

WATER QUALITY MONITORING PROJECT FOR DEMONSTRATION OF CANAL REMEDIATION METHODS FLORIDA KEYS

Report #1: Canal Water Characterization
FKNMS Canal Subcommittee Meeting
01/16/2015

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Phase 1

Characterization of canal waters before remediation

Phase 2

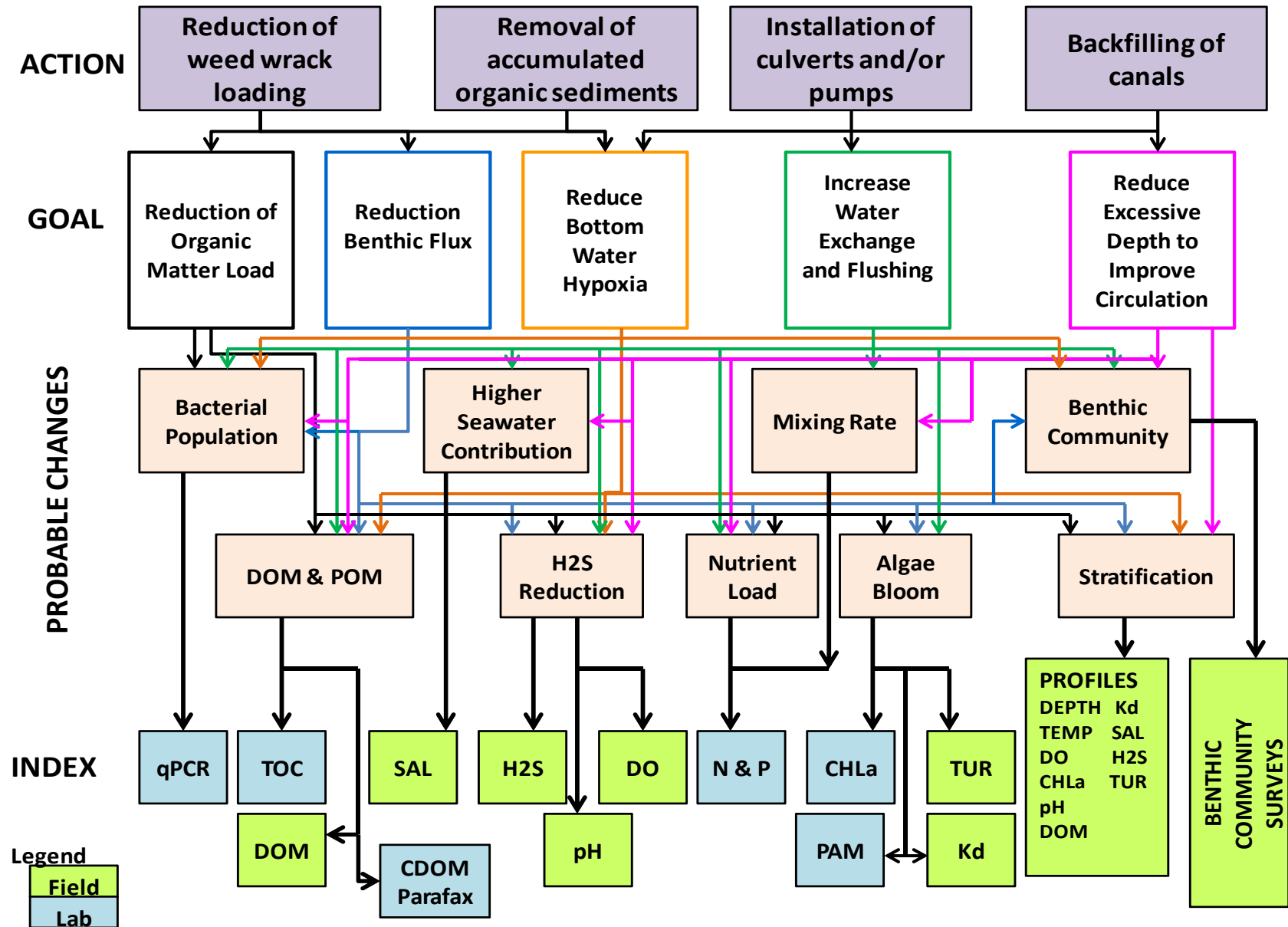
Monitoring water quality changes after remediation.

