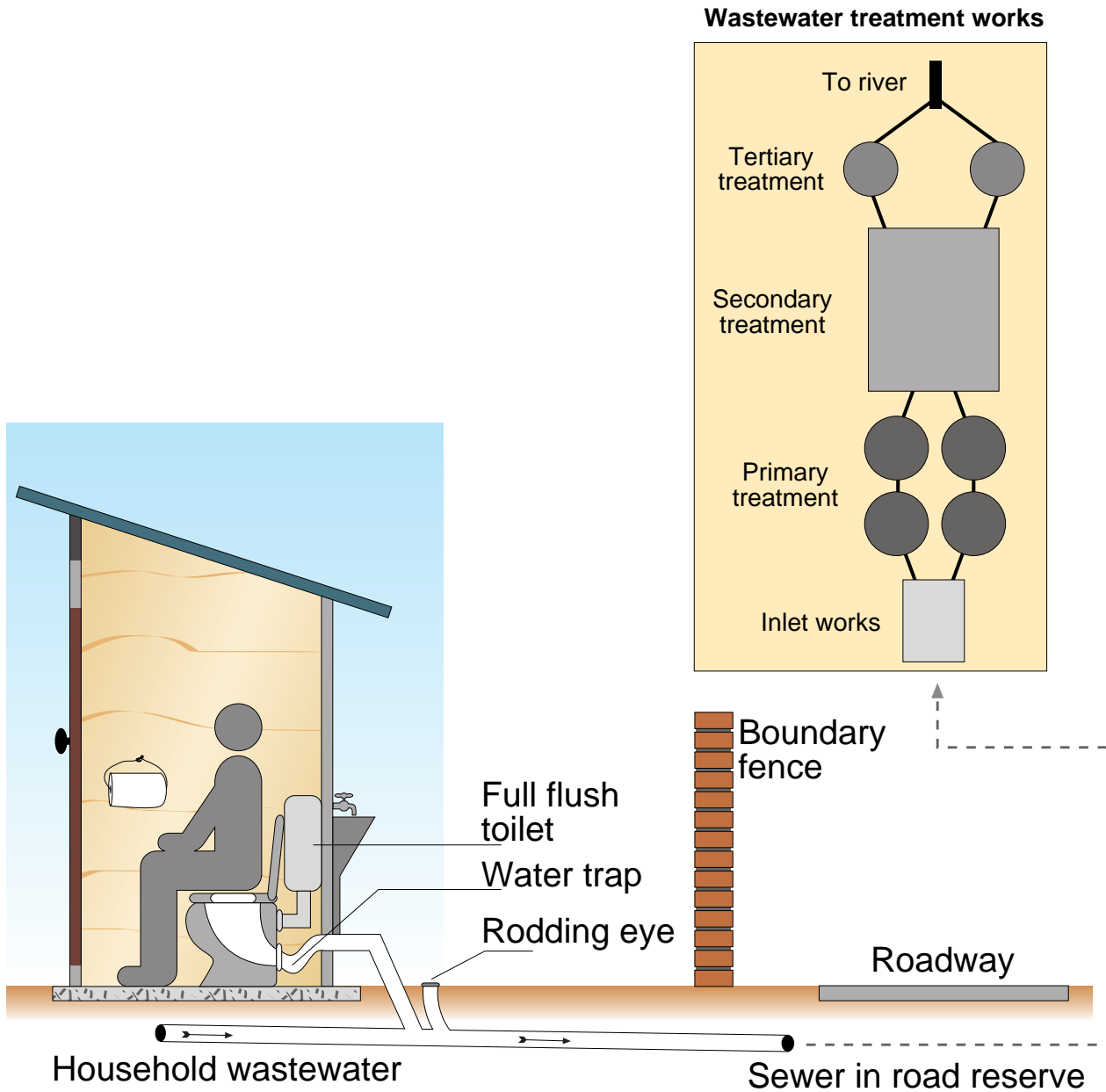


Full bore waterborne sewerage



An in-house full-flush toilet connected to a sewer (pipe) network which drains to a wastewater treatment facility.

Principles of operation	Operational and institutional requirements	Costs	Experience and comment
Waste from the toilet, and possibly domestic wastewater, is flushed using significant volumes of water into the sewer system for removal to a treatment facility. There are several types of such facilities and these treat effluent to high standards prior to discharge into the aquatic environment.	Requires a reliable and uninterrupted household water connection and spatially regular permanent settlements. Specific design criteria must be applied throughout the sewerage network. Skilled, organised and effective operation and maintenance capability is required for sewers and the full functioning of wastewater treatment facilities.	Capital: R6 000-R7 000 taking bulk and sewerage costs into account. Operating: R400-R800 per annum.	Widely used and generally the aspiration of all South Africans although unaffordable to many, particularly in terms of access to sufficient volumes of household water. Appropriate anal cleansing material is required. The health consequences of failure are devastating in comparison to on-site, dry sanitation.