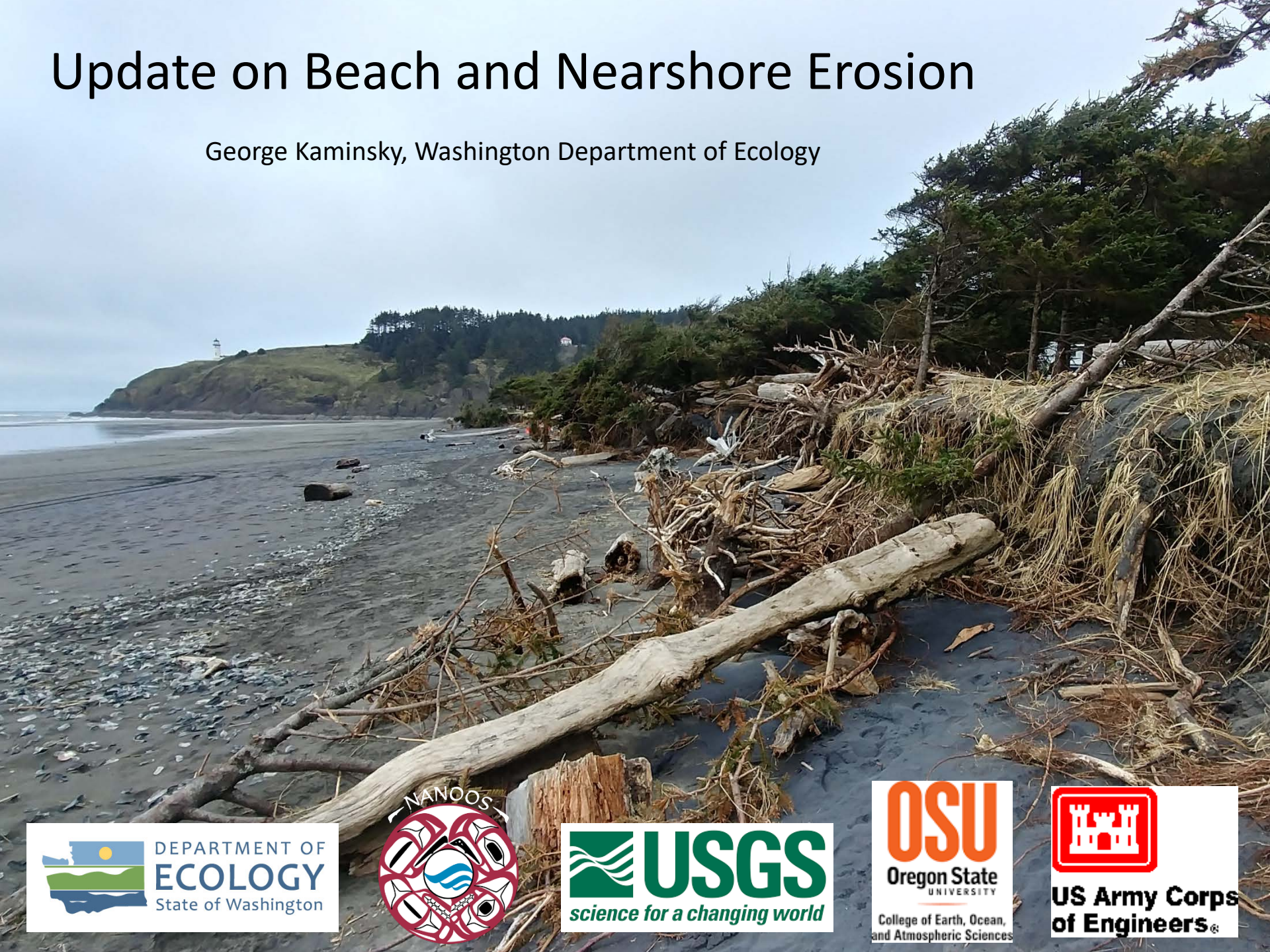


Update on Beach and Nearshore Erosion

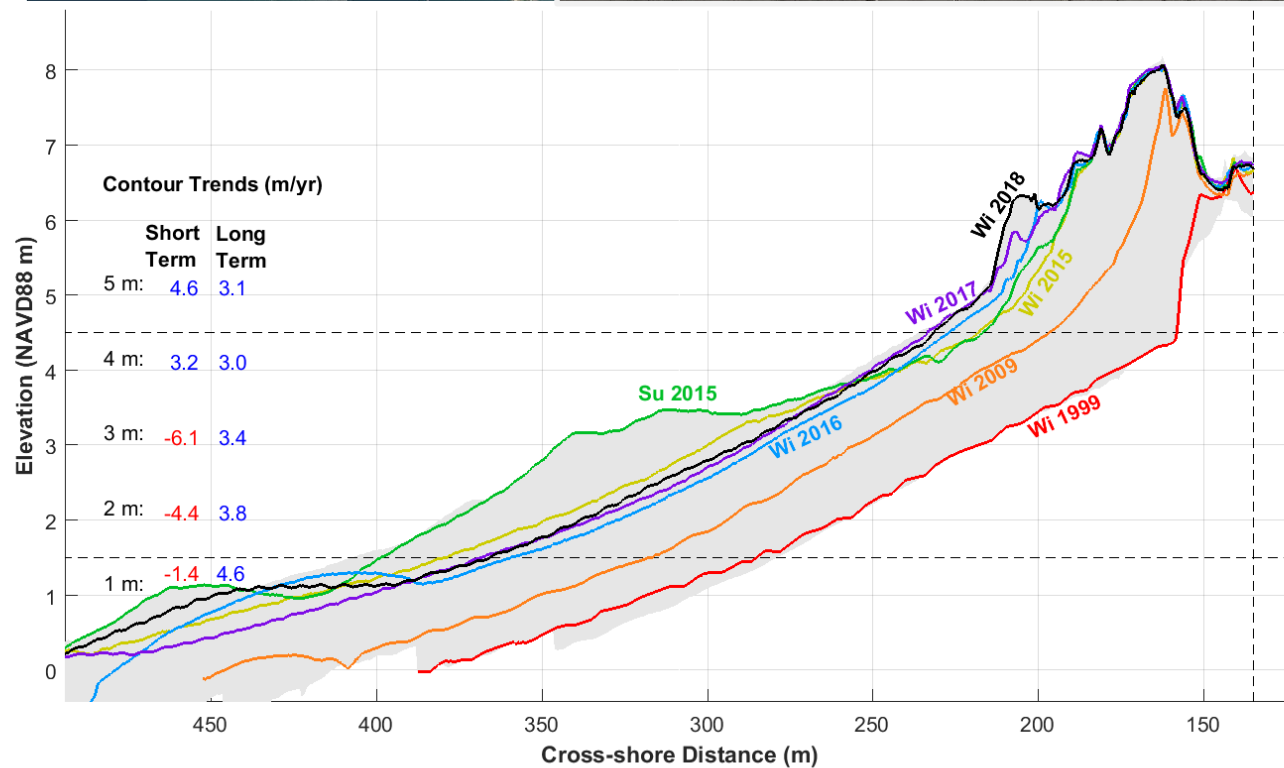
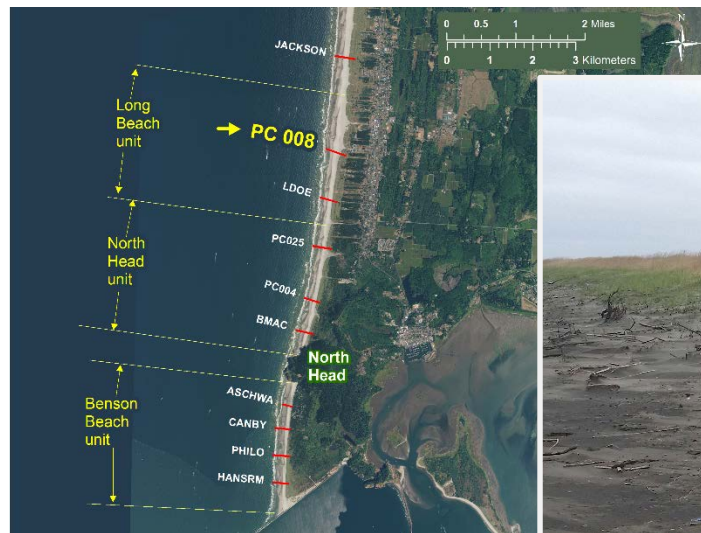
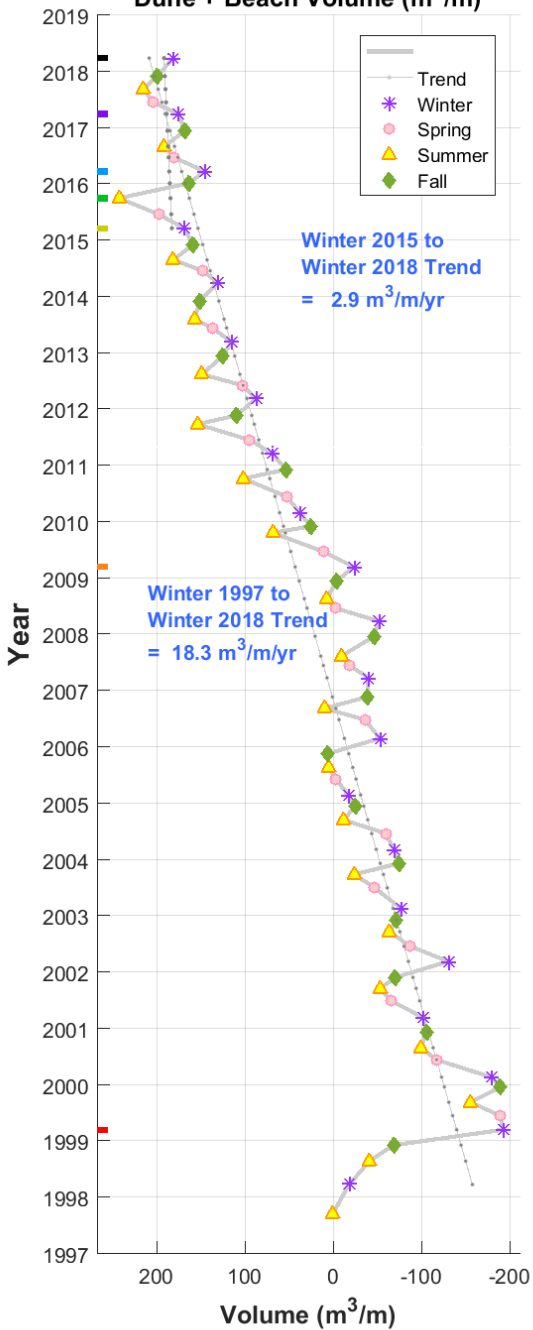
George Kaminsky, Washington Department of Ecology



