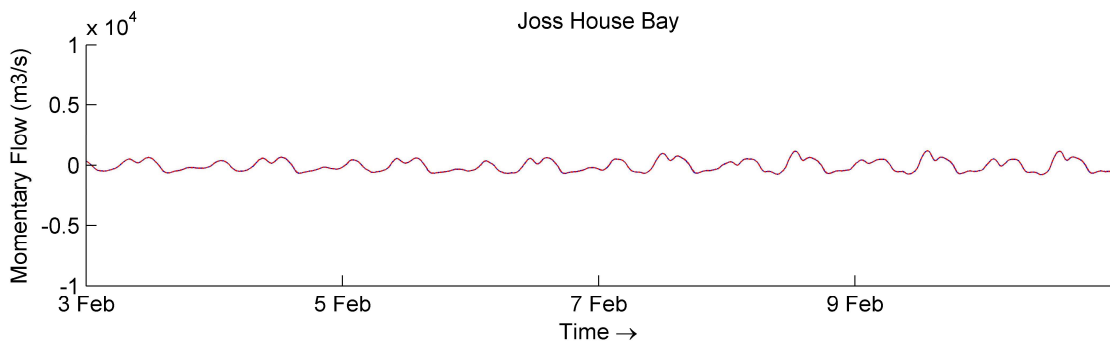
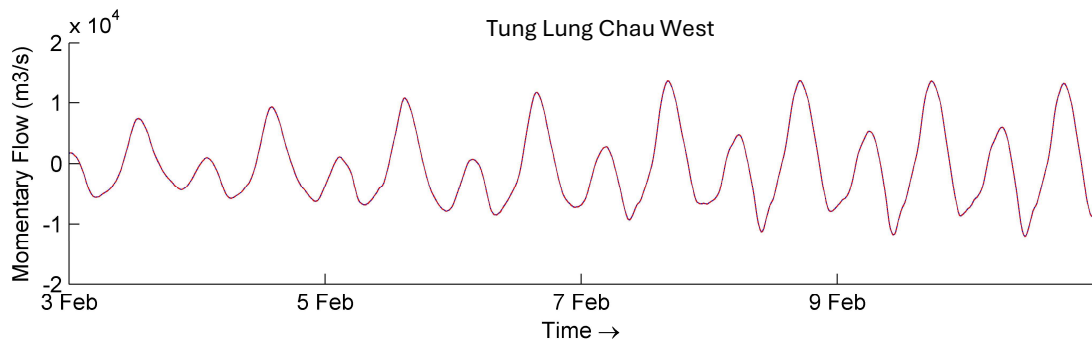
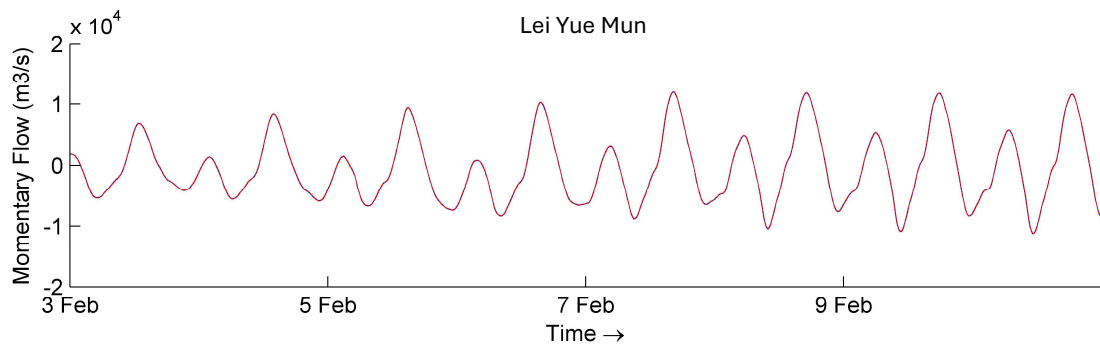


Appendix 5.11b

Operation Phase Timeseries Plots for Momentary
and Accumulated Flow and Relative Changes of
Flow Rates and Flow Speeds

