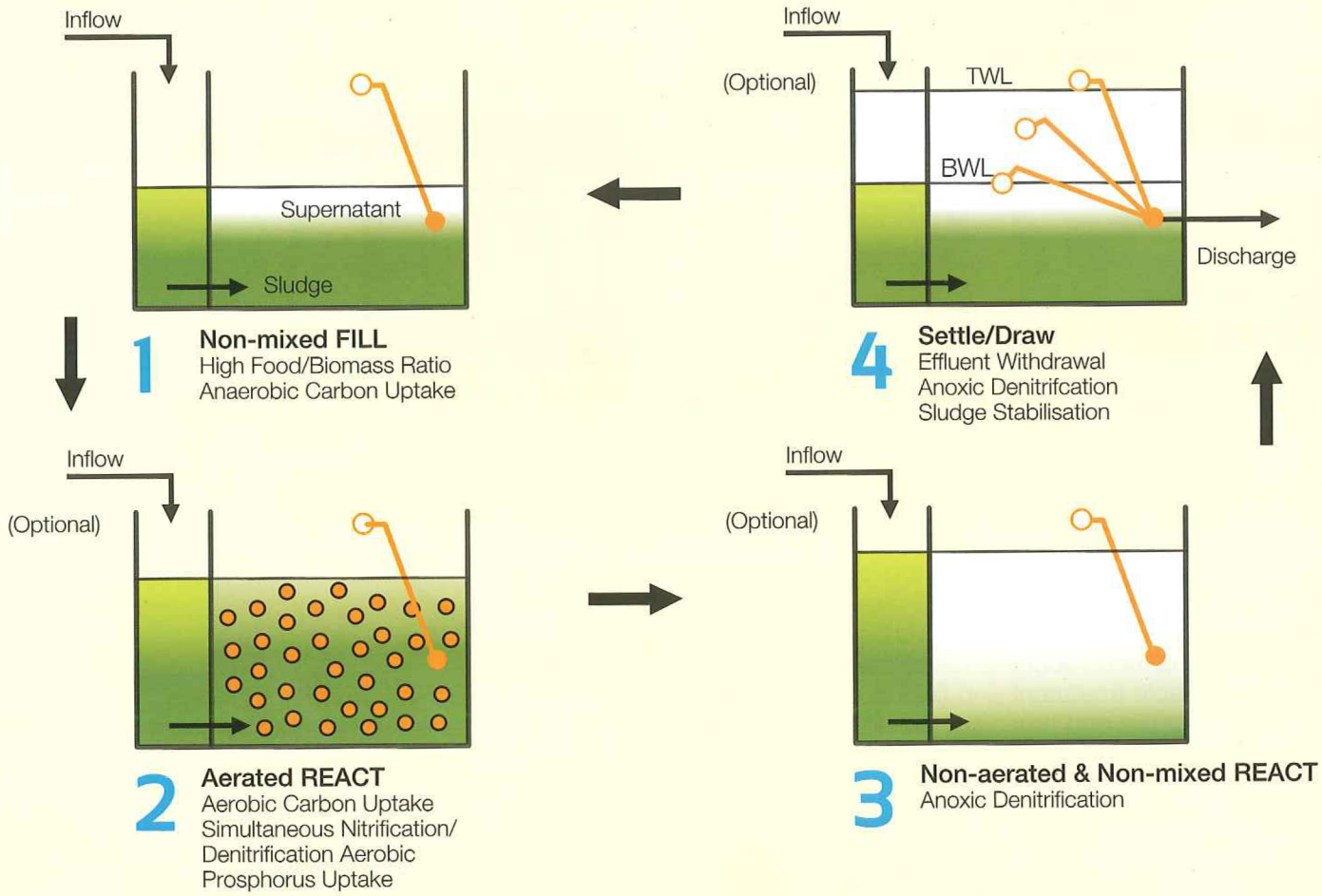
TTP in collaboration with our foreign partner, offers the Second Generation and Third Generation SBR system for effective wastewater treatment solutions.

