6.2.2. Pumping Station Types

Commonly used types of pumping stations in DMAT jurisdiction are shown in the table below:

Pumping Station Type	Wet Well	Dry Well
outfall	✓	
pedestrian underpasses	✓	
traffic underpasses	✓	
sub-soil drainage	✓	✓
lifting stations	✓	✓
pumping station of the general purpose	✓	✓

Table 6-1 – Commonly used types of pumping stations in DMAT jurisdiction

Wet Well Pumping Stations

Circular wet wells shall be used for pumps with individual flows up to 180 l/s. Rectangular wet wells shall be designed for large pumps with individual flows greater than 180 l/s.

For minimum active volume calculation following equation shall be used:

V=0.25QT

Q – Pump capacity

T – Minimum cycle time specified by pump manufacturer

Dry Well Pumping Stations

Comprising two main chambers: a dry well and a wet well. The minimum active volume of the wet well shall be calculated using equation in Wet Well Pumping Stations section.

For the dry well sizing following shall be considered as minimum:

- Equipment and piping requirement
- Sufficient space for installation of the equipment and piping
- Adequate access for personnel
- Civil Defence requirements

6.3. Mechanical Design

6.3.1. Pumps

Centrifugal pumps shall be used for all storm water pumping applications as follows:

Pump Type	Wet Well	Dry Well
Submersible direct coupled pumps	✓	✓
Submersible axial (propeller)	✓	×

Table 6-2 – Pump types and applications