Appendix 5.11b Momentary Flow, Accumulated Flow and RMS

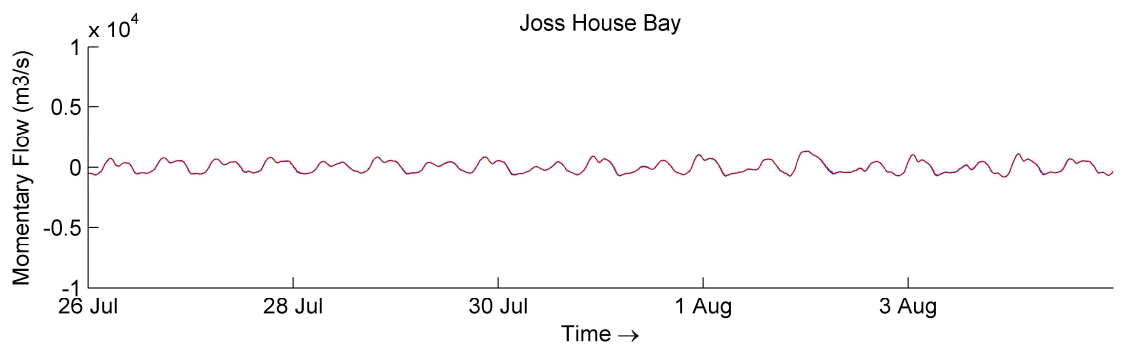
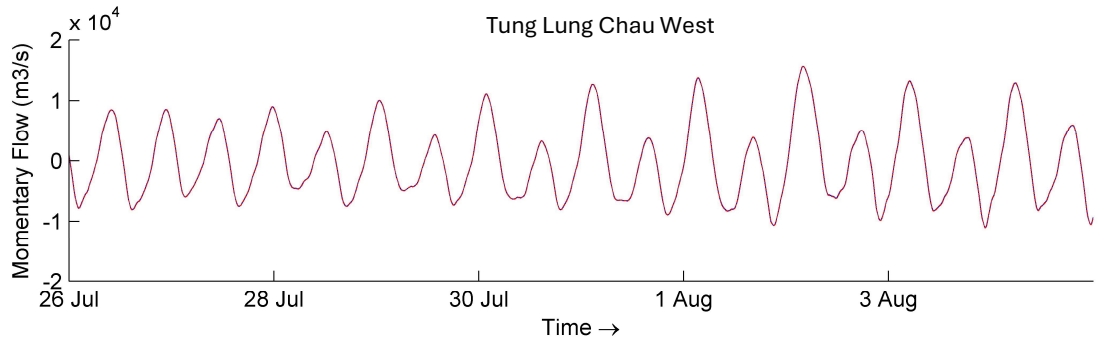
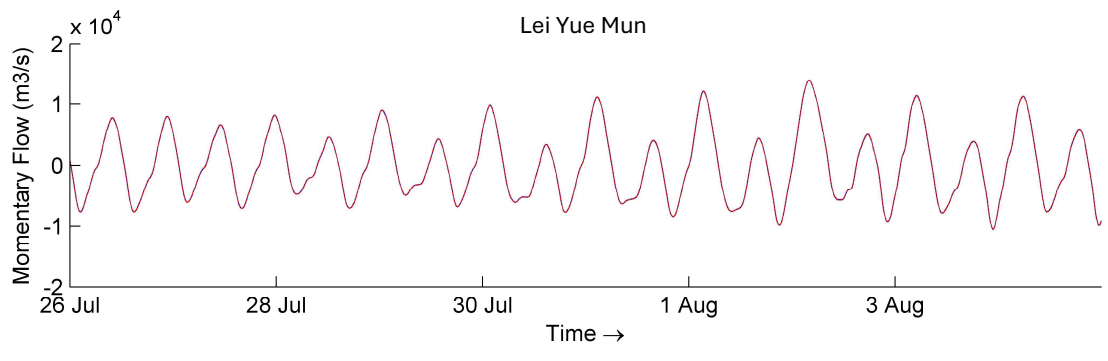
WSR	Description	Season	Page & Location	
Lei Yue Mun	Momentary Flow	Dry	2	Top
Tung Lung Chau West	Momentary Flow	Dry	2	Upper
Joss House Bay	Momentary Flow	Dry	2	Lower
Lei Yue Mun	Momentary Flow	Wet	3	Top
Tung Lung Chau West	Momentary Flow	Wet	3	Upper
Joss House Bay	Momentary Flow	Wet	3	Lower
Lei Yue Mun	Accumulated Flow	Dry	4	Top
Tung Lung Chau West	Accumulated Flow	Dry	4	Upper
Joss House Bay	Accumulated Flow	Dry	4	Lower
Lei Yue Mun	Accumulated Flow	Wet	5	Top
Tung Lung Chau West	Accumulated Flow	Wet	5	Upper
Joss House Bay	Accumulated Flow	Wet	5	Lower
EM2	Depth-averaged Flow Speed	Dry	6	Top
EM3	Depth-averaged Flow Speed	Dry	6	Upper
JM3	Depth-averaged Flow Speed	Dry	6	Lower
JM4	Depth-averaged Flow Speed	Dry	6	Bottom
EM2	Depth-averaged Flow Speed	Wet	7	Top
EM3	Depth-averaged Flow Speed	Wet	7	Upper
JM3	Depth-averaged Flow Speed	Wet	7	Lower
JM4	Depth-averaged Flow Speed	Wet	7	Bottom
Lei Yue Mun	% Change of Accumulated Flow	Dry & Wet	8	
Tung Lung Chau West	% Change of Accumulated Flow	Dry & Wet	9	
Joss House Bay	% Change of Accumulated Flow	Dry & Wet	10	
EM2, EM3, JM3, JM4	% Change of Flow Speed	Dry & Wet	11	



