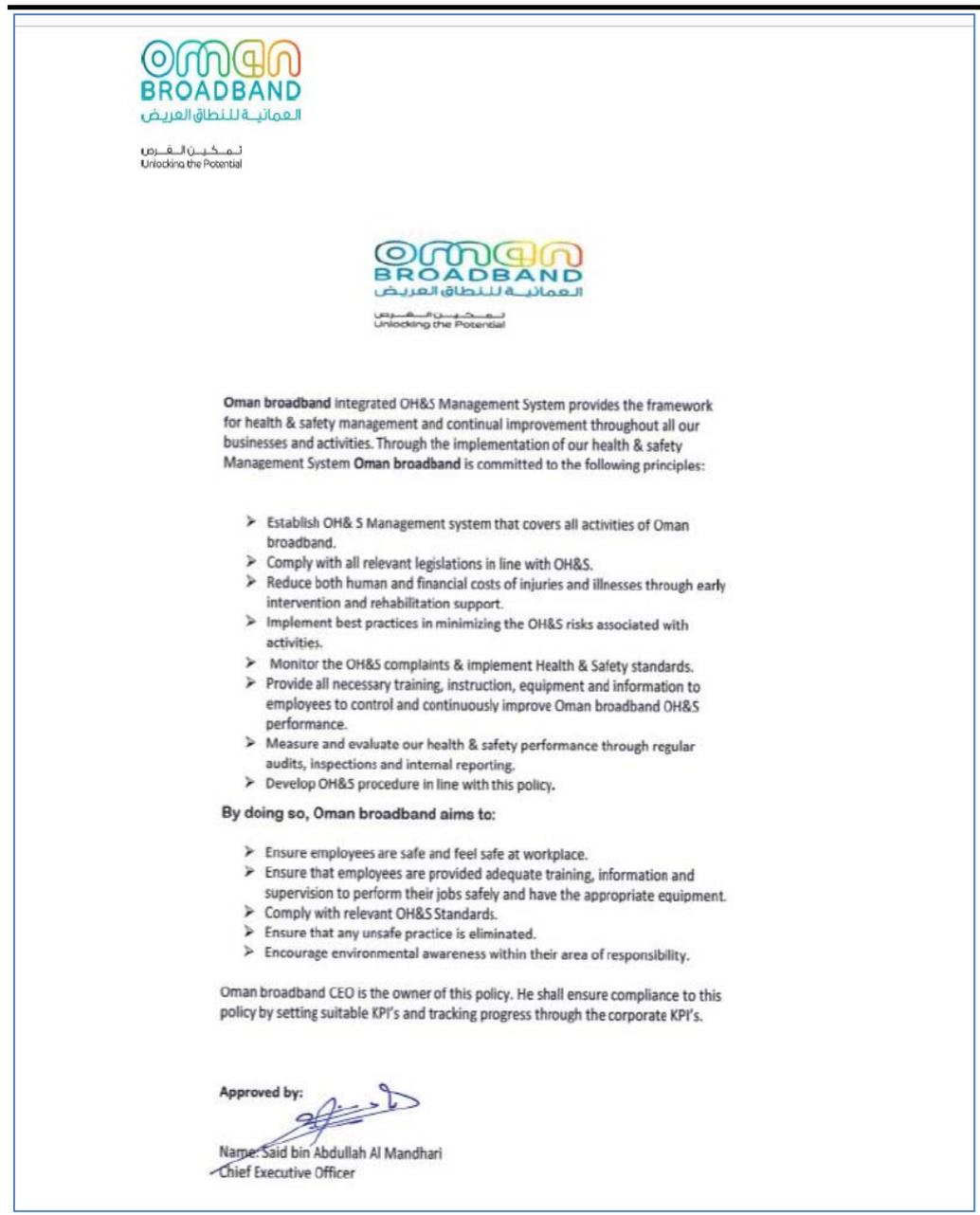
Table 2.2 *Permits and Approvals*

Sl.No	Name of the Authority
Mandatory permits or approvals	
1	Ministry of Housing (MoH)
2	The Public Authority for Electricity and Water (PAEW)
3	Haya Water
4	Omantel
5	Ooredoo
6	Royal Oman Police
7	Street Light and Lightscaping municipality
8	Relevant Municipalities such as Muscat, Salalah, etc.
Additional permits or approvals requirements for specific locations	
1	Directorate General Of Roads (DGR)
2	Petroleum Development Oman (PDO)
3	Oman Oil Company (OGC)
4	Oman Oil Refineries and Petroleum Industries Company (ORPIC)
5	Ministry of Defence (MoD)
6	Ministry of Environment and Climate Affairs (MECA)
7	Ministry of Heritage and Culture (MoHC)

ASPECT	LEGISLATION, STANDARD AND/OR GUIDELINE DOCUMENT	APPLICABILITY TO THIS ESMP
AIIB ENVIRONMENTAL AND SOCIAL POLICY AND STANDARDS		
General Environmental and Social Management	AIIB Environmental and Social Policy	AIIB's Environmental and Social Policy sets forth mandatory environmental and social requirements for each Project. The Policy applies to all Project funded by AIIB, and sets out the general processes and requirements for Project screening and categorization, environmental and social due diligence, environmental and social assessment, environmental and social management plan, environmental and social assessment tools and management plan framework, information disclosure, consultation, monitoring and reporting, as well as grievance redress. It also defines the roles and responsibilities between AIIB and the lenders. This Policy must be complied with to secure AIIB financing.
	AIIB Environmental and Social Standard 1: Environmental and Social Assessment and Management	This standard requires lenders undertake environmental and social assessment of the Project in accordance with the Environmental and Social Policy, using appropriate studies proportional to the significance of potential risks and impacts. It requires the assessment process is supported by effective information disclosure and consultation with a grievance mechanism in place and the coverage of the assessment should include pollution prevention, biodiversity impact, resource efficiency, climate change, sustainable use of natural resources, vulnerable groups, access to resources, impact of livelihood, resettlement, cultural resources, working conditions and community health and safety etc. This standard is the principal driver for the establishment and guideline for the preparation and implementation of this ESMP.
Resettlement	AIIB Environmental and Social Standard 2: Involuntary Resettlement	This standard aims to avoid involuntary resettlement wherever possible; to minimize Involuntary Resettlement by exploring Project alternatives; where avoidance of Involuntary Resettlement is not feasible, to enhance, or at least restore, the livelihoods of all displaced persons in real terms relative to pre-Project levels; to improve the overall socioeconomic status of the displaced poor and other vulnerable groups; and to conceive and implement resettlement activities as sustainable development programs, providing sufficient resources to enable the persons displaced by the Project to share in Project benefits. This Standard would be applicable in case the Project entails involuntary resettlement. To date and based on Company's statements, no involuntary resettlement has occurred or shall occur.
Indigenous People	AIIB Environmental and Social Standard 3: Indigenous People	This standard aims to design and implement Projects in a way that fosters full respect for Indigenous Peoples' identity, dignity, human rights, economies and cultures, as defined by the Indigenous Peoples themselves, so that they: (a) receive culturally appropriate social and economic benefits; (b) do not suffer adverse impacts as a result of Projects; and (c) can participate actively in Projects that affect them. This Standard would be applicable in case the Project reaches border areas where IP might be present. To date and based on Company's statements, project activities have not and shall not reach such areas.
INTERNATIONAL CONVENTIONS		
Labour Protection	Forced Labour Convention, 1930 (No. 29)	Oman ratified these ILO fundamental conventions regarding to forced labour and child labour and therefore, they are applicable to the project. These conventions ensure that: <ul style="list-style-type: none"> forced labour is prohibited and that human resource (HR) policies and procedures are developed and implemented to ensure this; and employment policies include prohibitions on the employment of children and that such polices are adhered to.
	Abolition of Forced Labour Convention, 1957 (No. 105)	
	Minimum Age Convention, 1973 (No. 138)	
	Worst Forms of Child Labour Convention, 1999 (No. 182)	
Biodiversity	Convention on Wetlands of International Importance especially the Water Fowl Habitats of Aquatic Birds (Ramsar Convention) (1975)	Oman Broadband will need to track the declaration of future wetlands of international importance to ensure that the project activities are not impacting thereon in a negative manner.
	United Nations Convention on Biological Diversity (CBD)(1992)	Oman Broadband is required to consider CBD in the course of the ESIA and ESMP implementation.
Climate Change	Vienna Convention for the Protection of the Ozone Layer (1985)	No sections of the Vienna Convention are directly applicable to the proposed Project, but the objectives of ozone layer protection should be considered where relevant and the development of domestic laws prohibiting the import or use of certain ozone depleting substances should be tracked.
	Montreal Protocol to Protect the Ozone Layer	Ensure that the use of Hydrochlorofluorocarbons (HCFC's) are phased-out in accordance with the Protocol and in terms of domestic law enacted to provide for the implementation of the Protocol.
	United Nations Framework Convention on Climate Change (UNFCCC) and the 1992 and 1997 Kyoto Protocol (1992 and 1997)	Management of greenhouse gases associated with the project should be undertaken in accordance with the objectives of the UNFCCC.
Hazardous Substances	Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (1998)	The objectives of the Rotterdam Convention should be considered when developing plans and programmes for the management of relevant hazardous chemicals and pesticides.
	Stockholm Convention on Persistent Organic Pollutants (2002)	Identify any persistent organic pollutants which may be used for any activities associated with the proposed Project and apply the objectives of the Stockholm Convention to their management.
Waste	The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal	If applicable, obtain consent from the receiving country before the transboundary movement of hazardous waste.
Cultural Heritage	UNESCO Convention Concerning the Protection of the World Cultural and Natural Heritage (1972)	By applying international standards (such AIIB's ESS 1) to any identification and management of cultural heritage aspects during project development, the developer will comply with the objectives of the convention.
Human Rights	International Convention on the Elimination of All Forms of Racial Discrimination :1969	All workplace racial discrimination should be expressly forbidden.
	Convention on the Elimination of All Forms of Discrimination against Women :1981 (CEDAW)	Ensure that non-discrimination against women is enshrined in HR policies and practices for the proposed Project.

ASPECT	LEGISLATION, STANDARD AND/OR GUIDELINE DOCUMENT	APPLICABILITY TO THIS ESMP
	Convention on the Rights of the Child: 1990	Ensure that employment policies include prohibitions on the employment of children.
	Convention on the Rights of Persons with Disabilities :2008 (ICRPD)	Ensure that employment and HR policies and practices embody the objectives of the ICRPD and do not allow for discrimination against disabled persons.
INTERNATIONAL FINANCE CORPERATION (IFC) ENVIRONMENTAL, HEALTH AND SAFETY (EHS) GUIDELINES		
Air Quality	IFC Environmental, Health and Safety (EHS) Guidelines - 1.1 Environmental Air Emissions and Ambient Air Quality	Includes the general principles of assessing impacts to air quality. In addition to the air quality standards set out, emission limits and guidelines for specific technologies and operations are also specified. Oman did not set ambient air quality standards, therefore, the ambient air quality standards set up by WHO's Ambient Quality Guidelines and referred to in the IFC General EHS Guidelines should be referred to by the Project. Specific stationary source emissions standards in the Guideline are not applicable as Oman has published its own stationary source air emission standards.
Water	IFC Environmental, Health and Safety (EHS) Guidelines - 1.3 Wastewater and Ambient Water Quality and 1.4 Water Conservation	This EHS guideline specifies that discharges should not result in contaminant concentrations in excess of local ambient water quality criteria or, in the absence of local criteria, other sources of ambient water quality. Oman has published its own wastewater discharge standard, which is in line with the IFC General EHS Guidelines.
Noise	IFC Environmental, Health and Safety (EHS) Guidelines - 1.7 Noise	This is an internationally recognised guideline document containing information for the assessment and management of noise. It also presents noise level criterion values applicable to sites such as the proposed Project. The guidelines make reference to noise from facilities and stationary noise sources, and are commonly applied as design standards for industrial facilities, and whilst this may imply they relate to some threshold of noise effects in a general sense, the IFC has indicated that they are not directly applicable to transport or mobile noise sources. Measurements are to be taken at noise receptors located outside the project property boundary. Oman does not have specific noise limits beyond project boundaries on receptors. The daytime and night time noise level limits at different receptors specified in this Guidelines shall be referred to.
Community Health and Safety	IFC Environmental, Health and Safety (EHS) Guidelines - 3.1 to 3.7 Community Health and Safety	These EHS guidelines address aspects of project activities taking place outside of the traditional project boundaries and deal with communal issues (amongst others) around water quality and availability, traffic safety, transport of hazardous chemicals, disease prevention and emergency preparedness and response. Omani legislations covers part of the best practices listed in this Guideline. These Guidelines shall be referred to wherever Omani legislation has not touched upon in the practices to manage community health and safety, which have been considered in this document.
Construction	IFC Environmental, Health and Safety (EHS) Guidelines - 4.1 to 4.3 Construction and Decommissioning	These EHS guidelines provides additional, specific guidance on prevention and control of community health and safety impacts that may occur during new project development, at the end of the project life-cycle, or due to expansion or modification of existing project facilities.

Figure 2.1 Oman Broadband Policies and Procedures



2.4.1

Oman Broadband's Relevant EHS Procedures

- OH & S Operational Control Procedure Confined Space;
- Emergency Plan for Oman Broadband Offices
- Environment Management Procedure
- OH & S Operational Control excavation procedure
- OH & S Operational Control Procedure Hand Powered tools & Abrasive Wheels
- Incident Response, Reporting & Investigation Procedure

- Document No: GUD-FXI-001 Contractor Guidelines for Health and Safety Standard;
- Document No: SPC-HSE-00 HSE Training Specification;
- OH & S Operational Control Procedure Manual Handling
- Night working Procedure;
- Waste Management Procedure;
- Oman Broadband Health, Safety, Environment Management System (HSEMS)

As stated in *Section 2.2.2* earlier, it is understood that Oman Broadband (or in some instances its partner in infrastructure development or appointed contractor) secures permissions from various ministries or authorities before commencing construction activities. The sub-sections below comprise of an assessment of social and environmental impacts relevant to the construction and commissioning activities carried out by Oman Broadband and their sub-contracts on-site.

Environmental aspects which can potentially be impacted by construction activities include air quality, noise, traffic and waste management including wastewater treatment and discharge.

Sensitive environmental and social receptors which can be impacted by construction activities include:

- General air and soil quality.
- Residents, visitors and workers.
- Adjacent / near-by properties.
- Flora and fauna habitats and protected areas.
- *Wadis* (temporary or permanent watercourses)
- Cultural Heritage sites (if any present in the project areas)

It has been reported by Oman Broadband and contractors that project areas are not anticipated to be sited in proximity to any protected areas. The only known cultural heritage sites, are limited to ancient villages and falaj (ancient traditional water channels).

3.1 AIR EMISSIONS IMPACTS

Emissions to air can have detrimental impact on air quality as a whole as well as potentially impacting near-by residents. The potential impacts to these sensitive receptors are further outlined in the sections below.

3.1.1 Impacts from Dust

Dust can impact sensitive receptors by various means. Airborne dust can represent a respiratory hazard to humans; and the build-up of dust on vegetation can restrict plant growth which can also impact local wildlife. Dust build-up on nearby properties and roads can lead to additional maintenance and potential traffic hazards.

Dust is anticipated to be generated at the Project construction site, (especially excavation and trenching activities) by the following means:

- Movement of soils during excavations, grading, and cut and fill activities;
- Plant movements on site;

- Material deliveries to site;
- Daily transport of personnel to and from site; and
- Wind erosion of soil stockpiles and newly closed trenches.

