Gaza Solid Waste Management Project GSWMP

Environmental & Social Management Plan For The Temporary Stockpiling of Subsoil

Addendum No. 3 to the GSWMP Environmental & Social Impact Assessment

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AFD	French Development Agency	
ESIA	Environmental and Social Impact Assessment	
ESMP	Environmental and Social Management Plan	
GRM	Grievance Redress Mechanism	
GSWMP	Gaza Solid Waste Management Project	
JSC- KRM	Joint Service Council for Solid Waste Management in Local Governorate Unit	S
	of Khan Younis, Rafah and Middle Area	
KYWWTP	Khan Younis Waste Water Treatment Plant	
MDLE	Municipal Development and Lending Fund	

1. Overview and Sub-Project Description

This ESMP addresses the stockpiling of excess earth material resulting from the excavation works at the new Sofa Landfill at Al-Fukhari. An estimated 1.5 million cubic meters of earth material (top soil and subsoil) will result from excavating the main landfill cell (cells 1A and 1B) according to the design prepared by the Joint Venture of Antea Group France, Engicon Jordan, and EMCC. The Contractor had stockpiled an estimated amount of 330,000 cubic meters of unconsolidated earth material on-site that will be used later during landfill operations as daily cover material. The remaining amount considered as excess amounts of earth material is planned to be transported to an off-site location. This ESMP addresses the interim stockpiling site in the vicinity of the new landfill and within the contractual perimeters of contract no. 1.1.1 funded by GSWMP: World Bank Group and the French Development Agency (AFD). This ESMP should be considered as Addendum to the GSWMP ESIA for the proposed sanitary landfill in Al Fukhary (Sofa) cleared in 2012.

The proposed temporary stockpiling site is located approximately 700m direct distance from the Sofa Landfill Site, with a total traveled distance at 1,600m from excavation activities at the new sanitary landfill, which makes the location within the contractual agreements with the new landfill contractor. Figure (1) shows location of the new stockpiling lot in relevance to the dumpsite, Sanitary landfill and the Khan Younis Wastewater Treatment Plant – KYWWTP. The 16m wide existing unpaved agricultural road no. (24), that borders the jurisdiction of Al Fukhary Municipality with the regional area, presents the shortest distance to the temporary stockpiling area after considering all existing alternative roads in the vicinity of the landfill, that is in addition to the current use of the road by the neighboring KYWWTP project, which makes the road most viable option in terms of travel distance, low disturbance during day time, and overall purpose. The area of the temporary stockpiling site is 39,000sq.m divided into two lots in terms of ownership (36,000 and 3,000 sq.m).

The temporary stockpiling site is expected to receive about 300,000 cubic meters of spoil to reach its full capacity. The time duration of transferring these quantities of spoil is about two to three months based on the contractor's daily capacity of excavation works, and management of the permanent disposal site for spoil and sub-soil.

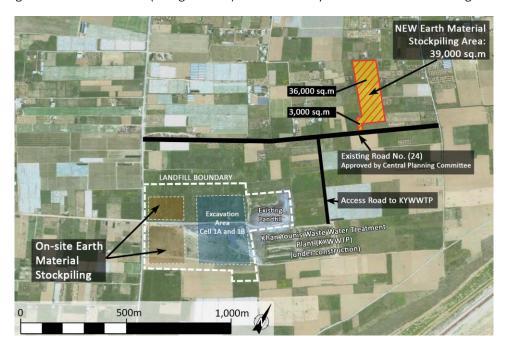


Figure 1: Satellite Photo (Google Earth) of the Sanitary Landfill and Surrounding Area

The Land Owners were approached by the Mayor of Al-Fukhari who hosted the negotiations with landowners regarding rental agreement led by the JSC chairman and witnessed by both JSC Executive Director and MDLF. The owners had a clear choice to accept or reject the renting offer without coercion – see footnote (1). Annex (1) and (2) provide the negotiation minutes and rental agreement between JSC and landowners. The renting price reached was higher the typical agricultural use rent due to the difference in purpose (agricultural versus earth material stockpiling), where the client (MDLF and JSC) had explained to the owners the objective and use with reference to the new landfill construction, therefore the rent agreement indicated one-year renewable duration.