Momentary Flow Across
 Top: Lei Yue Mun; Upper: Tung Lung Chau West; Lower: Joss House Bay
 Red: Scenario B1 (Baseline Scenario)
 Blue: Scenario B2 (Impact "With Project" Scenario)

Dry Season

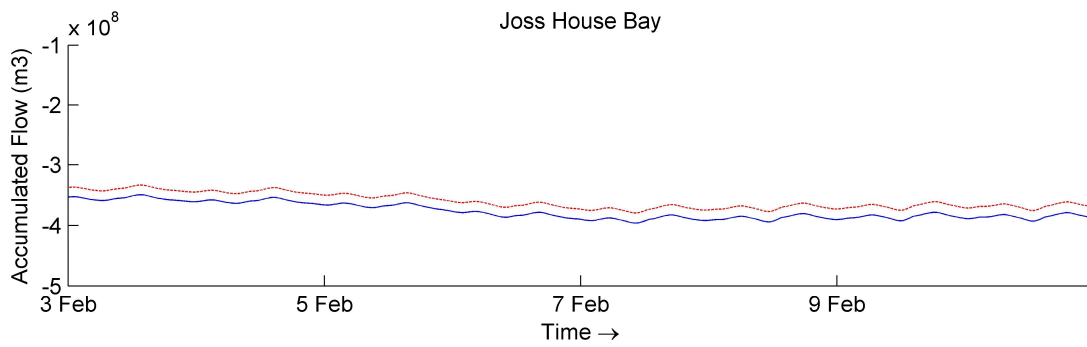
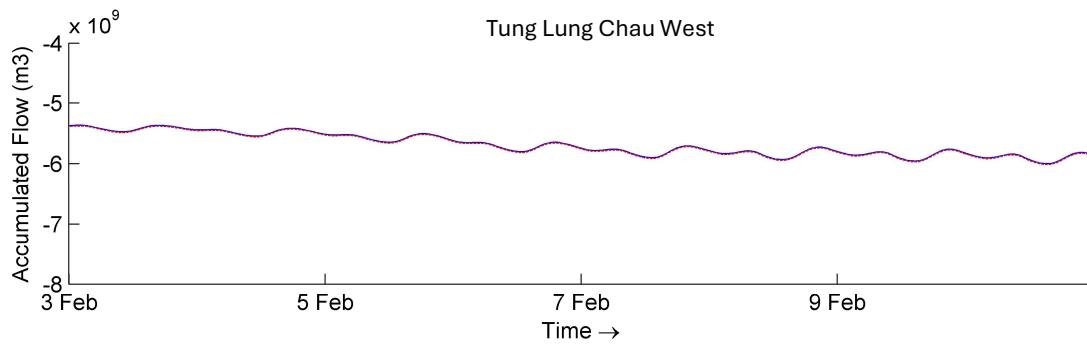
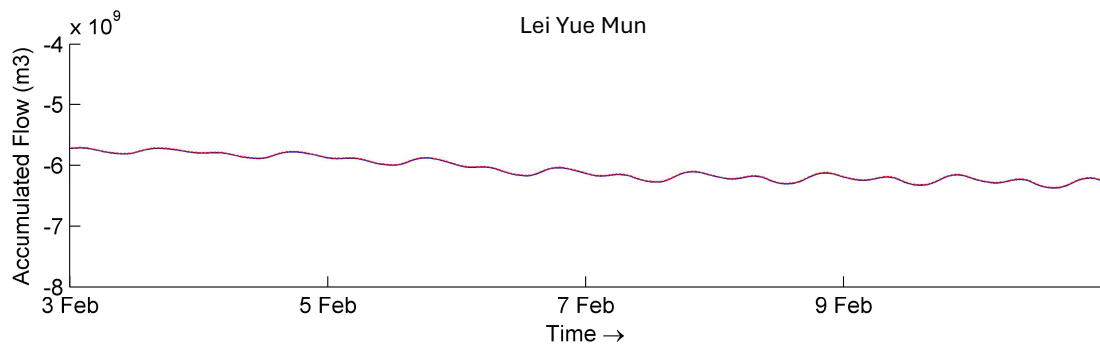
CE 40/2023 (CE)



