Water Treatment Plant Process Waste Management
PREFERRED SOLUTION

OPTION 3A has been selected as the preferred option. This option provides partial treatment of the process wastes on site at the Water Treatment Plant and thereby help limit the volume of waste added to the trunk sewer on King Street.

Full on-site treatment of the process wastes costs substantially more and has higher operational complexity and costs.

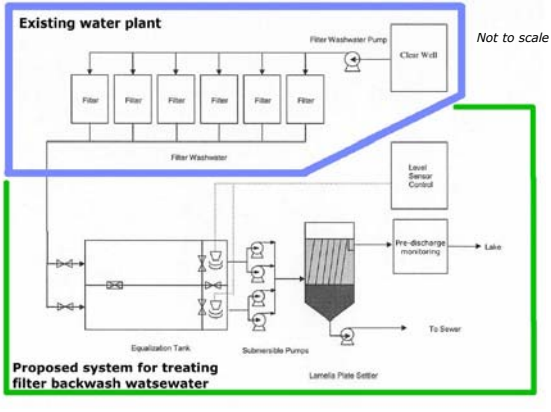
Two specific design alternatives for the preferred option have been examined:

- Option 1: Design the system using batch-operated settling tanks
- Option 2: Design the system using a flow equalization tank followed by a lamella-plate gravity clarifier

Option 2 has been selected because of it presents slightly lower cost as well as simpler operation with less instrumentation and process control. Also, use of lamella-plate clarifier will provide better performance than batch settling tanks

The figure below is a schematic diagram of the proposed treatment process for the filter backwash wastewater.

King Street West Water Filtration Plant
Preferred Concept for Treating Filter Backwash Wastewater
PROCESS SCHEMATIC DIAGRAM



Water Treatment Plant Process Waste Management
FACILITY DESIGN AND CONSTRUCTION

The location of the proposed system at the water plant to treat filter backwash wastewater is shown on the aerial photo plan below **(Figure 14)**.

Figure 15 shows also the location of the proposed works, as well as the proposed route for temporary construction access road from King Street. This access will also be used during construction of the proposed underground tank.

Figure 14
Location of proposed works in the King Street West area