Second Generation - Sequential Batch Reactor (SBR)

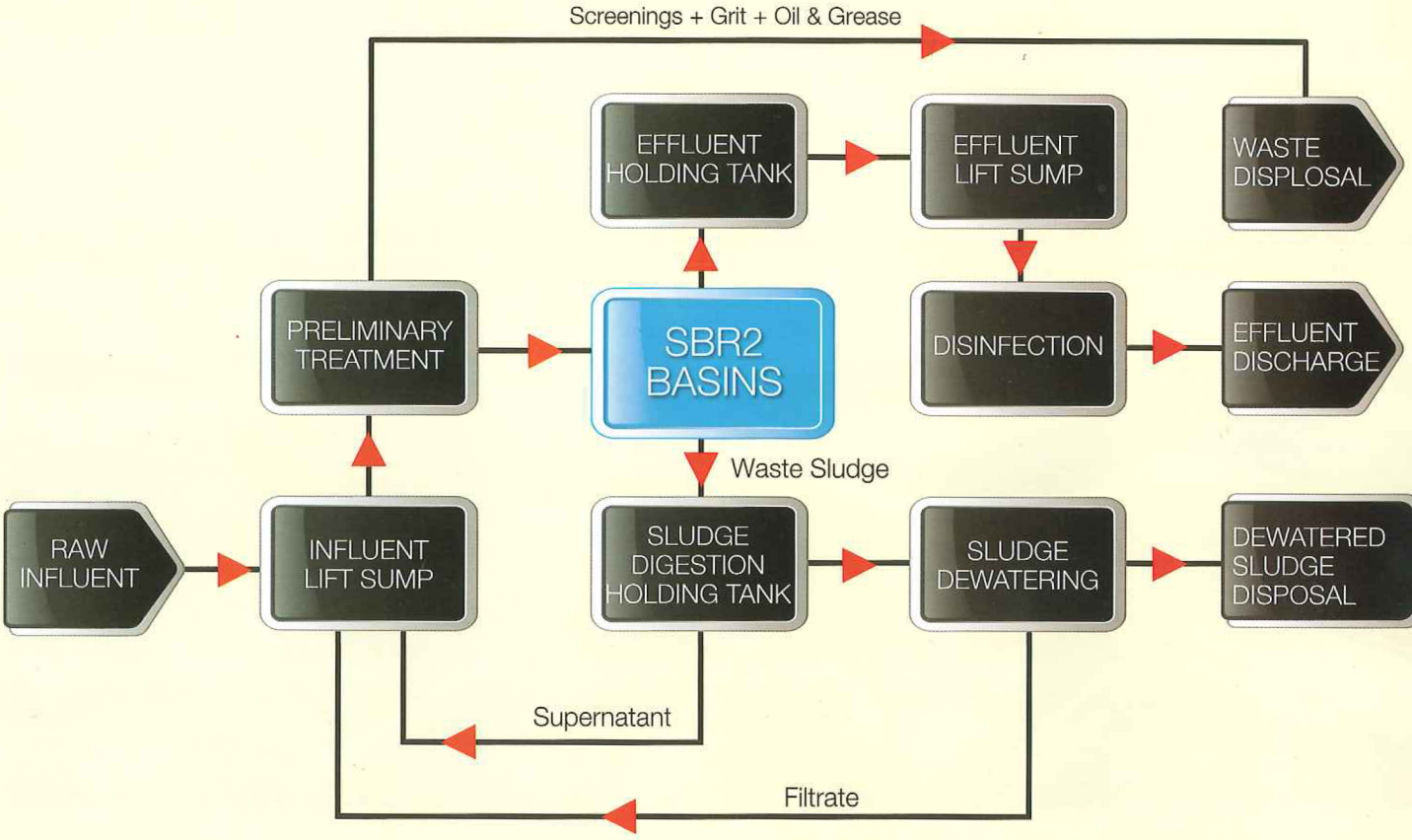
(Kingsford SBR2™)