1.1 ESMP Objectives

This report is prepared for carrying out an Environmental and Social Management Plan (ESMP) for temporary stockpiling site. This will include the proposed mitigation and monitoring measures based on the existing baseline information, and the expected potential impacts significant on the physical environment, biological environment, socioeconomic, cultural and heritage and human health. This report aims to be in conformity of the World Bank safeguard policies, taking into consideration the environmental and social regulations of the Palestinian Environment Quality Authority (EQA). Final draft of the ESMP will be disclosed in electronic format on MDLF website; JSC Facebook page; and the World Bank InfoShop. The ESMP document in hard copy format will be available in MDLF office – Khan Younis Branch; and JSC-KRM main office.

2. Baseline Conditions

The proposed stockpiling site (the 36,000 sq.m) is an empty uncultivated land, while the second smaller is cultivated by melon fruit that will be vacated by its user to another lot in the area. Owner of the main lot quit cultivating his land more than a year ago due to the low financial return due to marketing constrains, and water shortage in the area— please refer to table (1). There are no structures except for a small shed located in the northern part of the land that was used for sheep owned by the owner of the adjacent land to watch his land during his past cultivation seasons, image (1). This shed does not belong to the lot owner, rather it is owned by his neighbor who will dismantle it as agreed between the two neighbors; the small shed will be dismantled by the owner of the shed and it will be transferred to another location in his land far from the stockpiling site. The stockpiling site is surrounded by agricultural lands that includes melon, wheat, and olive trees. The surrounding community comprises agriculture community with a population density of less than 10 per hectare; most of farmers live in the nearby locality of Al-Fukhari. Al-Fukhari and Al Bayuki are the closest residential communities/cluster located at a distance of more than 1,000m from the location of the storage of the excess soil. Table (1) provide data sheet for both lots followed by images.

The average annual precipitation in the area is about 150mm. Most of the precipitation falls between December and March. Soils in the surrounding area are mostly loessial. The geological investigations in the sanitary landfill show that the underlying strata are clayey silt of 3 to 10m thickness. The groundwater level is reported at the depth of 45 to 50m. The groundwater is brackish and has elevated ammonia content.

There is a considerable variation in the wind speed during the daytime, and the average maximum wind speed velocity is about 3.9 m/s. Storms can occur in winter when maximum wind speeds reach about 18 m/s. In winter the prevailing wind direction is SW with an average speed of 4.2 m/s and during summer the prevailing winds are from the NW direction.

More details on the baseline data are presented in the ESIA of September 2012 for construction of the Sofa sanitary landfill. There were no significant changes to the baseline conditions have since 2012.

Table 1. Data Sheet of Stockpiling Location

	Criteria	Main Lot 36,000 sq.m	Small Lot 3,000 sq.m		
1.	Current use	None	Cultivated		
2.	Presence of Structures	Partial	None		
	2.1. If yes, specify use.	Farm shed owned by neighbor to the land	-		
3.	If cultivated, type of crops/trees	None (prev. wheat)	Melon		
4.	Annual Income (owner)	Currently none. USD 3,500 (when cultivated)	USD 450		
	4.1. No. of Dependent Individuals on Income	6 (Family)	5 (rented until June, 2017) ¹		
5.	Rental Process: Value in USD/year for 1 donum	USD 400	USD 400		
	5.1. Method of Rent Assessment	Negotiation/Assessment of Impact			
	5.2. Rental Value in Neighboring Lands (Annually)	USD 150	USD 150		
	5.3. Justify Difference:	Nature of use and to mitigate negative impact of stockpiling.			
	5.4. Were they given the choice to reject the offer of the client? Is this documented carefully?	Yes ² , see negotiation agreement – Annex 1			
6.	Are there any tenants or labors on the land?	No	Yes, 5 labors lead by a farmer renting the land.		
	6.1. If yes, what type of agreement they have with the owners (contract)?	N/A	Verbal agreement.		
	6.2. How long – daily/casual labor)?	-	Seasonal		
	6.3. What is their annual income from the land?	N/A	USD 3,000 (5 persons lead by farmer Mr. Mohammad Ashour)		
	6.4. What is the arrangement (if any) to accommodate those tenants/workers?	N/A	Compensated by owner, renting alternative lot nearby.		
7.	Were there other alternative, apart from this land?	Yes, not equivalent in size or characteristics.			

