

APPENDIX C
BORROW PIT MITIGATION

Opening and operating of borrow pits can result in multiple environmental and social impacts, including degradation of productive soils, elevated levels of noise, degradation of air quality, etc.

Mitigation Measures

Several mitigation measures are recommended for borrow pits:

- If the Contractor intends to use borrow pits operated by an independent organization then a due diligence review will be carried out by the Engineer to confirm that the new site identified for use by the Contractor is indeed operating or operable in an appropriate manner. This will include review of the borrow pits operational license and its potential environmental impacts, such as its proximity to sensitive receptors. A copy of the agreement between the operator and the Contractor will also be provided to the Engineer.
- For any new borrow pit to be opened and operated by the Contractor, the Contractor will be responsible for preparing an initial environmental and social screening report of the proposed site to determine if an EIA of the site is required in line with Georgian legislative requirements. The screening report will be submitted to the RD and Engineer for review.
- For any new borrow pit opened and operated by the Contractor a Borrow Pit Action Plan (BAP) will be prepared. The BAP will be submitted to the Engineer prior to the start of construction. The plan will identify the locations of all proposed borrow pits which will also be approved by both the Engineer, MoEPA and the RD. The plan will include items relating to:
 - Pit restoration will follow the completion of works in full compliance with all applicable standards and specifications.
 - Arrangements for opening and using material borrow pits will contain enforceable provisions.
 - The excavation and restoration of the borrow areas and their surroundings, in an environmentally sound manner to the satisfaction of the Engineer will be required before final acceptance and payment under the terms of contracts.
 - Additional borrow pits will not be opened without the restoration of those areas no longer in use.

While operational, the Contractor will ensure that the following conditions are met at his borrow pits:

- Loss of top soil - Before the materials extraction the layer of top soil (about 20 cm) will be removed to the side of excavation area and kept until the area works will be finalized. Top soil stockpiles will be located at least 50 meters distance from any watercourses to avoid water siltation and obstruction. The height of stockpiles will not exceed three meters to avoid wind erosion and dust emissions.
- Fencing – if the Engineer deems the site to be hazardous to the local community (for example a pit could fill with water and people and animals could drown in it) he will request the Contractor to fence the site to prevent access and provide warning signs on the fencing.
- Soil compaction and disturbance to local flora and fauna species at access roads - The Contractor will take responsibility to provide an access road to the borrow site and all drivers will be instructed to use only this officially designated road. This will help to avoid additional soil compaction and disturbance to the local fauna species.
- Reinstatement - Full site reinstatement will be undertaken by the Contractor to avoid landscape damage and habitat loss. Rehabilitation measures will include: removing of all types of equipment from the site; removing of all types of waste or/and polluted soil and materials if any exist; slops grade reduction with use of unsuitable stockpiles and uncrushed rocks and; slope stabilization measure such as re-covering with top soil, and further seeding, grassing and planting of appropriate bushes or/and trees if reasonable.

- Haul Routes - Due to the sensitivity of the borrow pit locations, the Borrow haul routes will follow established transport corridors/rights-of-way, to the extent that is practicable. The routes will be indicated in the Contractors TMP. Haul routes shall not pass within protected areas or reserves.