3.1.2 *Impacts from Gaseous Pollutants and Particulate Matter*

Gaseous pollutants (including CO₂, NO₂, SO₂, CO and PM_{10/2.5}) can impact general air quality, humans, and plants and wildlife. During construction works, gaseous pollutants will be generated due to the following:

- Operation of vehicles, plant and construction equipment on site;
- Operation of diesel generators for power supply; and
- Use of vehicles for transport of personnel to and from site.

Other gaseous emissions such as Volatile Organic Carbons (VOCs) from fuels stored on site are not anticipated since no major chemicals are being stored on-site. The only chemical being used on-site is isopropyl alcohol being used during splicing¹ activity.

The diesel consumption by civil works contractors is not communicated to Oman Broadband, and thus an estimate of project-related Green-House Gas emissions cannot be conducted at this stage. Diesel will not be stored on-site. One diesel tanker will be visiting the site to provide diesel to all vehicles/equipment and DG-sets.

Elevated concentrations of particulate matter (PM₁₀) in air can have an impact on humans and wildlife by posing a potential respiratory hazard. PM₁₀ concentrations in air are typically increased as a result of the following activities on site:

- Vehicle movements;
- Excavations and earthworks; and
- Soil/ sand stockpiles stored on site without protection from wind erosion.

3.1.3 *Impacts from Odour*

Wind-blown odour can potentially affect site neighbours (including other construction sites) and public areas such as residential accommodation and cultural facilities.

The main potential sources of odour on construction sites are from:

- On site temporary toilets / sewage storage, food scraps and other organic materials;
- Minor odours from the use of chemicals and other materials containing VOCs.

¹ Splicing is the process involving joining two fibre optic cables together.

In case of normal functioning and proper waste disposal, and since no permanent toilets are present on-site and significant amounts of chemicals are not being stored on-site, no significant odour is anticipated from the site.

3.2 *NOISE IMPACTS*

Operation of light and heavy vehicles and construction equipment (including generators, etc.) on site will lead to generation of noise in their vicinity. The potential also exists for elevated noise levels to be experienced due to any malfunctioning noisy equipment during construction works at a project site. In addition, construction traffic (deliveries, transport of personnel etc.) will have the potential to impact residents and visitors to nearby areas by potential increases in traffic noise. Other possible noise generating operations specific to the Project would be breaking with pneumatic tools.

The following noise generating equipment are being used in the Project:

- JCBs, excavators
- Power Meter
- Generators
- Rock cutting and drilling machines
- Screwdriver set

For the current project, there is a potential for noise and vibration impacts on occupants of the houses located in immediate vicinity of the Project sites. There would also be impact on project workforce and operators/ drivers.

In case of construction activities in rocky terrain, manual methods are used for rock-breaking. No blasting activities are carried out on-site.

3.3 *WASTE*

Construction activities typically generate a variety of waste materials which require careful management to limit impacts to the environment and public. It has been reported by Oman Broadband Contractors that for each contractor there are around a maximum of 300 labourers working on different sites within and outside Muscat areas. Since there are around five of such contractors deployed by Oman Broadband at a given time, the total manpower working at the different Oman Broadband locations is estimated to be a maximum of 1500.

The per-capita municipal solid waste generation in Oman is 1.2 Kg/ person/day². Therefore waste generation per day from all of the Oman Broadband sites is estimated to be 1800 Kg/ day.

² Oman: Circular Economy Approaches in the Waste Management Sector, October 2016, www.beah.om

Solid Waste

There is the potential for impacts to air quality; soil and groundwater; visual amenity and waste management facilities if solid wastes (non-hazardous wastes) are not handled, stored and disposed of appropriately during construction. Oman Broadband has appointed an approved waste management service provider for the current Project.

Liquid Waste

There is the potential for impacts to air quality (odours, H₂S); soil and groundwater if liquid wastes are not handled, stored and disposed of appropriately during construction.

Non-hazardous liquid wastes associated with the Projects are typically anticipated to include:

- Sanitary water from on-site facilities (including site offices);
- Wash water (from vehicle and equipment washing); and
- Left over / used non-hazardous chemicals (detergents, solvents, etc).

In addition, run-off may be contaminated in contact with chemicals packaging, diesel/lubricant spills, other waste and/or construction material before discharge in the environment. The likelihood of occurrence is low due to limited rainfall in Oman.

3.3.2 *Hazardous Waste*

There is the potential for impacts to air quality; and soil and groundwater if hazardous wastes are not handled, stored and disposed of appropriately during construction.

The hazardous wastes generated from the project are wastes from the splicing activities and lubricants packaging. Splicing results in short, nearly microscopic pieces of glass lying around in a work area. These are short, thin, invisible needles and have the potential to easily penetrate the skin and could cause serious issues such as internal bleeding or in worst cases death.

3.4 *ROAD TRAFFIC*

It is recognised that traffic associated with construction sites will also have the potential to generate noise and vibration impacts.

Construction traffic is anticipated to include large delivery trucks using some of the same roads as commuters to the project sites. This has the potential to lead to traffic congestion during busy traffic periods and an elevated potential for traffic accidents.

Traffic generated as a result of any construction project is anticipated to have an impact on the existing traffic flow both on the main roads or roads within localities.

The project activities within the Muscat city pose minimal/ no risks for wildlife (due to their minimal presence), however, within the more interior regions (i.e. rural areas) animals such as camels, donkeys, foxes are occasionally spotted. The increase in construction traffic volumes is anticipated to be a factor and could result in mortality of these animals if the traffic is not managed properly.

Residents and occupants of residential developments have the potential to be impacted by increased traffic noise as well as dust and vehicle emissions.

The construction workers taking buses to and from the Project site will also add on to the project traffic.

3.5 OCCUPATIONAL HEALTH & SAFETY

The construction activities will result in impacts to occupational health and safety of the workers. The depth of the excavation trenches within the current scope of the Project is mostly of 65 cm and therefore the risk is considerably reduced. The construction related occupational health and safety impacts are as follows:

- Working in proximity to traffic axis: This has already been discussed under the traffic section.
- Slip, trip and fall: Generally, excavation and trenching activities pose serious hazards to the workers involved. Cave-ins pose the greatest risk and are more likely than some other excavation-related incidents to result in worker fatalities. Other potential hazards associated with trenching work include falling loads, hazardous atmospheres, and hazards from mobile equipment.
- In the present scenario, Haya Water and other supporting utilities company are mainly responsible for digging deeper trenches and then handing over the sites after partially filling it up, to Oman Broadband. Oman Broadband is responsible to lay the cables only at a depth of 65 - 70 cm. Therefore hazards such as cave-ins and hazardous atmospheres are not applicable in these instances.

However, *wadi* crossings, involve a greater depth of the trenches. There are three different *wadi* types that maybe encountered.

- Type 1: small *wadi* (usually a result of heavy rains)
- Type 2: Medium *wadi*
- Type 3: Large *wadi*

While the small *wadis* may involve trenching depth of only 1 metre, the comparatively larger ones, may need to be trenched up to two metres. In such cases, the risks of confined space entry are present and therefore the relevant procedure is followed.

- Lifting of heavy equipment/material: Lifting of materials may involve occupational injuries such as hand/back injuries, or from the fall of the equipment.
- Use of electrical equipment: These include the different hand, mobile and support electrical equipment used for the digging and other construction activities posing risk of electric shock electrocution.
- Use of heavy equipment such as JCBs and excavators include risks such as driving safety and vehicle accidents.
- Heat Stress: During summer months, working in outdoor conditions for long extended hours may cause heat stress in workers. Therefore, Omani labour law requirements on working hours in summer months (including Ramadan times) need to be abided by. Staff also needs to have access to clean drinking water to remain hydrated at all times.

3.6

COMMUNITY HEALTH & SAFETY

The construction activities will result in impacts to community health, safety and security including:

- *Site trespass*: at work fronts in particular where trenching, cable pulling or connections are being installed. Trespass into work areas could result in accidents and injuries associated with slips, trips and falls. This is managed at site by signage, use of barriers (where appropriate) and by Public Relations staff informing communities about the construction works.
- *Increased vehicle movements*: as outlined above under road traffic.
- *Annoyance*: associated with the construction activities including noise, dust and temporary disruption to access associated with closure of footpaths and construction in front of houses. Such annoyance³ will be temporary in nature (usually limited to a few days) and is managed by informing people of any proposed construction and having Public Relations officers at site.
- *Increased disease transmission*: due to the presence of an external workforce living in houses (villas) where interaction with nearby communities may occur. The profile of these diseases will be influenced by the existing diseases profile of communities and the workforce who may be migrants. However, the extent of such disease transmission is likely to be limited by the relatively low numbers of workers at any one location and the short duration (2-3 weeks maximum in a particular area) of the activities in any given community.

No impacts are expected during operations, as the cables are buried and the POPs can only be accessed by those with security clearance.

³ Time duration of the daytime working hours are typically 8 am to 6pm, including break time.

3.7

LABOUR & WORKING CONDITIONS

Oman has ratified four of the eight fundamental International Labour Organisation (ILO) conventions:

- Forced Labour Convention, 1930 (No. 29);
- Abolition of Forced Labour Convention, 1957 (No. 105);
- Minimum Age Convention, 1973 (No. 138); and
- Worst Forms of Child Labour Convention, 1999 (No. 182).

In addition, as outlined in Section 2.1, the *Labour Law* is in place which provides protections against labour and working conditions abuses.

However, the implementation of workers' rights may not be fully aligned with these requirements in particular in firms that are subcontractors or suppliers to the main contractors. Such companies may also not be aligned with national labour law.

As such there is a risk of inadequate labour and working conditions related to worker contracts, working hours, welfare facilities on site and accommodation. Migrant labourers are likely to be at greatest risk of being exposed to inadequate working conditions as they are less able to exercise their rights.

Principal risks to workers include:

- Inadequate health and safety training
- Lack of or quality of Personal Protective Equipment (PPE)
- Overtime imposed by project conditions
- Exhaustion and/or dehydration due to climatic conditions
- Lack of freedom of association

3.8

CULTURAL HERITAGE

Impacts to archaeological or cultural heritage sites may result from ground-disturbing activities, such as vegetation clearance, trenching or cable pulling during the construction phase. Clearing of vegetation or trenching are activities that will completely remove archaeological sites that fall within the footprint of these activities.

Known cultural heritage sites, such as ancient villages and falaj (ancient traditional water channels) require protection. Prior to any activities in these areas engagement with communities is undertaken to discuss the activities that will be undertaken. Directional drilling is also used to avoid trenching through the *falaj* systems.

3.9

EMPLOYMENT AND ECONOMIC DEVELOPMENT

Employment impacts will occur during the construction phase through the employment of workers and procurement of goods and services. This will mainly include people employed by contractors and subcontractors. It also includes jobs supplying goods and services needed to support the construction process. However, the number of new employment opportunities is expected to be limited as many contractors already have a workforce.

Positive economic impacts will stem from procurement of goods and services by the Project, induced economic effects of spending by employees, and payment of taxes and fees to the government. The broadband network will also support the economic development of Oman.

3.10

SCOPED OUT IMPACTS

The following impacts have been scoped out of the ESMP:

3.10.1

Water

No water usage is reported for the project construction activities. Water in minimal quantities is being used for dust suppression purposes. However, since this is not being undertaken on a regular basis, impacts to water resources may be considered to be very minimal. The minimal quantities of water used for sprinkling will be purchased from established water suppliers.

3.10.2

Biodiversity

The Project Sites are located within the Muscat city and in some rural areas with the presence of minimal vegetation and fauna. The project does not intersect any sensitive location such as nature reserves and therefore the impact to biodiversity is considered insignificant.

3.10.3

Land Acquisition

No involuntary resettlement is reasonably anticipated as a result of the Project as the construction activities are undertaken on public land (mainly in the road reserves). There is no evidence of formal or informal use of such land for economic activities or structures. In the unlikely event that involuntary resettlement is required in the future; this should be undertaken in line with the requirements of the AIIB, *ESS2: Involuntary Resettlement*.

3.10.4

Indigenous Peoples

Impacts to indigenous people are not predicted as a result of the construction and operation of the Project. Secondary data indicates that if indigenous people are present in Oman they tend to live in remote border areas which will not be covered by the Project.

4.1 INTRODUCTION

This section details the environmental and social management plans for the construction and operation phases of the proposed Project, based on the outcomes of this Assignment. The Plans are prepared in line with the *Section E. Environmental and Social Management Plan* of the AIIB's ESP.

All mitigations and management measures presented in the form of the Environmental and Social Management Plans have for objective to:

- Undertake all activities in a manner that minimises impacts on environmental and social receptors.
- Ensure compliance with Omani legislation.
- Ensure alignment with the requirements set out in the *Asian Infrastructure Investment Bank's Environmental and Social Policy and Environmental and Social Standards*;
- Ensure compliance with the requirements of Oman Broadband's Guideline for Environmental and Social Management.

All measures contained in this ESMP will require to be adopted, and their implementation monitored, by Oman Broadband and its contractors and sub-contractors.

4.2 AIR QUALITY MANAGEMENT PLAN

Purpose:

- To undertake all planning, construction and operation activities in a manner that minimises impacts on ambient air quality.
- To ensure compliance with Omani legislation.
- To ensure alignment with the requirements set out in the AIIB's *Environmental and Social Policy and Environmental and Social Standards*.
- To ensure compliance with the requirements of Oman Broadband's Guideline for Environmental Management

Timeframe

All Project phases (planning (equipment sourcing) phase, construction phase and operation phase)

Aspect (Project Activity)

- Exposure of soils during vegetation clearing.
- All earthworks.
- Vehicle movement over unpaved surfaces.
- Use of generators and other combustion engines.

Responsibility

- Oman Broadband: establish standards and requirements in contractual documents, review performance records

- Contractor: implementation of applicable standards and requirements, reporting, management of change

Performance Criteria

The primary performance criteria associated with air quality and dust emission management for the Project include -

- Minimise nuisance dust on unsurfaced roads and exposed work sites.
- Minimise emissions from equipment and vehicles.
- Minimise air emissions from compressor operations.
- Respond to all complaints associated with air quality.

Omani ambient air quality standards

Regulation on Controlling Air Pollutants (MD118/2004):

Relevant Standards include:

General - Grit and dust (<76µm diameter) 0.050 g/m³

Dark smoke - products of combustion shall not emit smoke as dark or darker than shade 1 on the Ringelmann, Scale (20% opacity).

Aggregates Works - Particulates 0.050 g/m³

Ambient Air Quality Standards

Pollutant	Standard in ppm
SO ₂	0.169 (1hr)
	0.83 (24hr)
	0.076 (1 year)
NO ₂	0.35 (1 hr)
	0.050 (1 year)
CO	35 (1 hr)
	9 (8hr)

AIB ESS Guidelines: Oman Broadband have committed to meeting the requirements of AIB ESS1 which requires that environmental and social risks and impacts are mitigated and impacts monitored.

