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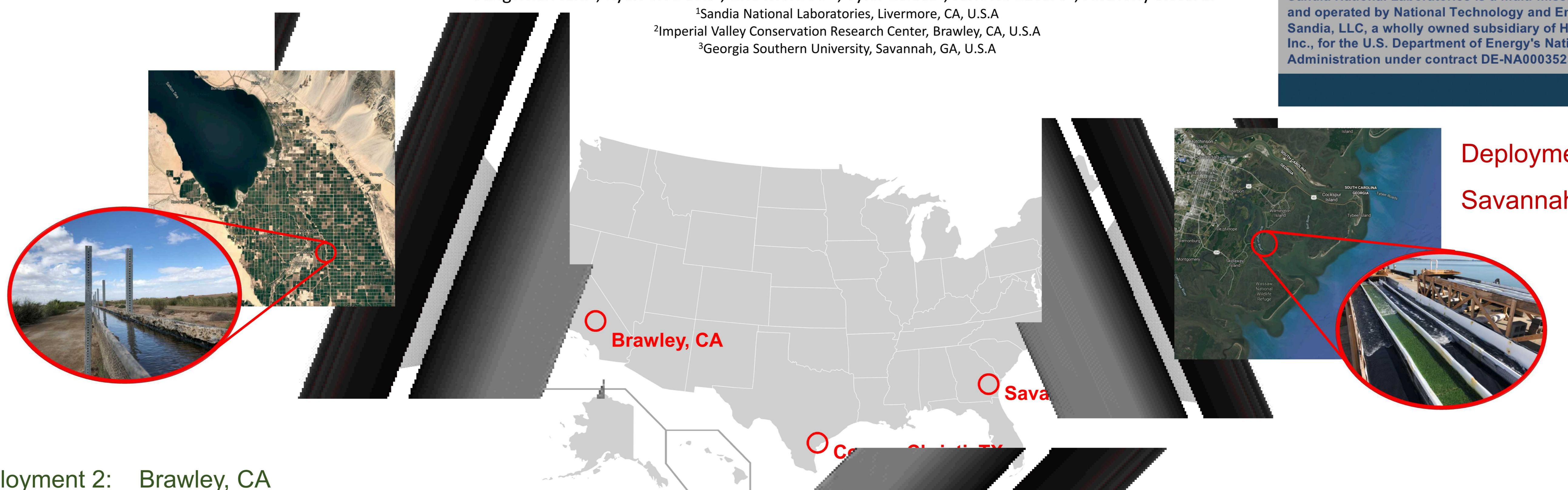
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Deployment 2: Brawley, CA

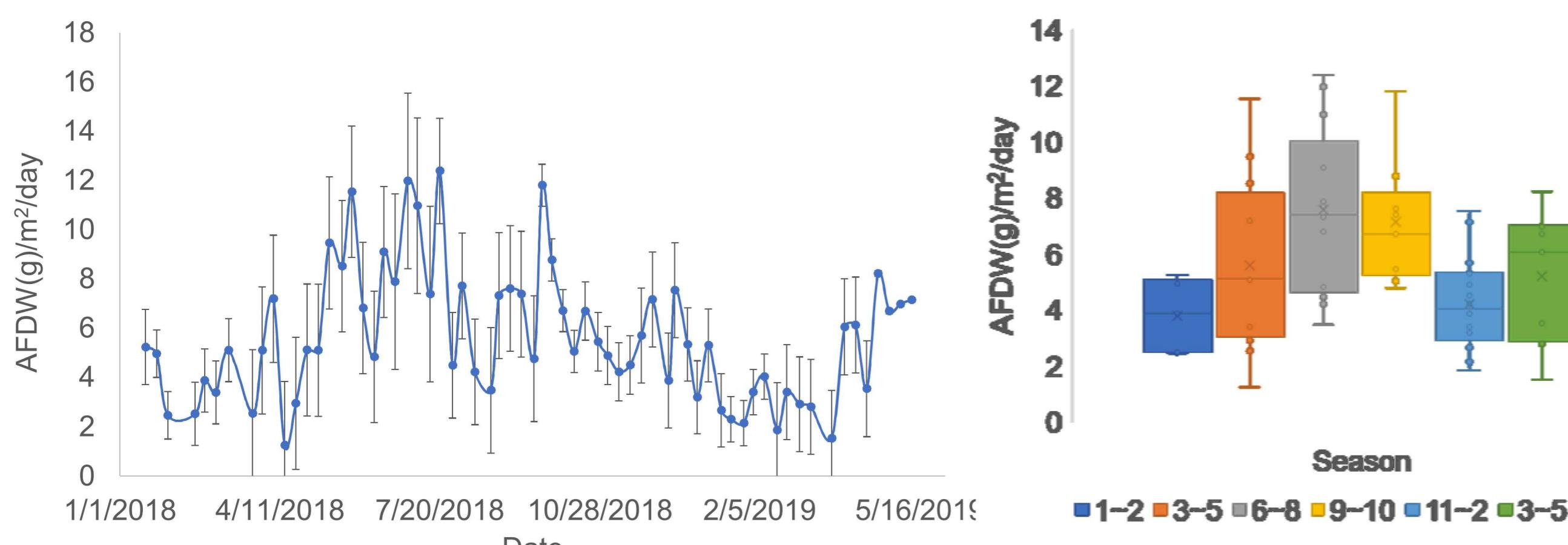
Salton Sea, Imperial Valley Irrigation District