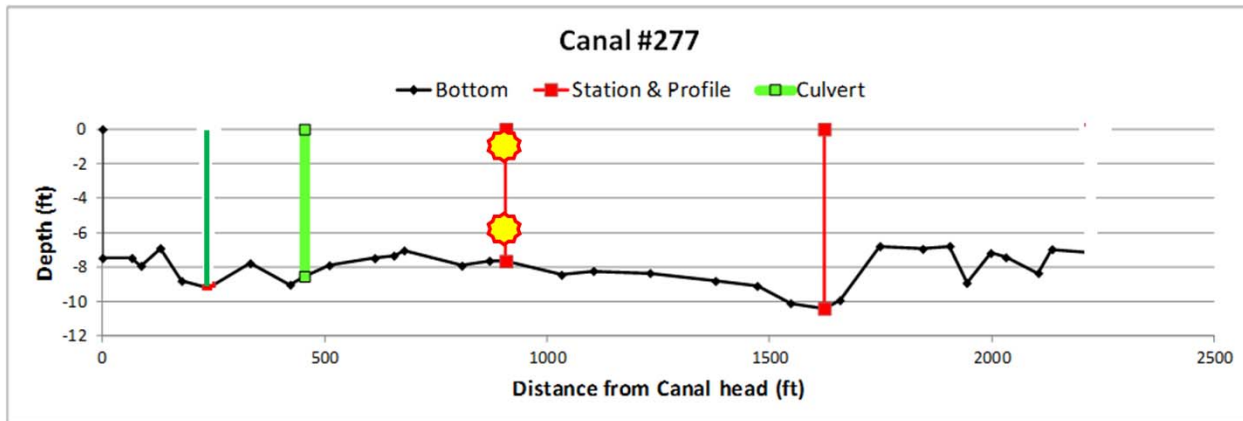
SELECTED CANALS FOR REMEDIATION AND CONTROL

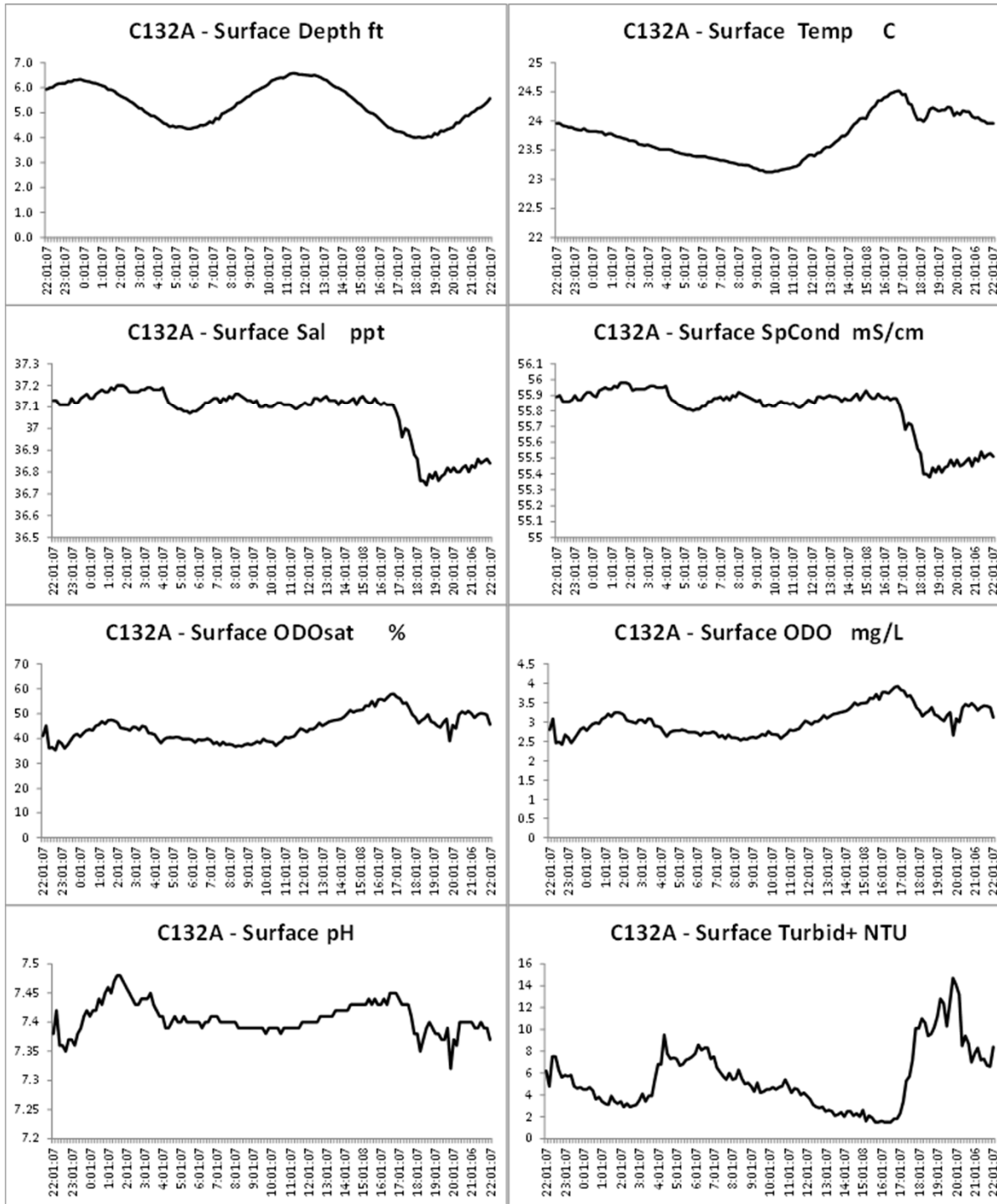
Control canals highlighted in yellow

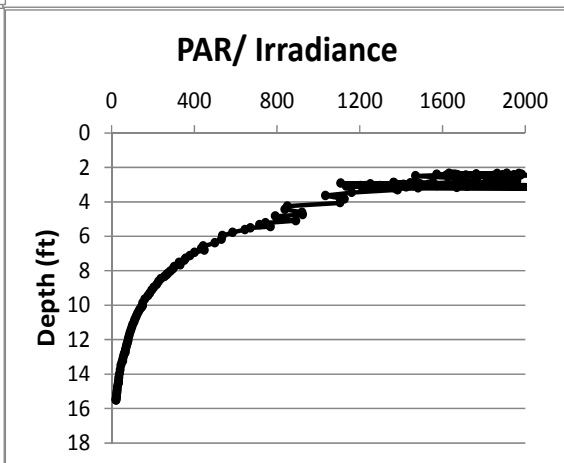
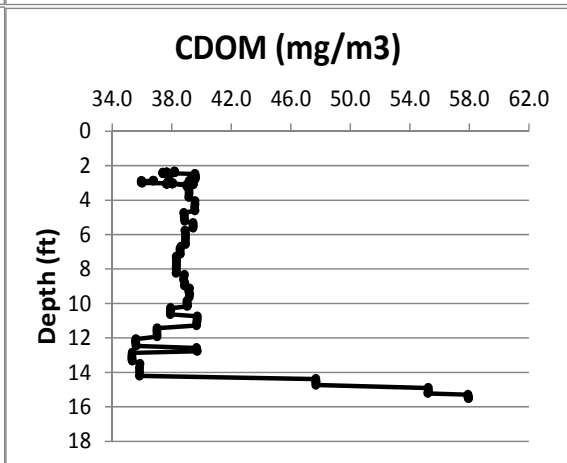
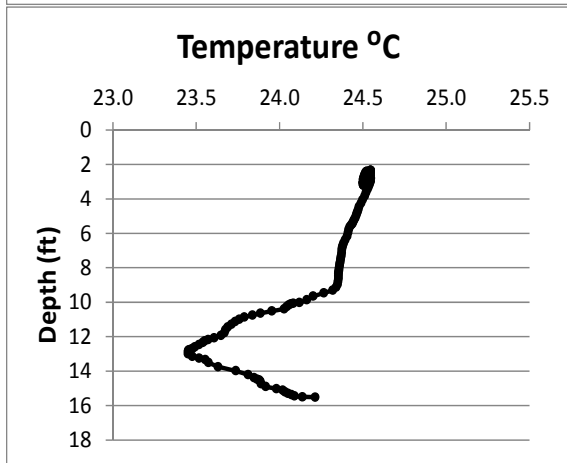
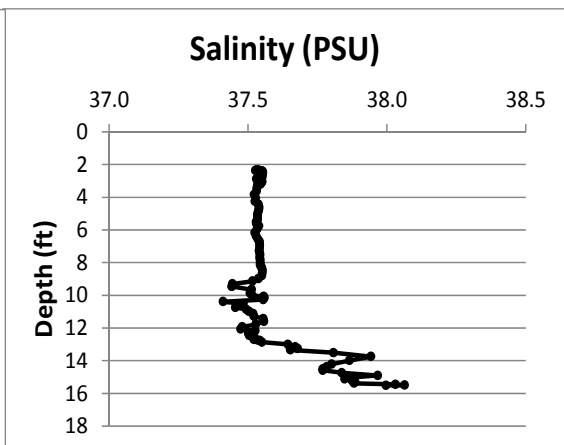
