

5.7 RECOMMENDATIONS

Based on the findings of the ground investigation and subsequent slope stability analyses, the following recommendations are made:

- It is advised that visual inspections are carried out on the slopes at a frequency of no less every six months and at least once following inclement weather such as extremely heavy rain, snow fall, or flooding of the River Faughan (1 in 100 year flood). It is further advised that the inspections are carried out by a suitably qualified and experienced geotechnical engineer, and that records of the inspections and any findings should be recorded. This will aid in early identification of any potential failures thereby allowing for remedial works to be undertaken before a failure occurs.
- Where defects are noted following inspections, professional services should be sought to repair the lagoon embankments
- The decoupled pipe identified in Section 5.5.6 should be fully repaired such that no leakage onto the embankment slopes occur. Alternatively, inflow of water to the pipe must be fully prevented or diverted away from the lagoon area.
- The current measures in place for controlling water levels within each lagoon should be reviewed. Measures (e.g. new drainage) to control the volume of water retained within the lagoon at no more than half capacity, for extended periods greater than a week are recommended. Site visits and observations made during the ground investigation suggest that the level of the lagoons is not well controlled and water levels appear to have been observed higher than as shown on the topographical survey. Discussions should be undertaken with the owner (W&J Chambers) regarding the lagoons, to ascertain the drainage controls, maintenance of the lagoons and dredging of concrete wash deposits.
- Erosion protection measures, such as natural geo-textiles, should be implemented along the river bank and Lagoon 3 embankment.
- To mitigate against the risks posed to the River Faughan, it is advised that any new Lagoons are located away from the river and designed and installed by qualified parties.