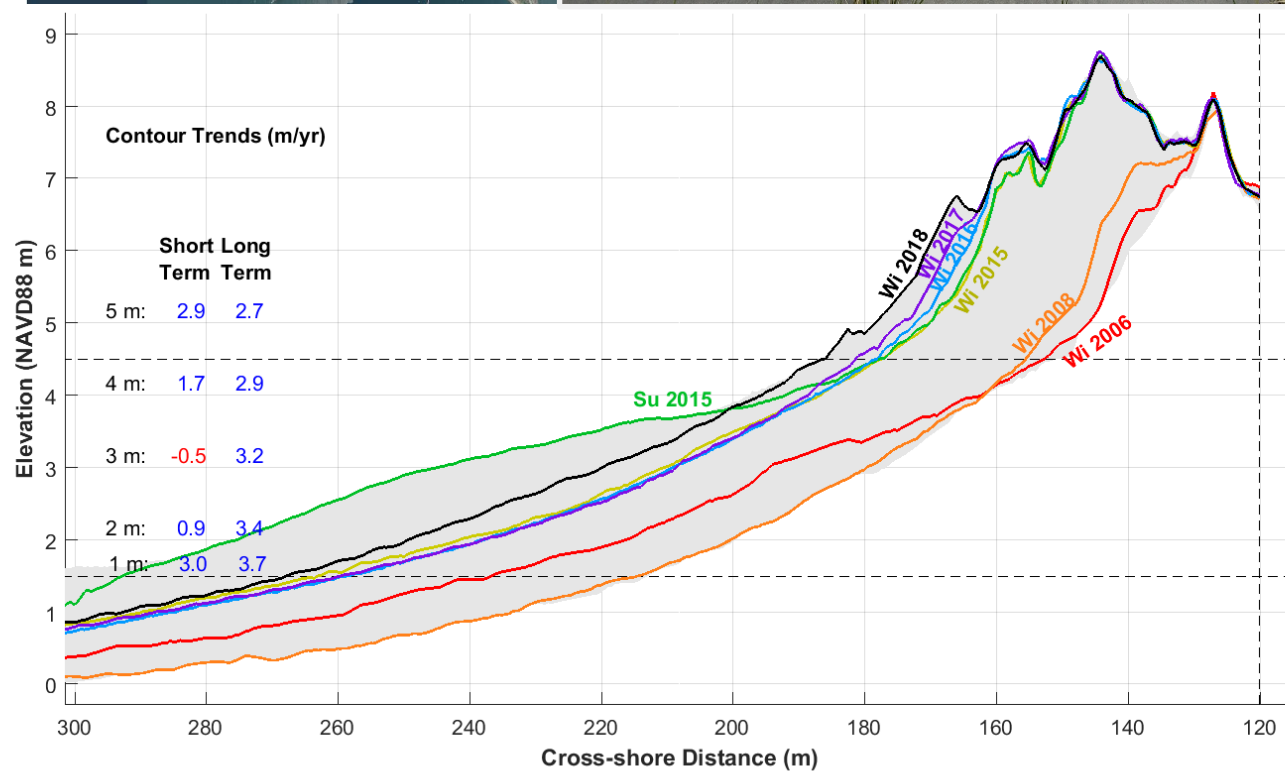
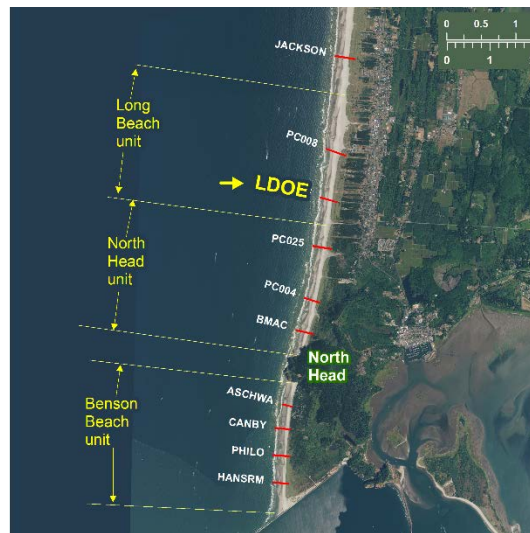
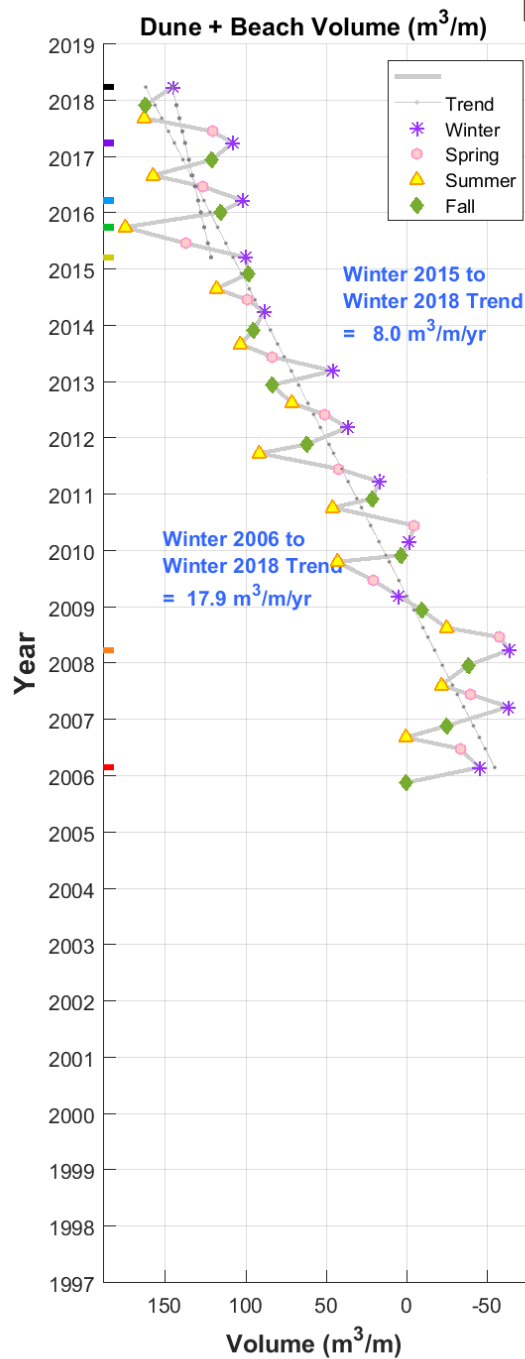


PC008

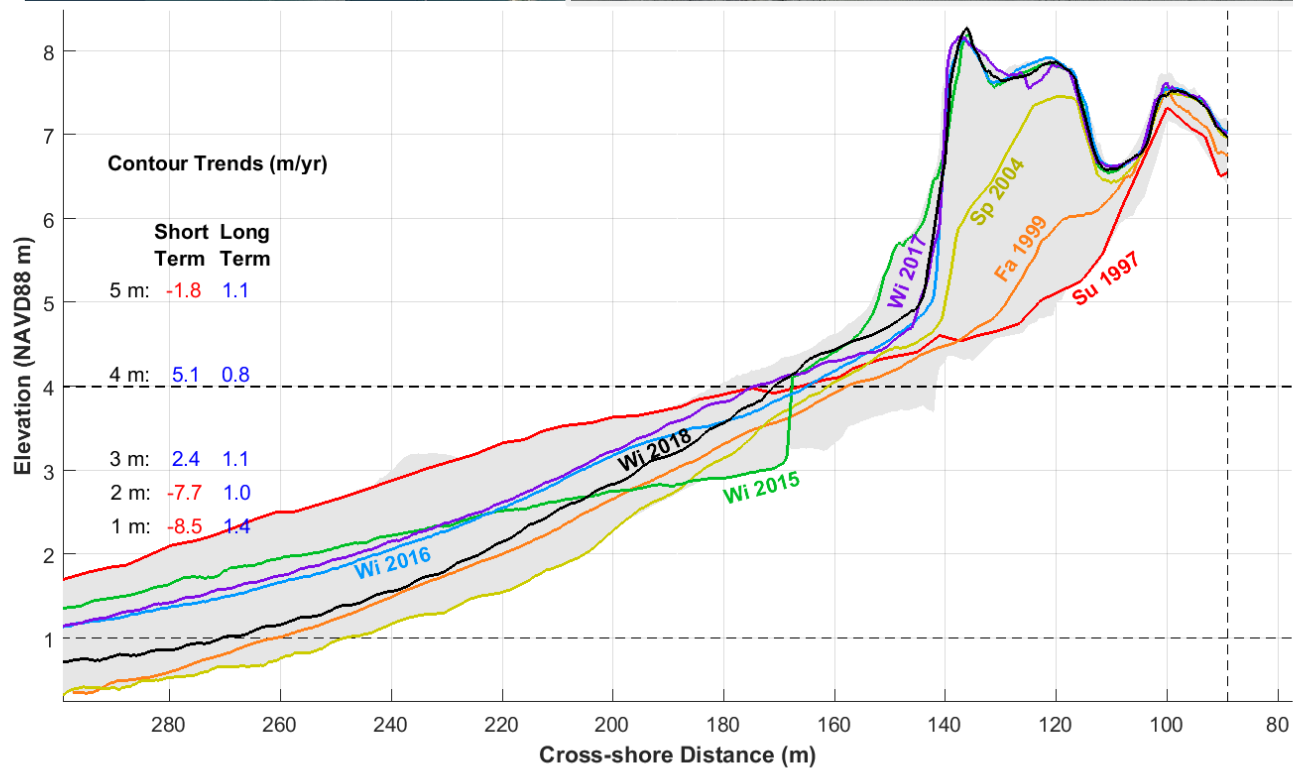
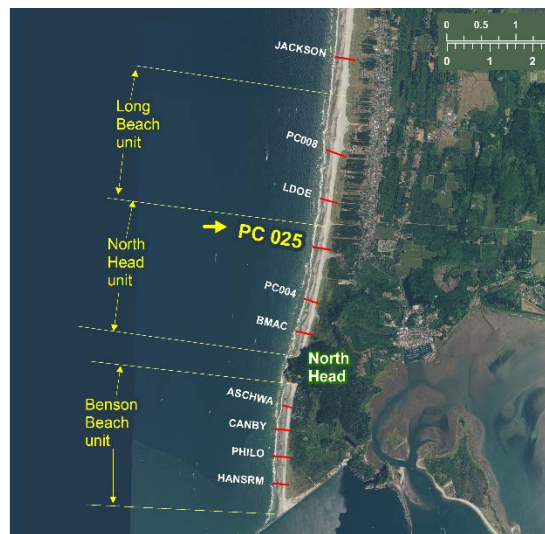
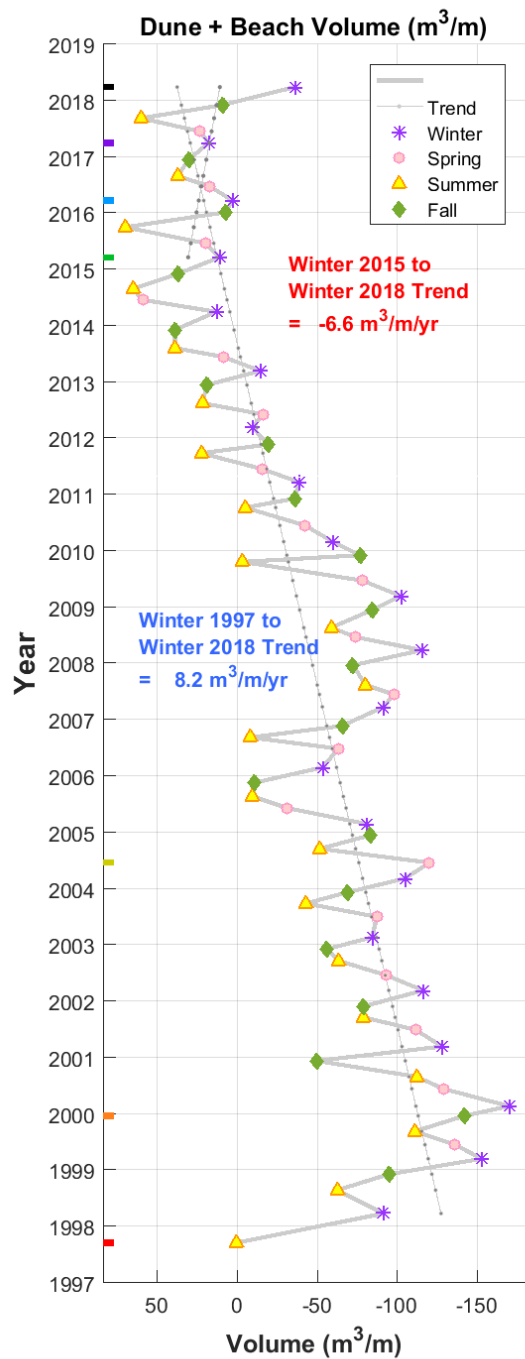
Dune + Beach Volume (m^3/m)



