

SECTION 7

MITIGATION MEASURES AND RESIDUAL IMPACTS

7.1 GENERAL

Recommendations for possible preventive, remedial or compensatory measures will be made for each of the adverse impacts evaluated as significant. Particular attention will be given to issues mentioned in Section 6. These recommendations will be made based on discussions with the project proponent and professional judgment for the control of pollutants into the environment.

The primary objective of mitigation and control is to ensure that the impacts due to the project development are minimized or fall within acceptable limits so as to render it acceptable to the Department of Environment and other authorities.

Mitigation will consist of a number of related actions, many of which may consist of no more than ensuring effective management and control of site operation. Mitigation measures can take many forms, including the following:

- **Preventive:** to be addressed during the pre-feasibility study and planning stage including site selection, exclusion of areas identified as having high environmental risks e.g soil erosion and flooding, provision of the buffer zone and alternatives for development method.
- **Control:** to be addressed during development and operational stages and related to working practices such as implementing zero burning method instead of open burning, provision of erosion and sediment controls, air pollution, wastes, etc.
- **Compensatory:** whereby it is recognized that there will be an impact and that some compensation for the loss is to be made. This could include a specific contribution towards local conservation.
- The mitigation measures will also take into consideration of Land Disturbing Pollution Prevention and Mitigation Measures (LD-P2M2).

7.2 POTENTIAL MITIGATION MEASURES

Based on the preliminary qualitative assessment of the various potential impacts of the Project, the typical best management practices that may be utilized for this Project are described below.

Air Quality: Typical best management practices or mitigation measures may include the following:

- Design land clearing into manageable parcels instead of large scale clearing;
- Wetting of dry and dusty surfaces and/or roads throughout site;
- Provide temporary covers to stockpiles of dusty materials;
- Maximize the use of paved road throughout the site; and
- Use efficient equipment and machineries and provide regular maintenance

Noise: Typical best management practices or mitigation measures may include the following:

- Design land clearing into manageable parcels instead of large scale clearing;
- Programme to avoid noisy activities during noise-restricted hours;
- Maximize the use of paved road throughout the site;
- Maximize use of noise reducing materials for roads throughout site;
- Use of noise dampeners and barriers where required;
- Use efficient equipment and machineries and provide regular maintenance

Water Quality: Typical best management practices or mitigation measures may include the following:

- Contain discharges of polluted water from entering river and watercourses;
- Provide appropriate water treatment systems;
- Provide bunds or barriers to minimize polluted water from entering river and watercourses;
- Minimize land clearing into manageable parcels;
- Provide proper temporary site drainage;
- Provide domestic sewage treatment facilities for workers; and
- Preserved river buffer zone to reduce sedimentation in the river system.

Hydrology / Flood risk: Established cover crop on bare area will improve soil infiltration to reduce the surface runoff and peak flow. Implementation of LDP2M2 tools is some of the possible measures that can be considered to address this impact.

Erosion risk: Best management practices including slope protection, hydro seeding exposed surfaces, silt traps, silt fences, etc are some of the possible measures that can be considered to address this impact.

Waste Management: Proper implementation of waste management practices such as provision of proper collection mechanisms and disposal sites can be considered.

Ecology: Measures may include setting buffer zones to areas of identified high ecological risks, control of noise, air and water pollution can be considered to address this aspect.

Traffic: Appropriate traffic management measures may be considered where required.

Socio-economy: Implement effective Communication, Education and Public Awareness (CEPA) programme.