- ✓ Fresh/agricultural runoff source water heavily laden with N/P + metals
- ✓ Austere site: no physical security or facilities, pumping provided by renewable power pumping station
- ✓ State of California interested in bioremediation potential of ATS to prevent heavy metals (esp. As & Se) accumulation in wetlands fauna

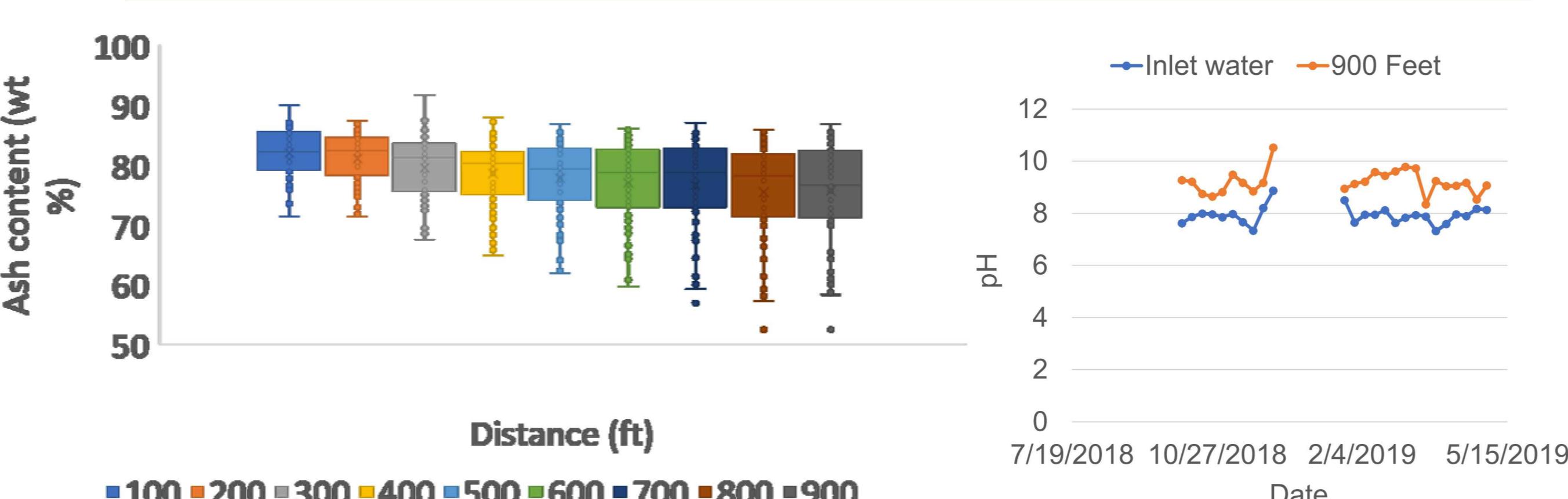
Results from Brawley, CA



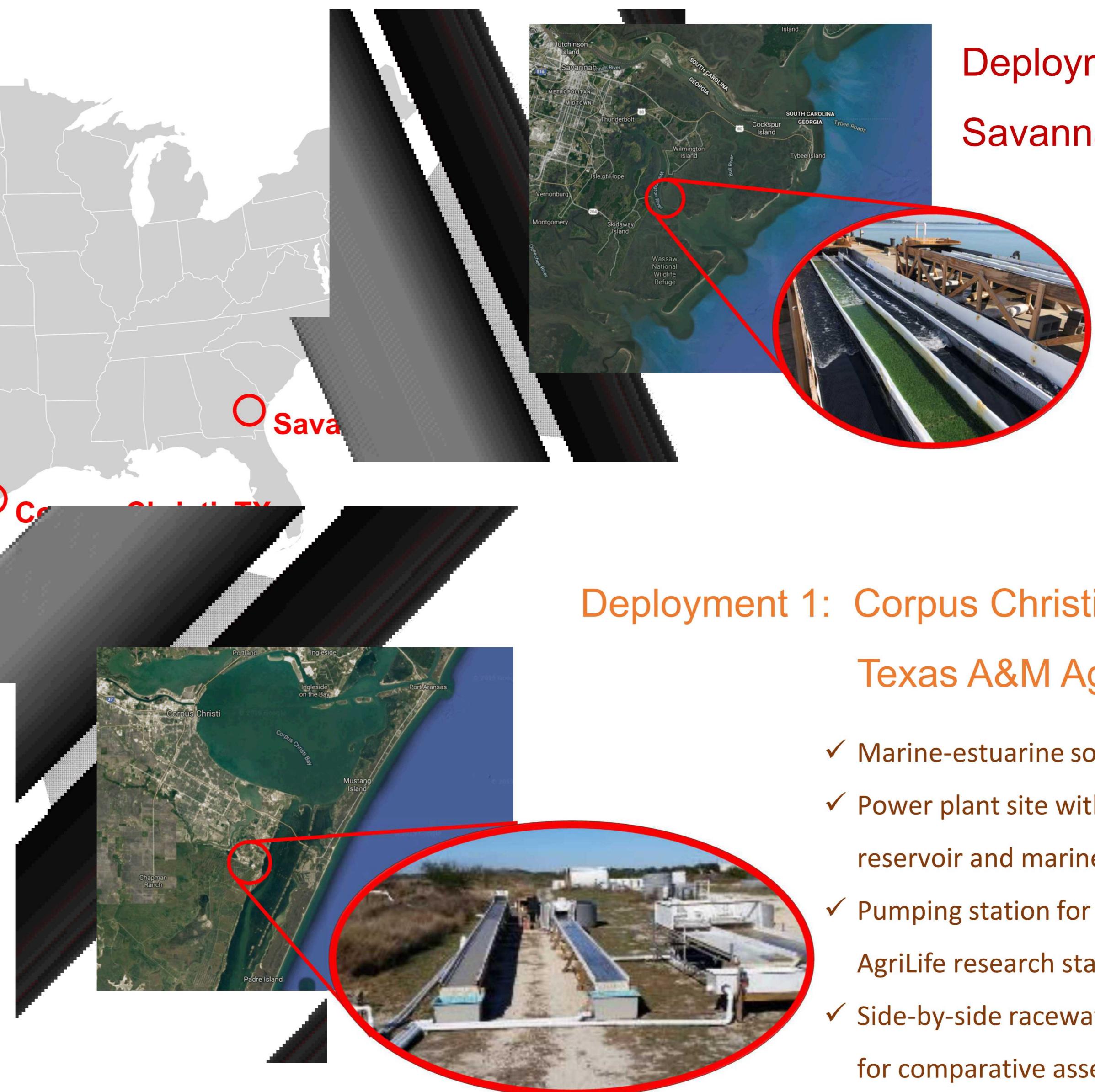
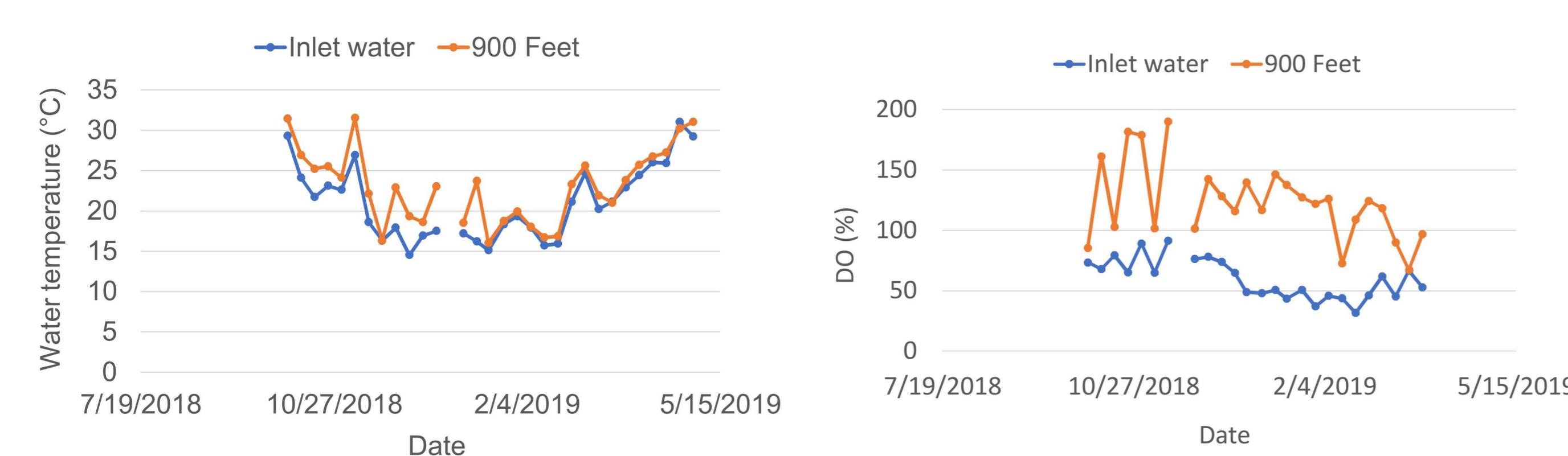
Biomass productivity (afdw(g)/m²/day) throughout a year and peak biomass productivity during the summer season