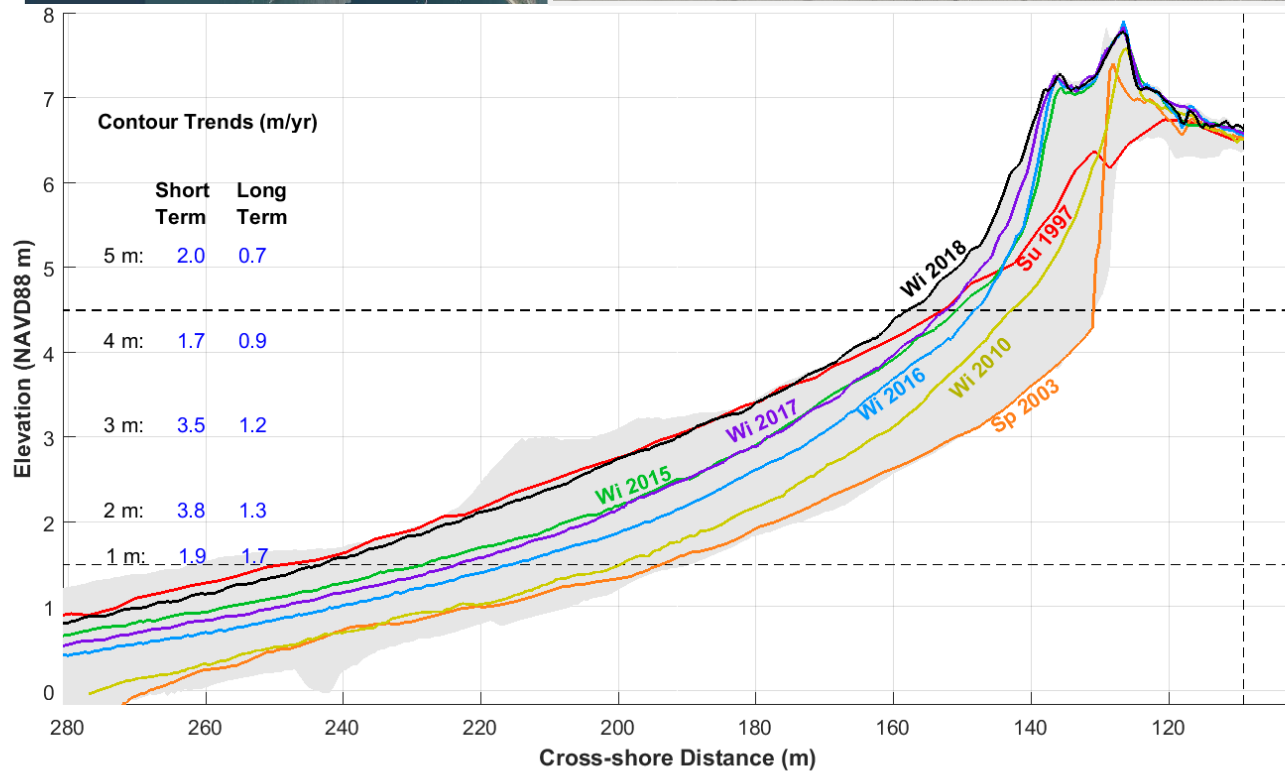
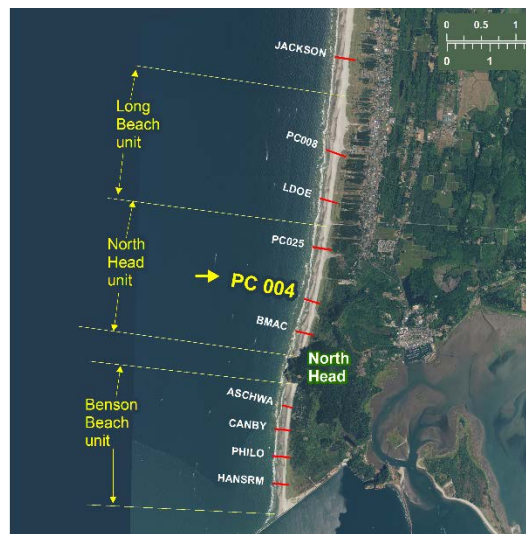
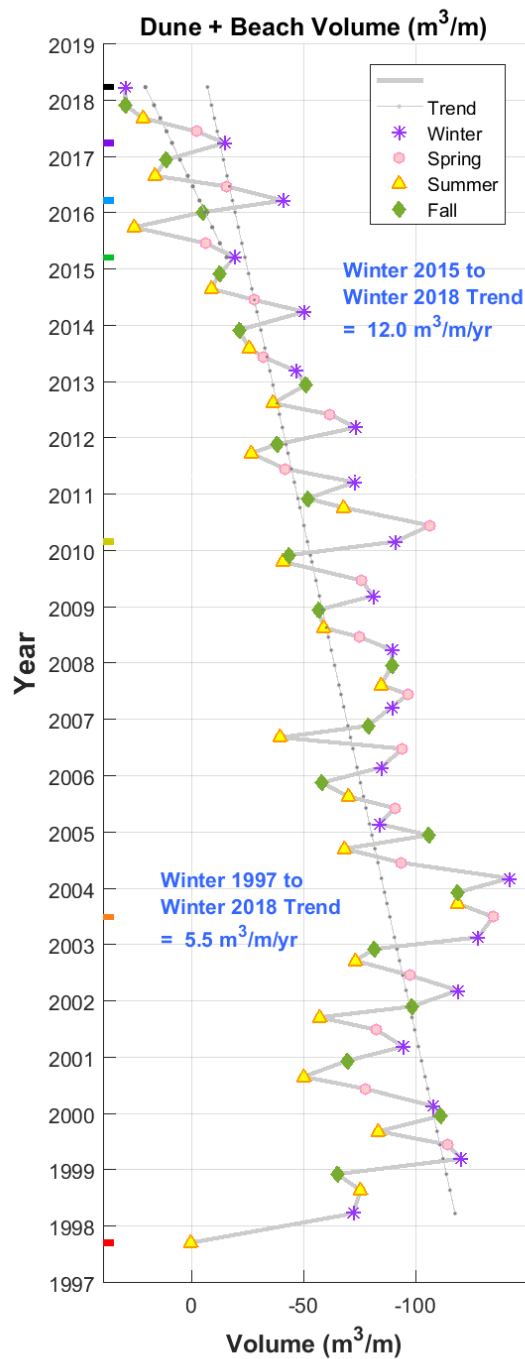
LDOE



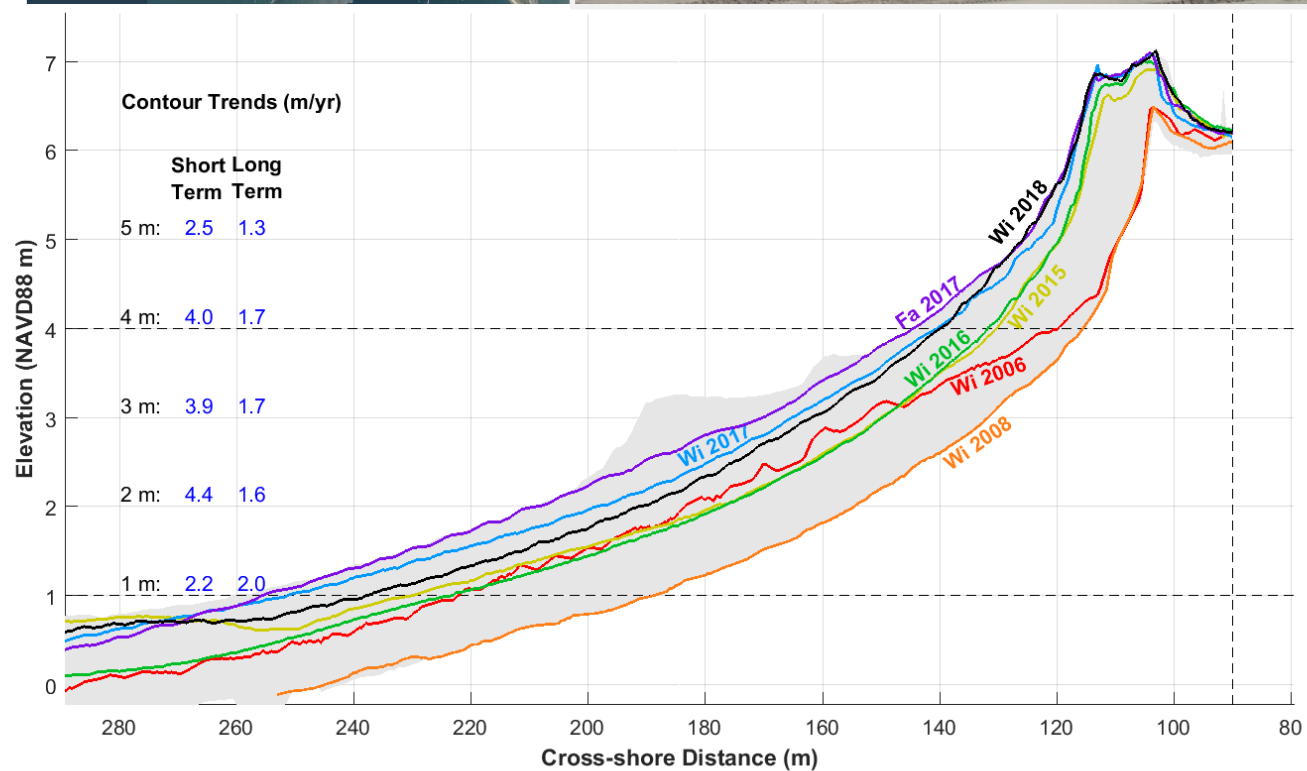
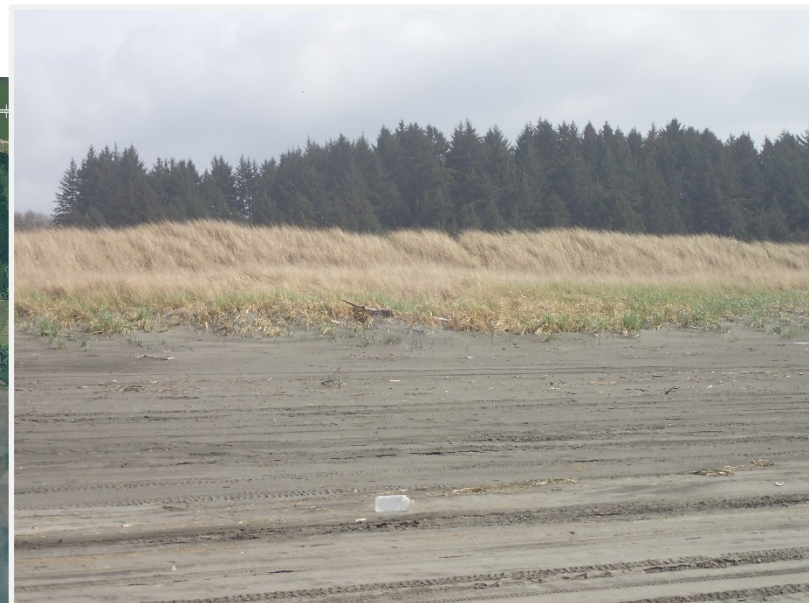
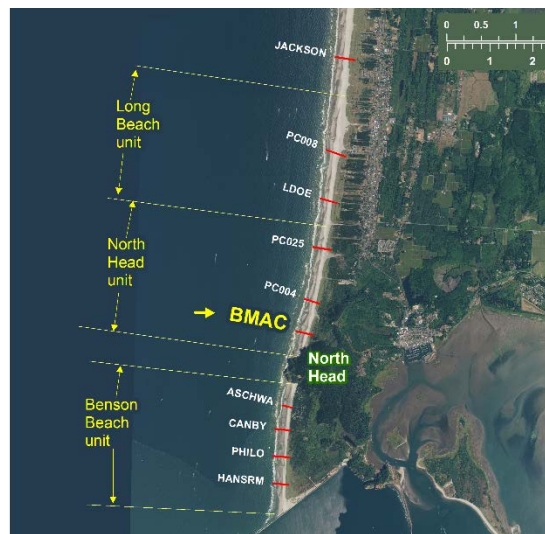
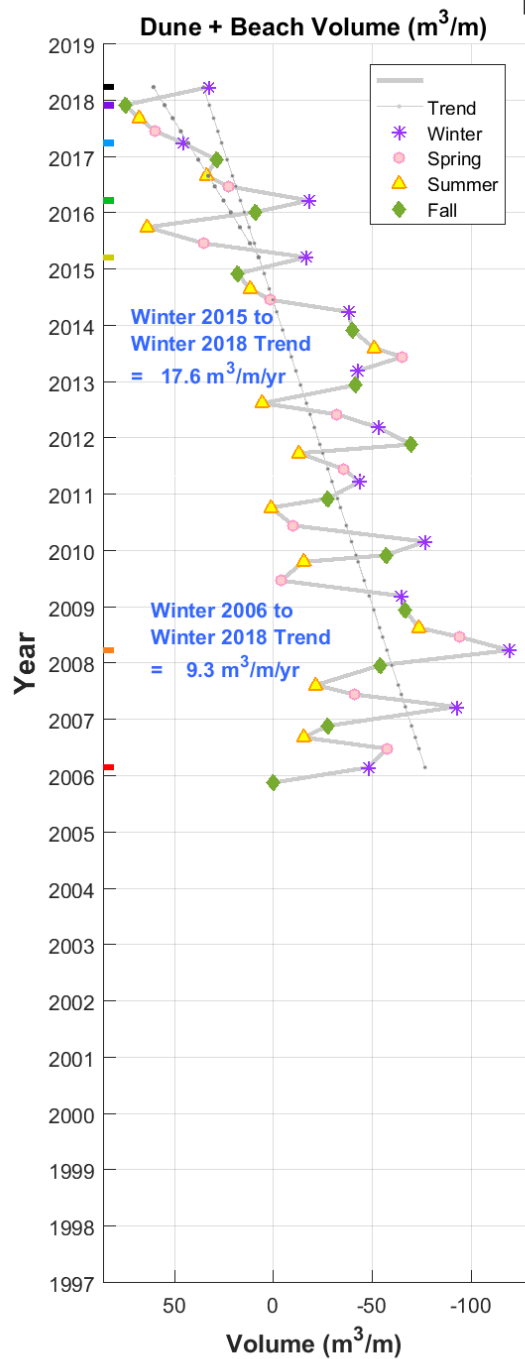
PC025



