

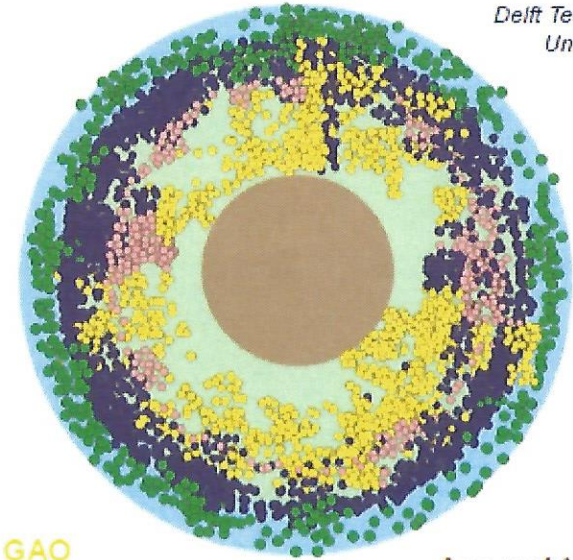
Aerobic Granular Sludge



Dense Granules
Settle in 5 mins



- 75% Less Space
- 40% Less Energy



Picture Courtesy
Delft Technical
University

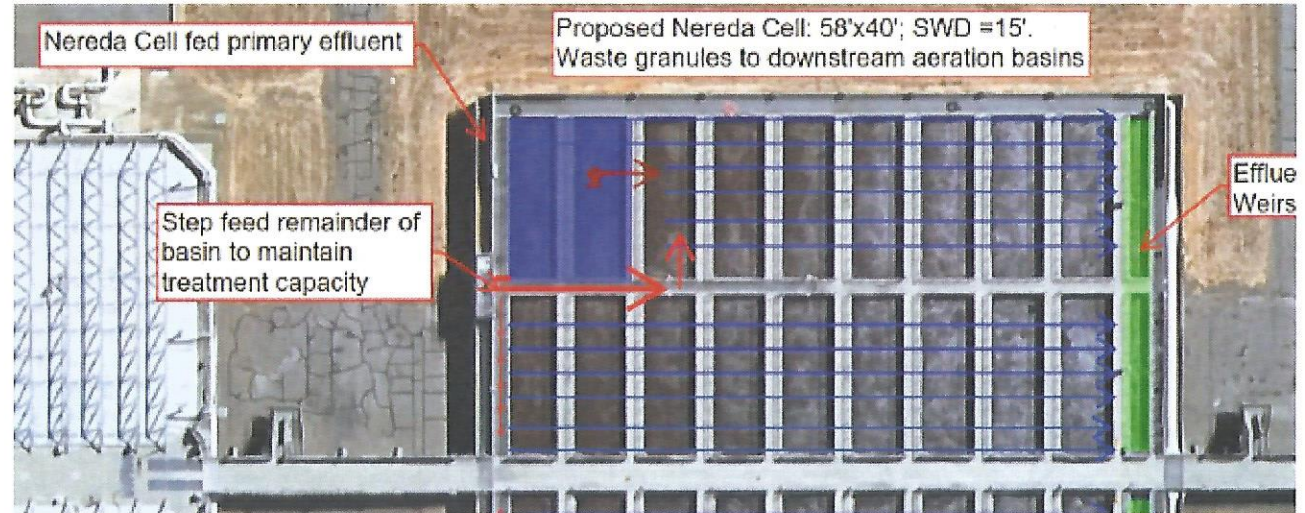
AO / GAO
denitrifiers
nitrifiers

Anaerobic
Anoxic
Aerobic

Aerobic Granular Sludge
Layered Microbial Community

AECOM

Fairfield-Suisun Demonstration Site



- Utilize Existing Aeration System (Blowers and Diffusers)
- Add Influent Distribution Grids and Effluent Weirs
- No Other Equipment or Chemicals

Full Scale Demonstration Goals

- Reliable Nutrient Removal
- Stress Test and Optimize
- Energy Efficiency and Low Cost
- Suitability for US (Bay Area)
- Quantify Capacity
- Regulatory Acceptance
- **Effect of Shallow Tanks**

Budget, Timing & BACWA Role

...building a consortium

Water Research Foundation Collaboration



- Tailored Collaboration Program with WRF to demonstrate AGS at full scale **“Good Housekeeping Seal”**
- AECOMs Pre-Proposal Accepted
- Up to \$100K in matching funds
- Goal – Secure partners & submit proposal for full scale demonstration by May 1st *...or as soon as possible thereafter*

Proposed Sources

- WRF \$100K
- BACWA member “Earmarking” \$300K
- Other (In Kind) \$200K

Proposed Uses

- Retrofit Cost ~ 80%
 - Operating Expense ~ 20%
- Original Figure – May be 2x**