Momentary Flow Across
 Top: Lei Yue Mun; Upper: Tung Lung Chau West; Lower: Joss House Bay
 Red: Scenario B1 (Baseline Scenario)
 Blue: Scenario B2 (Impact "With Project" Scenario)

Wet Season

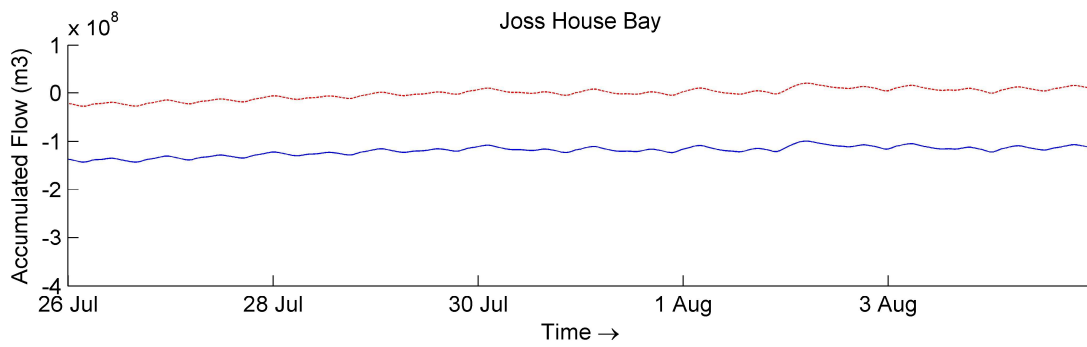
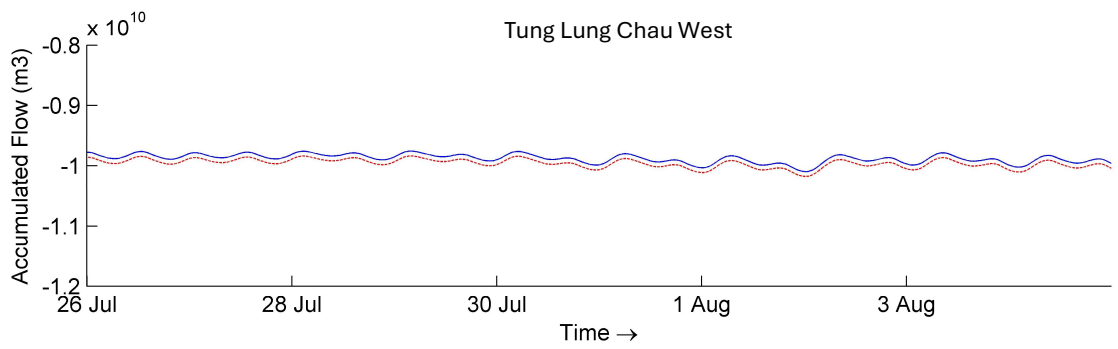
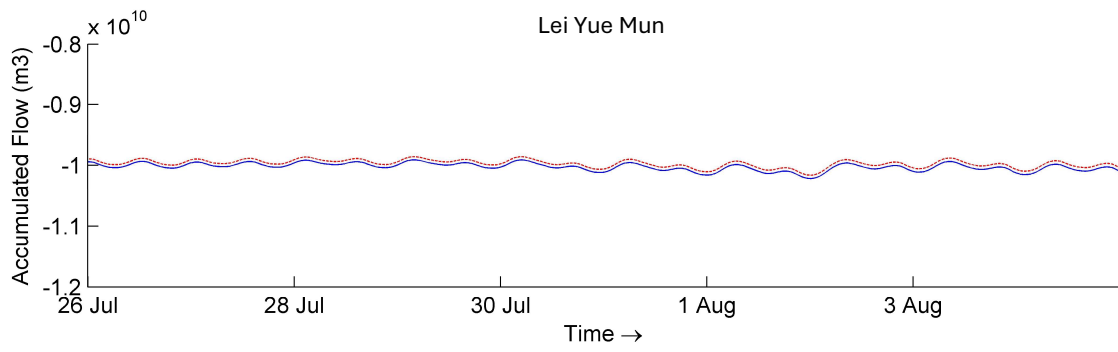
CE 40/2023 (CE)



Accumulated Flow Across
 Top: Lei Yue Mun; Upper: Tung Lung Chau West; Lower: Joss House Bay
 Red: Scenario B1 (Baseline Scenario)
 Blue: Scenario B2 (Impact "With Project" Scenario)