PC004

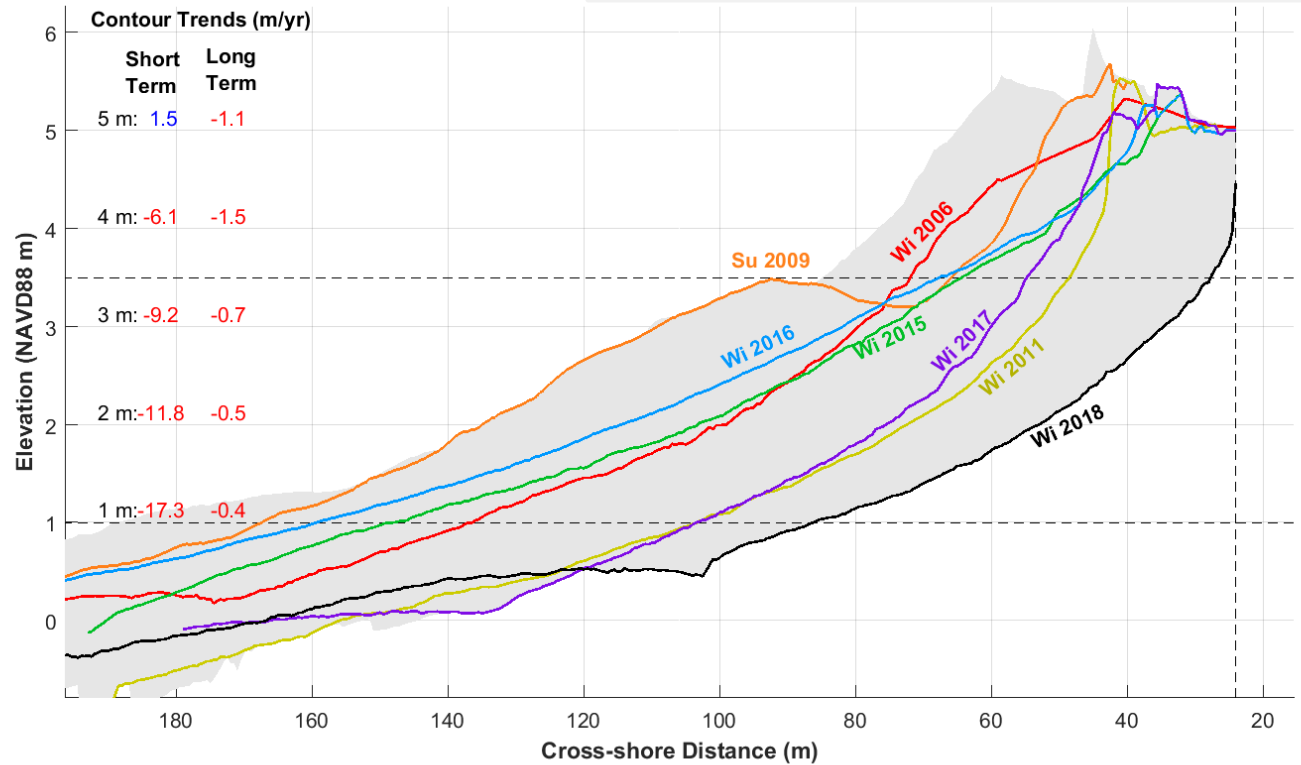
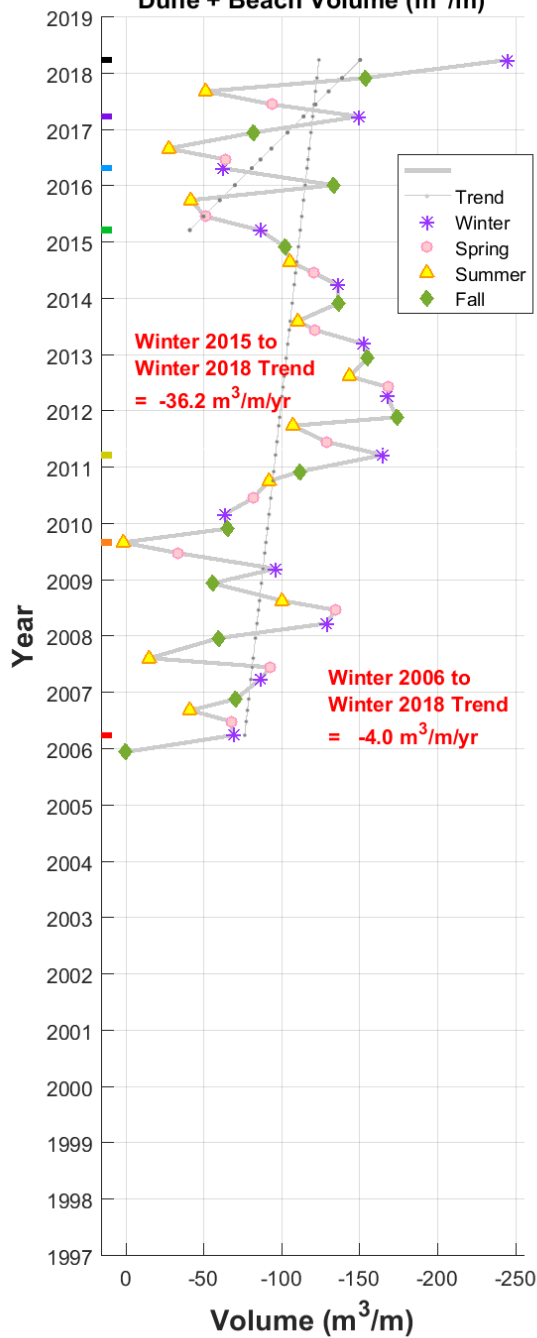


