

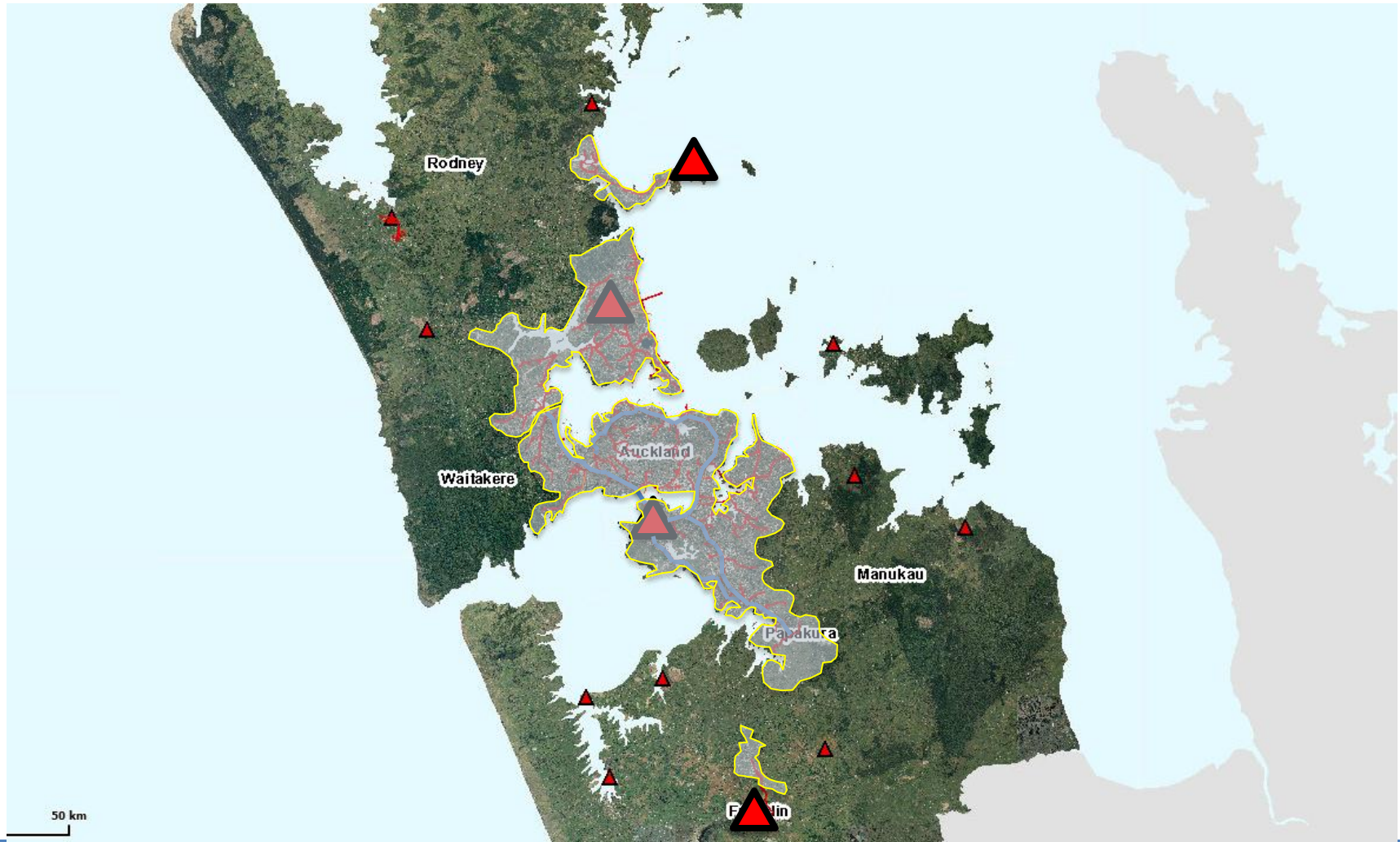
Mangere WWTP

March 2015

