It is recommended that the condition grading of assets be on an asset specific approach. 'Asset Specific' means that the objective is to study each and every asset to derive the best assessment of its condition and hence the anticipated remaining life. In this way the DMAT can determine its medium to long-term investment strategy with a high degree of accuracy and confidence.

Each asset shall be condition assessed for each of its its key component parts, which represents the costs drivers. These parts will be allocated their appropriate condition grade fields within the GIS database, which forms the Asset Register.

The investment study methodology shall take risk into consideration but only after condition grading has been carried out.

6.18.1 Methodology for Above Ground Asset Surveys/Condition Grading

The following methodology may be followed on above ground asset surveys and condition grading:

- Extract latest data from GIS files – pumps, motors, valves, tanks, meters, pipe work, etc.
- Identify additional data required for Asset Management Planning (AMP).
- Access latest as built/refurbishment contract documents and compare data with GIS and note and record any anomalies.
- Visit Contractor and discuss plant/data available/updates with discipline engineer.
- Visit site to verify key data sets and identify any minor works undertaken since last as built/major refurbishment/GIS record.
- Condition gade all assets on site in accordance with condition grading criteria. Refer to Section 6.18 for more details on asset grading, and to Appendix C-1 for the criteria. Allocate a confidence grade alongside the condition grade, in order to give an indication of the accuracy of the condition grade. For details on confidence grading, refer to Appendix C-3.
- Check reference numbers against those allocated by CMMS, if available.
- Complete asset data update sheet for each identified asset.
- Prepare Asset Register spreadsheet of updated/additional data and forward to GIS maintenance center.

A typical asset survey sheet is shown in Appendix C-2, along with summary sheets for MEICA assets. Additional attribute fields may be required in the GIS to accommodate the data required for AMP. Data for buildings and site details may not be available from the GIS. Therefore this information shall be obtained from as built records and site inspections and held in a temporary database until a decision is made on a permanent solution within the GIS.

6.18.2 Methodology for Underground Asset Survey

The main purpose of this exercise is to verify the location, material, diameter, and depth of the pipeline and to condition grade the pipeline and determine asset life. This is required for the development of asset investment strategies/scenarios.

Opportunistic Sampling

In order to determine the life expectancy of pipes and sewers, a sampling system is being established, whereby pipe samples are taken each time a sewer is exposed by