BMAC

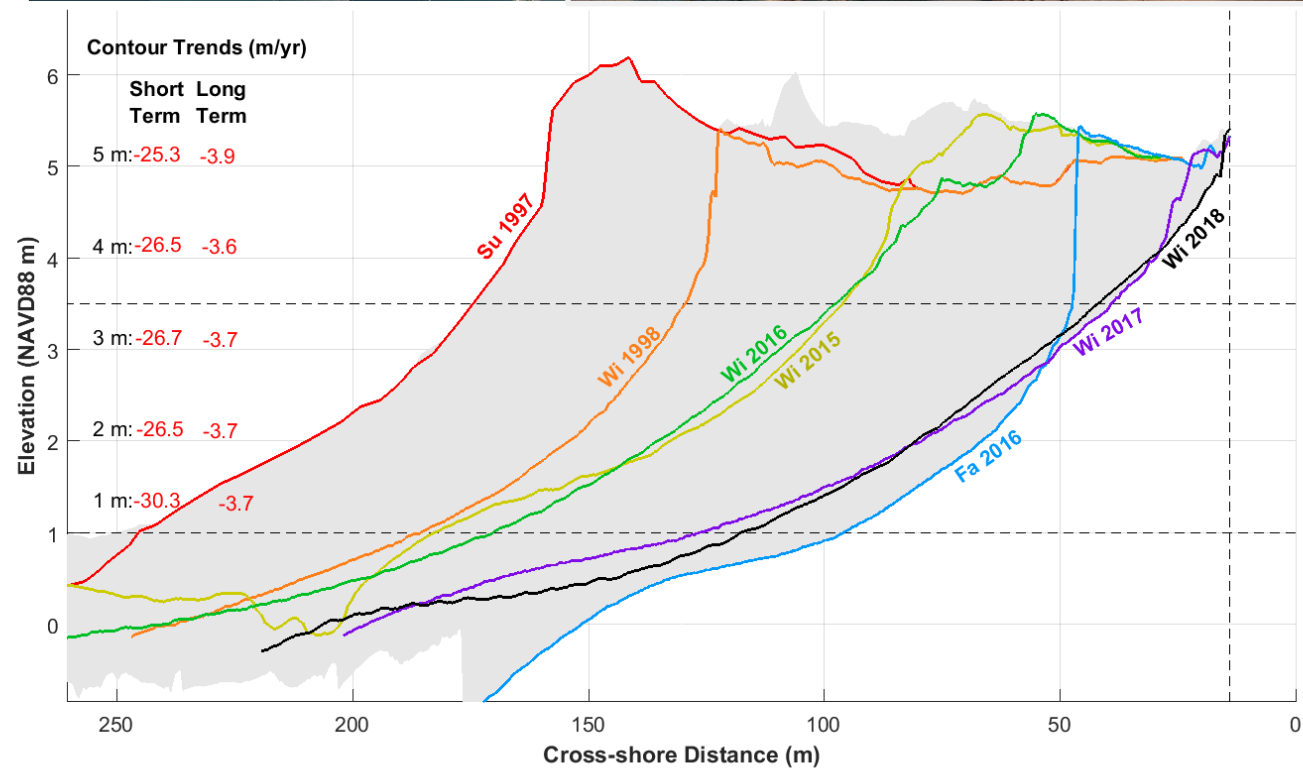
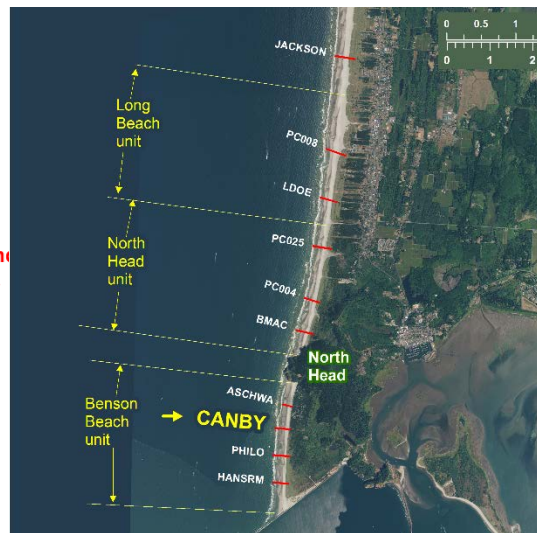
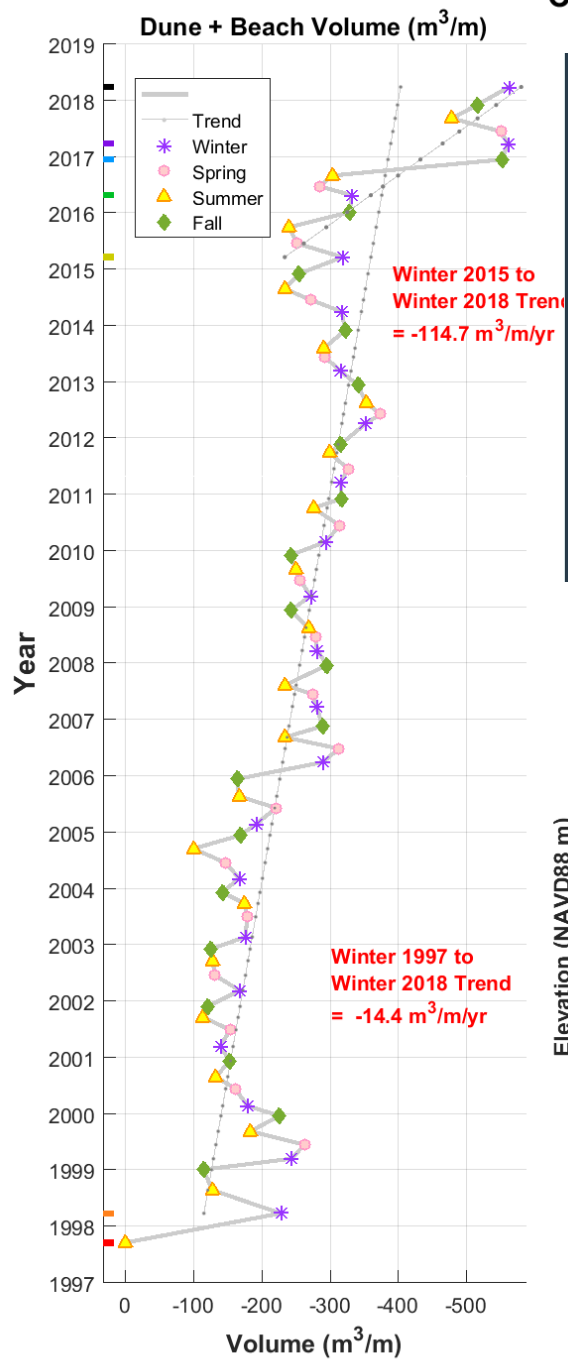


ASCHWA

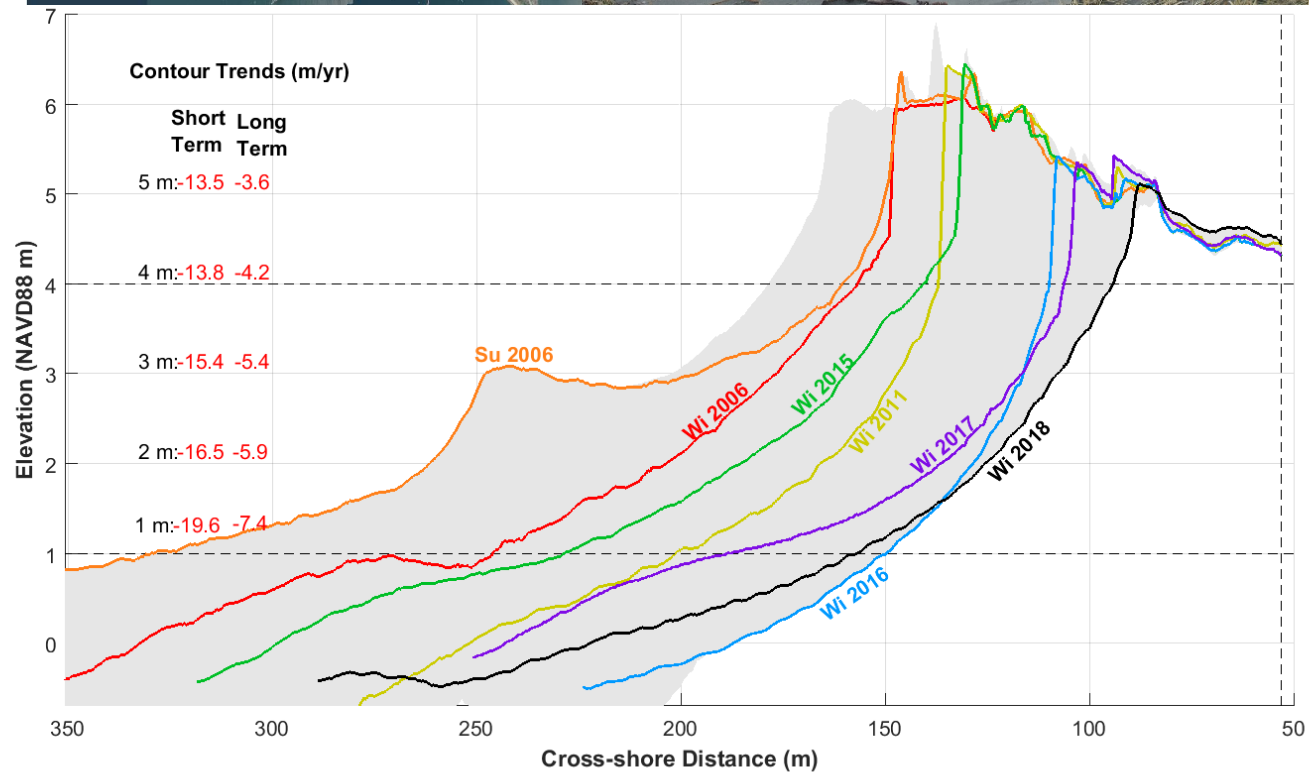
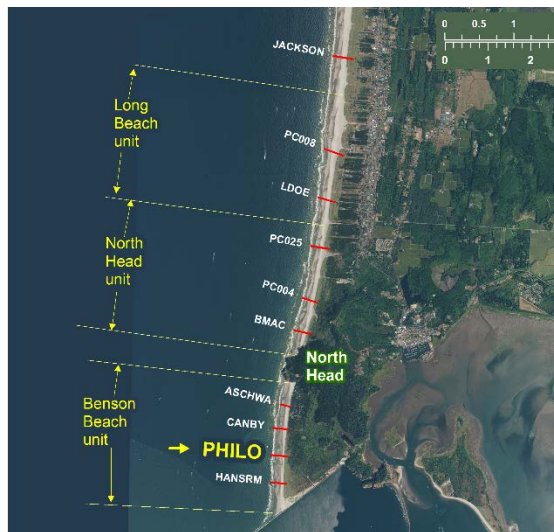
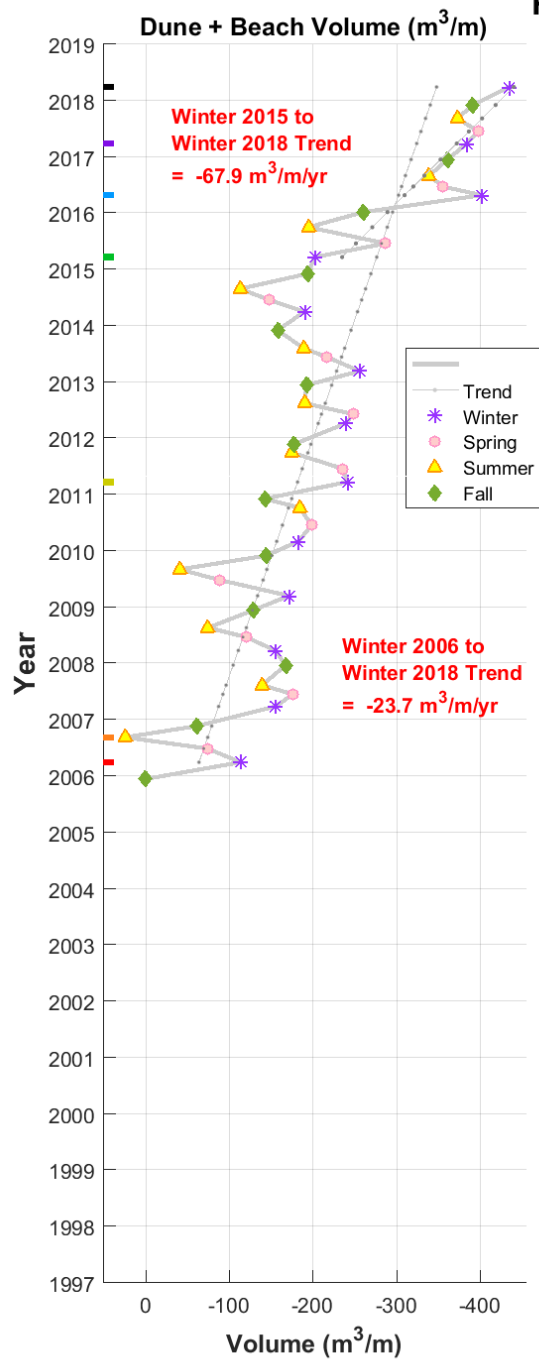
Dune + Beach Volume (m^3/m)