Related Oman Broadband Procedures

Environment Management Plan

Management Plans Ref. No	Project Activity	Aspect	Management Control	Phase	Responsibility		Monitoring Parameters /	Monitoring Method(s)	Monitoring Frequency	Reporting Requirements
					Oversight	Implementation				
AQ 1	Construction vehicle and equipment movement	Atmospheric emissions	Maintain a speed limit of approximately 30kph on dirt roads.	Construction	Oman Broadband & Contractor: Site HSE Manager	HSE Department	Vehicle speedometer	By equipment	Continuous onsite enforcement	Notice of violation on record
AQ 2	Construction vehicle and equipment movement	Atmospheric emissions	Cover the vehicles when transporting friable materials.	Construction	Oman Broadband & Contractor: Site HSE Manager	HSE Department	Onsite visual inspection	Visual	Before transporting	Logbook and inspection records
AQ 3	Land preparation, vegetation clearing, site levelling	Atmospheric emissions	<ul style="list-style-type: none"> Expose the smallest possible area for cleared ground for work. Use surface binding agents on exposed open earthworks. 	Construction	Oman Broadband & Contractor: Site HSE Manager	HSE Department	Onsite visual inspection	Visual	Continuous onsite enforcement	Notice of violation on record
AQ 4	Entire Construction	Atmospheric emissions	Halt construction activities temporarily when the visible fugitive dust emissions exceed 20% opacity.	Construction	Oman Broadband & Contractor: Site HSE Manager	HSE Department	Onsite visual inspection	US EPA Method 9	Hourly when in construction	Opacity observation log
AQ 5	Material and soil stockpiling	Atmospheric emissions	<ul style="list-style-type: none"> Minimize stockpiling materials (i.e. rocks, sand and soils). Enclose or sheet stockpiles as much as possible. Optimise the design of stockpiles to retain a low profile with no sharp changes in shape. 	Construction	Oman Broadband & Contractor: Site HSE Manager	HSE Department	Onsite visual inspection	Visual	Continuous onsite enforcement	Notice of violation on record
AQ 6	Material and soil stockpiling	Atmospheric emissions	Place stockpiles as far away from receptors as possible.	Construction	Oman Broadband & Contractor: Site HSE Manager	HSE Department	Onsite visual inspection	Visual	Continuous onsite enforcement	Notice of violation on record
AQ 7	Construction vehicle and equipment movement	Atmospheric emissions	<ul style="list-style-type: none"> Limit the vehicle and machinery movement within the Project area, designated area and routes for broadband cable installation. Limit vehicle idling to not to exceed 10min. 	Construction	Oman Broadband & Contractor: Site HSE Manager	HSE Department	Onsite visual inspection	Visual	Continuous onsite enforcement	Notice of violation on record
AQ 8	Training	Employment	Provide onsite Oman Broadband and Contractor HSE staff with visible emissions observation training (EPA Method 9) prior to taking on duties.	Construction	Oman Broadband & Contractor: Site HSE Manager	HSE Department	Safety Performance	na	na	Training records

AQ	9	Operation of generators	Atmospheric emissions	Use ONLY low-sulfur content ($\leq 0.5\%$ sulfur by weight) diesel as fuel for power generator, heavy machinery as well as vehicles.	Construction Commission & Operation	Oman Broadband & Contractor: Site HSE Manager	HSE Department Procurement Department	Diesel MSDS	Review fuel MSDS and purchased fuel records	During procurement	Diesel MSDS and fuel testing records
AQ	10	Procurement of equipment and vehicles	Atmospheric emissions	Use vehicles compliant with recent emission standards (i.e. EURO Tier 3).	Construction Commissioning, Operation	Oman Broadband & Contractor: Site HSE Manager	HSE Department Procurement Department	Vehicle manufacturer specification	Vehicle/engine specification sheets	During procurement	Vehicle inventory
AQ	11	Community engagement and information disclosure	Ambient Noise, Dust and Vibration	Undertake stakeholder information and engagement to inform communities about activities and timelines.	Planning, Construction	Oman Broadband & Contractor: Site HSE Manager	HSE Department Community Liaison Department	Engagement records Community grievances	Review of the records. Interviews with the CLO, selected affected persons and community leaders.	Monthly	Monthly reports

Purpose:

- To minimise the potential impacts associated with erosion and spills and to prevent the release of contaminants in receiving water environments.
- To ensure compliance with Omani legislation.
- To ensure compliance with any Water Use/Discharge Permits/Licenses issued by the Ministry of Regional Municipalities and Water Resources.
- To ensure compliance with the requirements set out in the AIIB's *Environmental and Social Policy and Environmental and Social Standards*.
- To ensure compliance with the requirements of Oman Broadband's Guideline for Environmental Management.
- To promote alignment with the requirements set out in the International Finance Corporation (IFC) Performance Standards and IFC Environmental, Health and Safety Guidelines.
- To ensure the use of water resources in the broader Project Area is undertaken in a sustainable manner so as to reduce impacts to the receiving biological and social environments, protect surface vegetation and topsoils, and minimize erosion.

Timeframe

All Project phases (planning (equipment sourcing) phase, construction phase and operation phase)

Aspect (Project Activity)

- Spillages and wastage and/or potential runoff of spilled materials
- Discharge of domestic wastewater
- Water sourcing
- Surface water flow interruption due to the construction of trenches for laying cables

Responsibility

- Oman Broadband: establish standards and requirements in contractual documents, review performance records
- Contractor: implementation of applicable standards and requirements, reporting, management of change

Performance Criteria

Omani Standard:

Effluent discharge in MD 145/1993 on Wastewater Re-Use and Discharge. The key parameters standards are referenced below. For the full list, please refer to the Regulations:

Parameter	Standards (mg/L)
Biological Oxygen Demand (BOD 5d@20deg C)	15
Chemical Oxygen Demand (COD)	150
Suspended Solids	15
Total Dissolved Solids	1500

AIIB ESS Guidelines: Oman Broadband have committed to meeting the requirements of AIIB ESS1 which requires that environmental and social risks and impacts are mitigated and impacts monitored.

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Management Plans Ref. No	Project Activity	Aspect	Management Control	Mitigation Type	Phase	Responsibility		Monitoring Parameters / Record keeping Requirements	Monitoring Method(s)	Monitoring Locations	Monitoring Frequency	Monitoring Responsibility	Reporting Requirements	
						Oversight	Implementation							
SGW	1	Land preparation, vegetation clearing, site levelling	Soil control	Undertake land clearance ONLY immediately prior to construction activities. Avoid unnecessary land clearance.	Reduce at Source	Construction	Oman Broadband & Contractor: Site HSE Manager	HSE Department	Site Checks	Visual	Construction Site	Continuous during construction	Principal Engineer - Quality Control (QHSE)	Inspection report maintained.
SGW	2	Reinstatement	Soil control	Replace soil in the trench to mimic the pre-construction profile, i.e.: place subsoil at the base of the trench and topsoil above it to match the pre-construction compaction as close as possible while the duct remains surrounded by 10 cm above and below with fine sand;	Repair or Remedy	Construction	Oman Broadband & Contractor: Site HSE Manager	HSE Department	Site Checks	Label, appropriately manage and correctly reinstate into the trench.	Along the cable laying route	Following installation of the broadband cabling and during soil backfilling	Principal Engineer - Quality Control (QHSE)	Inspection report maintained.
SGW	3	Material and soil stockpiling	Soil control	Avoid placing soil stockpiles in or near to Wadi and Falaaj areas. (suggested buffer: 200m)	Abate on Site	Construction	Oman Broadband & Contractor: Site HSE Manager	HSE Department	Site Checks	Visual	Storage and construction Site	Continuous during construction	HSSE Department	Inspection report maintained.
SGW	4	Fuel/chemical storage and usage	Oil and chemical spills	<ul style="list-style-type: none"> Label all potentially hazardous substances using international symbols and colors and provide appropriate bunding for their storage and emergency spill response kits, Use appropriate bunding or liners for containers storing hazardous substances to safeguard against spills; 	Avoid at Source	Construction, Commissioning, Operation	Oman Broadband & Contractor: Site HSE Manager	HSE Department	Wet stock records for hazardous liquid	Install monitoring wells and sample groundwater in these wells, and surface water in downstream locations.	Down-gradient / down-stream of areas where hazardous substances are stored / handled.	<ul style="list-style-type: none"> Monthly for two years and quarterly thereafter, Immediately after accidental spills or planned discharge of waste water. 	HSSE Department	Monitoring report to Principal Engineer - Quality Control (QHSE) and authority (if required).
SGW	5	Fuel/chemical storage and usage	Chemicals	Train personnel involved in the use, storage and handling of hazardous substances and establish procedures to manage the training.	Reduce at Source	Construction, Commissioning, Operation	Oman Broadband & Contractor: Site HSE Manager	HSE Department	Training plan and records	na	na	Job induction training and annual refresher training	HSSE Department	Training plan, material and records on file
SGW	6	Storage and handling of Stockpiles	Soil control	DO NOT stockpile soil through the rain season within 1km of a surface water body (irrigation canal, wadis etc.)	Abate on Site	Construction	Oman Broadband & Contractor: Site HSE Manager	HSE Department	Site Checks	Visual	Storage and construction Site	Continuous during construction	HSSE Department	Inspection report maintained.
SGW	7	Fuel transfer to construction vehicle and equipment	Oil and chemical spills	If applicable, contain losses of fuel and lubricants from equipment and vehicles involved in the construction of the trenches using bunding, or a drip tray with plastic sheeting filled with absorbent material when not parked on hard standing to undertake fuel transfer (in-field filling) or in case of leakage.	Avoid at Source	Construction	Oman Broadband & Contractor: Site HSE Manager	HSE Department	Site Checks	Visual	Construction Site	When not parked on hard standing	HSSE Department	Inspection report maintained.

Purpose:

- To construct in a manner that minimises the impact of noise to nearby noise sensitive receptors.
- To ensure compliance with Omani legislation.
- To ensure alignment with the requirements set out in the International Finance Corporation (IFC) Performance Standards and IFC Environmental, Health and Safety Guidelines.
- To ensure compliance with the requirements of Oman Broadband's Guideline for Environmental Management.

Timeframe

All Project phases (planning (equipment sourcing) phase, construction phase and operation phase)

Aspect (Project Activity)

- General construction activities
- Vehicles handling and transportation of equipment and supplies

Responsibility

- Oman Broadband
- EPC Contractor

Performance Criteria

The primary performance criteria associated with noise management for the Project include –

- No undue concerns expressed by surrounding stakeholders in terms of noise.
- Respond to all noise related complaints received from surrounding stakeholders and implement mitigation measures.

For the purpose of this ESMP, the Project specific noise criteria will be drawn from a combination of the Omani Standards and the *IFC EHS Guidelines 1.7 Noise* as follows:

Omani Standard

- Machines must be designed and constructed in such a way that risks resulting from the emission of airborne noise are reduced to the lowest level possible using state-of-the-art technology and available means particularly at noise source. The Ministry may consider the provisions of these Regulations are complied with if the A-Weighted sound pressure level at work stations is not exceeding 85 dB (A).
- The technical literature, including instruction manuals, must give the following information concerning airborne noise emission by machines:
 - Equivalent continuous A-Weighted sound pressure at workstation, where this exceeds 70 dB (A) and where the level does not exceeds 70 dB (A), this fact must be indicated.
 - Peak C-Weighted instantaneous sound pressure value at work stations, where this exceeds 130 dB (C).
 - A-Weighted sound level, in dB re 1 pw, emitted by machines for which the
 - equivalent continuous A-Weighted sound pressure level at workstations exceeds 85 dB (A).

AIIB ESS Guidelines: Oman Broadband have committed to meeting the requirements of AIIB ESS1 which requires that environmental and social risks and impacts are mitigated and impacts monitored.

IFC Standard

- The daytime period will be defined as 6:00 to 21:00 and the night time period will be from 21:00 to 6:00, as the IFC performance standard gives precedence to local standards and guidelines.
- Disturbance criteria will be based on a LAeq, 15min assessment period as the IFC performance standards provides threshold level at receptor.

Accordingly the Project specific noise action levels for the Project are as follows -

Category of area	Noise Limits in dB(A) LAeq,15min	
	Daytime (06:00 - 21:00)	Night time (21:00 - 06:00)
Residential area	55	45

Management Plans Ref. No	Project Activity	Aspect	Management Control	Mitigation Type	Phase	Responsibility		Monitoring Parameters / Record keeping Requirements	Monitoring Method(s)	Monitoring Locations	Monitoring Frequency	Monitoring Responsibility	Reporting Requirements	
						Oversight	Implementation							
NV	1	Construction vehicle and equipment movement	Transportation	Adopt a speed limit of 30km/h for all type of project related vehicles when driving through residential areas, including township centers, city centers and small settlement clusters. Limit the size of night time (9:00pm – 7:00am) fleet in populated areas. The list of populated areas that this requirement is applicable shall be specified in the Traffic Management Plan to be developed by Oman Broadband.	Reduce at Source	Construction	Oman Broadband & Contractor: Site HSE Manager	HSE Department	Speed monitoring (by means of GPS) installed on vehicles.	na	On all project related vehicles	When driving	HSE Department	Vehicle using records
NV	2	Entire construction	Noise and vibration emissions	Avoid the dropping of materials from height. Avoid repeated metal-to-metal contact on equipment.	Avoid at Source	Construction	Oman Broadband & Contractor: Site HSE Manager	HSE Department	Onsite visual inspection	Visual	Construction site	Continuous during construction	HSE Department	Inspection logbook
NV	3	Establishment and operation of camp	Noise and vibration emissions	Avoid mobile equipment clustering near residences and other sensitive land uses.	Abate at Receptor	Construction	Oman Broadband & Contractor: Site HSE Manager	HSE Department	Onsite visual inspection	Visual	Construction site	Daily	HSE Department	Notice of violation on record
NV	4	Construction vehicle and equipment movement	Noise and vibration emissions	<ul style="list-style-type: none"> Develop a conservative vehicle/equipment maintenance schedule that seeks to reduce any increase in noise / vibration outputs due to 'wear and tear' as the vehicles/equipment age. Regularly inspect and maintain machinery, equipment and vehicles to ensure good working order. Periodically check the mufflers conditions. 	Reduce at Source	Construction	Oman Broadband & Contractor: Site HSE Manager	HSE Department	Onsite manual inspection	Visual	Construction site	Monthly	HSE Department	Equipment and vehicle maintenance records
NV	5	Construction vehicle and equipment movement	Noise and vibration emissions	<ul style="list-style-type: none"> Reduce the throttle settings on machinery and equipment, and turn off plant when not being used. 	Reduce at Source	Construction	Oman Broadband & Contractor: Site HSE Manager	HSE Department	Onsite manual inspection	Visual	Construction site	Continuous during construction	HSE Department	Notice of violation on record
NV	6	Planning and Design	Transportation	Establish Traffic Management Plan, including details on: <ul style="list-style-type: none"> transportation route, location of sensitive receptors alongside the route, management measures on vehicle movement, and route maintenance plan should any damage occur by the Project traffic. 	Reduce at Source	Planning	Oman Broadband & Contractor: Site HSE Manager	HSE Department	na	na	na	na	na	Traffic management plan
NV	7	Operation of generators	Noise and vibration emissions	House generators within acoustic enclosures acting as a shield for local noise sensitive receptors.	Reduce at Source	Operation, Planning	Oman Broadband & Contractor: Site HSE Manager	HSE Department	na	na	na	na	na	Inspection log book

Management Plans Ref. No	Project Activity	Aspect	Management Control	Mitigation Type	Phase	Responsibility		Monitoring Parameters / Record keeping Requirements	Monitoring Method(s)	Monitoring Locations	Monitoring Frequency	Monitoring Responsibility	Reporting Requirements	
						Oversight	Implementation							
NV	8	Entire construction	Noise and vibration emissions	<ul style="list-style-type: none"> Develop and implement a grievance procedure in the event of any noise complaints being received. Engage noise sensitive receptors (residents and communities along the road route) prior to works commencing to explain schedule, duration, likely impact and contact points if they have a complaint. Implement noise monitoring against the performance criteria if persistent noise complaints are received through the Grievance Mechanism. 	Compensate	Construction, Operation	Oman Broadband & Contractor: Site HSE Manager	HSE Department	Undertake noise monitoring at the receptor against IFC values, i.e. 55dBA daytime and 45dBA night time, when complaint received.	Method compliant with the IFC EHS Guideline General Guidelines or ISO9613 series.	Where compliant is received.	once complaints received	HSE Department	Notification and communication records

Purpose:

- To REDUCE the amount of waste produced on site by procuring bulk goods rather than packaged goods and training workers on waste reductions.
- To actively promote the REUSE, RECYCLE and RECLAIM waste management concept and subsequently minimising the amount of waste that needs to be disposed of (including incineration, onsite burial or offsite disposal by a specialist contractor).
- To prevent and protect soil; surface water and groundwater from contamination through hazardous substance (including sewage) spills.
- To prevent and protect flora, fauna and people from indirect impacts associated with contaminated soil and water (both surface- and groundwater).
- To prevent health impacts arising via contact with general and/ or hazardous waste.
 - To manage waste storage facilities in such a manner so as to minimise social as well as visual impacts.