Dry Season

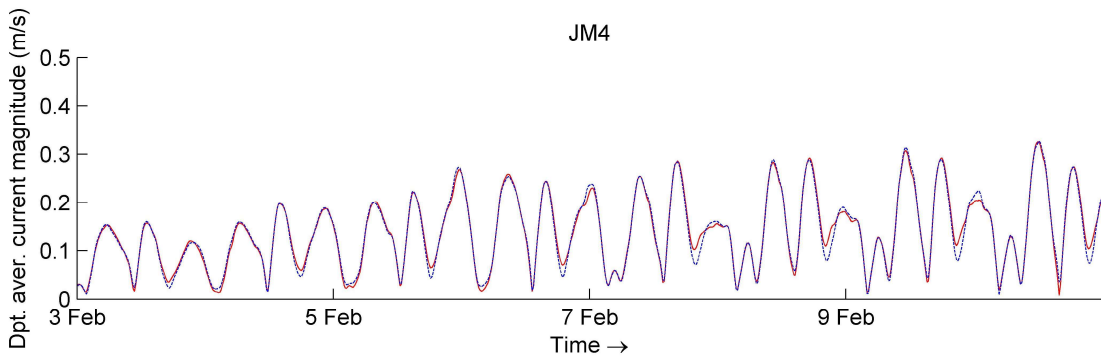
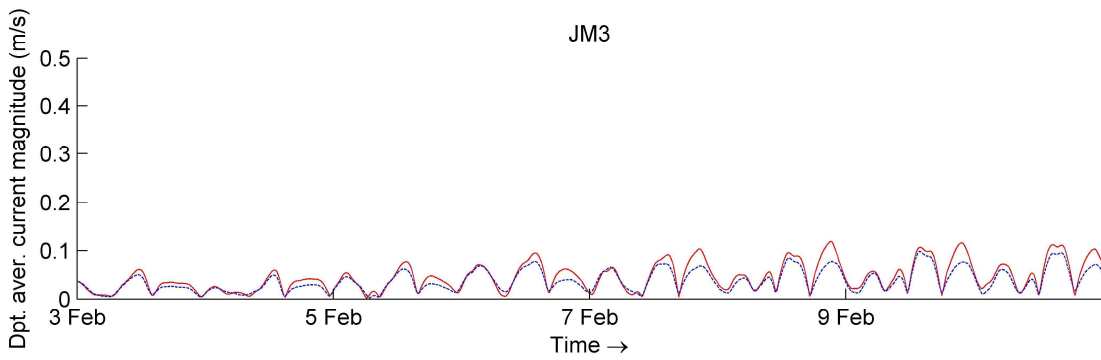
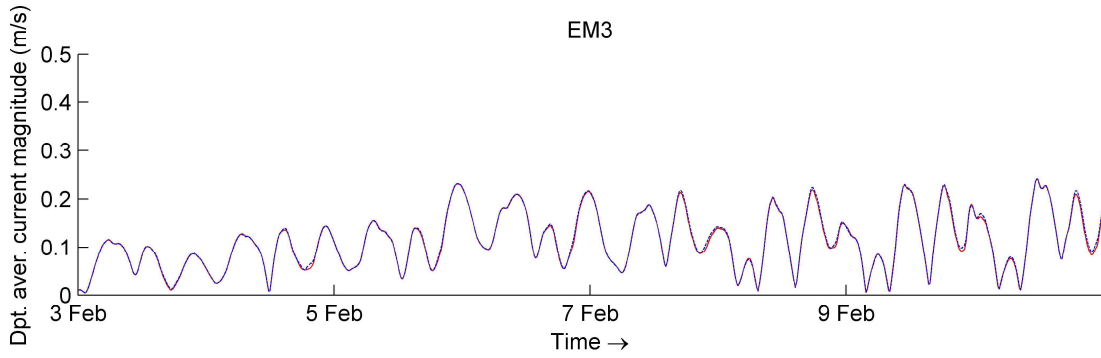
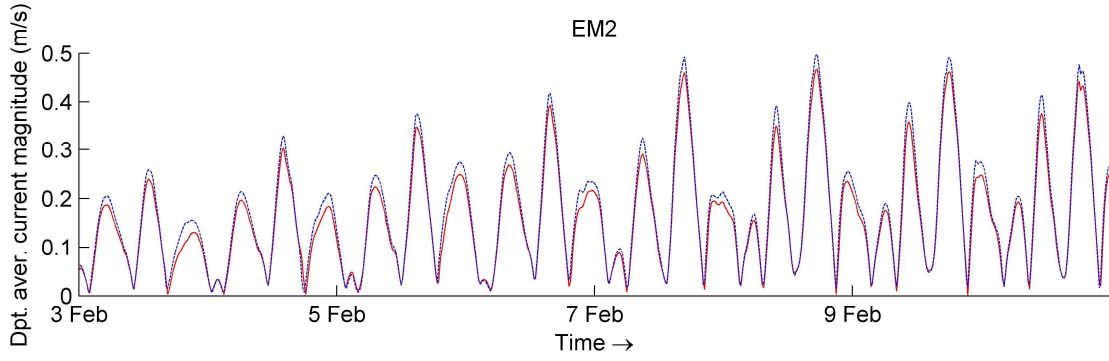
CE 40/2023 (CE)