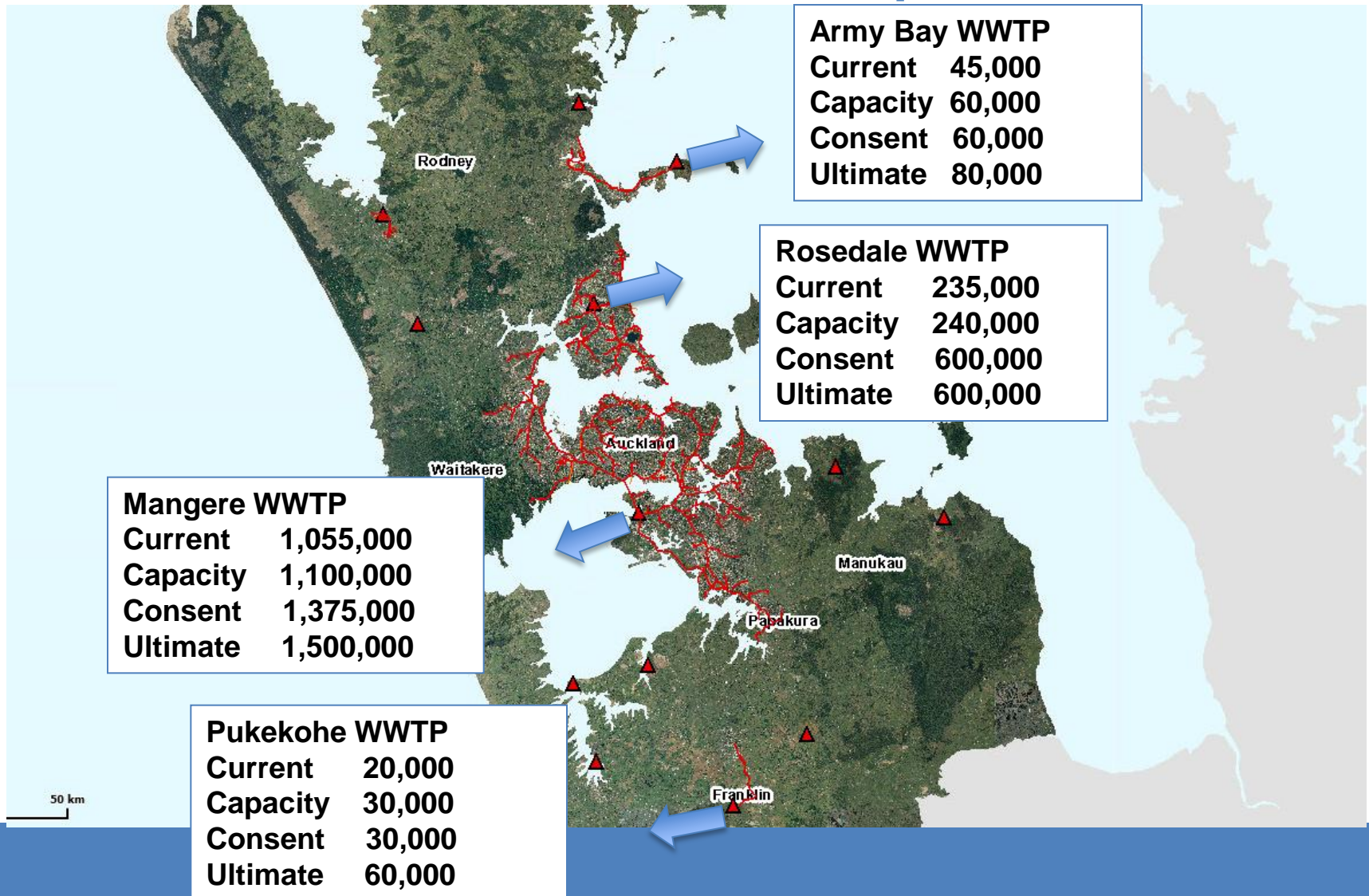
Mark Bourne – Operations Manager Wastewater