Timeframe

All Project phases (planning (equipment sourcing) phase, construction phase and operation phase)

Aspect (Project Activity)

- Waste generation during the lifecycle of the Project
- Contamination of soil, surface- and groundwater features as a result of hazardous substance spills (including sewage spills) and subsequent contaminated runoff.

Responsibility

- Oman Broadband
- EPC Contractor

Performance Criteria

- Zero hazardous substance spills into the environment.
- Zero discharge of raw sewage directly into the environment.
- Zero incidents of illegal dumping of wastes, both general and hazardous.
- No unauthorised access to the waste storage facilities.
- No loss of health to personnel or third parties as a result on inappropriate waste management practices.
 - All offsite waste disposal to be carried out by a licensed waste contractor.

Omani Regulatory Standards:

The Omani main national regulations regarding to waste management are:

- Ministerial Decision 17/93 *Regulations for the Management of Solid Non-Hazardous Waste;*
- Ministerial Decision 18/93 *Regulations for the Management of Hazardous Waste;*

Solid Non-hazardous Waste

- Occupants of the premises shall store and dispose solid non-hazardous waste in accordance with the provisions of these regulations and decision of the concerned authorities to this effect, such that there is no nuisance or hazard to the public health.
- The occupant of the premises shall collect these wastes and transport it in a safe manner to a site designated by the concerned authority.
- No solid non-hazardous waste should be mixed with any category of hazardous waste at any time.

Hazardous Waste

- License shall be obtained for handling, storage, transport and disposal of hazardous wastes.
- No hazardous waste shall be mixed with any other type of waste.

- All hazardous waste shall be appropriately packed, labelled and shall have a waste consignment note when transported out.
- Hazardous waste shall be transported through government licensed transporters only.
- Hazardous waste shall be disposed at licensed treatment or disposal sites only.

AIB ESS Guidelines: Oman Broadband have committed to meeting the requirements of AIB ESS1 which requires that environmental and social risks and impacts are mitigated and impacts monitored.

Management Plans Ref. No	Project Activity	Aspect	Management Control	Phase	Responsibility		Monitoring Parameters / Record keeping Requirements	Monitoring Method(s)	Monitoring Locations	Monitoring Frequency	Monitoring Responsibility	Reporting Requirements
					Oversight	Implementation						
WM 1	Generation of Waste	Waste management	<ul style="list-style-type: none"> - Install temporary waste storage facilities at all main construction sites and worker accommodation sites during construction phase and all manned surface facilities during operation phase. - All maintenance waste shall be brought back to an established storage location at a designated project-managed facility. 	Construction, Operation	Oman Broadband & Contractor: Site HSE Manager	HSE Department	Site check	Visual	Waste storage locations across construction sites	Continuously	Principal Engineer - Quality Control (QHSE)	Inspection Reports Notification of non-conformity (if applicable)
WM 2	Generation of Waste	Waste management	<p>The hazardous waste must be collected using masking tapes and these tapes must be carefully disposed after completion of splicing activities.</p> <p>For all kinds of wastes, waste receptacles should be sited on impermeable surfaces to prevent the contamination of ground conditions in the case of an accidental release and/or their prompt collection.</p>	Construction, Operation	Oman Broadband & Contractor: Site HSE Manager	HSE Department	Site Check	Visual	na	By completion of the design	Principal Engineer - Quality Control (QHSE)	Inspection Reports Notification of non-conformity (if applicable)
WM 3	Generation of Waste	Waste management	<p>All waste storage and management areas shall have ready access to:</p> <ul style="list-style-type: none"> - Spill kits - Absorbents - Firefighting equipment - Cleaning equipment 	Construction, Operation	Oman Broadband & Contractor: Site HSE Manager	HSE Department	Site check	Visual	Waste storage locations across construction and operation sites	Continuously	Principal Engineer - Quality Control (QHSE)	Inspection Reports Notification of non-conformity (if applicable)
WM 4	Generation of Waste	Waste management	<p>Separate storage of hazardous and non-hazardous wastes into the following categories:</p> <ul style="list-style-type: none"> - Hazardous wastes <ul style="list-style-type: none"> >Used oil >Splicing waste > Solvent > Contaminated soil > Printer toner - Non-hazardous wastes <ul style="list-style-type: none"> > Plastics > Wood > Paper and card > Organic/biodegradable waste > Other non-hazardous waste - Inert wastes <ul style="list-style-type: none"> > Soil > Aggregates 	Construction, Operation	Oman Broadband & Contractor: Site HSE Manager	HSE Department	Site check	Visual	Waste storage locations across construction and operation sites	Continuously	Principal Engineer - Quality Control (QHSE)	Inspection Reports Notification of non-conformity (if applicable)
WM 5	Generation of Waste	Waste management	<ul style="list-style-type: none"> - Waste will be stored throughout the Project sites in clearly labelled containers / skips. - Use colour code consistently across the sites to identify the type of wastes. - Labels shall clearly state the Waste type in languages that are understandable to the workforce and any coding system that is used shall also be noted on the labels. - For any containers that are routinely swapped out 	Construction, Operation	Oman Broadband & Contractor: Site HSE Manager	HSE Department	Site check	Visual	Waste storage locations across construction and operation sites	Continuously	Principal Engineer - Quality Control (QHSE)	none

Management Plans Ref. No	Project Activity	Aspect	Management Control	Phase	Responsibility		Monitoring Parameters / Record keeping Requirements	Monitoring Method(s)	Monitoring Locations	Monitoring Frequency	Monitoring Responsibility	Reporting Requirements
					Oversight	Implementation						
			(i.e. skips and roro's) magnetic Labels should be used to enable the Waste collector to easily swap the Labels to the new container. - Wastes that wind can easily blows, such as light plastics or paper / cardboard, should be stored in enclosed skips and shall be kept securely closed at all times. - Suggest colour code: <ul style="list-style-type: none"> > Medical Waste: Yellow > Oily solid wastes (rags, filters, etc): Black > Other hazardous wastes: Red > Paper and card: White > Plastics: Grey > Scrap metals: Blue > Wood: Brown > Food wastes: Green 									
WM 6	Generation of Waste	Waste management	- Liquid waste container shall be stored in a bunded area. This area shall be 110% greater in volume that the largest container. - Incompatible waste types should be stored separately. - Consider climatic factors when establishing storage facility such as wind, rain, sunshine proof.	Construction, Operation	Oman Broadband & Contractor: Site HSE Manager	HSE Department	Site check	Visual	Waste storage locations across construction and operation sites	Continuously	Principal Engineer - Quality Control (QHSE)	Inspection Reports Notification of non-conformity (if applicable)
WM 7	Waste Transportation and Disposal	Waste management	Only government-licensed/approved waste transportation and disposal contractor shall be contracted for the offsite transportation and disposal of waste from the Project.	Construction, Operation	Oman Broadband & Contractor: Site HSE Manager	HSE Department	License of the waste transportation contractor	Visual	na	Upon signing transportation and disposal contract and revisit annually	Principal Engineer - Quality Control (QHSE)	Monthly report of the volume of waste transported and disposed offsite by waste categories

Purpose

Oman Broadband is committed to ensuring adequate labour and working conditions are in place for those involved in the development of the Project. This Management Plan has been developed considering AIIB ESS 1 requirements related to labour and working conditions and seeks to:

- Support the health, safety and wellbeing of Oman Broadband’s workforce (including contractors and sub-contractors).
- Create an environment favourable to the development of healthy worker-management relationships.
- Minimise the risk of discrimination (including for any migrant workers) and promote equal opportunities.
- Manage risks associated with housing for the workforce
- Manage any workers engaged by third parties.
- Avoid any risks of child or forced labour.
- Manage any risks associated with labour and working conditions including, working hours, contracts, welfare facilities on site etc.
- Allow for employment and working conditions-related grievances to be received orally and in written, and addressed.

Timeframe

All Project phases

Aspect (Project Activity)

- Exposure of workforce to insufficient labour and working standards.

Responsibility

- Oman Broadband
- Contractor

Performance Criteria

For the purpose of this ESMP, the Project specific Workers Management criteria will be drawn from a combination of the Omani Standards, the AIIB ESS standards as well as EHS standards relevant to the Worker Management Plan (WMP) and the ILO Conventions as follows:

- RD 35/2003 Labour Law: This law outlines the requirements of employers in relation to their workers and covers a range of issues including contracts, obligations of employers and workers, wages, working hours, working conditions, labour disputes and conciliation.
- Ministerial Decision No. 570/2012: regulation governing the formation, activity and registration of labour trade unions and federations and the General Federation of Oman Trade Unions.
- Regulation of Occupational Safety and Health for Establishments Governed by the Labour Law: The Regulation provides for a comprehensive regulatory framework with the aim of improving health and safety standards in the workplace and protecting workers from various occupational hazards. The Regulation consists of 43 Articles covering a wide range of issues including: lighting, ventilation, heat stress, noise, uniforms, personal protection equipment, first aid and occupational diseases.
- AIIB ES 1 recognises that the pursuit of economic growth through employment creation and income generation should be accompanied by the protection of the fundamental rights of workers.
- Oman has ratified four of the eight fundamental International Labour Organisation’s (ILO) conventions:
 - Forced Labour Convention, 1930 (No. 29);
 - Abolition of Forced Labour Convention, 1957 (No. 105);
 - Minimum Age Convention, 1973, (No. 138); and
 - Worst Forms of Child Labour Convention, 2003 (No. 182).

Management Plans Ref. No	Project Activity	Aspect	Management Control	Phase	Responsibility		Monitoring Parameters / Record keeping Requirements	Monitoring Method(s)	Monitoring Frequency	Reporting Requirements			
					Oversight	Implementation							
WrMP	1	Employment	Employment	Prioritize the employment of Omani people in all roles in the first instance in line with nationalization laws. In the event that the position cannot be filled using national staff, international staff should be considered.	Construction, Operation,	Oman Broadband: HR Department Contractors: GM Supply Chain Management	Oman Broadband: HR Function Contractors: GM Supply Chain Management	Review of the records Interviews with selected employees a	Quarterly	Annual Reports to the Audit Team Labour Audits by the MoM			
WrMP	2	Employment	Employment	Implement a fair and transparent employment procedure and process that manages out any potential nepotism which is publicly disclosed.	Construction, Operation,	HR Department	HR Department				Review of the records Interviews with selected employees	Quarterly	Annual Reports to the Audit Team Labour Audits by the MoM
WrMP	3	Employment	Employment	Implement a HR Policy (and Procedures) in line with the requirements of the AIIBs ESS requirements, ILO Conventions and Omani Law. The policy and procedures should be shared with new employees and when required verbally explained. Training should be provided on elements of the HR policy and procedures and on any changes to the same. The HR procedures should include a grievance mechanism which is accessible to all employees, including on an anonymous basis, comprising a 'hotline' to OBC's HR department, and email address to the same and 'suggestion boxes at OBC's office, contractors' offices and worksites for employees to convey suggestions and grievances. All employment and working conditions grievances (including by contractors' employees) should be shared with OBC's HR department for processing in line with applicable policies, regulations and commitments.	Construction Operation	HR Department	HR Department				% of Project Workforce that are local employees. % of contracted workforce that are national employees. Records of training in internal grievance mechanism for employees and contractors' employees. Number of valid claims or grievances regarding employment and procurement, and investigation and closure reports.	Review of the records Interviews with selected employees	Quarterly
WrMP	4	Employment and Procurement of Goods and Services	Contractors	Contractors and suppliers shall demonstrate (as part of the tendering process) that they have HR policies and procedures in place in line with Omani Law and ratified ILO conventions at a minimum, that they have control means in place to ensure their full compliance, and that they have an active grievance management system for worker complaints. Contractors and suppliers will also be required to demonstrate that they undertake similar due diligence of their contractors and suppliers. Oman Broadband will undertake periodic monitoring of contractors and subcontractors to determine if employment and working conditions are at a minimum aligned with Omani labour laws and AIIB ESS requirements. This should include consideration of adequate accommodation, worker welfare facilities at site, occupational H&S, employment contracts, wages (including OT) and working hours, representation and collective bargaining rights, etc.. Consideration should also be given to migrant workers including ensuring they	Construction Operation	Supply Chain Management	Supply Chain Management	Number of training sessions ran for workers on the HR Policy and Procedures Contractors and principal subcontractors' HR policies and procedures provided as part of tendering documents and evaluated. Internal Audit reports to ensure alignment with labour laws	Bi-annually	Annual Reports to the Audit team Labour Audits and Approvals by the MoM			

Management Plans Ref. No	Project Activity	Aspect	Management Control	Phase	Responsibility		Monitoring Parameters / Record keeping Requirements	Monitoring Method(s)	Monitoring Frequency	Reporting Requirements	
					Oversight	Implementation					
			are not at risk of forced labour and have access to their passports etc.								
WrMP	5	Employment	Worker Welfare	Provide workers with adequate and appropriate welfare facilities at site including (but not limited to) shaded rest areas, smoking areas, first aid response, potable water, access to toilets etc.	Construction Operation	Oman Broadband: QHSE Department Contractors: Supply Chain Management	Projects		Site Inspections	Quarterly	Annual Reports to the Audit team Labour Audits and Approvals by the MoM
WrMP	6	Employment and Procurement of Goods and Services	Community engagement and information disclosure	Disclose the employment and procurement procedures publicly. Provide clear information on employment and procurement opportunities available along with any minimum standards to enable local companies to acquire the required skills.	Construction, Operation	HR Supply Chain Management	Supply Chain Management		Review of the records Interviews with selected employees and suppliers	Annually	Annual Reports to the Audit team Labour Audits and Approvals by the MoM
WrMP	7	Employment	Employment	Ensure all employees (including temporary and contracted employees) are registered providing ID, address, contact number; and are issued a pass to enter work area	Construction,	QHSE Department	Contractors		Verification of employee badge on site	Daily	Tool Box Talks Summary
WrMP	8	Employment	Employment	Ensure employees (including temporary and contracted employees of Oman Broadband, its contractors and sub-contractors) are provided with appropriate first aid on site, medical insurance and access to medical treatment for work related injuries	Construction, Operation,	HR Department	Contractors		Visual inspection of first aid facilities and records, review of employment records and health insurance subscription records	Quarterly	Annual Reports to the Audit Team
WrMP	9	Employment and Procurement of Goods and Services	Community engagement and information disclosure	Implement a Grievance Mechanism whereby stakeholders can raise any concerns they have with the employment and procurement processes.	Construction, Operation,	Corporate Affairs & Commercial	Corporate Affairs & Commercial		Review of the grievance log Interviews with selected employees and suppliers	Quarterly	Internal (as required)

Management Plans Ref. No	Project Activity	Aspect	Management Control	Phase	Responsibility		Monitoring Parameters / Record keeping Requirements	Monitoring Method(s)	Monitoring Frequency	Reporting Requirements	
					Oversight	Implementation					
WrMP	10	Employment and procurement of Goods and Services	Labour and working conditions	Any worker accommodation provided by Oman Broadband and its contractors must be aligned with the IFC and EBRD Guidance on Worker Accommodation. This includes any villas, houses or construction camps hired for staff. Such requirements should be included in contracts.	Construction	Oman Broadband: HR Department Contractors: Supply Chain Management	Supply Chain Management and QHSE	Camp standards checklists against international requirements for all locations including hygiene and potable water	Unannounced accommodation Inspections of a random sample of provide accommodation.	Quarterly	Annual Reports to the Audit team Labour Audits and Approvals by the MoM
WrMP, SEP, CHSMP	11	Employment and Procurement of Goods and Services	Worker-Community Interactions	Develop and implement a <i>Worker Code of Conduct</i> for all employees and contractors in order to ensure that contractors and employees are aware of appropriate and acceptable behavior when dealing with the community. As part of onboarding all employees and contractors should be made aware of this code of conduct.	Construction	HR Department	HR Department Contractors	Presence of the Worker Code of Conduct,	Interviews with the PRO, and community leaders.	Bi-Annually.	Internal Reports
WrMP, CHSMP	12	Employment and Procurement of Goods and Services	Community Health and Safety	Implement a health screening protocol to ensure that all employees and contractors are fit to work based on their role, country of origin (in case of migrant workers), role & position, and likely living accommodation. Such protocols should be designed in line with Omani Labour Laws and international best practice around voluntary testing for Sexually Transmitted Infections (STIs) and that people are not unfairly denied employment.	Construction Operation	QHSE Manager HR Department	HR Department Contractors	Pre-employment screening protocols and records (fit for work) certificates.	Review of the records.	Quarterly.	Internal Reporting

Purpose:

Oman Broadband is committed to ensuring the health and safety of all parties who are affected by its activities including local communities and the public. Specifically, this plan aims to:

- Continuously identify, evaluate and prioritise the risks and impacts of Oman Broadband's proposed operations on the health and safety of local communities.
- Proactively prevent and avoid impacts to community health and safety, and enhance any positive impacts related to community health and safety.
- Identify strategies that provide adequate health related information and prevention measures through which communities can manage their own health and safety in an optimum manner.