 $^{^{1}}$ The melon is harvested by the end of April, no works in the land later than April. The five workers were not affected by termination of the agreement.

² The small lot owner was sought when the owner of the more suitable lot directly located on road no. 24 could not be reached (living abroad) and his land guardian hesitated to accept client offer.

Figure (2): (left) 39 donum lot –looking west showing the farm shed, (right) farm shed





Figure (3): 3 donum lot –looking southwest towards existing landfill



Figure (4): Road No. 24, planned as 16m wide road Approved by the Central Planning Committee 22 April, 2017



3. Expected Impacts of Stockpiling

It is estimated that the stockpiling process will last for about two to three months with a range of 250-300 trips of transferring spoil per day (about 6,000 cu. m per day). This activity is expected to affect the surrounding environment primarily due to the dust emissions resulting from both the unpaved road leading to the stockpiling area and the stockpiling process itself. The land rented for stockpiling is also expected to witness change in land use in the long-term period, given the partial loss of the biologically active topsoil after the heavy stockpile material placement. The surrounding agricultural lands are expected to be affected adversely by the dust emissions. Dust emissions contain fine particulate matters that inhibit the normal respiration and photosynthesis mechanisms within the plants leaves³. The fine dust particulates are easily inhaled, even short-term exposure can cause respiratory problems and allergic reactions in humans. The nearest residential houses (receptors) are far more than 1,000m and they are not expected to be affected by dust emissions. The workers/drivers are expected to be exposed to dust emissions. However, application of mitigation and OHS measures (spraying of water, use of masks) will significantly reduce the dust impacts on workers.

In general, movement of heavy vehicles, transferring earth material and the influx of relatively high number of dump trucks will affect the traffic on the Sofa Road. Although the Sofa Road has light civilian traffic it is used also for transfer of solid waste to the Sofa dumpsite. It is likely to result in temporary congestion and inconvenience to the neighboring farmers using it. Temporary traffic congestion is expected also at entering and exiting the excavation site at

Shivakumar MVK (2005) Impact of sand storms/ dust storms on agriculture. Natural Disasters and Extreme Events in Agriculture. Publisher – Springer eBook, page 159-177.

Sofa Road with the incoming municipal solid waste collection vehicles which still use the existing dumpsite.

Figure (5) illustrates the immediate affected area of the stockpiling operation, where zone (A) represents the surrounding agricultural lands of the stockpiling location, zone (B) represents the surrounding agricultural lands along the dirt road currently being opened by Al-Fukhari Municipality and the KYWWTP Contractor, and zone (c) represents the existing Sofa Road and the entrance/exist from and to the landfill construction site and existing landfill.