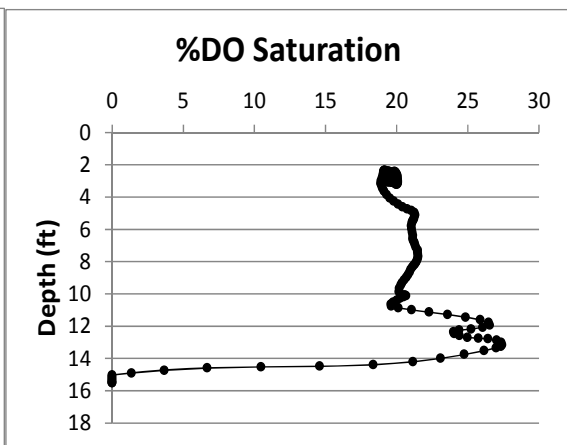
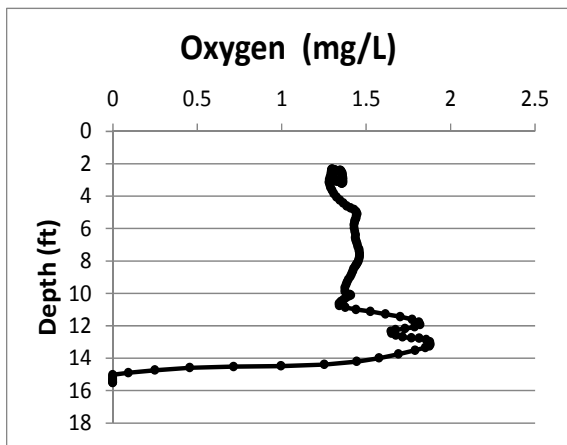
Weed Barrier			Organic Removal	Weed Barrier & Organic Removal	Pumping	Culvert Installation		Backfilling
#137 Plantation Key Treasure Harbor	#148 Lower Matecumbe Key Mate-Lido Beach	#287 Big Pine Hollerich Subdivision	#290 Big Pine Between Ave I & J	#266 Big Pine. Dr Arm Subdivision	#278 Big Pine. Eden Pines Colony Subdivision	#277 Big Pine. Tropical Bay Subdivision	#459 Geiger. Boca Chica Ocean Shores Subdivision	#29 Key Largo Sexton Cove Estates Subdivision
							#472 Geiger. Geiger Mobile Homes Subdivision	
#132 Plantation Key	#147 Matecumbe K	#293 Big Pine			#282 Big Pine		#458 Geiger	# 28 Key Largo