Accumulated Flow Across
 Top: Lei Yue Mun; Upper: Tung Lung Chau West; Lower: Joss House Bay
 Red: Scenario B1 (Baseline Scenario)
 Blue: Scenario B2 (Impact "With Project" Scenario)

Wet Season

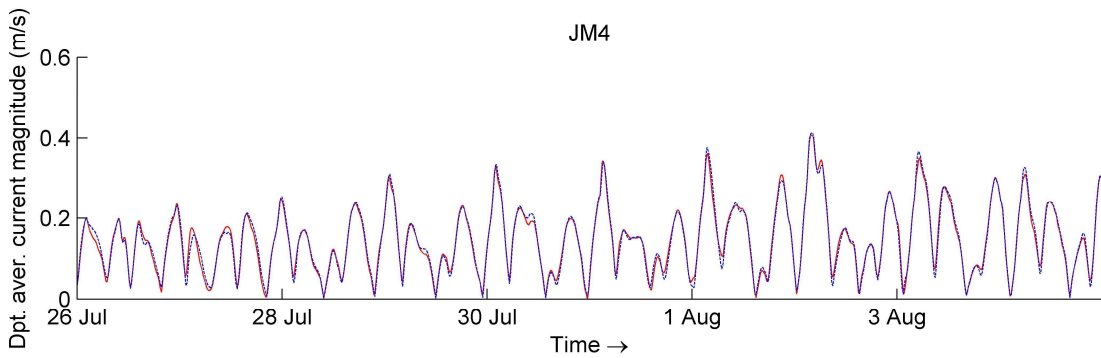
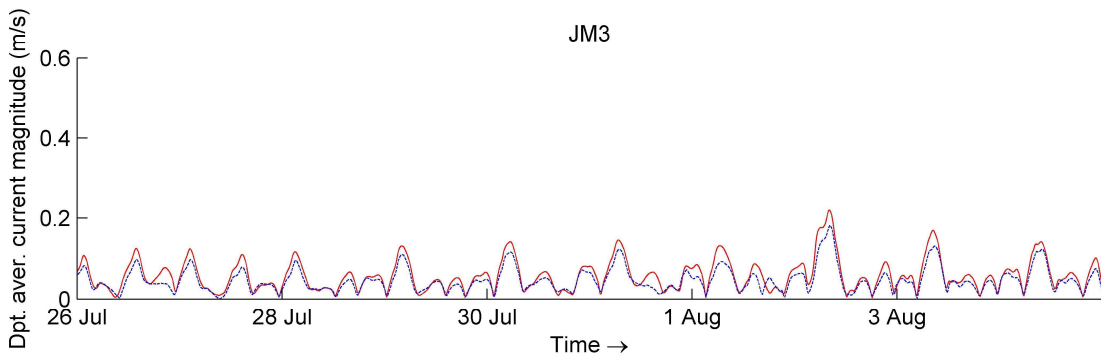
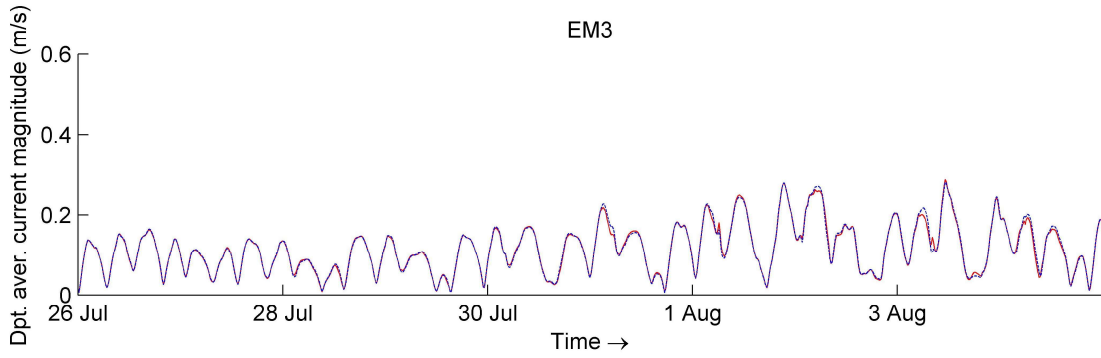
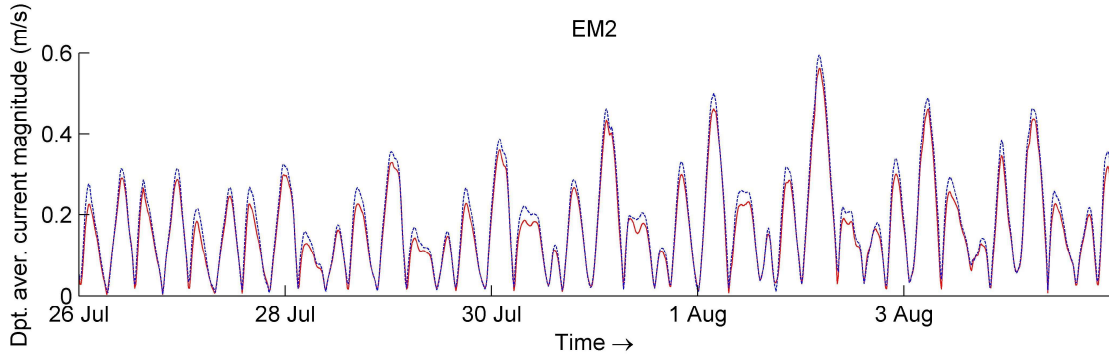
CE 40/2023 (CE)