Specific Objectives During All Project Phases:

- Avoid or minimise for the potential for community exposure to communicable diseases.
- Avoid or minimise changes in the local area which will cause disturbance and therefore annoyance.
- Avoid and minimise risks to community safety associated with site trespass or other accidents.

Issues associated with road traffic accidents are addressed in Traffic Management Plan (Section 5.4.4)

Timeframe

All Project phases (construction phase and operation phase)

Aspect (Project Activity)

- Interactions between the workforce / Project activities and local communities.

Responsibility

- Oman Broadband
- EPC Contractor

Performance Criteria

For the purpose of this ESMP, the Project specific Community Health and Safety criteria will be drawn from a combination of the Omani Standards and the AIIB ESS guidelines as follows:

- *AIIB ESS Guidelines:* Oman Broadband have committed to meeting the requirements of AIIB ESS1 which requires that Put in place preventive and emergency preparedness and response measures to avoid, or where avoidance is not possible, to minimize adverse risks and impacts of the Project on the health and safety of local communities
-

Management Plans Ref. No	Project Activity	Aspect	Management Control	Phase	Responsibility		Monitoring Parameters / Record keeping Requirements	Monitoring Method(s)	Monitoring Frequency	Reporting Requirements	
					Oversight	Implementation					
CHSMP	1	Community engagement and information disclosure	Grievance Management	Implement a grievance mechanism so that communities can share their concerns regarding the Project and if activities are having significant or perceived negative impacts. That one must be disclosed to communities/residents near work areas through appropriate channels.	All Phases	Corporate Affairs and Commercial	Contractors PROs	Grievance Log of all grievances received, agreed resolution and implementation dates.	Review of grievance records and close out in a timely manner	Bi-annually	Internal to Corporate Affairs and Commercial Team
CHSMP	2	Construction (clearance, trenching, cable pulling etc)	Ambient Noise, Dust and Vibration	Implement good construction methods to minimise noise, dust and vibration eg by distributing works across an area, dust suppression, avoiding noisy activities in early mornings and evenings, avoid night time working activities etc. Machinery and equipment should also be well maintained.	Construction	Projects	QHSE Contractors	Maintain maintenance and repair log for Project vehicles, Records of dust suppression	Review of records. Interviews with the PROs, and community leaders.	Quarterly.	Internal to Corporate Affairs and Commercial Team
CHSSMP	3	Community engagement and information disclosure	Construction Activities resulting in Ambient Noise, Dust and Vibration	Develop and implement a stakeholder engagement plan to inform affected communities about construction activities prior to the commencement of activities through community leaders. Develop and implement a grievance mechanism to address any related grievances that arise.	All Phases	Corporate Affairs and Commercial	Contractors PROs	Records of grievances Records of all stakeholder meetings Records of door knock	Review of the records. Interviews with the PROs, and community leaders.	Quarterly.	Internal to Corporate Affairs and Commercial Team
CHSMP, (SEP,	4	Site trespass and accidents and emergencies	Community health and safety	Avoid possible community exposure to health and safety risks, including developing <i>Health and Safety Management Plan</i> and <i>Emergency Response Plan</i> , Train workers on how to manage any unexpected situations, such as accidents involving community members on site or road accidents. As part of stakeholder engagement and consultation educate local communities of the risks of trespassing onto sites, the meaning of signs, the dangers of playing on or near equipment or entering fenced areas. Ensure that signs are put up around work fronts and construction sites advising people of the risks associated with trespass. Where required, eg laydown areas or larger construction activities sites should also be fenced.	Construction, Operation	QHSE Team	Contractors	Health and Safety Plan, Emergency Response Plan, Records of stakeholder engagement Number of grievances received on issues related to community safety and security Training records related to worker code of conduct, ERP, and accident management for all workers.	Review of the records. Interviews with the PRO, and community leaders.	Monthly.	Monthly reports to the QHSE team
CHSMP, (SEP)	9	General construction activities	Community health and safety	Develop and implement pre-employment screening measures for workers, which will cover applicable diseases. Individuals found to be suffering from communicable diseases would need to seek treatment and be clear of the disease prior to mobilisation to site. Implement health awareness training, to be provided to all employees covering good health practices, health risks and preventive measures for diseases to be aware of. Develop Worker Code of Conduct for all Project personnel (including contractors) which includes guidelines on worker-community interactions, and development of personal relationships with members of the local communities. Provide training to all workers on the code of conduct as part of their induction and annually thereafter.	Construction	QHSE Manager	Contractors	Fit to Work Procedure Workers Code of Conduct Training Records Disciplinary Records related to breaches of worker code of conduct.	Training records review, performance records review	Quarterly	Quarterly report submitted to QHSE Department

Purpose:

Avoid or mitigate impacts on sites of cultural heritage significance.

Timeframe

Construction activities

Aspect (Project Activity)

- Ground disturbing activity during the construction phase could impact archaeological anomalies and/or unidentified resources or other cultural heritage..

Responsibility

- Oman Broadband
- EPC Contractor

Performance Criteria

For the purpose of this ESMP, the cultural heritage criteria will be drawn from a combination of the Omani Standards and the IFC Performance Standards (PS 8) as well as EHS guidelines as follows:

- *RD 6/1980 National Heritage Protection Law* outlining the protection of archaeological and cultural heritage sites
- *AIBB ESS1* requires that Cultural resources are conserved and avoid destroying or damaging them under the Project

Management Plans Ref. No		Project Activity	Aspect	Management Control	Phase	Responsibility		Monitoring Parameters / Record keeping Requirements	Monitoring Method(s)	Monitoring Frequency	Reporting Requirements
						Oversight	Implementation				
CH	1	Land excavation and trench digging	Cultural Heritage	Avoidance Avoidance through route redesign is the preferred mitigation measure.	Planning, Construction	Projects	Contractor	Avoidance of all identified historical cultural heritage and living cultural heritage sites	Review of the design and records. Permits in place from Ministry of Heritage and Culture.	Prior to construction	Report to the GM Projects and to the Authorities (permit)
CH	2	Land excavation and trench digging	Cultural Heritage	Execution of a Chance Finds Programme In order to minimize the potential for impact to sub-surface cultural resources, the Project shall establish a Chance Find Programme. In high risk locations, a required by the ministry, on-site Omani archaeologists may be required.	Construction	Projects	Contractor	Chance Finds Documentation and Post-assessment recovery excavation documentation	Training records of construction contractor in identification of Chance Finds, Chance Find records	During all ground disturbing activities	Chance finds monitoring and post-assessment recovery excavation reports (if necessary).

5.1 PROJECT MEETING

Oman Broadband will meet potential contractors as part of its selection process and introduce them to their environmental and social requirements for the Project activities. Further, Oman Broadband will engage with its 'partners' such as Haya Water, and other utilities companies to inform them of their commitments contained herein and discuss alignment on QHSE standards for shared civil work construction.

Table 5.1 outlines the meeting schedule for the implementation of the ESMP.

Table 5.1 ESMP Meeting Schedule

Meeting	Description	Timing	Required Attendance
Kick-off Meeting	Oman Broadband Management Staff will meet with the Contractor Management team and key personnel from support utilities company such as Haya Water to ensure there is clear understanding of the requirements of the ESMP by both parties.	Two weeks prior to commencement of Project activities	Oman Broadband CEO management team, Contractor and key personnel from support utilities company's (such as Haya Water) General Manager and management team
Inception Meeting	Oman Broadband Principal Engineer - Quality Control (QHSE) will train the key Contractors representatives in the commitments found in its HSSE Management System, in permitting conditions and in the ESMP.	Ten days prior to commencement of field activities	Oman Broadband Principal Engineer - Quality Control (QHSE), Contractors Principal HSE Staff
Bi-weekly Meetings	Meetings will be held with Oman Broadband Staff and Contractors to ensure that staff are aware of their responsibilities for the planned activities.	Every other week	Oman Broadband Project/Site HSSE in-charge, Contractor HSE in-charge
Daily Toolbox Talk	Meetings will be held by Contractor representatives and construction personnel at construction site.	Daily (morning) toolbox Talk	Contractor HSE in-charge, Contractor Staff
Monthly Meetings	Meetings will be held with Oman Broadband Staff and Contractors to ensure that staff are aware of their responsibilities for the daily activities, including daily signup by workers.	Monthly formal meetings	Oman Broadband Principal Engineer - Quality Control (QHSE), Oman Broadband CSR/Social Manager, Contractor Engineering and HSE Managers

Meeting	Description	Timing	Required Attendance
Quarterly Meetings	Meeting to discuss the findings of the quarterly audit reports and measures to improve performance	Every three months	Oman Broadband Principal Engineer - Quality Control (QHSE), Oman Broadband CSR/Social Manager, Contractor Engineering and HSE Managers
Closure Meeting	Meeting to discuss project construction completion and hand-over, and any rehabilitation measures yet to be completed.	Following completion of Project construction activities	Oman Broadband Principal Engineer - Quality Control (QHSE), Oman Broadband CSR/Social Manager, Contractor Engineering and Principal Engineer - Quality Control (QHSE)s

5.2

HSE PLANS

HSE Plans shall be compiled by the Contractors for submission to the Oman Broadband Principal Engineer - Quality Control (QHSE) and the QHSE Specialist for approval prior to commencing certain activities. HSE Plans will be required for specific activities that are deemed or identified to pose a risk to the environment or communities and/or which require site specific detail beyond that contained in the ESMP or when requested by the QHSE Specialist or Principal Engineer - Quality Control (QHSE).

An HSE Plan is a “live document” in that modifications are negotiated between the Contractor and the Oman Broadband Principal Engineer - Quality Control (QHSE), as circumstances unfold. Changes to, and adaptations of, HSE Plans can be implemented with the prior consent of all parties. All HSE Plans will form part of this ESMP and are subject to the terms and conditions contained within the ESMP.

PLEASE NOTE:

An HSE Plan is a starting point for understanding the nature of the intended actions to be carried out and allows for all parties to review and understand the procedures to be followed in order to minimise risk of harm to the environment. It describes the scope of the intended work in a step-by-step description, in order for the Principal Engineer - Quality Control (QHSE) and the Engineer to understand the Contractor’s intentions. This will enable them to assist in devising any mitigation measures, which would minimize environmental and social impact during these tasks.

For each instance where a HSE Plan is requested, the format will clearly indicate the following:

- **What** – a brief description of the work to be undertaken.
- **How** – a detailed description of the process of work, methods and materials.

- **Where** - a description/sketch map of the locality of work (if applicable).
- **When** - the sequencing of actions with due commencement dates and completion date estimates.
- **Who** - the person responsible for undertaking the works described in the HSE Plan.
- **Why** - a description of why the activity is required.

All HSE Plans must be developed to the satisfaction of the Principal Engineer - Quality Control (QHSE), Engineer. A HSE Plan template is provided in *Figure 5.1*

Figure 5.1 HSE Plan Template

HSE PLAN		
CONTRACT: _____	DATE: _____	
PROPOSED ACTIVITY (give title of HSE Plan and reference number from the ESMMP):		
WHAT WORK IS TO BE UNDERTAKEN? (give a brief description of the works):		
WHERE ARE THE WORKS TO BE UNDERTAKEN? (where possible, provide an annotated plan and a full description of the extent of the works):		
START AND END DATE OF THE WORKS FOR WHICH THE HSE PLAN IS REQUIRED:		
Start Date: _____	End Date: _____	
HOW ARE THE WORKS TO BE UNDERTAKEN? (provide as much detail as possible, including annotated maps and plans where possible):		
Note: please give too much information rather than too little. Please ensure that issues such as emergency procedures, hydrocarbon management, access, individual responsibilities, materials, plant used, maintenance of plant, protection of natural features etc. are covered where relevant.		
DECLARATIONS		
1) RESPONSIBLE OFFICER		
The work described in this HSE Plan, if carried out according to the methodology described, is satisfactorily mitigated to prevent avoidable environmental harm:		
_____	_____	
(signed)	(print name)	
Dated: _____		
2) PERSON UNDERTAKING THE WORKS		
I understand the contents of this HSE Plan and the scope of the works required of me. I further understand that this HSE Plan may be amended on application to other signatories and that the HSE Manager will audit my compliance with the contents of this HSE Plan. I understand that this HSE Plan does not absolve me from any of my obligations or responsibilities in terms of the Contract.		
_____	_____	
(signed)	(print name)	
Dated: _____		
3) EMPLOYER (i.e. Developer/ Owner/Project manager)		
The works described in this HSE Plan are approved.		
_____	_____	_____
(signed)	(print name)	(designation)
Dated: _____		

5.3 TRAINING

The Principal Engineer - Quality Control (QHSE) shall arrange for a presentation to site staff to familiarise them with the environmental and social requirements of this ESMP within ten days prior to the commencement date of site preparation activities associated with this Project. This presentation will take cognizance of the level of education, designation and language preferences of the staff. General site staff would commonly receive a basic environmental and social awareness presentation or talk highlighting general environmental

and social “do’s and don’ts”, including good housekeeping practices. This information will be provided throughout works in the form of regular toolbox talks. Management level staff on the site, e.g. site agents and foremen, who require more detailed knowledge about the environmental and social sensitivities on site and the requirements of the ESMP, will benefit from a separate and more detailed presentation of these issues.

Environmental and social education of staff can be assisted by compilation of posters placed in staff venues e.g. canteens and site offices.

5.4 *ADDITIONAL CONSTRUCTION PHASE REQUIREMENTS*

5.4.1 *Site Walk Over*

Once the broadband cable laying locations are finalised, the Principal Engineer - Quality Control (QHSE), PR/Community department representative(s), and the relevant technical design engineer and supervisor, will carry out a **Site Walk Over** of all areas to be cleared and prepared for the project (cable laying), lay-down/storage areas, and access roads. Prior to any land clearance occurs, the team will investigate the most suitable location for the construction affected areas so as to avoid or minimize disturbance to the local community and environment. The outcomes of the assessment will include:

- The identification of any potential economic uses of the land and vegetation; these areas will not be cleared.
- A layout map reflecting the design of the laydown and planned structures area (during construction and operation) and training on sensitivities will be given to the Contractor by the Oman Broadband Principal Engineer - Quality Control (QHSE).
- The Oman Broadband social and QHSE Specialists will approve the location and work approach for clearance in each section before work is initiated.