CONCEPTUAL MODEL FOR MONITORING DESIGN

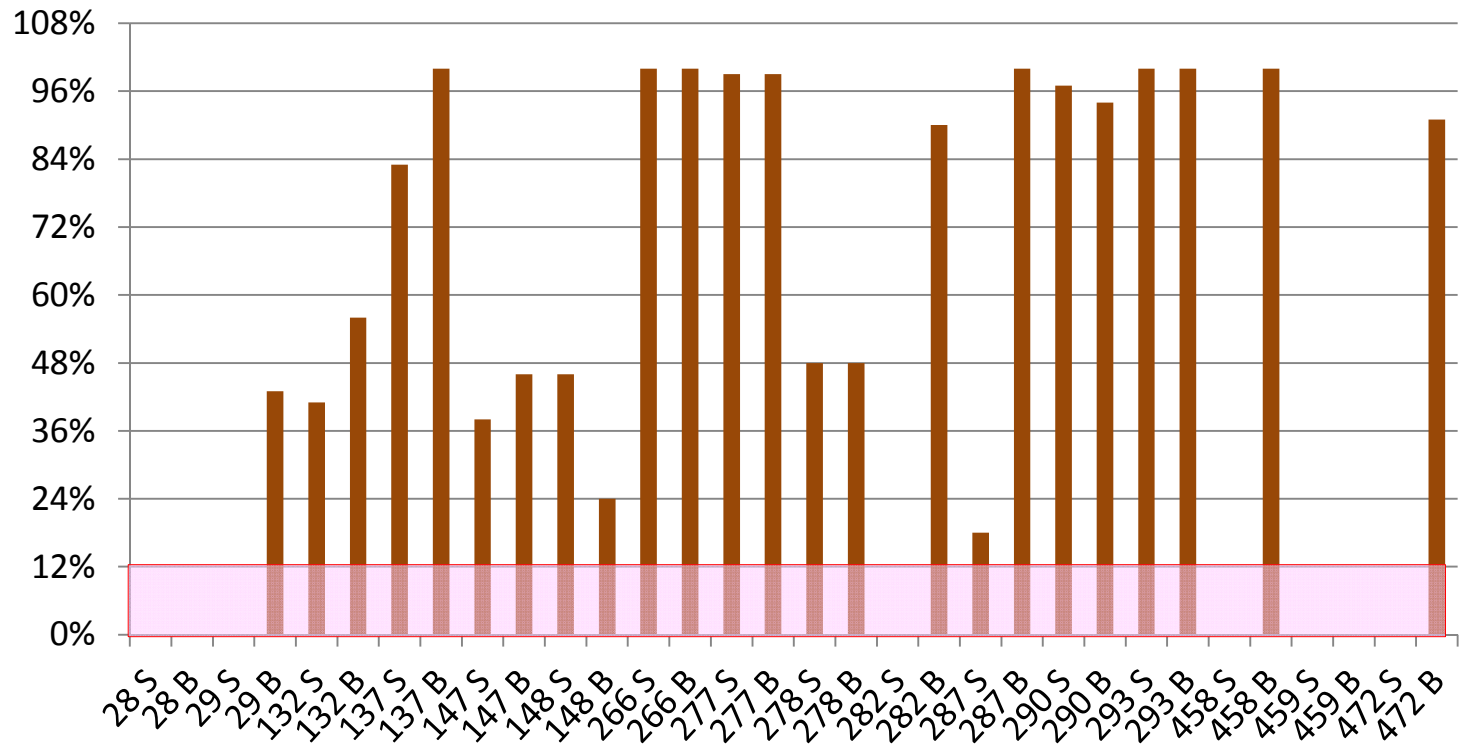




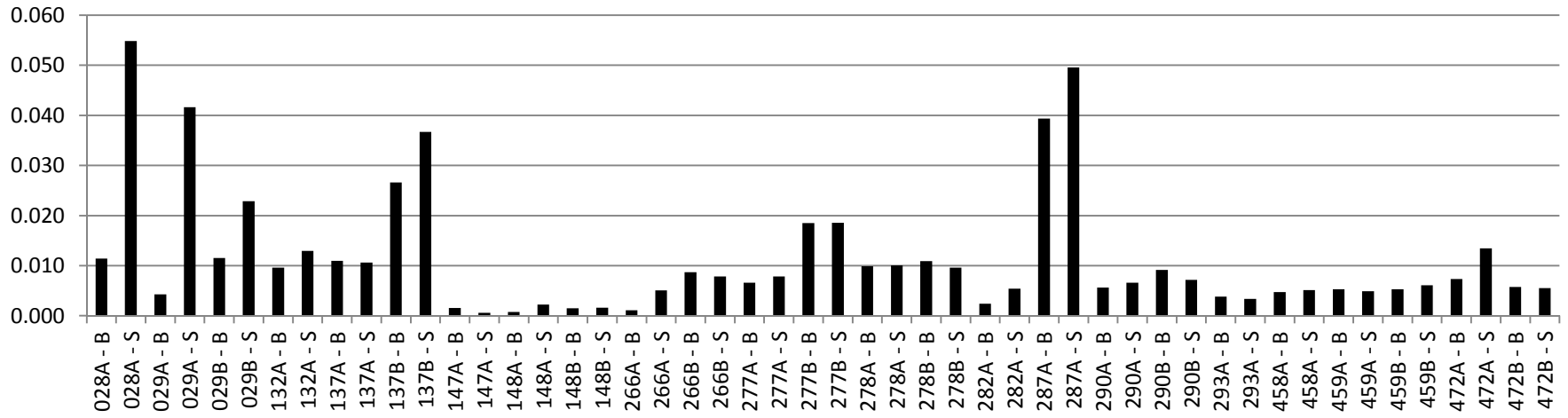




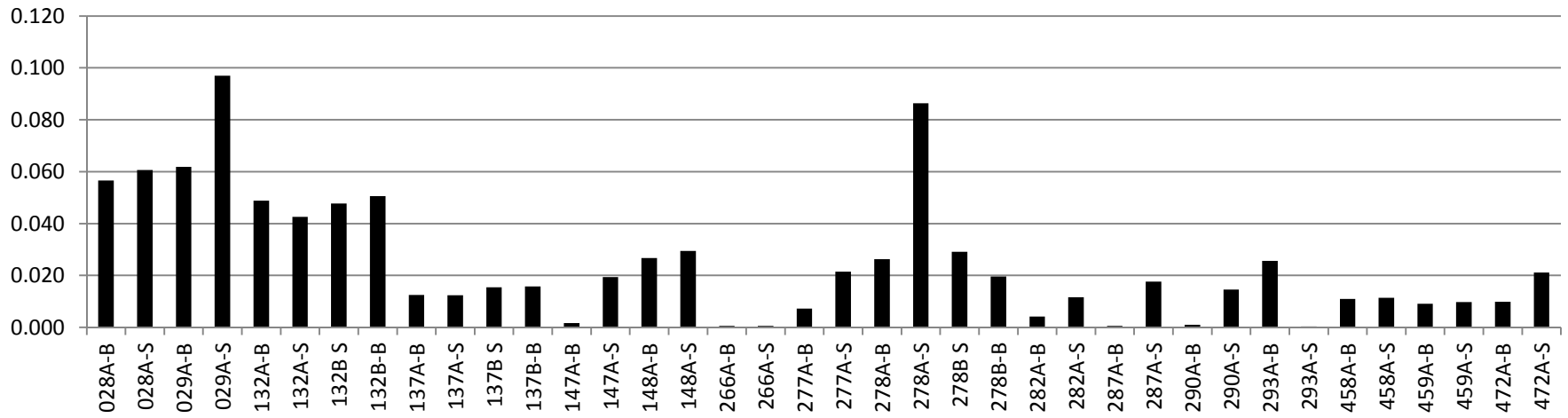
% Exceedances of %DO Saturation

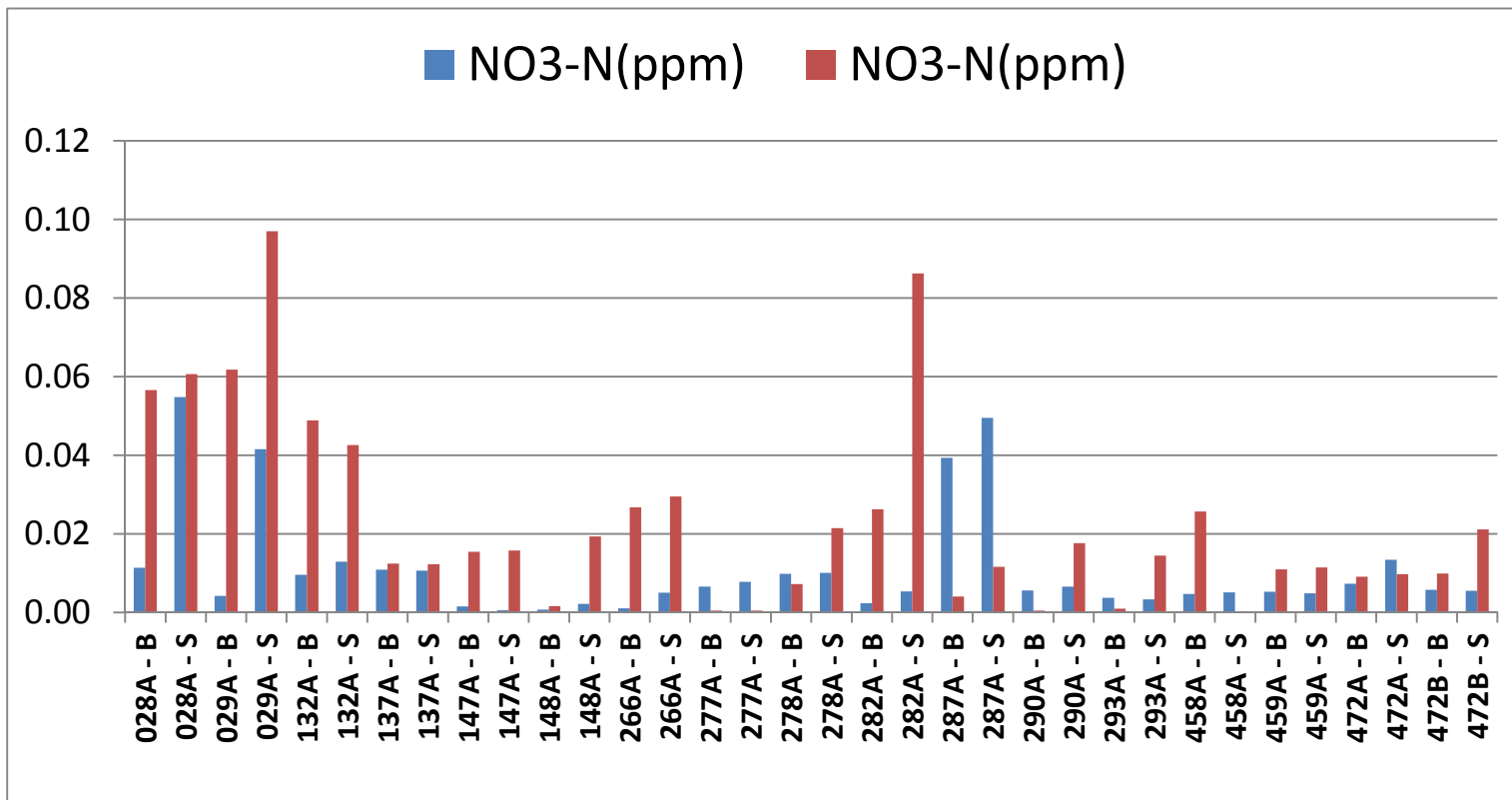


FKC01 NO3-N(ppm)



FKC02 NO3-N(ppm)





Proposed Work				
WQ Samples	DIEL	Profiles	EC	DO
384	288	414	288	41,886

Done				
76	64	92	94	17,636

20%

22%

22%

33%

42%

Phase 1

Characterization of canal waters before remediation
IS DONE

Phase 2

Monitoring water quality changes after remediation.
TO BE DONE

Strategies

- Monitoring will begin in remediated canals six months after remediation and will be performed quarterly.
- Non remediated canals will be monitored at least once per year