SUPPLEMENTARY MATERIAL

Fig. S1. Current speed differences in summer: a) Maint_Enc/ b) Mar_part_0.5m/ c) Mar_0.5m/ d) Maint_Enc_Mar_0.5m/ e) Enc_1m/ f) Enc_1.5m/ g) Mar_1m/ h) Mar_1.5m/ i) Enc_Mar_1m/ j) Enc_Mar_1.5m (Red: increase/ Blue: decrease)

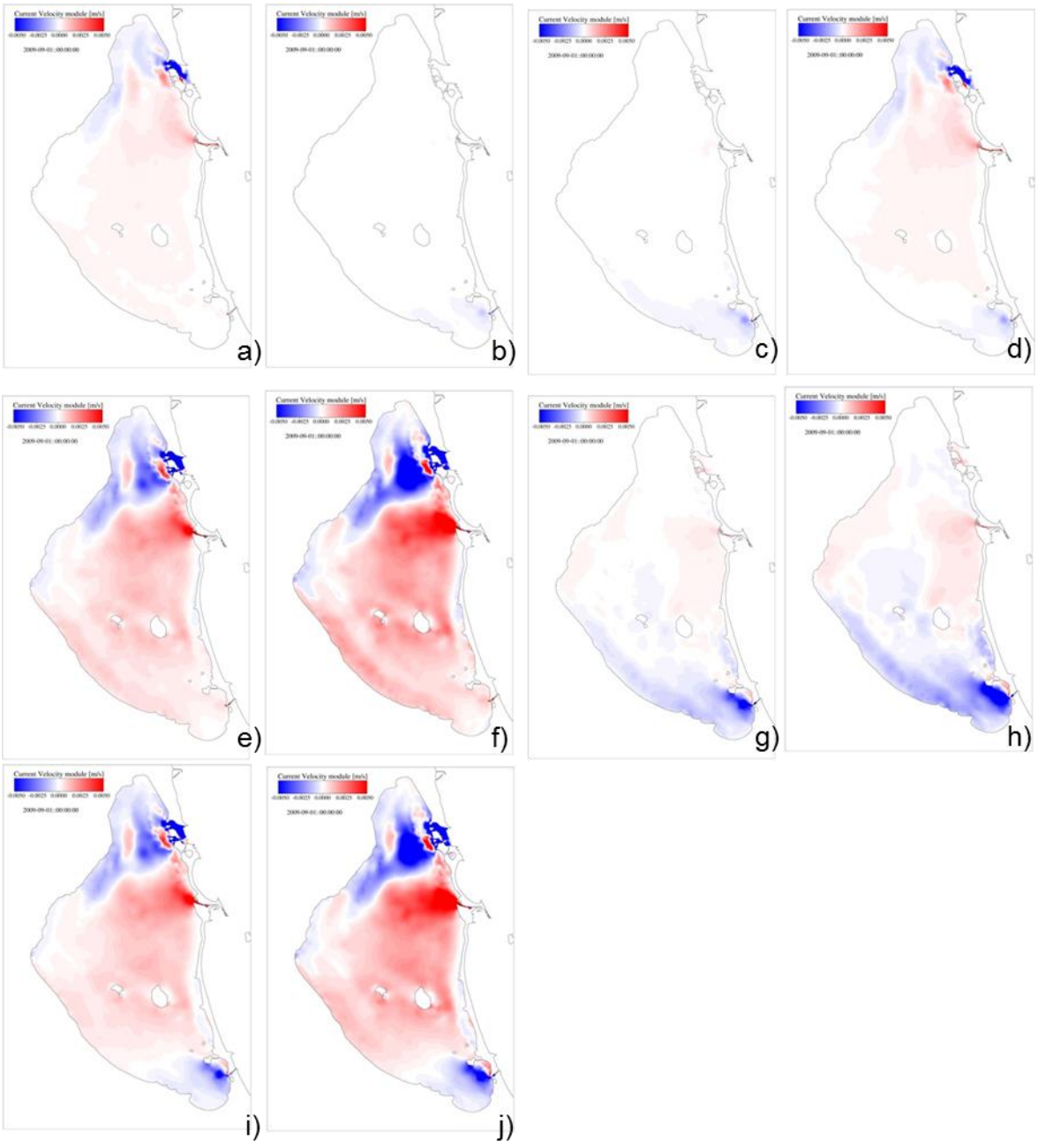


Fig. S2. Current speed differences in fall: a) Maint_Enc/ b) Mar_part_0.5m/ c) Mar_0.5m/ d) Maint_Enc_Mar_0.5m/ e) Enc_1m/ f) Enc_1.5m/ g) Mar_1m/ h) Mar_1.5m/ i) Enc_Mar_1m/ j) Enc_Mar_1.5m (Red: increase/ Blue: decrease)