The observations of the Site Walk Over team may provide conditions and recommendations to be incorporated into the clearance or construction work HSE Plan. These conditions, based on the local community considerations, and include any necessary curfews of work schedules, identification of preferred areas for works and location of equipment.

5.4.2 *"No go" Areas*

The demarcated buffer areas around sensitive ecological, social or heritage areas are to be “no go” areas. No person, machinery, equipment or material will enter the "no go" areas at any time.

5.4.3

Protection of Natural Features

Natural features (e.g. rock formations and trees) situated in the vicinity of construction activities will not be defaced, painted, damaged or marked for survey or other purposes unless agreed beforehand with the Principal Engineer - Quality Control (QHSE). Any features affected in contravention of this clause will be restored/ rehabilitated to the satisfaction of the Principal Engineer - Quality Control (QHSE).

It is not permitted to use *falajs* or *wadis* in the Project Area and surrounds for the purposes of swimming, personal washing and the washing of machinery or clothes.

5.4.4

Traffic Management Plan

Introduction

This Traffic Management Plan (TMP) covers traffic and road safety during the construction activities related to broadband cable laying component of the Project. The proposed activities will result in an increased volume of traffic on the main road(s). This will be mainly related to the provision of supplies and services as well as the movement of staff and contractors. It can be extended to the Operation phase to manage all Project related traffic, although that one is expected to be minimal.

Increased traffic volumes and the movement of heavy machinery and trucks could result in a rise in traffic accidents and injuries to humans as well as fauna (livestock/wildlife). Furthermore, accidents could result in spillages of hazardous materials with related health and safety risks to people present in the area.

Objectives

The objectives of this plan are as follows:

- To protect the safety of contractors, employees and local residents;
- To prevent accidents involving or caused by project vehicles;
- To minimize nuisances, such as from noise and air emissions;
- To proactively plan for emergency responses; and
- To ensure the safety of fauna (wildlife and livestock) in the project area.

Journey Planning and Infrastructure

As a minimum the following standards and controls are to be implemented:

- Reduce project traffic routing through community areas wherever possible
- Access to/from the Project site will be via specified routes, which will be agreed with the relevant authorities.
- All heavy machinery and equipment will enter and leave the project site through a specific defined route and traffic schedule will be communicated to relevant stakeholders ahead.

- Supply vehicles for very large items will only travel to and from the Project in convoy with a lead vehicle in front.

Safety and Nuisance

As a minimum the following management measures are to be applied:

- Restrict traffic speed to 30kmph near communities by erecting speed signs and constructing bumps.
- Transport of hazardous materials will be included in the TMP, with avoidance of sensitive receptors and appropriate response, training and community engagement completed.
- Using the observations and feedback provided from the Site Walk Over, anticipated noise levels at residences and habitats in proximity to the route used are to be assessed and where necessary addressed to minimize adverse impacts to human or fauna receptors.
- All (public) access routes and roads must be regularly inspected and adequately maintained in order to minimize erosion and surface damage.
- Uncontrolled off road driving will be forbidden and routes will be carefully planned for (for access to areas without roads).
- All vehicles will be properly registered and ensured for third party liabilities.
- The Project will make arrangements with local health facilities to ensure accessibility and treatment in case of local residents involved in traffic related accidents as a result of the Project.
- Undertake consultation with communities along key transport routes to inform them about the potential for increased traffic movements prior to any changes.
- A grievance procedure shall be established whereby any complaints by neighbours or affected parties related to road traffic can be submitted, recorded and responded to.

Training

- Require Project drivers to be trained in defensive driving within the previous 3 years.
- Engage in awareness building activities for communities, in particular children, along transport routes.

5.4.5 *Materials Handling, Use and Storage*

During transit, all materials will be appropriately secured to ensure safe passage from starting point to destination. Any friable materials loads will have appropriate cover to prevent them spilling from the vehicle during transit.

Drivers delivering materials to active work areas will be informed of all procedures and restrictions (including "no go" areas) required to comply with the ESMP. Such deliveries will be supervised during off loading, by someone with an adequate understanding of the requirements of the ESMP.

All materials will be stored within the Oman Broadband Stores. All lay down areas near to construction areas will be subject to the Principal Engineer - Quality Control (QHSE) and Engineer's approval.

5.4.6 *Fuel (Petrol and Diesel) and Oil (lubricant)*

Fuel and other hydrocarbon spills have the potential to contaminate soils, and ground and / or surface water. Affected soils are contaminated and effectively sterilised, leading to loss of vegetation and subsequent erosion. Spills to surface water can adversely affect aquatic biota and downstream users, while spills that infiltrate to groundwater have potential to impact on downstream groundwater users.

The following management measures will be implemented to manage potential contamination from fuels:

- All fuel is to be stored within a demarcated area in the construction area. Designated fuel storage areas are to be identified following a planning process that considers potential environmental, health and safety aspects. No refuelling of vehicles or machinery is to take place outside of this demarcated area unless authorised by the Principal Engineer - Quality Control (QHSE).
- Fuel spill kits and granules are to be made available at the storage and re-fuelling locations.
- In case of fuel tanker delivery, the tanker driver must be present at all times during offloading of product. An emergency cut-off switch must be installed to immediately stop fuel delivery should an accident occur. An anti-flash nozzle must be installed at the end of the vent pipe with a fuel dispenser equipped with an automatic cut-off switch to prevent fuel tank overfills.

5.4.7 *Ablution Facilities*

Washing, whether of the person or of personal effects, and defaecation and urination are strictly prohibited other than at the facilities provided. Latrine and ablution facilities will comply with the regulations of the regional / local authority concerned and shall be maintained in a clean and sanitary condition to the satisfaction of the QHSE Team.

Suitable sanitary arrangements will be provided at all construction sites either through the use of locally identified public toilets or through the provision of temporary portable toilets during construction activities. Sanitary facilities should be located at least 50m from any water body but should be within 200m of any point of work. One toilet is to be provided on site for every 15 contract personnel at each active working area. These toilets must have doors and locks and shall be secured to prevent them blowing over. Toilet paper will be provided.

Due to the mobile nature of the connections teams it is not practical to provide onsite toilets.

Temporary toilets are to be emptied on a weekly basis by an approved and suitably qualified person. This person will ensure that no spillage occurs when the toilets are cleaned or emptied and that the contents are suitably removed. Discharge of untreated waste from toilets into the environment and burial of untreated waste is strictly prohibited. Toilets shall be kept in a clean, neat and hygienic condition.

5.4.8 *Rest Areas*

During construction phase, rest areas shall be designated to the approval of the QHSE team. Rest areas will provide space for eating, smoking, praying, first aid as well as sufficient bins. No cooking will be undertaken on site.

5.4.9 *Drinking Water*

Drinking water will be made available for all staff on the site. If no potable water source is available, then drinking water will be imported to the site. Each worker will have access at all times to their own drinking vessel.

5.4.10 *Workshop, Equipment Maintenance and Storage*

Where practical, all maintenance of plant on the site will be performed offsite, in the workshop of Oman Broadband or its contractors. If it is necessary to do maintenance outside of the workshop area, permission will be sought from the Principal Engineer - Quality Control (QHSE).

5.4.11 *Construction Personnel Information Posters*

Information posters depicting actions to be taken to ensure compliance with aspects of the environmental and social mitigation measures will be erected and maintained. Such posters will be erected at the eating/ resting areas and any other locations specified by the Principal Engineer - Quality Control (QHSE).

5.4.12 *Working Hours*

Working hours as defined by the Omani Labour Laws will be adhered to including summer working hours. If works are to take place outside of normal working hours, the QHSE Manager is to be notified and disturbance to the surrounding residents is to be prevented and residents are to be informed of the duration of the disturbance via the PROs.

5.4.13

Construction Emergency Response Plan

An emergency is an unplanned event when a project loses control, or could lose control, of a situation that may result in risks to human health, property, or the environment, either within the facility or in the local community.

This plan addresses the following situations:

- Unplanned fires; and
- Accidental leaks or spillages of fuels, other chemicals or untreated wastewater.

Fire Prevention and Management

Fire prevention and firefighting capability will be among the top priority requirements of the Project.

A designated Emergency Response leader will prior to the commencement of the Construction phase in cooperation with the local fire authority review the Project's fire procedures and establish an effective method of communication and co-ordination with that Authority.

Worker awareness of the possibility and dangers of fire as well as the means of preventing fires will be a frequent topic of safety communications. Workers will be trained to ensure that they are aware of fire prevention and response actions including:

- Emergency escape procedures and route assignments;
- Emergency equipment operation or shutdown procedures;
- Emergency rescue and medical assignments; and
- Fire reporting, communication and co-ordination procedures with Local Fire Authorities.

Accidental leakages and spillages

An emergency response plan shall be prepared for accidental environmental spills of construction materials and wastewater from sites as well as road transportation of materials, lubricants, fuel and any other hazardous chemicals.

All workers shall be aware of procedure to be followed for dealing with spills and leaks as follows:

- Oman Broadband shall ensure that the necessary materials and equipment for dealing with spills and leaks are available on site at all times.
- In the event of a hydrocarbon spill, the source of the spillage shall be isolated, and the spillage contained. The area shall be cordoned off and secured.
- In the case of spills to soil the spill site will be remediated and remediation verified by a suitably trained professional.
- In the event of spills to surface water upstream and downstream water quality monitoring will immediately be undertaken and continue on at least

a daily basis until concentrations of contaminants are below appropriate international water quality guidelines.

- Oman Broadband shall ensure that all spills are documented and reported to relevant government authority in line with applicable regulations.
- Regular vehicle maintenance is to be undertaken to prevent leaks.

5.4.14 *Temporary Site Closure*

If the situation arises where construction activities are temporary put on hold for a period exceeding one week, and machinery / equipment / materials needs to remain onsite, a checklist procedure will be carried out. The checklist will include:

Fuels / Flammables / Hazardous Materials Stores:

- Ensure fuel stores are as low in volume as possible;
- No leaks;
- Outlet secure / locked;
- Bund empty;
- Fire extinguisher serviced and accessible;
- Secure area from accidental damage, e.g. vehicle collision;
- Emergency and Management telephone numbers to be available and displayed; and
- Adequate ventilation.

Other:

- All trenches and manholes secured;
- Fencing and barriers in place;
- Applicable notice boards secured;
- Security persons briefed and have facility for contact;
- Night hazards checked, e.g. reflectors, lighting, traffic signage;
- Fire hazards identified – local authority notified of any potential threats, e.g. large brush stockpiles, fuels etc.; and
- Inspection schedule and log by security or contracts staff.
- During crossing of large wadis, OH&S Operational Control Procedure on Confined Space must be strictly followed by Oman Broadband and the contractors.

The Principal Engineer - Quality Control (QHSE) is to check and report to the Engineer regarding the following issues:

- Wind and dust mitigation in place;
- Fuels/hazardous substances stores secure;
- Cement and materials stores (if applicable) secured;
- Toilets empty and secured;

- Refuse bins empty and lids secured;
- Bunding clean and treated;
- Drip trays empty and secure; and
- Structures vulnerable to high winds secure.

5.4.15 *Rehabilitation*

Where appropriate, Oman Broadband will rehabilitate areas damaged by construction activities.

All temporary structures, equipment, materials, waste and facilities used during the construction will be removed upon completion of the phase. Clean-up shall be to the satisfaction of the Principal Engineer - Quality Control (QHSE) and Engineer.

As per agreement with municipality - area has to return to the stage it was before.

5.5 *FURTHER REQUIREMENTS*

It is understood that Oman Broadband has already put in place the following documentation and abides to its requirements (also communicated to Contractors):

- Contractors and Employees HSE Training Plan and materials
- Purchasing and Procurement HSE Plan
- Waste Management Plan and Contracts
- Emergency Response Plan
- Contractor Management Plan
- Labour and Contractor Monitoring Plan

Oman Broadband must undertake the preparation of the following documentation, conduct training and ensure the implementation of:

- A detailed Resettlement Action Plan (RAP) if the Project engages in land acquisition and/or involuntary resettlement
- Workers Manual and Code of Conduct
- Detailed Stakeholder Engagement Plan
- Other HSE and Social studies and activities are required by the Project needs or relevant authorities.

6.1**INTRODUCTION**

Stakeholder engagement refers to a process of sharing information and knowledge, seeking to understand and respond to the concerns of potentially impacted or affected individuals, and building relationships based on trust. As such, stakeholder engagement is essential for the successful implementation of the Project.

The ESMP is to be communicated both internally and externally to ensure relevant stakeholders are familiar with the content. Oman Broadband will provide training sessions to Oman Broadband employees and Contractors regarding the management measures required, and convey the monitoring (including inspection and audits) it will conduct on contractors to ensure compliance with this ESMP.

Oman Broadband will communicate with relevant government authorities when seeking approvals about the ESMP as required and will ensure that all parties are aware of their statutory and contractual obligations.

The outcome of the consultation activities will be reflected in an Appendix to this ESMP's final version.

6.2**STAKEHOLDER IDENTIFICATION AND MAPPING**

A stakeholder is defined as any individual or group who is potentially affected by the Project, or who has an interest in the Project and its potential impacts. It is therefore important to establish which organisations, groups and individuals may be interested in the ESMP.

Table 6.1 outlines the stakeholder groups who may have an interest in the Project and ESMP

Table 6.1 Stakeholder Groups

Level	Stakeholder Group	Specific Organisations	Rationale	Methods
Government	National, Regional and Local Government State-Owned Companies	<ul style="list-style-type: none"> Ministry of Housing (MoH) The Public Authority for Electricity and Water (PAEW) Oman Electricity Transmission Company Haya Water Omantel Ooredoo Royal Oman Police (ROP) Street Light & Landscaping (Municipality) Municipality Directorate General Of Roads (DGR) Petroleum Development Oman (PDO) Oman Oil Company (OGC) Oman Oil Refineries and Petroleum Industries Company (ORPIC) Ministry of Defence (MoD) Ministry of Environment and Climate Affairs (MoECA) Ministry of Heritage and Culture (MoHC) 	<ul style="list-style-type: none"> Permitting Awareness raising 	Permit Applications and formal meetings by contractors
Directly Affected Stakeholders	Customary Authorities / Leaders	<ul style="list-style-type: none"> Municipalities or Areas where the Projects are being developed 	<ul style="list-style-type: none"> Awareness raising 	<ul style="list-style-type: none"> Meetings with stakeholders Door Knocking by PROs Notice Boards
	Community Associations			
	Communities or settlements near Project Location			
Business	Other parastatal companies	<ul style="list-style-type: none"> Businesses in the municipalities Media 	<ul style="list-style-type: none"> Awareness raising 	<ul style="list-style-type: none"> Meetings with stakeholders Door Knocking by PROs Notice Boards
	Businesses linked to / providing services in the tele- communications sector			
	Research Institutes			
NGOs	National and Local NGOs	<ul style="list-style-type: none"> Environmental Society of Oman General Federation of Oman Trade Unions Omani Women Association at Muscat Oman Road Safety Association 	<ul style="list-style-type: none"> Awareness raising Support for E&S Management and monitoring. 	<ul style="list-style-type: none"> Meetings with stakeholders Information provision (newspapers, leaflets etc)

There is a need for ongoing engagement with these groups in order to:

- Disclose the ESMP so that organisations understand Oman Broadbands approach to managing E&S issues.
- Obtain firm commitment from Contractors and Partners regarding compliance with Oman Broadband’s policies, procedures and management plan(s).
- Achieve the required permits to undertake construction activities;
- Inform the public about the activities that will be undertaken including timescales, impacts, benefits and how they can raise grievances (as outlined in Section 7) or concerns regarding the construction; and
- Establish and maintain good stakeholder relations with all stakeholders including affected people, potential customers and regulatory authorities.