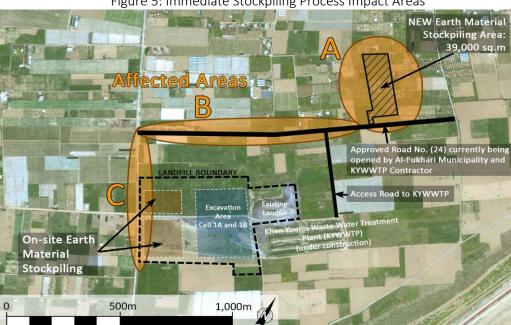


Figure 5: Immediate Stockpiling Process Impact Areas

Table 2. Potential environmental and social impacts during stockpiling

Affected components	ffected components		Magnitude		
Physical Environment					
Climate	-No impacts are expected on the climate	-	-		
Geology, Geomorphology and Soil	-Changes are expected on the geomorphology and soil of the temporary stockpiling site due to the spoil stockpiling.	Medium term	High		
Topography and landscape	-Changes are expected on the topography and landscape of the temporary stockpiling site due to the spoil stockpiling. The land use is expected to be changed.	Long term	High		
Surface water and Groundwater	-Minor impacts are expected on the surface water and groundwater due to reduced aquifer recharging capacity caused by stockpile.	Medium Term	Low		
Noise emissions	-Noise emissions due to operation work and movement of trucks.	Short term	Low		

Affected components	Impact description	Timescale	Magnitude		
Ambient air quality	-Dust emissions from trucks movementDust Emissions from stockpiling process	Long term	Medium		
Odor	-No impacts are expected dor		Medium		
Biodiversity					
Flora and Fauna	-There are limited flora and fauna around the site that could be affected	Short term	Low		
Economic Issues					
Direct employment and income	-The stockpiling process will have minimum impacts on the jobs creation as there will be about 4-6 new workers.	Short term	Low		
Transportation and Traffic	-Limited traffic disturbance is expected on the Sofa road due to low traffic volume.	Short term	Low		
Social Elements					
Demographic change	-No demographic changes are expected	-	-		
Transportation and Traffic	-Limited traffic disturbance is expected on the Sofa road due to low traffic volume.	Short term	Low		
Human Health					
Local community health	-Indirect noise and air quality impacts from movement of heavy machinery on public safety	Short term	Low		
Worker health and safety	-OHS risks from movement of heavy machinery	Short term	Medium		

4. Mitigation Measures

Mitigation measures follow the approved ESMP provided in the works contract of the new landfill construction with additional specific measures as provided in this ESMP. The excavation works of the new sanitary landfill will consider a separate stockpiling of the first meter topsoil and subsoil to limit the damage of its richness in the biological activity, and this topsoil layer can be used for the proposed stockpiling location after decommissioning to mitigate impact of lengthy storage periods. This topsoil is planned to be applied for agricultural uses by farmers in their fields after excavation, this in turn will reduce the volume of stockpile. For all affected zones, work will be limited to day time to decrease noise pollution, noting that few residents live within the 1,000m radius as indicated in section 1 of this document and in the baseline data of the Project's ESIA. Workers and drivers will follow the safety measures indicated in the approved Safety Plan of the aforementioned works contract including wearing the required protective gear including masks.

The stockpiling site, (Zone A), will be enclosed by a mech fence with 2-3m high to reduce impacts on surrounding agricultural lands by the arising dust. Water spraying will be applied to produce a hardened thin top layer that reduces windblown dust emission during the stockpiling process. As well as, stockpiling process shall also be carefully carried out to decrease potential negative impacts (Table 3).

The traffic inconvenience is anticipated due to the heavy use of the Sofa Road (Zone C) during the stockpiling process; the main affected group due to the traffic jam is the incoming solid waste trucks, but the combined driving distance is relatively short (about 500 m at Sofa street). The remaining section is not expected to witness a traffic jam due to the light use of the access road by farmers. No mitigation measures can be done for the traffic inconvenience at this stage.

The complaints mechanism will be activated and ready to receive any complaints during the stockpiling phase, complaints will be treated as required. In addition, the community social committee will conduct site visits during stockpiling period, and information will be shared regularly with the local farmers. JSC social specialist will conduct weekly meetings and will involve Al-Fukhari Municipality in communication with the farmers and receive their feedback and remarks. The project environmental specialists will also include the monitoring of stockpiling activities in their normal monitoring tasks currently undergoing for the landfill construction activities and will observe and record impacts on the surrounding agricultural lands and enforce implementation of mitigation measures.