CANBY

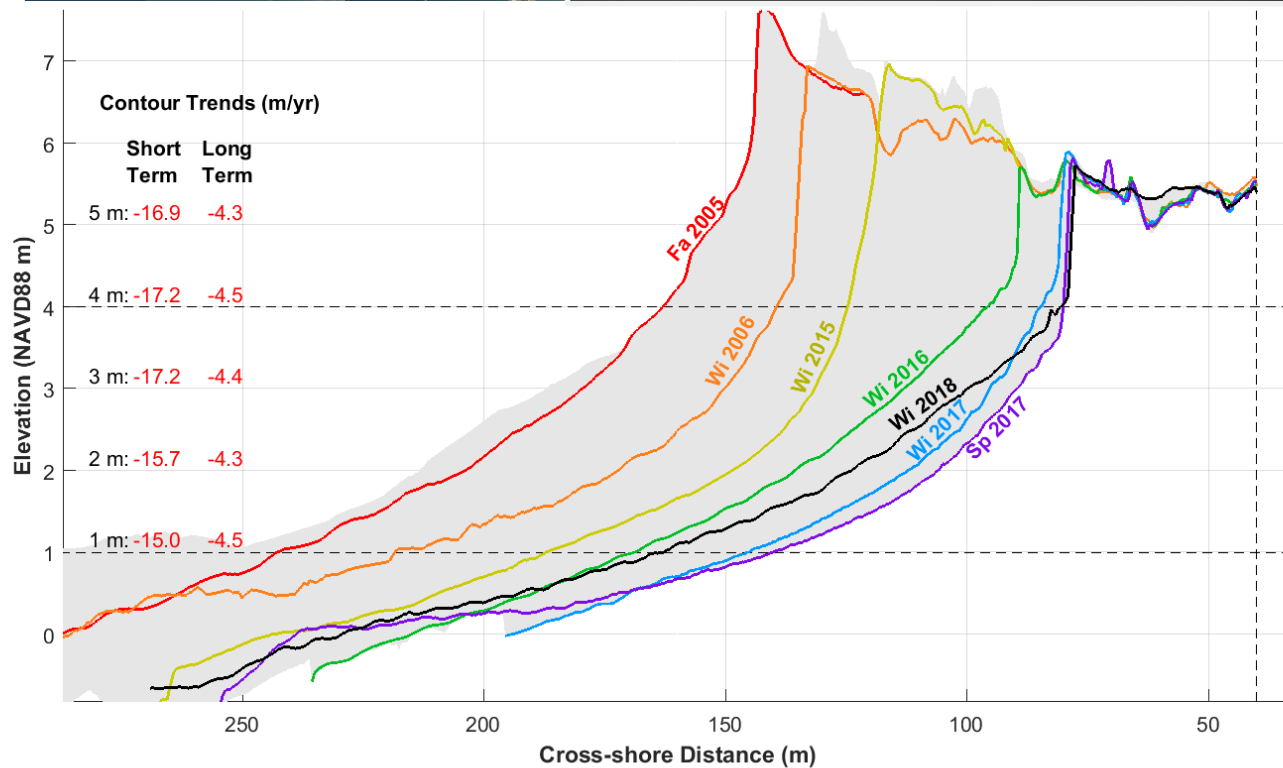
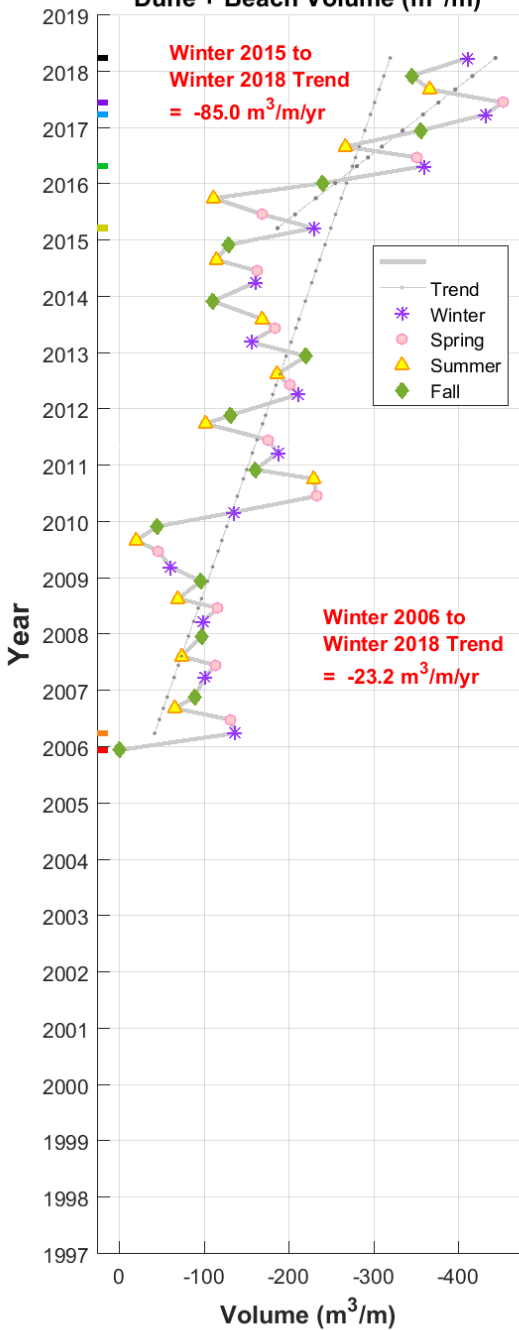


PHILO



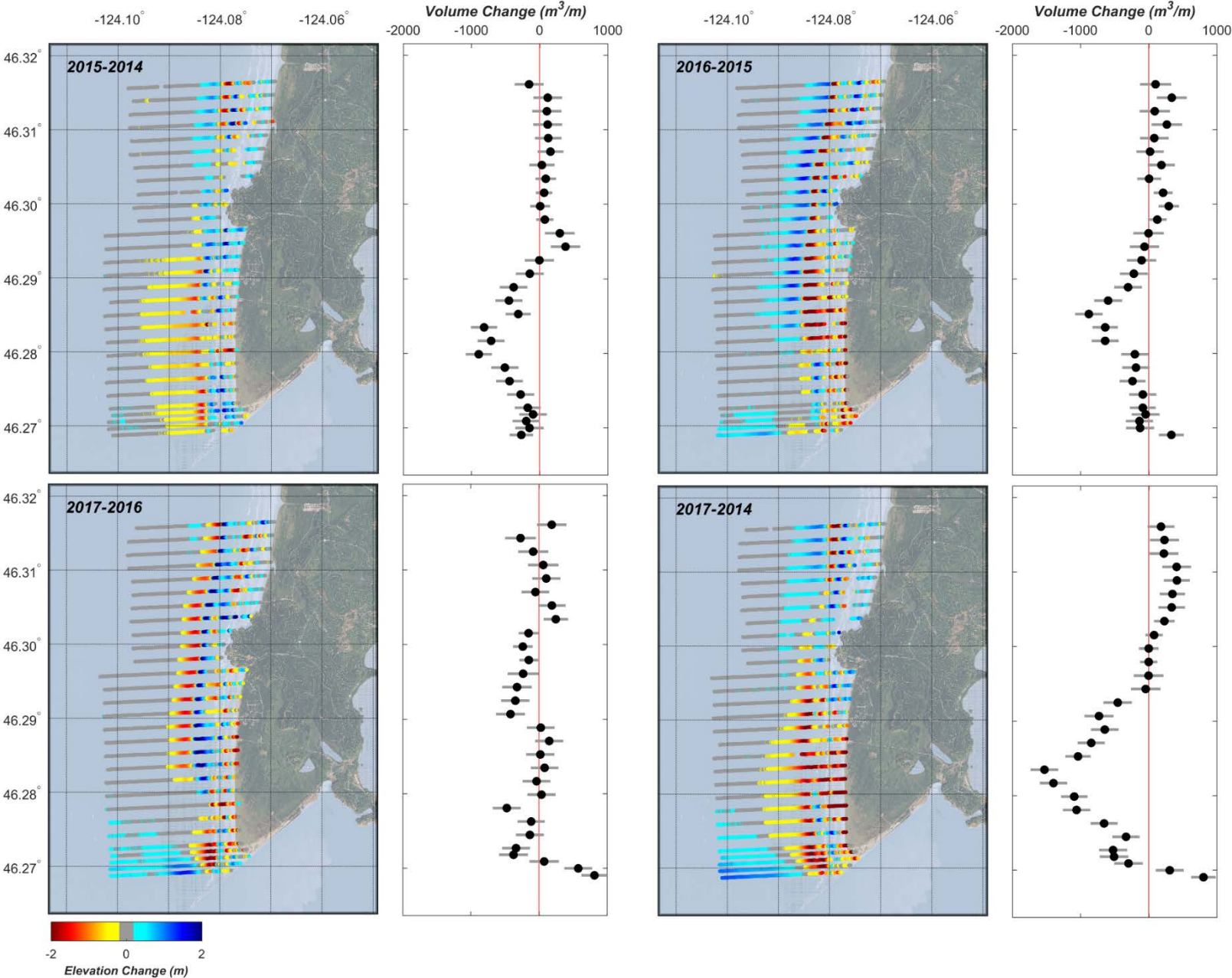
HANSRM

Dune + Beach Volume (m^3/m)

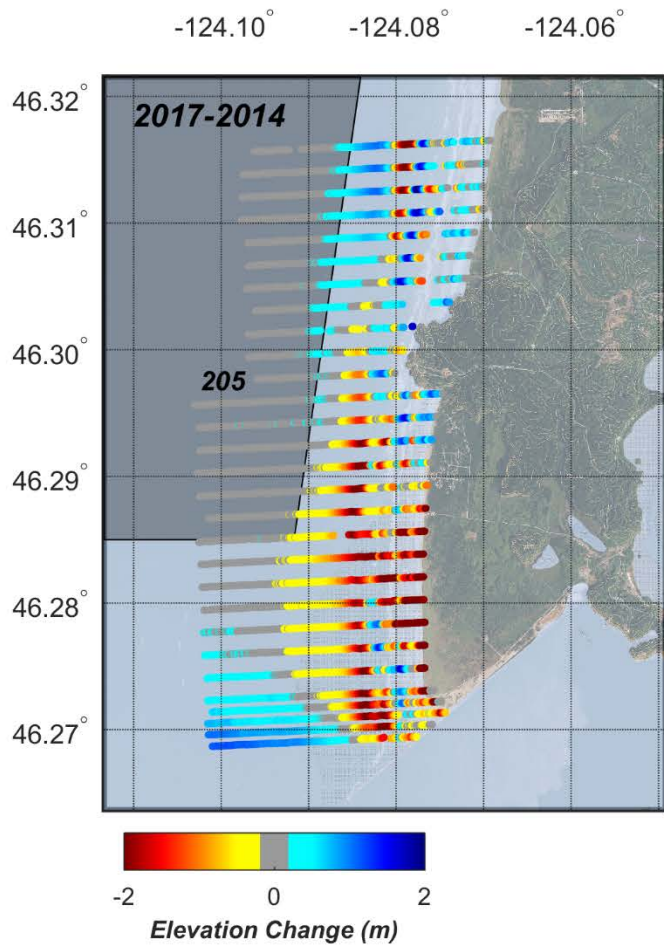


			Volume Change Trends for Dune + Beach (m^3/yr/m)			Alongshore-extrapolated Volume Change (cubic yards per year)		Net Volume Change		
Reach	Profile Name	Length of shoreline represented (m)	SHORT TERM: from Winter 2015 to Winter 2018	LONG TERM: from Winter 1998 to Winter 2018	Change	SHORT TERM: from Winter 2015 to Winter 2018	LONG TERM: from Winter 1998 to Winter 2018	SHORT TERM: from Winter 2015 to Winter 2018	LONG TERM: from Winter 1998 to Winter 2018	Change
Long Beach	JACKSON	142	9.5	22.9	42%	1,800	4,300	20,900	72,700	29%
	PC 008	1645	2.9	18.3	16%	6,300	39,400			
	LDOE	1234	8.0	17.9	44%	12,800	29,000			
North Head	PC 025	1234	-6.6	8.2	-1.8 x	-10,600	13,300	23,200	30,100	77%
	PC 004	990	12.0	5.5	2.2 x	15,500	7,100			
	BMAC	797	17.6	9.3	1.9 x	18,300	9,700			
Benson Beach	ACHWA	812	-36.2	-4.0	9.1 x	-38,400	-4,200	-292,300	-65,000	4.5 x
	CANBY	576	-114.7	-14.4	8 x	-86,400	-10,900			
	PHILO	629	-67.9	-23.7	2.9 x	-55,800	-19,500			
	HANS RM	1004	-85.0	-23.2	3.7 x	-111,700	-30,400			