6.3

MONITORING AND REPORTING

It is important to monitor and report on the ongoing stakeholder engagement efforts to ensure that the desired outcomes are being achieved, and to maintain a comprehensive record of engagement activities and issues raised. This should be undertaken through:

- Maintaining a stakeholder engagement database; and
- Keeping records of all consultation meetings held (list of attendees and meeting minutes).

7.1 INTRODUCTION

The mitigation and management measures outlined in all other management plans, will work pro-actively towards identifying and addressing issues before they become grievances. However, when grievances are reported they need to be addressed in a consistent and verifiable manner. For this reason a Grievance Resolution Mechanism needs to be followed to:

- Enable stakeholders to easily identify and report any grievance regarding the project's performance; and
- Ensure that, through a defined process and within a predictable timeframe, stakeholders receive a response and/or resolution to the grievance.

The intention of this mechanism is to enable anyone to be able to have access to a complaint process that can be used, without risk of retaliation, by individuals, workers, community members and/or civil society organisations that are being affected by project activities and operations within the project's area of influence.

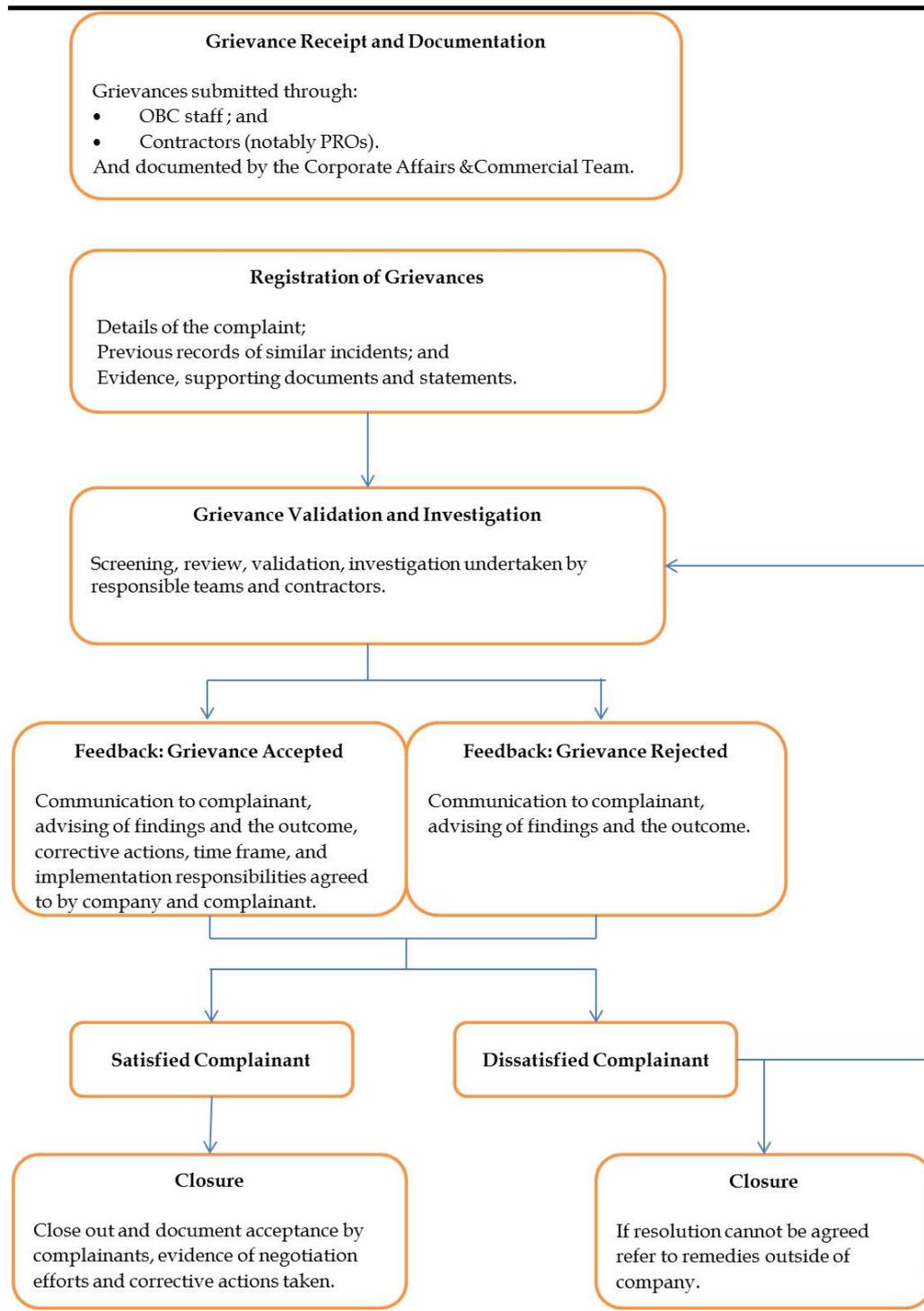
This procedure focuses on the recording and processing of complaints and grievances. In some cases, grievances may be linked to actual incidents, in which case the incident also need to be reported and captured within the operation's Incident Reporting System.

7.2 GRIEVANCE PROCEDURE**7.2.1 Summary of Procedure**

The Grievance Procedure for the Project should be followed for all grievances relating to the Project as outlined *Figure 7.1*.

It should be noted that questions, queries or requests for information received on a day to day basis by the Public Relation Officers (PROs) on site do not need to be captured by this Grievance Mechanism. However, a record of these and the responses given by the PROs should be captured and submitted by the Contractors on a fortnightly basis to the Corporate Affairs and Commercial team so that recurrent issues can be identified and any issues that need the attention of Oman Broadband are identified.

Figure 7.1 Grievance Procedures



7.2.2 Options to report a grievance

All information regarding the process of the grievance system is available online <http://omanbroadband.om/> as well as a form that can be filled online. There are several options to access / report the grievances:

- **Phone** – Oman Broadband’s Corporate Affairs Department can be contacted during the hours of operation (8 am- 5 pm) Sunday to Thursday on 22310500.

(Note: Phone calls received must be followed up with an office/worksite visit or official letter of complaint unless enquiring; all calls received will be noted to ensure a data of calls received).

- **Office Visit** – Complainants may visit Oman Broadband’s Corporate Affairs Department from Sunday to Thursday during working hours (8:00am – 3:00pm) at the following address
 - **Knowledge Oasis Muscat – KOM5 – 5th Floor**
- **Worksite Visit** – Complainants may visit any of worksites advertised to be engaged in construction or maintenance activities for Oman Broadband during operation hours. They can either:
 - submit a written grievance that can be handed to the Oman Broadband Representative or the Contractor’s Supervisor in charge, or be placed in a ‘Suggestion Box’ that will be checked on a weekly basis for content if anonymity is required, or
 - request to speak to the Oman Broadband Representative or the Contractor’s Supervisor in charge. Complaints orally conveyed at a worksite will be recorded in written, and unless the complainant requires anonymity his/her contact details and signature will be requested to appear on the record.
- **Official Letter** - The Official letter can be directed to the Manager of the Corporate Affairs Department and can be either mailed or dropped off directly to Oman Broadband’s office in Muscat. Letters received will be stamped with the date received which will indicate the start of the processing timeline.
- **Email** - An Email can be sent to the Corporate Affairs Department to esmp@omanbroadband.om. When emailing, a copy of the Official Letter must be enclosed in the email message.

An option is available for the individual filling the form to tick the anonymous button to ensure that there is no requirement for personal details to be filled.

7.2.3

Step 1: Grievance Receipt and Documentation

Grievances or complaints shall be received through a variety of formats, all of which are equally valid. If requested by a complainant, anonymity shall be granted and the grievance processed on an anonymous basis. As such, all

Project and contractor staff shall be fully aware of the Grievance Mechanism process so that they know how to receive a complaint themselves and pass it on to the Corporate Affairs and Commercial team or else instruct stakeholders about how they can access the Grievance Mechanism in another way.

The received grievance as well as the details of the complainants shall be noted down and passed on to the Corporate Affairs and Commercial team for registration within the day of receipt.

At this stage all grievances, regardless of if they are in written or verbal form or the potential validity of the grievance shall be treated with equal respect.

7.2.4 *Step 2: Grievance Registration*

Once received, grievances will be logged; this log shall be used to capture all available information and to track the grievances.

This activity shall entail capture of complete details of the complaint including at a minimum:

- Name*;
- Contact information*;
- Date of complaint;
- Details of complaint;
- History of other complaints / queries / questions (if known);
- Prioritisation and categorisation;
- Resolutions discussed and agreed with the party(ies) in question;
- Actions implemented; and
- Outcome of the actions implemented.

* In the instance when the complainant wishes to remain anonymous, his/her name and contact information will not be recorded.

7.2.5 *Step 3: Grievance Validation and Investigation*

All grievances will need to undergo some degree of review and investigation. The nature of investigations will be determined by the type of grievance and clarity of circumstances.

The Company Corporate Strategy Manager will be designated as the person responsible for grievance validity, categorisation and evaluation in line with *Table 1.2* and shall organise the validation of the complaint's legitimacy and organise the investigation.

He/ she will determine the validity and category of a complaint within 8 working hours of receipt. Where he/she establishes that a complaint is not genuine or not related to the Project, he/she shall formally communicate the verdict to the PROs operating in the area, giving supporting reasons. This will be communicated to the Complainant within 8 working hours of receipt.

Where the complaint is established to be valid, the investigation process will begin. Depending on the circumstances of the complaint, various departments may need to get involved, including contractors.

The grievance evaluation/investigation process may also involve the complainant, depending on the category of complaint and availability of his/her contact details. The maximum period for investigation and communication of findings to the complainant shall be two months.

The findings of the grievance investigation will be recorded in the grievance log.

Table 7.1 outlines the categories and nature of grievances and corresponding timelines.

Table 7.1 *Grievance Evaluation Matrix*

Category	Close-out Timeline
<i>Invalid</i> The grievance is not genuine or not related to the Project.	2 working days
<i>Category A</i> Relatively minor and one-time problems. No reputational risk.	2 working days
<i>Category B</i> Relatively minor but repetitive problem. Low reputational risk may be reported in local media.	5 working days
<i>Category C</i> Significant, larger problems related to operations. Medium reputational risk may be reported in local and/ or national media.	30 working days
<i>Category D</i> Major claim, significant adverse impact on a larger group or several groups. High reputational risk may be report in national or international media.	45 working days
<i>Category E</i> Major allegations regarding policy or procedure. High reputational risk may be report in national or international media.	60 working days

7.2.6 *Step 4: Feedback to Complainant(s)*

Once investigations are completed, a formal communication will be sent to the complainant, advising of findings and the outcome of the grievance investigation.

If the complainant is not satisfied with the resolution, or the outcome of the agreed corrective actions, the complainant should be asked for the reasons for their lack of satisfaction or where they feel the investigation has not considered all the issues. These issues should then be re-considered (as per Step 3) as part of an updated investigation and outcomes communicated to the Complainant. In the event that the Complainant is still not satisfied they should be free to take their grievances to a dispute resolution mechanism outside of the company grievance mechanism.

7.2.7 *Step 5: Grievance Close-out and Register Update*

Where the stakeholder is satisfied with the responses provided to their grievances, the register will be updated to indicate as much. All correspondences will be filed and the corrective actions clearly updated against the grievances.

Where the stakeholder is not satisfied with the response (after two rounds of investigation) this will also be recorded including any measures that were implemented.

Oman Broadband will ensure that all grievances raised by all Project stakeholders are treated impartially, respectfully and confidentially.

8.1 ENVIRONMENTAL AND SOCIAL MANAGEMENT ORGANIZATIONAL STRUCTURE

This section provides an overview of the proposed Organizational Structure for environmental and social management of the Project's Construction, Operation and Closure phases.

Oman Broadband is to establish an environmental and social management and monitoring unit including an HSSE department with dedicated HSSE staff, competent on the basis of appropriate education, training, and experience, which will manage and oversee the HSSE aspects of the Project. The organization structure for the HSSE department for the construction phase is shown in *Figure 8.1*. Responsibilities for the social component of this ESMP and its Grievance Redress Mechanism will be assigned and displayed in an updated Organization Chart.

Supervision of the Project's Construction will occur through Oman Broadband's Projects department and their respective managers. This will be accomplished through management controls over strategic aspects of the project and interaction with contractor staff at offices where the project is being constructed and other offices where additional engineering, design, or other project related activities may be occurring. The Oman Broadband organization will be staffed at a level to allow for continuous supervision of contractor activities and work products. Upon completion of the Construction phase, responsibilities will be handed over to the Operations department who will supervise the commissioning and operation of the Facilities.

The Project team will operate out of an office in Muscat with key staff being deployed/ visiting the project site. Their tasks will be associated with overseeing and monitoring the in-country activities of workers and contractors to ensure that contractual obligations regarding construction quality, regulatory compliance, environmental protection, and social commitments are being satisfied.

Also included on the organization are external affairs professionals that will form the Community Relations department. This department will be crucial to the success of the environmental and social monitoring process and the continuation of the stakeholder consultation process. They will also have responsibility with regards to resettlement activities.