Table 3. Particular Mitigation Measures during Stockpiling Operations

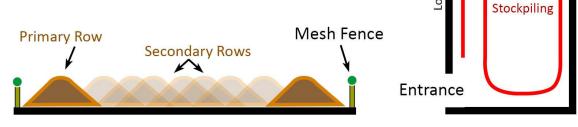
Zone		Impact	Mitigation Measure			
Zone (A)	Stockpile Area	Dust and Deterioration of Surrounding Vegetation	 Dust Control: (1) Install 2-3m high mesh ence that can also act as wind breaker around stockpile area. (2) Use stockpiling methodology that reduces onsite emission, horizontal flux of dust to neighboring lands – see figure (6). 			
Zone (B)	Road No. 24 Leading to Stockpile Area	Dust and Deterioration of Surrounding Vegetation	 Dust Control: (1) Spray water on road. (2) Install silt/dust fence along both sides of road no. (24) – (optional)⁴. 			
Zone (C)	Sofa Road and Entrance to Landfill	Traffic Conflict & Accidents	 (1) Traffic Management: A. Daily presence and directing/monitoring by Rafah Municipality Staff, Contractor Foremen and Supervising Engineer. B. Define routes of traffic stream in and out of excavation area. C. Manage timing of arrival of SW trucks and directing movement by Municipality Staff present in the site. 			

⁴ In case water spraying proved insufficient.

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Figure 6: Proposed Stockpiling Method

- 1. <u>Primary Row</u> of earth material stored in rotational manner around site, acting as barrier for horizontal dust flux resulting from <u>Secondary Row</u> stokpiling.
- 2. Repeat procees with subsequent layers, as hight progresses maintaining safe side slope.



Cross Section

Top View

Direction of

4.1 Note on Grievance Redress Mechanism (GRM)

There are several channels for receiving complaints from farmers and users in the surrounding community. Following is a summary of the GRM in use for the specific activity of earth material stockpiling, utilizing the existing grievance redress mechanism currently in use by the Joint Service Council (JSC-KRM).

A. Venue:

(1) Stockpiling Site and Access Rout:

The site offices are at proximity to the stockpiling location and the access road, with presence of staff from both contracting part, supervision, MDLF and JSC. The site also has a complaint box that can be always used to receive written complaints. Supervision Engineer has always showed willingness to receive and communicate public inquiries, the same applies to the administrative staff of the contractor on the site. Overall the landfill construction site offices are well known to the surrounding community and can always be accessed for inquiries and complaints.

(2) New Landfill Site Offices:

The site offices are at proximity to the stockpiling location and the access road, with presence of staff from both contracting part, supervision, MDLF and JSC. The site also has a complaint box that can be always used to receive written complaints. Supervision Engineer has always showed willingness to receive and communicate public inquiries, the same applies to the administrative staff of the contractor on the site. Overall the landfill construction site offices are well known to the surrounding community and can always be accessed for inquiries and complaints.

(3) Al-Fukhari Municipality:

A small municipal area with low population enabled close and personal relationship between municipal employees and the population which is reflected clearly in the duties of the Mayor himself who is in personal and daily contact with his farmer community. Therefore, a main channel of complains is the Municipality of Al-Fukhari, and the mayors' office himself.

B. Complaints Handling and Follow-Up:

Grievances mechanism will be activated for the local community to receive any complaints related to temporary stockpiling site. For the whole project, GRM will be activated for the local community to receive any complaints related to temporary stockpiling site and the project at large. The system includes different channels, most importantly:

- 1- The complaint box: A complaint box will be installed in all the JSC facilities; these boxes will be supplied with an instruction board and hard copies of grievances application to be filled when there is a grievance to be submitted.
- 2- Using the Facebook page: by inviting the people to send their complaints using the JSC Facebook page since the website is still under construction, and the Facebook page will be announced in all the public meetings and on a board located besides the complaint box at the landfill camp.
- 3- Phone calls and emails: the instruction board above the complaint box will contain phone numbers of the JSC-KRM (Telephone: +97082076001, Fax: +970820776008) and the mobile number of the social specialist (+970597652008) and email address of JCKRM (jsckrm2014@gmail.com) and the email address of the social specialist (eqandeel.jsckrm@gmail.com). Those will also be disseminated to the public through the Project Facebook page and in community meetings.
- 4- Online application: a website for the JSC is under construction and it will contain a link to an online grievance application to be filled by the different communities all the time.