Depth-averaged Flow Speed at
 Top: EM2; Upper: EM3;
 Lower: JM3; Bottom: JM4
 Red: Scenario B1 (Baseline Scenario)
 Blue: Scenario B2 (Impact "With Project" Scenario)

Dry Season

CE 40/2023 (CE)



Depth-averaged Flow Speed at
 Top: EM2; Upper: EM3;
 Lower: JM3; Bottom: JM4
 Red: Scenario B1 (Baseline Scenario)
 Blue: Scenario B2 (Impact "With Project" Scenario)

Wet Season

CE 40/2023 (CE)

Changes in Accumulated Flow Due to Project		Lei Yue Mun				
		Accumulated Flow (m ³)				
		Baseline Scenario	Operational Scenario	Difference	Relative Difference	
Dry season						
Spring Tide	Flood Phase	8/2/2016 8:00	-6169620000	-6180480000		
		8/2/2016 14:00	-6287730000	-6298370000		
		Difference	-118110000	-117890000	220000	-0.19%
	Ebb Phase	8/2/2016 14:00	-6287730000	-6298370000		
		8/2/2016 19:00	-6136700000	-6147780000		
		Difference	151030000	150590000	-440000	-0.29%
Neap Tide	Flood Phase	3/2/2016 4:00	-5728240000	-5737570000		
		3/2/2016 10:00	-5808600000	-5817730000		
		Difference	-80360000	-80160000	200000	-0.25%
	Ebb Phase	3/2/2016 11:00	-5805010000	-5814200000		
		3/2/2016 17:00	-5719270000	-5728940000		
		Difference	85740000	85260000	-480000	-0.56%
Wet season						
Spring Tide	Flood Phase	1/8/2016 19:00	-10040600000	-10105700000		
		2/8/2016 1:00	-10151700000	-10216900000		
		Difference	-111100000	-111200000	-100000	0.09%
	Ebb Phase	2/8/2016 0:30	-10156200000	-10221300000		
		2/8/2016 7:30	-9914370000	-9980200000		
		Difference	241830000	241100000	-730000	-0.30%
Neap Tide	Flood Phase	27/7/2016 13:00	-9884520000	-9947740000		
		27/7/2016 19:00	-9972280000	-10035400000		
		Difference	-87760000	-87660000	100000	-0.11%
	Ebb Phase	27/7/2016 20:00	-9974850000	-10038000000		
		28/7/2016 2:00	-9864770000	-9928510000		
		Difference	110080000	109490000	-590000	-0.54%