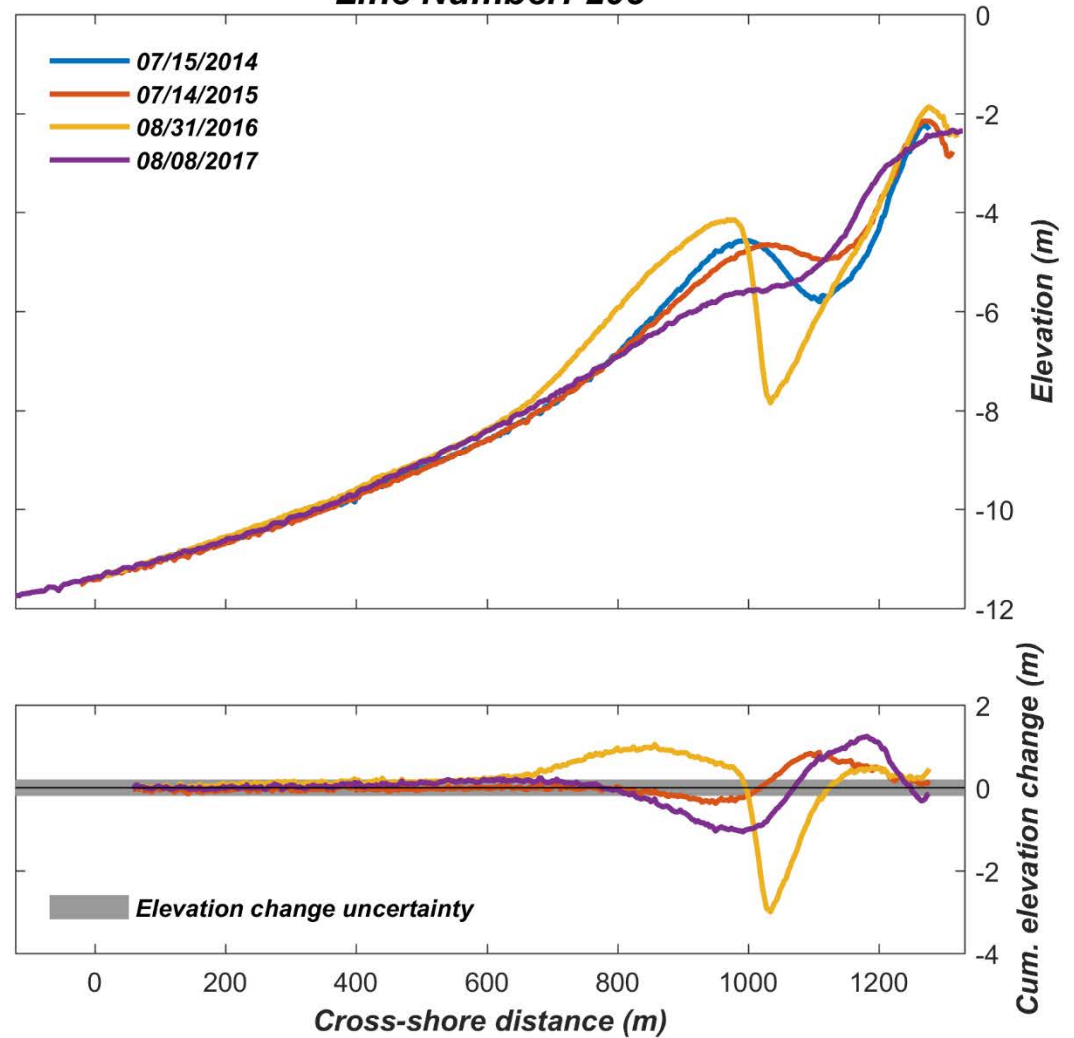
Elevation change at Benson Beach and North Head



Example profiles at Benson Beach and North Head

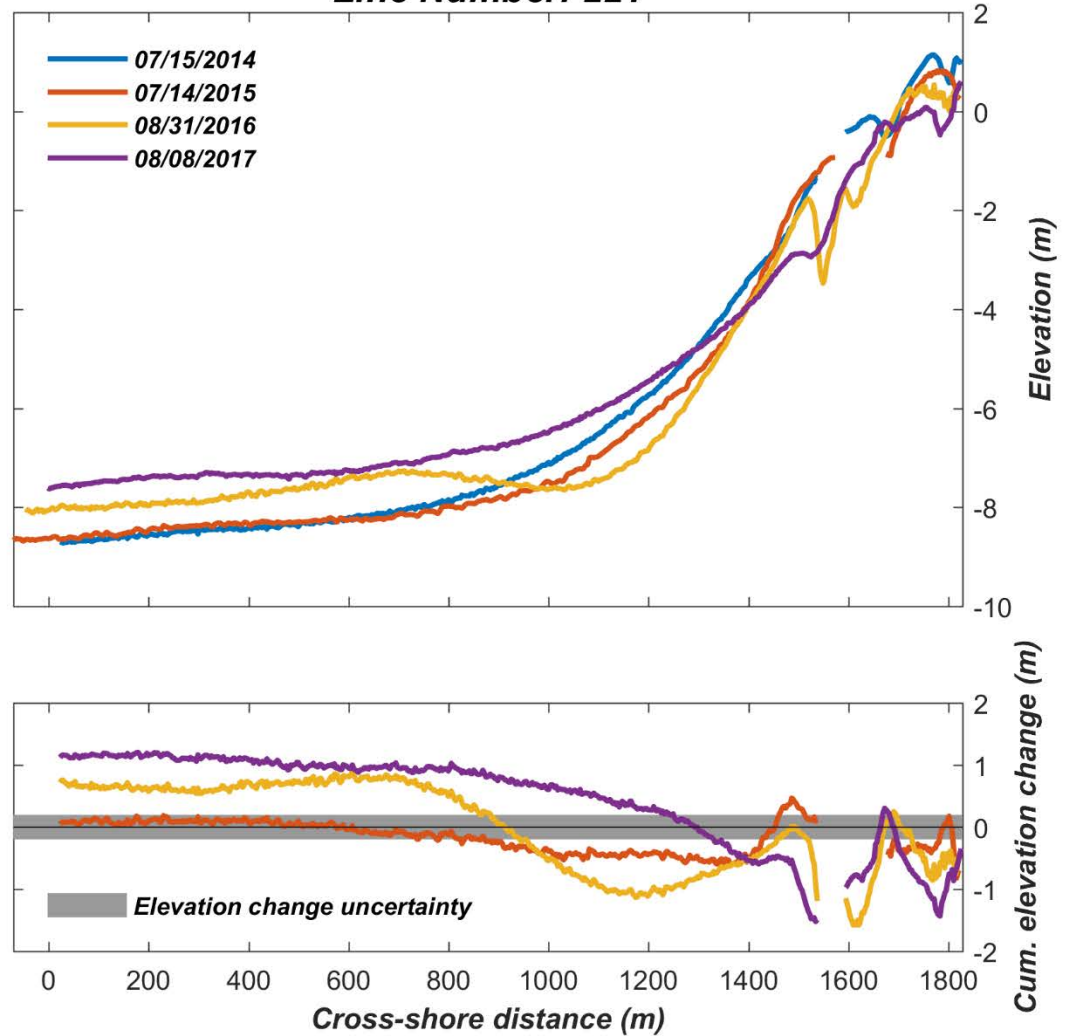
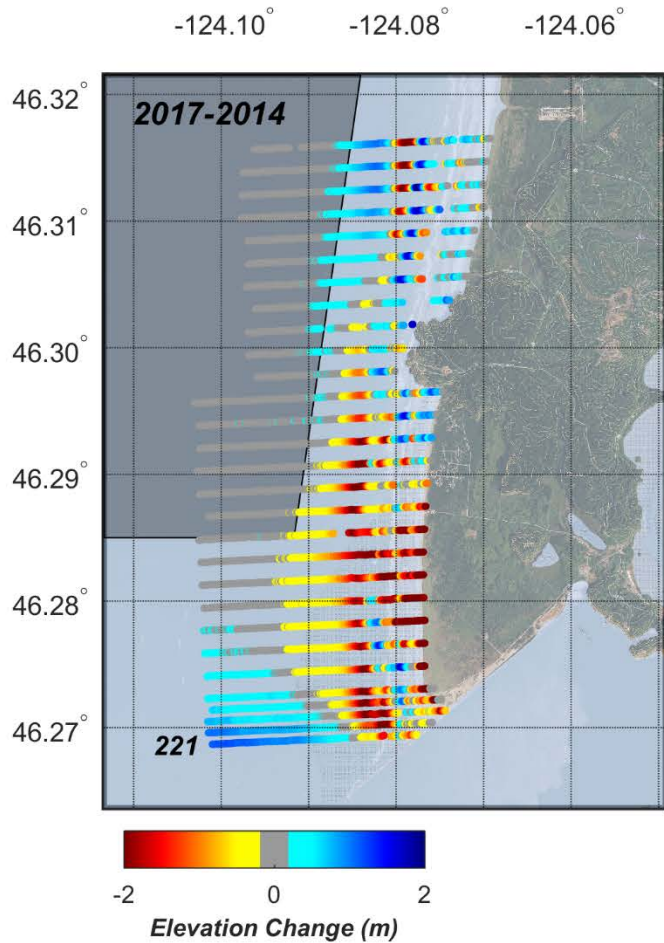


Line Number: 205



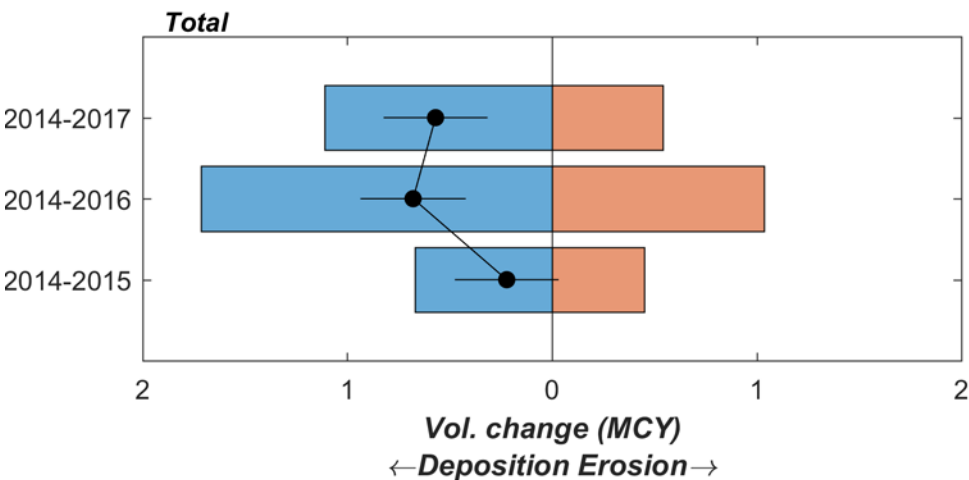
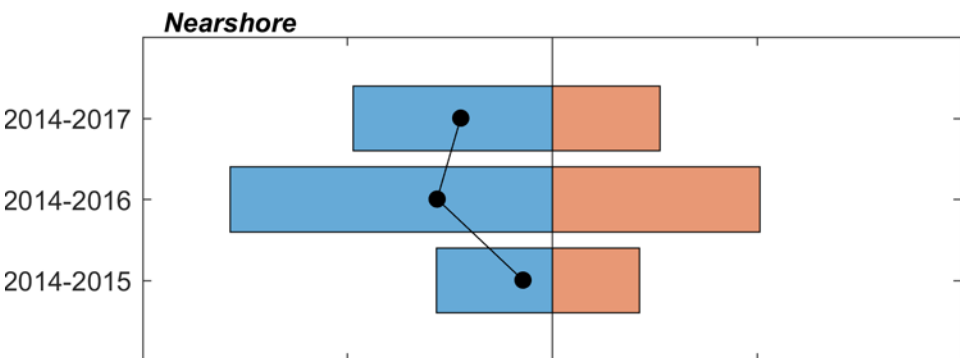
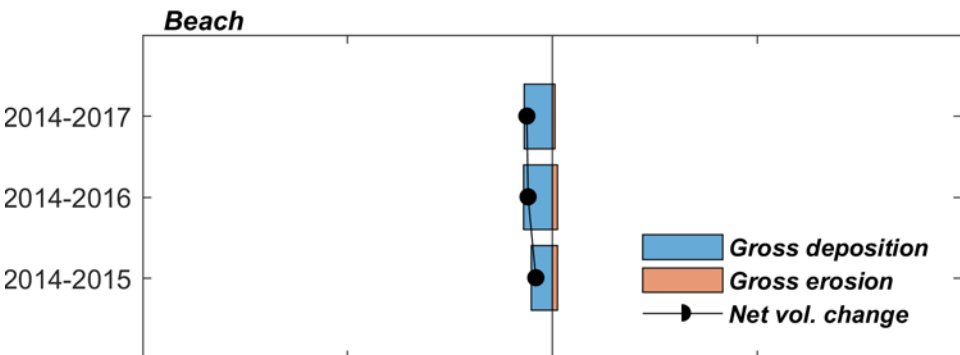
Example profiles at Benson Beach and North Head

