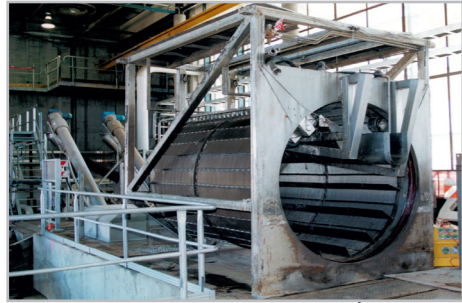


Wastewater - how the treatment plant works

Mangere Wastewater Treatment Plant

1 Primary Treatment

Raw wastewater first passes through screens which extract larger waste materials. The grit tanks remove grit and sand. Primary tanks separate the bulk of the solids from the liquid waste.



A stainless steel fine screen prior to installation



Primary sedimentation tanks

2 Secondary Treatment

As well as further separating solids and liquid, reactor/clarifiers remove nutrients - in particular nitrogen - which can be harmful to the environment.

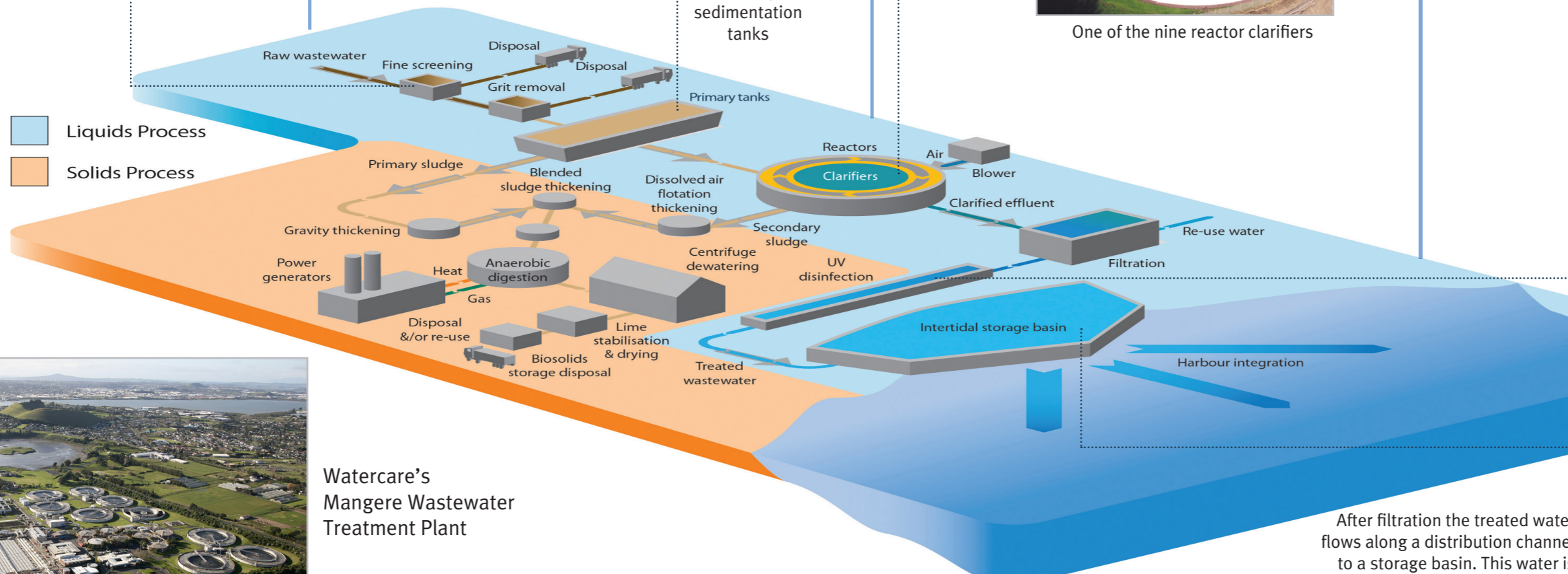


One of the nine reactor clarifiers

3 Tertiary Treatment

The wastewater is filtered and disinfected using ultraviolet (UV) light, which destroys bacteria and viruses, before it is conveyed to the intertidal storage basin.

Inside the ultra violet (UV) treatment plant



Watercare's Mangere Wastewater Treatment Plant



After filtration the treated water flows along a distribution channel to a storage basin. This water is pumped out twice daily at high tide into the Manukau Harbour.