Acknowledgment for receiving the complaint will be offered to complainant in 2 business days from receiving and then 5 business days will be taken to resolve and close the complaints under the direct control of the projects and the contractors. Longer period might be needed to address complaints that are not under the direct autonomy of the project and in such cases, the complaint will be diverted to the concerned parties and feedback will be offered to the complainant accordingly.

As soon as the grievance received the following steps will be followed to apply the process:

- 1- Sort and process: the grievance will take a serial number. The compliant urgency will be checked using the priority sheet.
- 2- Acknowledge and follow up: the complainant will receive a confirmation SMS that his/her complaint was received and is being handled using the GRM process.
- 3- Verify, investigate and act: the PDSU-MDLF, and TOU-JSC teams will verify and investigate about the grievance in the field and send a reply back to the complainant to inform about the response and the solution, this will be according a certain time plan for every action as mentioned above.
- 4- Monitor and evaluate: the JSC-KRM social specialist will check the satisfaction of the complainant through monitoring plan and then record all the process in the monthly report.
- 5- In case, the complainant can declare about his/her dis-satisfaction with the response of the tier one channels mentioned above, and submit another complaint for a higher level in the JSC-KRM. The social specialist will report about the problem, its solution, the person/the department who contributed in solving the problem and then the comments of the complainant on the provided solution. The executive manager of the JSC-KRM will receive the report and investigate it, then take an action, and report it to r the chairman of JSC-KRM, to be involved in the action.

Note: the chairman of the JSC-KRM is a Mayor who had authorization to take any action in the southern and middle governorates with cooperation with any other entity (municipality, governmental associations, NGOs,..), so involving the chairman will ensure the fairness of the solution.

SITE
Stockpiling Location
Access Road

1. Enas Qandeel
2. Samir Matar
3. Social Committee

Compile and File
Complaints

Follow-up Responce
to each complaint

Monitor, evaluate and provide feedback.

Document and maintain photographic archive.

Figure 7: Schematic GRM Relationship Chart for the Material Stockpiling Activities

5. Summary of Specific Mitigation Measures

Table (4) provides the summary ESMP table for the stockpiling process. It includes measures that are currently applied during construction of the sanitary landfill) as well as measures specific to the stockpiling operation.

5.1 Monitoring of Effectiveness of Mitigation Measures

Implementation of the mitigation measures will be monitored during the stockpiling process by PDSU and TOU (visual monitoring, checking of logbook, interviews with contractor's staff). The Environmental and Social Management Plan is considered a flexible and dynamic document which can be updated every time according to the situation and the new unforeseen impacts. New additional mitigation measures will be implemented and monitored when needed.

Table 4. Summary of Environmental and Social Management Plan for the Temporary Stockpiling of Subsoil.