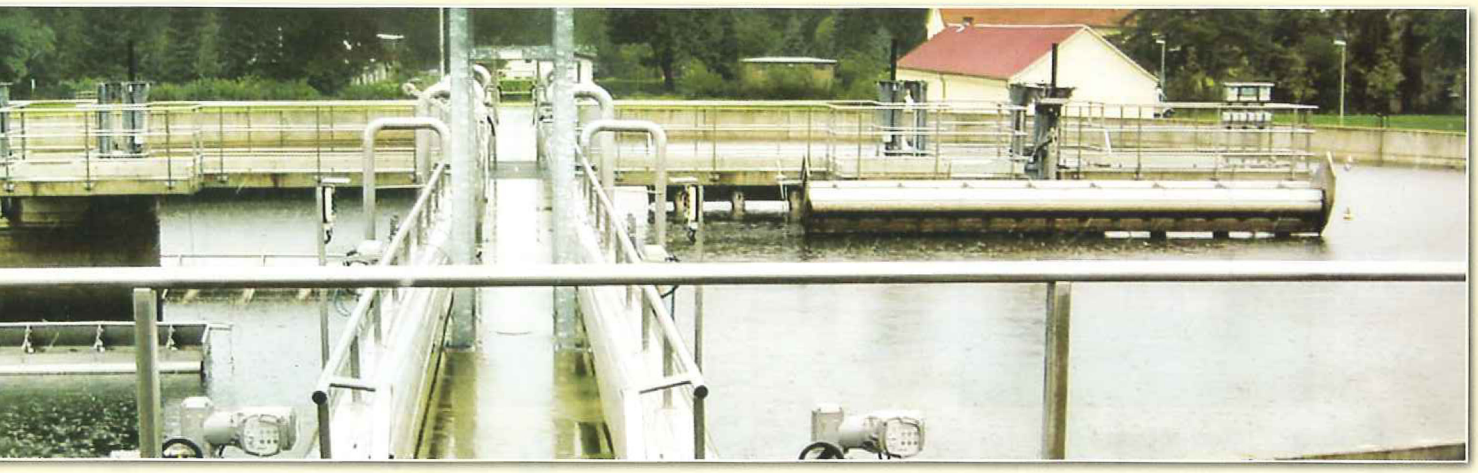
This process includes the most advanced biotechnologies and equipment to create more efficient biological nutrient removal and less sludge foaming and bulking problems. The process combines control of initial high floc-load plug-flow conditions to enhance microbial selection with subsequent complete-mix operation to favour simultaneous nitrification-denitrification. The specialised equipment includes the variable speed surface skimming decanter and a specialised PLC control system. The 2nd Generation SBR process maintains simplicity, flexibility and cost-effectiveness of the original SBR technology as compared to conventional activated sludge processes.

SBR2™ Reaction Cycle



SBR2™ Process Flow Diagram





Benefits and Advantages

- Efficient biological process based on advanced biotechnologies
- Effluent quality similar to tertiary treatment at less cost
- Requires much less space than conventional systems
- Fully automatic and simple to operate
- Flexible time-oriented process control to handle variable load and inflow
- Mechanically reliable and uncomplicated operation
- Substantial cost savings over conventional activated sludge processes
- Provides continuous acceptance of influent wastewater flows
- Provides reliable treatment and flexible operation over a wide range of organic & nutrient loadings
- Tolerate hydraulic and organic shock loads, can also process sustained peak wet weather inputs of up to 6 times the average dry weather flow
- Provides low cost biological nitrogen and phosphorus removal
- Flexibility for modular and retrofitting expansion
- Produces a well settling sludge and the option of further sludge stabilisation, if required
- Provides a simple, reliable, automatic & flexible wastewater treatment process within a single basin