Ash content (%) and pH by location all time



Water temperature and DO saturation (%) by location all time



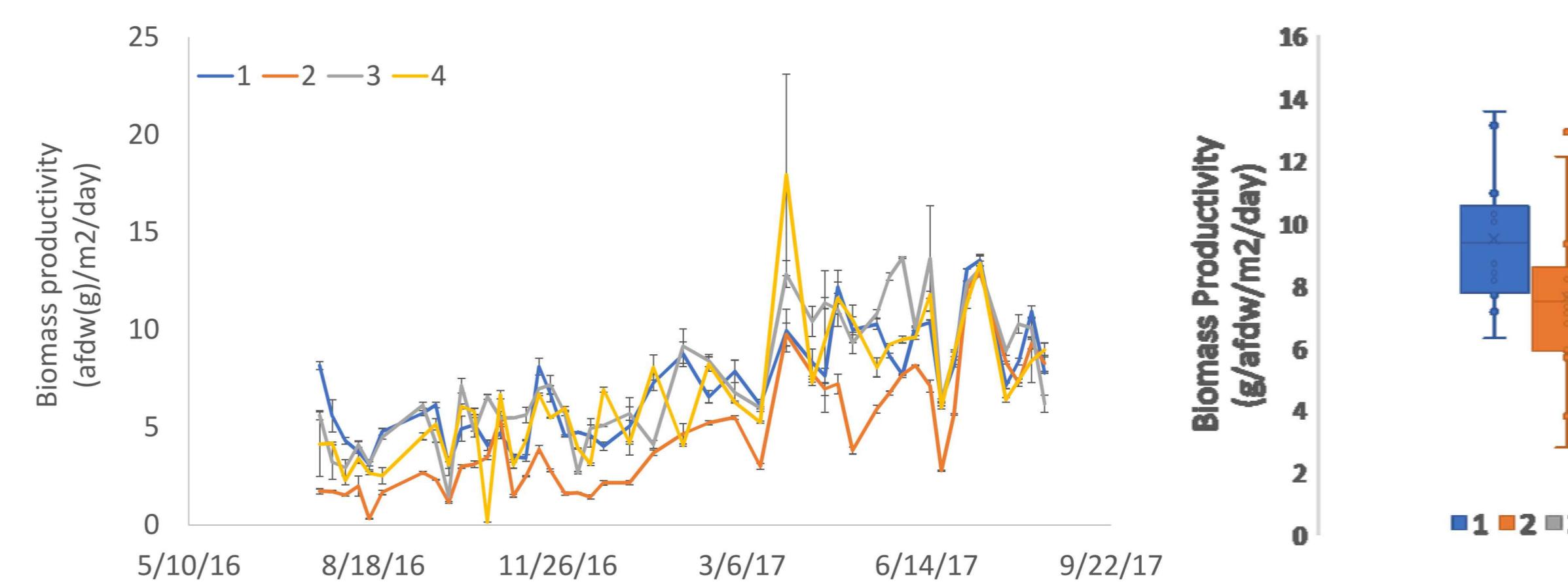
Deployment 1: Corpus Christi, TX

Texas A&M AgriLife

- ✓ Marine-estuarine source water
- ✓ Power plant site with fresh water reservoir and marine water intake canal
- ✓ Pumping station for cooling water & AgriLife research station use
- ✓ Side-by-side raceway & floway operation for comparative assessment

Results from Corpus Christi, TX

Biomass productivity (afdw(g)/m²/day) throughout a year and peak biomass productivity during the summer season



Year round biomass productivity along with its average content of ash and compositions

Year round biomass productivity	biomass productivity during Summer	ash content	Protein	Lipid	Fiber	Carb.
6.5±3.3 AFDW/m ² /day	9.2±2.5 AFDW/m ² /day	72.4±4.1%	31.0±8.4%	0.9±0.5%	5.4±2.2%	62.9±9.4%

Take home messages

- Average AFDW productivity was around 6 g/m²/day throughout the year for both sites, the peak average productivity occurred during the summer season, which was around 8~10 g/m²/day (with 12-14 g/m²/day at top).
- High ash content (70~80%) was noticed. Reducing ash content from biomass before harvesting and/or efficient ash removal techniques after harvesting are required to be developed.
- Although high ash content throughout the year, there was a minimum ash content of 20%, which shows the potential of how small the ash content can be from this system.
- Remarkable improvement of water quality was observed from 900ft long ATS with around 80% BOD removal.