Potential Impact	Proposed Mitigation Measures	Implementation Responsibility	Compliance Monitoring Approach	Monitoring Frequency	Responsibility for Compliance Monitoring
	Storage of spoil away from the drainage pattern.	Contractor	Visual observation	Once a week, Monthly for Same point vantage photographs	Supervision, MDLF, JSC- KRM
Spoil erosion and & Flooding	Ditches around stockpile directing drainage during rainy season away from surrounding agricultural lands.	Contractor	Visual observation	Weekly	Supervision, MDLF, JSC- KRM
Fiooding	The height of stockpile should not exceed 10m with at least 1:2 side slopes and in accordance contractor's approved method statement.	Contractor	Measurements	Weekly	MDLF, JSC-KRM
	Creating at least 1:2 side slopes of stockpile	Contractor	Measurements	Weekly	Supervision, MDLF, JSC- KRM
2. Noise produced due to	Limiting the stockpiling work to daytime only	Contractor	Visual observation	Weekly	Supervision, MDLF, JSC- KRM
trucks work	Regular maintenance of trucks	Contractor	Visual observation	Twice a month	Supervision, MDLF, JSC- KRM
	Closing the stockpiling land with a sediment barrier/wind breaker with not less than 2m height	Contractor	Visual observation for any maintenance	Installation during first 2 weeks of operation, weekly monitoring of fence integrity.	Supervision
Air quality contamination due to the stockpiling and trucks movement	Wet of cover securely stockpiles of materials during windy or rainy conditions	Contractor	Visual inspection	In dry, windy, and rainy days	Supervision
trucks movement	Covering the transferring spoil trucks in windy and dry days in case of receiving complaints	Contractor	Visual inspection	In dry and windy days	Supervision
	Spraying water of stockpile during windy conditions ⁵	Contractor	Visual inspection	In dry and windy days	Supervision
	Complying with wearing the protective clothes especially masks and helmets.	Contractor	Visual inspection	Weekly	Supervision, MDLF, JSC- KRM
4. Workers Safety and Health	provide first aid kits in each vehicle	Contractor	Visual inspection	Weekly	Supervision, MDLF, JSC- KRM
	Conducting induction OHS training for workers	Contractor	Visual observation	once	MDLF, JSC-KRM

⁵ **Source of water**: The water will be transferred by tanker vehicle from the nearest municipal water well (3 km distance). The used quantity of water is not significant and it will not affect water availability.

Potential Impact	Proposed Mitigation Measures	Implementation Responsibility	Compliance Monitoring Approach	Monitoring Frequency	Responsibility for Compliance Monitoring
	Installing safety signs around the site	Contractor	Visual observation	Weekly	MDLF, JSC-KRM
	Restriction the access of unauthorized people	Contractor	Visual observation	Weekly	MDLF, JSC-KRM
5. Vehicles safety	Using appropriate vehicles, loader should be available in the stockpiling site	Contractor	Visual observation	Weekly	MDLF, JSC-KRM
	Maintain safe clearance from steep slopes	Contractor	Visual observation	Weekly	MDLF, JSC-KRM
6. Contamination by Hazardous materials (oil, fueletc)	Regular maintenance/filling fuel of the used vehicles outside the stockpiling place	Contractor	Visual inspection	Weekly	MDLF, JSC-KRM
7. Land use changes	The upper 1m excavated topsoil to be stored separately; use layer for new stockpiling location after decommissioning to mitigate impact of lengthy storage periods.	Contractor	Visual observation	Weekly	MDLF, JSC-KRM
	Define accessible and convenient complaint channels and raising community's awareness of it.	JSC-KRM Al-Fukhari Municipality	Logbook	Daily	MDLF, JSC-KRM
	Information sharing and with the community including periodic updates and feedback.	JSC-KRM Al-Fukhari Municipality	City hall meetings, Field meetings	monthly	MDLF, JSC-KRM
8. Inconvenience of residents/farmers	Sort, process, and communicate complains to respective parties (contractor) and follow up action.	JSC-KRM Al-Fukhari Municipality	Monthly Report	Daily	MDLF, JSC-KRM
	Maintain visual and written record of community complaints and responsive actions.	JSC-KRM Al-Fukhari Municipality	Monthly Report	On demand	MDLF, JSC-KRM
	Full Restriction from access any unauthorized people to the stockpiling site	Contractor	Visual inspection	weekly	JSC-KRM, MDLF
	Indicative signs around the site and access road	Contractor	Visual observations	monthly	Supervision Engineer, MDLF, JSC-KRM
9. Traffic jam due to heavy	Strict monitoring of the road congestion as part of the monitoring plan	Contractor	Logbook	Daily	Supervision Engineer
use of the access road of the stockpiling site	Manage movement of incoming/outgoing SW Municipal trucks into landfill and avoid conflict with earth work / outgoing earth material haulers	Rafah Municipality JSC-KRM	Visual observations	Daily	Supervision Engineer, MDLF, JSCKRM