Changes in Accumulated Flow Due to Project		Tung Lung Chau West				
		Accumulated Flow (m ³)				
		Baseline Scenario	Operational Scenario	Difference	Relative Difference	
Dry season						
Spring Tide	Flood Phase	8/2/2016 8:00	-5804100000	-5793120000		
		8/2/2016 14:00	-5941540000	-5929890000		
		Difference	-137440000	-136770000	670000	-0.49%
	Ebb Phase	8/2/2016 14:00	-5941540000	-5929890000		
		8/2/2016 19:00	-5763960000	-5753120000		
		Difference	177580000	176770000	-810000	-0.46%
Neap Tide	Flood Phase	3/2/2016 4:00	-5394850000	-5383820000		
		3/2/2016 10:00	-5486210000	-5474710000		
		Difference	-91360000	-90890000	470000	-0.51%
	Ebb Phase	3/2/2016 11:00	-5481590000	-5470180000		
		3/2/2016 17:00	-5381170000	-5370400000		
		Difference	100420000	99780000	-640000	-0.64%
Wet season						
Spring Tide	Flood Phase	1/8/2016 19:00	-10039700000	-9975070000		
		2/8/2016 1:00	-10172900000	-10107900000		
		Difference	-133200000	-132830000	370000	-0.28%
	Ebb Phase	2/8/2016 0:30	-10175600000	-10110600000		
		2/8/2016 7:30	-9906810000	-9842300000		
		Difference	268790000	268300000	-490000	-0.18%
Neap Tide	Flood Phase	27/7/2016 13:00	-9855270000	-9792260000		
		27/7/2016 19:00	-9956490000	-9893100000		
		Difference	-101220000	-100840000	380000	-0.38%
	Ebb Phase	27/7/2016 20:00	-9962830000	-9899430000		
		28/7/2016 2:00	-9840920000	-9778130000		
		Difference	121910000	121300000	-610000	-0.50%

Changes in Accumulated Flow Due to Project		Joss House Bay				
		Accumulated Flow (m ³)		Difference	Relative Difference	
		Baseline Scenario	Operational Scenario			
Dry season						
Spring Tide	Flood Phase	8/2/2016 8:00	-369696000	-386964000		
		8/2/2016 14:00	-368349000	-385627000		
		Difference	1347000	1337000	-10000	-0.74%
	Ebb Phase	8/2/2016 14:00	-368349000	-385627000		
		8/2/2016 19:00	-364143000	-381754000		
		Difference	4206000	3873000	-333000	-7.92%
Neap Tide	Flood Phase	3/2/2016 4:00	-339875000	-355898000		
		3/2/2016 10:00	-338081000	-354139000		
		Difference	1794000	1759000	-35000	-1.95%
	Ebb Phase	3/2/2016 11:00	-336757000	-352846000		
		3/2/2016 17:00	-338287000	-354501000		
		Difference	-1530000	-1655000	-125000	8.17%
Wet season						
Spring Tide	Flood Phase	1/8/2016 19:00	4553720	-110256000		
		2/8/2016 1:00	11418800	-103375000		
		Difference	6865080	6881000	15920	0.23%
	Ebb Phase	2/8/2016 0:30	9200340	-105599000		
		2/8/2016 7:30	18594100	-97293600		
		Difference	9393760	8305400	-1088360	-11.59%
Neap Tide	Flood Phase	27/7/2016 13:00	-11520600	-123446000		
		27/7/2016 19:00	-12277000	-124134000		
		Difference	-756400	-688000	68400	-9.04%
	Ebb Phase	27/7/2016 20:00	-10110900	-121981000		
		28/7/2016 2:00	-5946720	-118145000		
		Difference	4164180	3836000	-328180	-7.88%

Change in Root-mean-square averaged flow speed due to Project

EM2				
	Baseline Scenario	Operational Scenario	Difference	Relative Difference
Dry season (26/1/2016-00:00:00 to 11/2/2016-00:00:00)	0.1838	0.1996	0.0159	8.63%
Wet season (2016/07/20-00:00:00 to 2016/08/05-00:00:00)	0.2390	0.2606	0.0216	9.04%
EM3				
	Baseline Scenario	Operational Scenario	Difference	Relative Difference
Dry season (26/1/2016-00:00:00 to 11/2/2016-00:00:00)	0.1229	0.1230	0.0001	0.06%
Wet season (2016/07/20-00:00:00 to 2016/08/05-00:00:00)	0.1488	0.1474	-0.0014	-0.96%
JM3				
	Baseline Scenario	Operational Scenario	Difference	Relative Difference
Dry season (26/1/2016-00:00:00 to 11/2/2016-00:00:00)	0.0500	0.0405	-0.0094	-18.85%
Wet season (2016/07/20-00:00:00 to 2016/08/05-00:00:00)	0.0846	0.0717	-0.0129	-15.21%
JM4				
	Baseline Scenario	Operational Scenario	Difference	Relative Difference
Dry season (26/1/2016-00:00:00 to 11/2/2016-00:00:00)	0.1551	0.1555	0.0004	0.29%
Wet season (2016/07/20-00:00:00 to 2016/08/05-00:00:00)	0.2151	0.2173	0.0023	1.05%