Line Number: 221

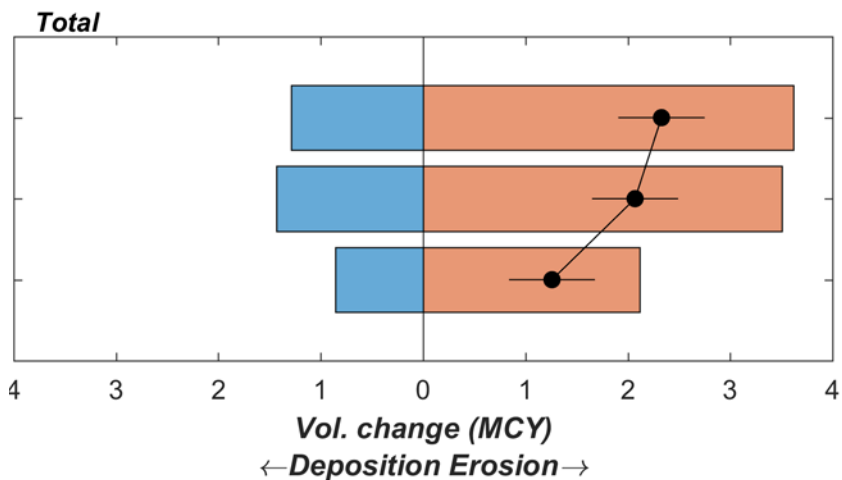
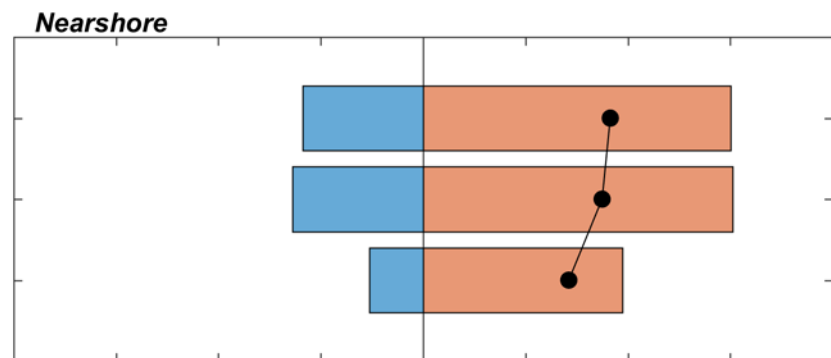
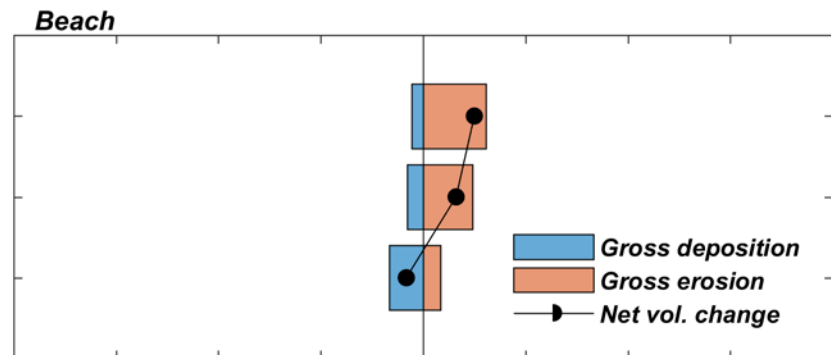


Cumulative volume change at Benson Beach and North Head

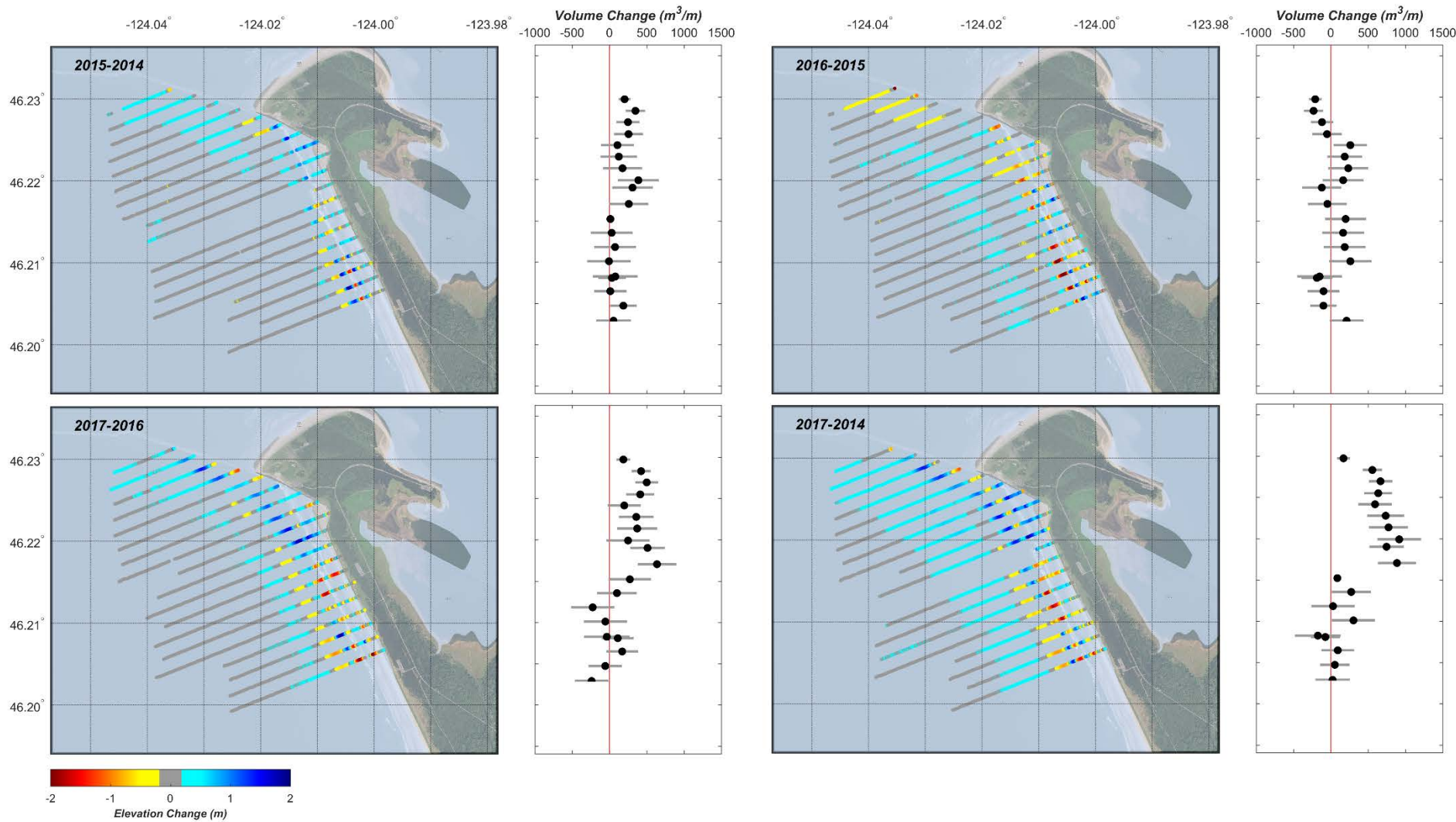
North Head



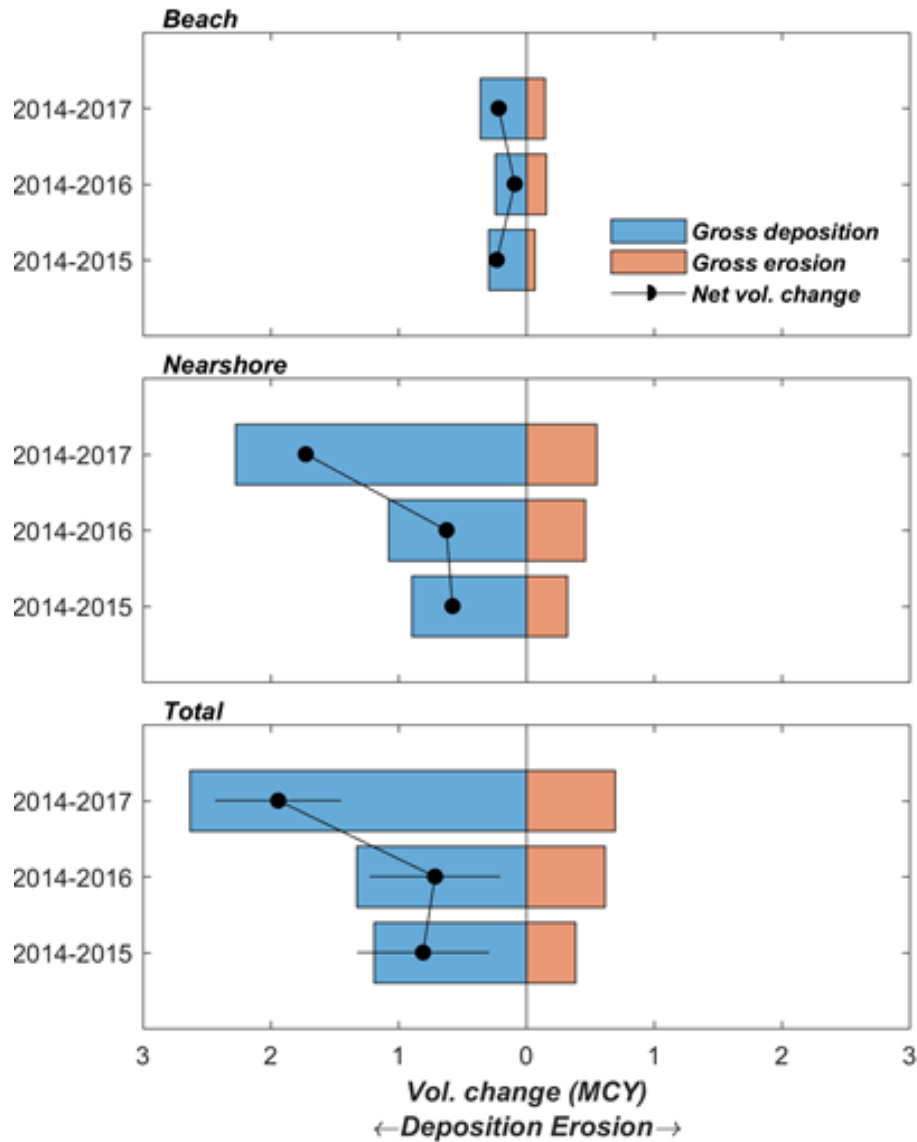
Benson Beach



Elevation change at South Jetty



Volume change at South Jetty



Time Period	Cumulative Volume Change (MCY)		
	Clatsop	Benson Beach	North Head
2014-2015	0.8	-1.3	0.2
2014-2016	0.7	-2.1	0.7
2014-2017	1.9	-2.3	0.6