Figure 8.1 Oman Broadband Current Organization Structure

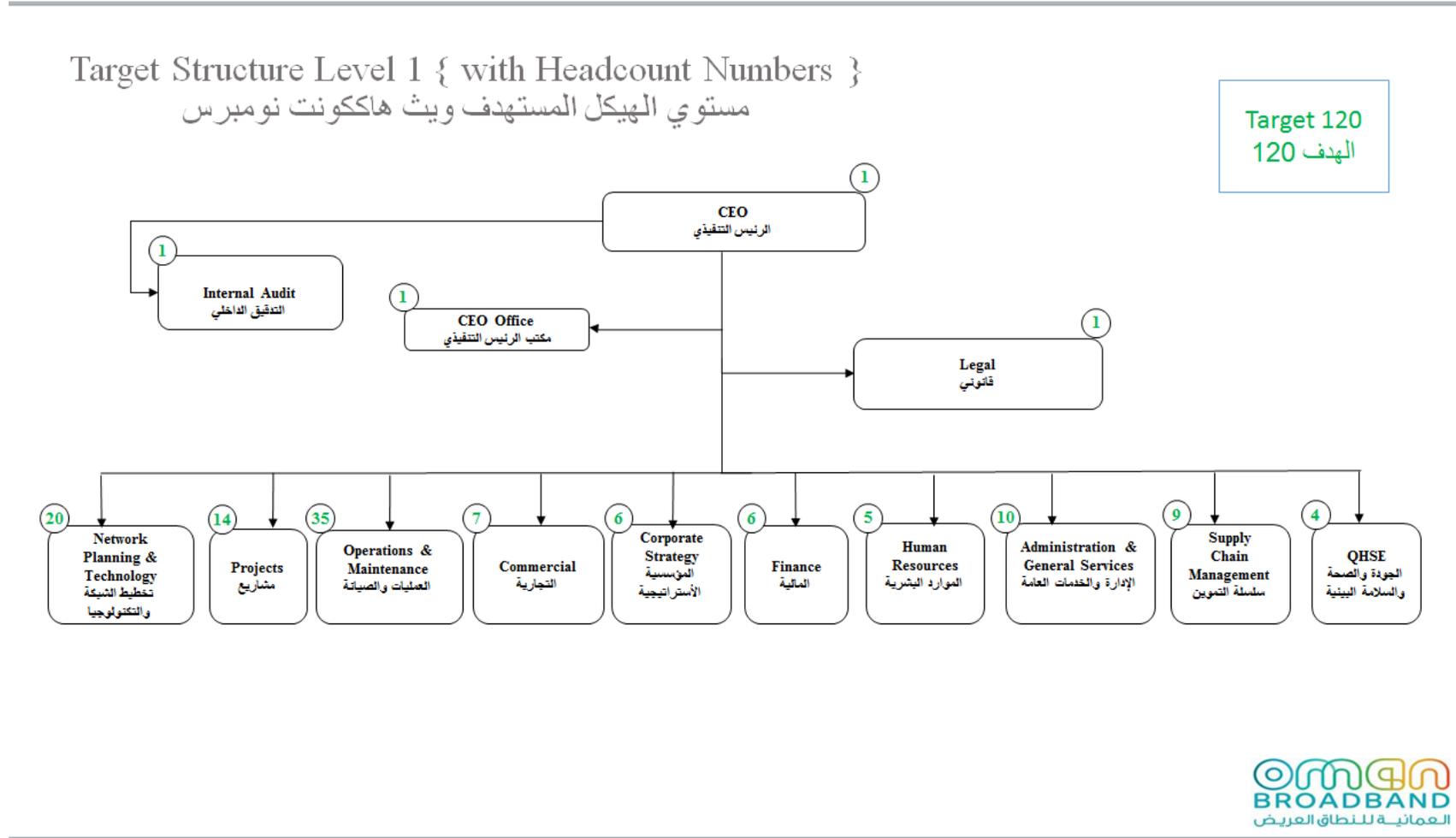
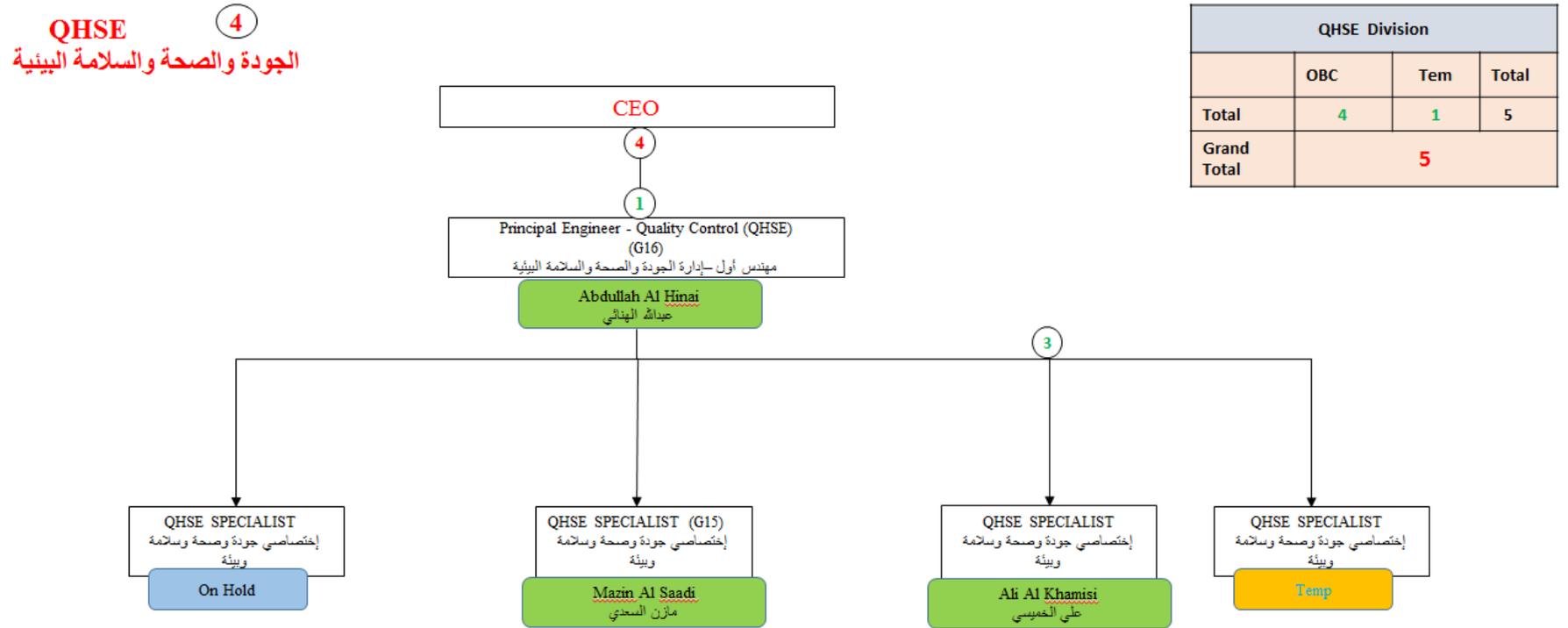


Figure 8.2 Proposed Oman Broadband Health, Safety, Security and Environmental Organization



Oman Broadband is ultimately responsible for ensuring that all department heads, project staff, and contractors are capable of complying with all the statutory requirements that must be met in order to carry out the broadband laying Project and to implement this ESMP, including the Company's Grievance Redress Mechanism.

The Company CEO will retain legal responsibility for compliance with the applicable regulations, and will remain responsible for the compliance with corporate policies, commitments and standards.

The Principal Engineer - Quality Control (QHSE) will be responsible for overseeing the integration of the HSSE and Social management and mitigation measures throughout their area of responsibility.

The specific responsibilities for each part of the Project organization are as follows:

The Principal Engineer - Quality Control (QHSE) will:

- Ensure that the Contractor has a copy of the ESMP and all agreed HSE Plans.
- Undertake regular site inspections (with frequency determined by the nature of the on-site activities as may be appropriate) to audit compliance of all parties with the requirements of the ESMP.
- Advise/recommend on actions or issues impacting on the environment to the QHSE Specialist, who shall issue any required site instructions to the Contractor.
- Conduct awareness training with the Contractor and all staff on key requirements of the ESMP, environmental and social safeguards, good housekeeping practices, and general aspects relating to site sensitivity.
- Review and approve HSE Plans together with the QHSE Specialist (when applicable).
- Assist the Contractor in finding responsible solutions to environmental and social problems that may arise.
- Recommend to the Contractor the removal of person(s) and/or equipment not complying with the ESMP.
- Monitor Contractor activities relative to environmental and social matters and document its observations regarding compliance with contractor HSE plans, site-specific HSE plans and this ESMP.

- Document and report non-compliance situations to the CEO, to the Construction Project Manager, the Contractor's Construction Manager, and the Contractor's HSE Manager.
- Provide advice to the Construction Project Manager and staff regarding environmental matters.
- Keep records of all activities/ incidents concerning the environmental and social issues associated with the survey in a site diary / logbook.
- Take immediate action to stop any works where significant and irreparable damage is being inflicted on the environment, and to inform the QHSE Specialist immediately of the occurrence and action taken.
- Undertake regular internal review of the ESMP and make recommendations regarding its updating to the Engineer and Developer.
- Assist Oman Broadband and the contractors in resolving non-compliance situations.
- Follow up to ensure that non-compliance situations have been successfully addressed.
- Ensure that this ESMP is updated per permit requirements and/or in response to comments from stakeholders.

The Project Construction Manager(s) will:

- Communicate with the Contractor organizations and work with the Contractor Construction Manager to expeditiously resolve non-compliance situations (reported by any applicable party) appropriately.
- Manage reporting of environmental and social data by collecting input from contractor HSSE departments and compiling and forwarding to the Principal Engineer - Quality Control (QHSE).

Responsibilities of the QHSSE Department's personnel are detailed in *Table 8.1*.

Table 8.1 HSSE Department Roles and Responsibilities

Roles	Responsibilities
QHSE Specialists	<ul style="list-style-type: none"> • Act as Principal Engineer - Quality Control (QHSE)'s deputy on the Broadband Project's environmental management; • Lead the environmental team to implement the ESMP; • Be delegated Principal Engineer - Quality Control (QHSE)'s responsibilities in terms of environmental management as necessary • Oversee Contractors (EPC, etc.) compliance with ESMP • Develop and implement plans, procedures and mechanism to fully implement the environmental mitigation measures from this ESMP; • Coordinate oversight and inspection of Contractors environmental performances; • Address environmental permitting requirements; • Support the environmental supervisor on reporting, monitoring and recordkeeping. • Support Contractors (EPC, suppliers, etc.) compliance with the ESMP through training, approvals of HSE Work Plans, special activities permits, etc. • Undertake daily onsite oversight of Contractors' environmental performance; • Formulate inspection and audit reports, and follow up on closing identified issues. • Inspects Contractors' compliance with Laws, Regulations, Company Policies and this ESMP <ul style="list-style-type: none"> • Reports on Contractors' HSSE performances
Occupational Health and Safety (OHS) Supervisor	<ul style="list-style-type: none"> • Act as Principal Engineer - Quality Control (QHSE)'s deputy on the Broadband Project's OHS management; • Lead the OHS team to implement the ESMP; • Be delegated Principal Engineer - Quality Control (QHSE)'s responsibilities in terms of OHS management as necessary • Oversee Contractors (EPC, etc.) compliance with ESMP • Develop and implement plans, procedures and mechanism to fully implement the OHS mitigation measures from this ESMP; • Coordinate oversight and inspection of Contractors OHS performances; • Address OHS permitting requirements. • Support the OHS supervisor on reporting, monitoring and recordkeeping. • Support Contractors (EPC, suppliers, etc.) compliance with the ESMP through training, approvals of HSE Work Plans, special activities permits, etc. • Undertake daily onsite oversight of Contractors' OHS performance; • Formulate inspection and audit reports, and follow up on closing identified issues. • Inspects Contractors' compliance with Laws, Regulations, Company Policies and this ESMP <ul style="list-style-type: none"> • Reports on Contractors' HSSE performances
Security Supervisor	<ul style="list-style-type: none"> • Act as Principal Engineer - Quality Control (QHSE)'s deputy on the Broadband Project's security management; • Lead the security team to ensure construction phase security for Oman Broadband's personnel and properties; • Coordinate with Contractors' security team and convey Oman Broadband's security requirements to Contractors.
Security Team	<ul style="list-style-type: none"> • Implement, as appropriate, security measures to ensure the security of Oman Broadband personnel and properties.

Roles	Responsibilities
Chief Doctor/Medical Consultant	<ul style="list-style-type: none"> • Be responsible for the Broadband Project's overall medical program including offer medical care to expat, leading a medical team to offer medical care to Project employees as well as providing medical support to Contractors. • Principal point of contact with local medical institutions and Health administration • Provide daily medical service to Oman Broadband's local employees and provide support to Contractors as necessary.
Trained First Aiders	<ul style="list-style-type: none"> • Be the first point of contact in case of medical emergency; • Provide first-aid care onsite; • Support doctor on undertaking emergency medical treatment and referral to medical institutions.
CSR/Social Manager	<ul style="list-style-type: none"> • Engagement with government stakeholders on the Broadband Project; • Engagement with all other stakeholders on the Broadband Project; • Lead the Community Liaison Officer to ensure stakeholder engagement activities are undertaken according to this ESMP, the Stakeholder Engagement Plan (SEP) and also the implementation of the Grievance Mechanism; • Design corporate community outreach and investment programme. • Report on the corporate social responsibility.
Community Liaison Officers	<ul style="list-style-type: none"> • Act as the Project's point of contact for the communities in terms of disclosure, receiving and responding to grievances, as well as communication of project activities; • Routine engagement with affected populations as well as the community heads to understand their needs; • Support the CSR/Social Manager on the implementation of the SEP, as well as any community programme.

8.3

CONTRACTOR RESPONSIBILITIES

Where they are engaged, Contractors are responsible for complying with environmental and social requirements for all field activities covered by this ESMP. Contractors are also responsible for the actions of any subcontractors they may engage.

Oman Broadband requires the following:

- The contractor shall comply with all applicable laws and requirements in Oman.
- The contract shall strictly implement all relevant measures as stipulated in this ESMP and its Grievance Redress Mechanism, and accept supervision from Oman Broadband.
- The contractor shall adhere to a precautionary approach aiming at minimizing adverse environmental and social aspects at all times, whether required by this ESMP or not.
- The contractor shall implement preventative measures to reduce pollutant emissions, including air emissions and contaminations to

soil, ground / surface water or other mediums.

- The contractor shall provide sufficient fire-fighting equipment at the site.
- The contractor shall provide sufficient PPEs and implement and enforce safety measures based on the working environment and as stipulated by Oman Broadband.
- To the extent relevant, the contractor shall obtain all necessary special equipment operator permits including electric, welding, work at height and forklift within the site.
- The contractor shall maintain records at all time available for Oman Broadband's review upon request, including a register of all employees currently working on Oman Broadband's project stating their employment status and conditions.
- The contractor shall report to Oman Broadband all safety, environmental, social or employment related accidents in a timely manner.
- Any violation of the abovementioned requirements will be subject to disciplinary actions, in the worst case, ceasing of contract.
- All fines, losses and compensations arisen from governmental disciplinary actions, environmental accidents, equipment breakdowns, injuries and fatalities due to the contractor's improper operation will be paid by the contractor.

8.4 CHIEF ENGINEER RESPONSIBILITIES

For the purposes of this document, "The Chief Engineer" refers to the engineer for the Project employed by the Developer (Oman Broadband), or any other person authorised by the Developer, to be responsible for the technical and contractual implementation of the Project.

The responsibilities of the Engineer are to:

- Ensure that the requirements as set out in this ESMP and any other conditions stipulated by the relevant Authorities are implemented.
- Assist the Principal Engineer - Quality Control (QHSE) in ensuring that the conditions included in this ESMP are adhered to and promptly issue instructions requested by the Principal Engineer - Quality Control (QHSE) to the Contractor. All instructions relating to environmental and social matters issued by the Engineer at the site to the Contractor are to be copied in writing to the Principal Engineer - Quality Control (QHSE).

- Assist the Principal Engineer - Quality Control (QHSE) in making decisions and finding solutions to environmental and social problems that may arise during the project development.
- Review and approve work HSE Plans (refer to Section 5.2) with input from the Principal Engineer - Quality Control (QHSE).
- Order the removal of person(s) and/or equipment not complying with the specifications (as required by the Principal Engineer - Quality Control (QHSE) or otherwise).
- Provide input into the Principal Engineer - Quality Control (QHSE)'s on-going internal review of the ESMP.

APPENDIX A - GRIEVANCE RECORD & PROCESSING FORM

SECTION 1: COMPLAINANT DETAILS			
Complaint Reference Number	Date Received	Recipient of Complaint	Manner in which Complaint was Identified / Submitted by Complainant
Anonymous (Y/N)	Name of Complainant / Organization Registering Complaint		
Contact Details (email)	Telephone Number(s)	Physical and/or Postal Address	
SECTION 2: DETAILS OF COMPLAINT			
Time, Date and Location Complaint Refers to			
Description of Complaint and / or Evidence of the Issue			

SECTION 3: ACTION TAKEN / REQUIRED		
Company Manager Responsible for Addressing the Complaint		
Acknowledgement of Complaint Sent to Complainant? (Y/N)	Date When Acknowledgment Provided	Date Set for Resolution of Complaint
Description of Subsequent Action Taken (divide into Immediate Action and Subsequent Investigation, if applicable)		
Action Carried Out By Whom	Date of Completion	Method of feedback to Complainant
1.		
2.		
3.		
Stakeholder Response to Action(s)		

SECTION 4: EFFECTIVENESS REVIEW

How were the Actions Verified to be Effective at Resolving the Complaint?

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Approved by:

Date:

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