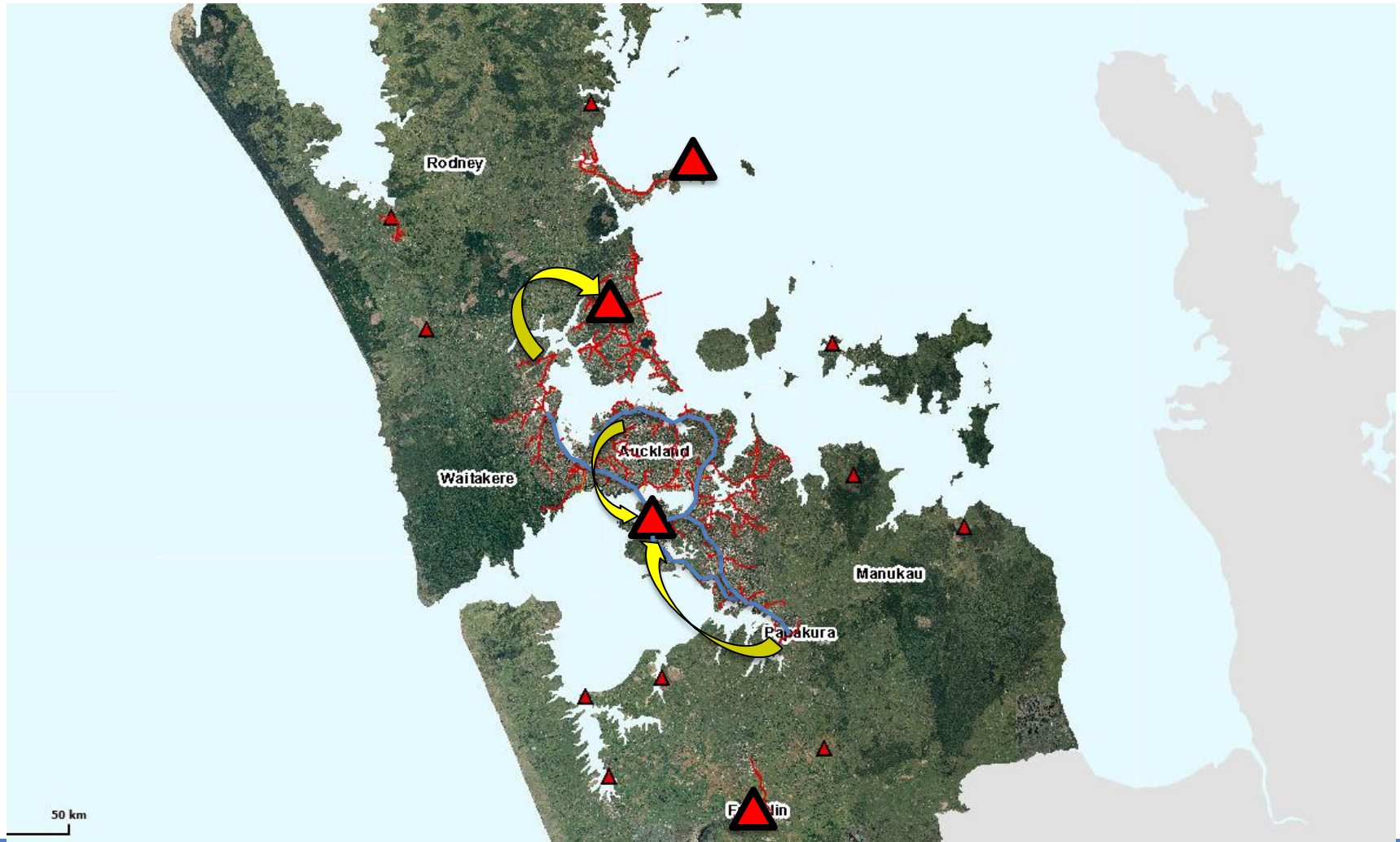
Urban WWTPs Service Areas



Urban WWTPs Population



Interceptors



Mangere WWTP Then to Now

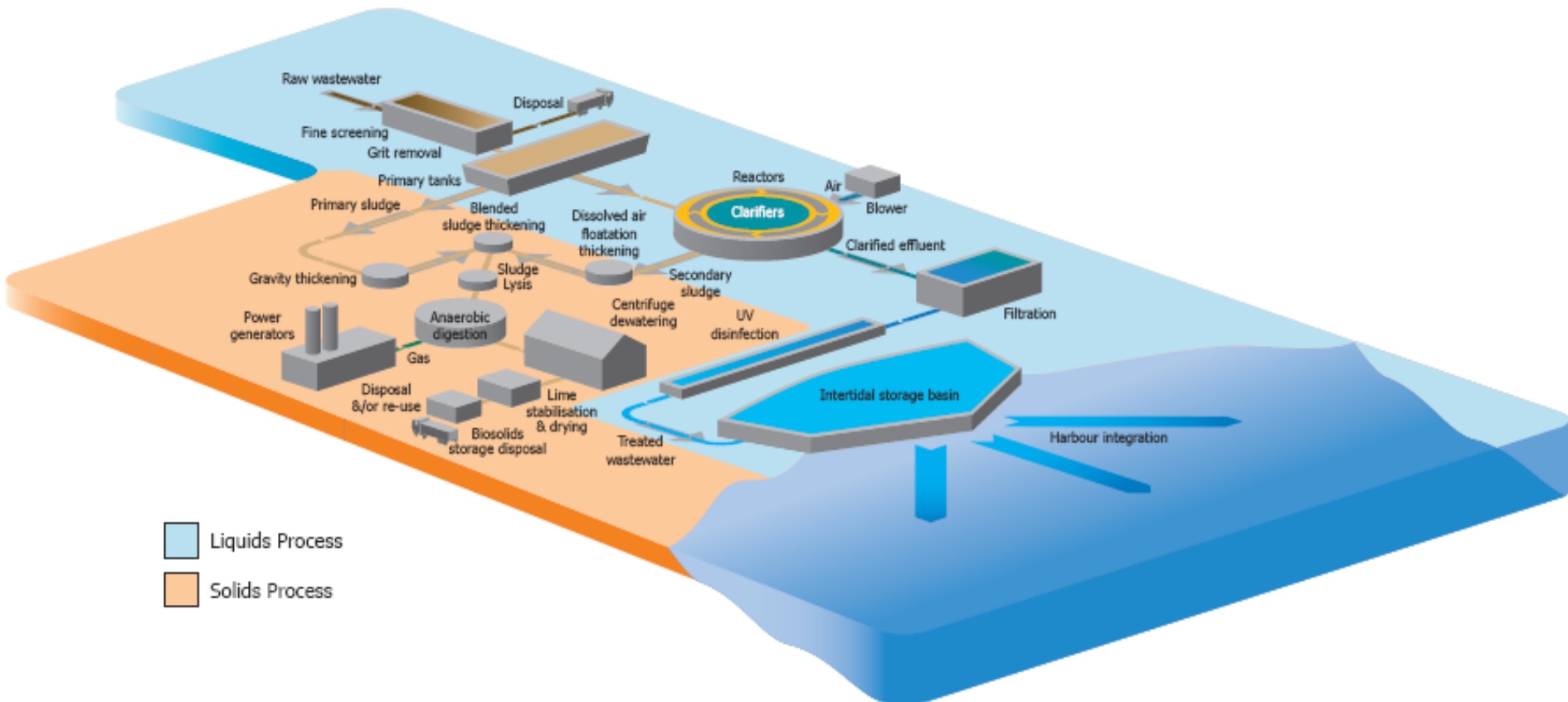


Pre - 2002

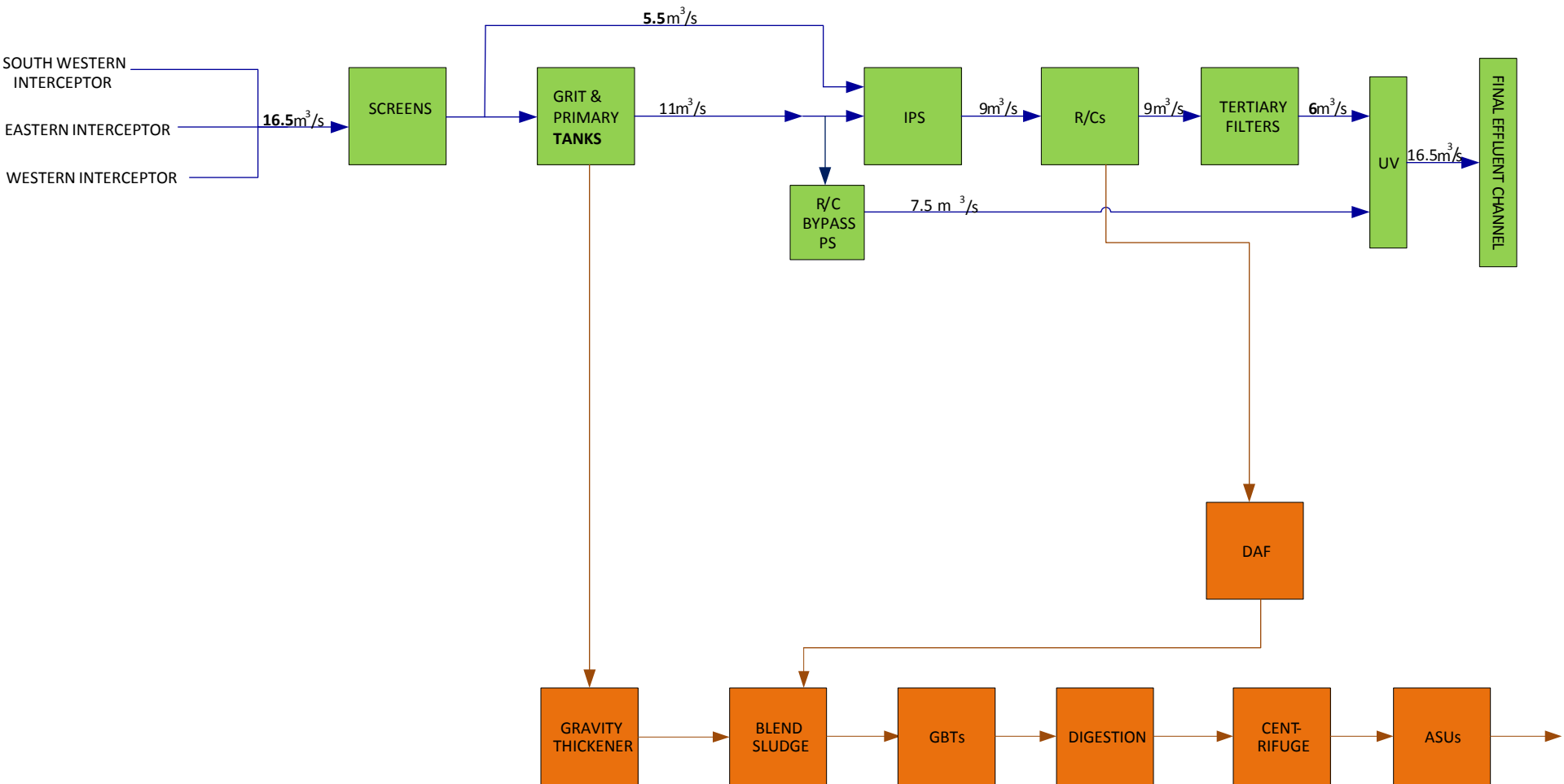


Post - 2002

Mangere Wastewater Treatment Plant



Current Peak Flow Configuration



Treatment Summary

- All incoming wastewater receives preliminary treatment, UV disinfection & at least one other process
- 97.8% of time flows receive total treatment
- Primary treatment removes 60% solids & 40% BOD
- Secondary treatment removes nutrients and remaining solids & BOD
- Filtration removes particulates
- UV disinfects for public health



Improved Manukau Harbour

- Independent analysis confirms improvement to Harbour post upgrade
- Significant reductions in nutrients
- Improved dissolved oxygen levels
- Sediment contaminant levels are low by regional comparison
- Former Pond area are being colonised by sensitive species

Plant Performance

- Very high level of compliance with consent conditions
- Over past seven years:
 - 4 total nitrogen non-compliances
 - 12 ammoniacal nitrogen non-compliances
 - 4 UV disinfection non-compliances
 - 2 pH non-compliances
 - 1 BOD, solids & dissolved oxygen non-compliance
- Caused by wet weather flow conditions, reactor and aeration blower performance

End