

ABSTRACT

This study was commissioned by Indah Water Konsortium to review the available sewer rehabilitation techniques in the market, with the intention of utilising more suitable methods available to rehabilitate sewers in and around Malaysia. This work presents a review of applicable sewer rehabilitation techniques using trenchless technology. The typical problems faced in the wastewater collection systems are analysed and factors that determine the selection of rehabilitation methods are outlined.

This study also outlines the necessary steps to be taken prior to any rehabilitation work. The trenchless technologies reviewed are repair, renovation and replacement techniques. The advantages and disadvantages of each technique is outlined along with the installation methods of the particular rehabilitation technique.

Finally, the cost effectiveness of various rehabilitation methods was evaluated to identify the economical means in rehabilitation of Malaysian sewers. This study concludes that not all of the trenchless technologies available in the market are suitable for use in Malaysia, mainly due to the incompatibility of the rehabilitation material used. Furthermore, as trenchless rehabilitation generally involves higher capital outlay than open-cut methods, the choice of rehabilitation method has to be made on a case by case basis.