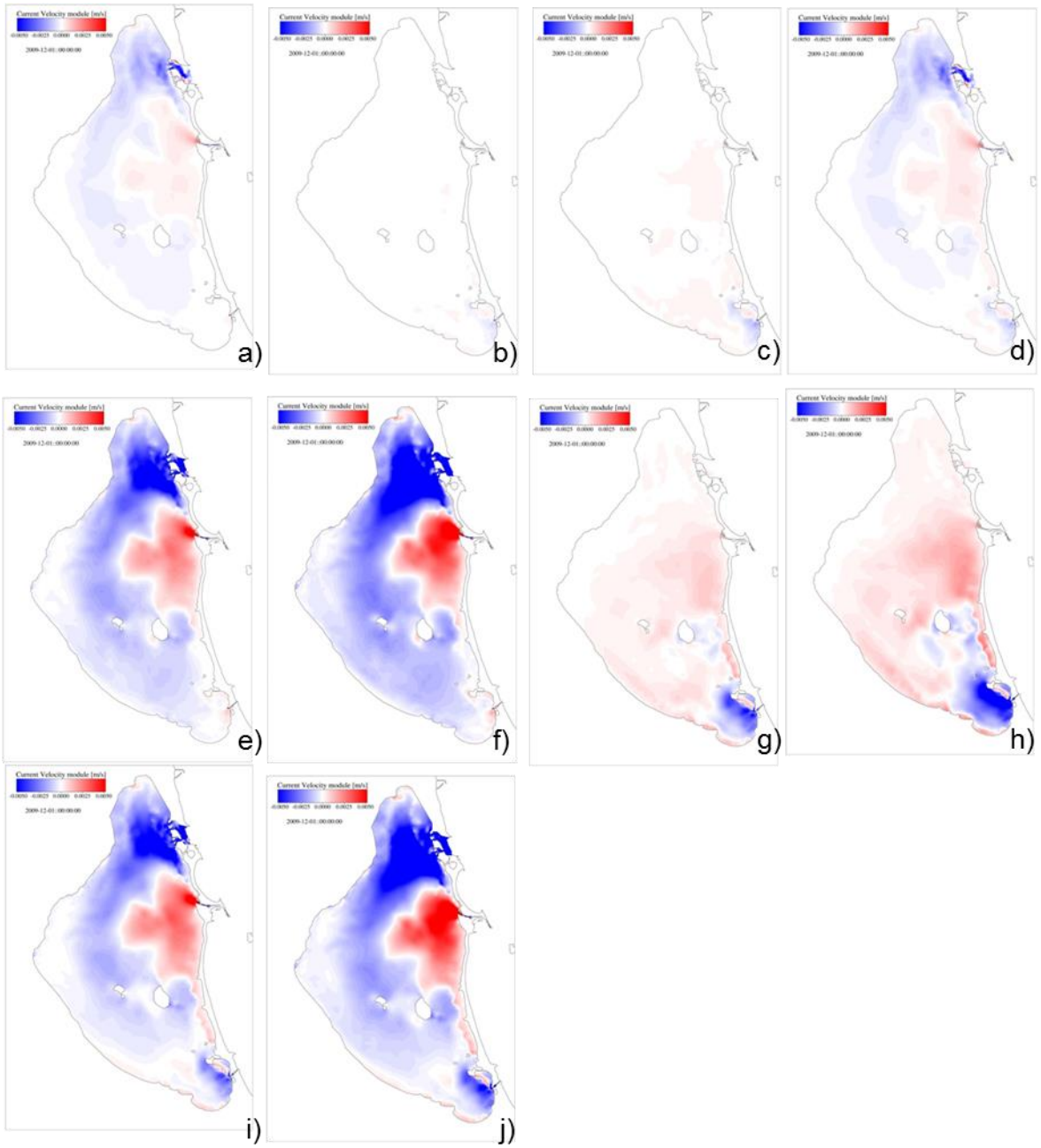
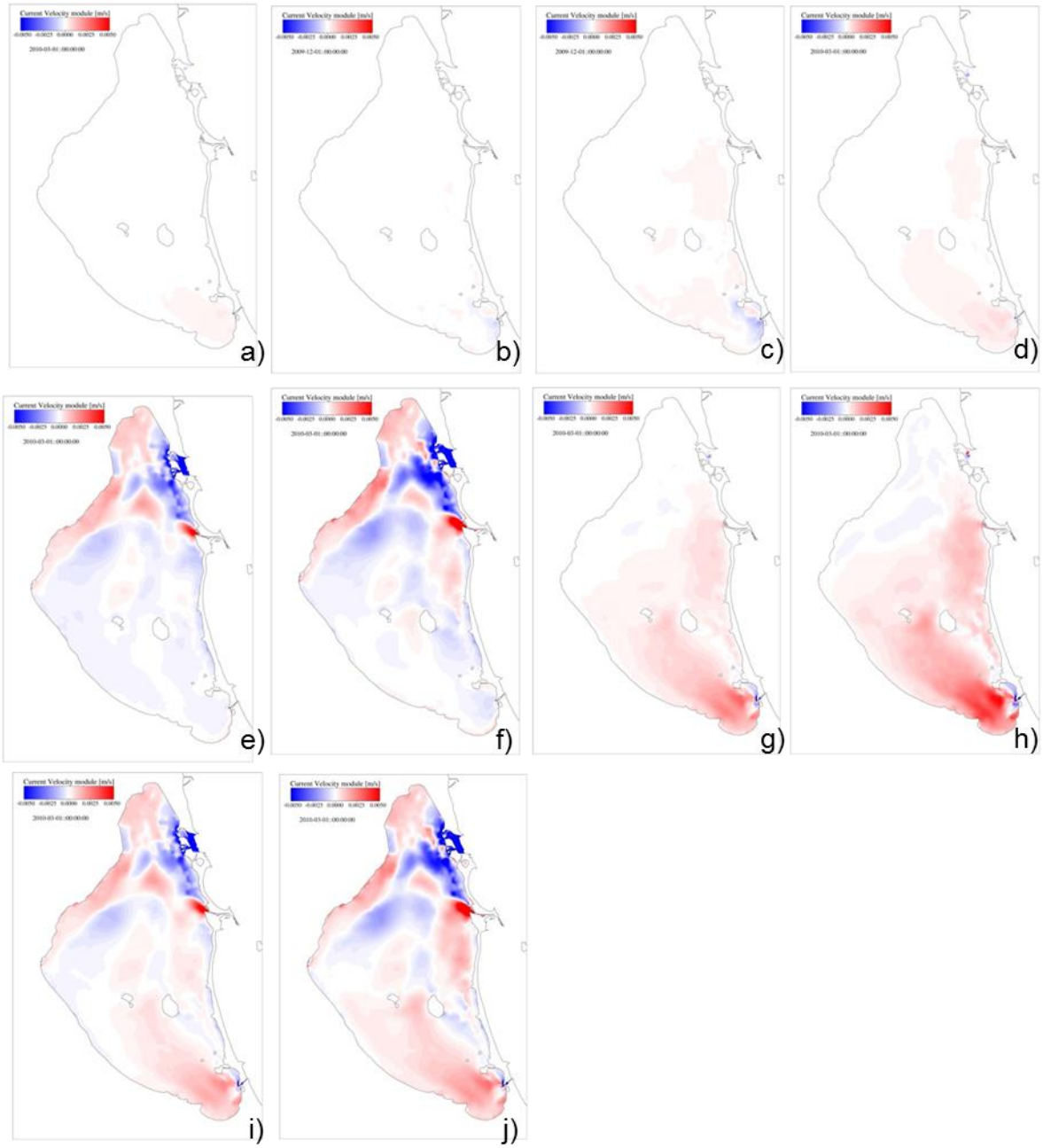


Fig. S3. Current speed differences in winter: a) Maint_Enc/ b) Mar_part_0.5m/ c) Mar_0.5m/ d) Maint_Enc_Mar_0.5m/ e) Enc_1m/ f) Enc_1.5m/ g) Mar_1m/ h) Mar_1.5m/ i) Enc_Mar_1m/ j) Enc_Mar_1.5m (Red: increase/ Blue: decrease)



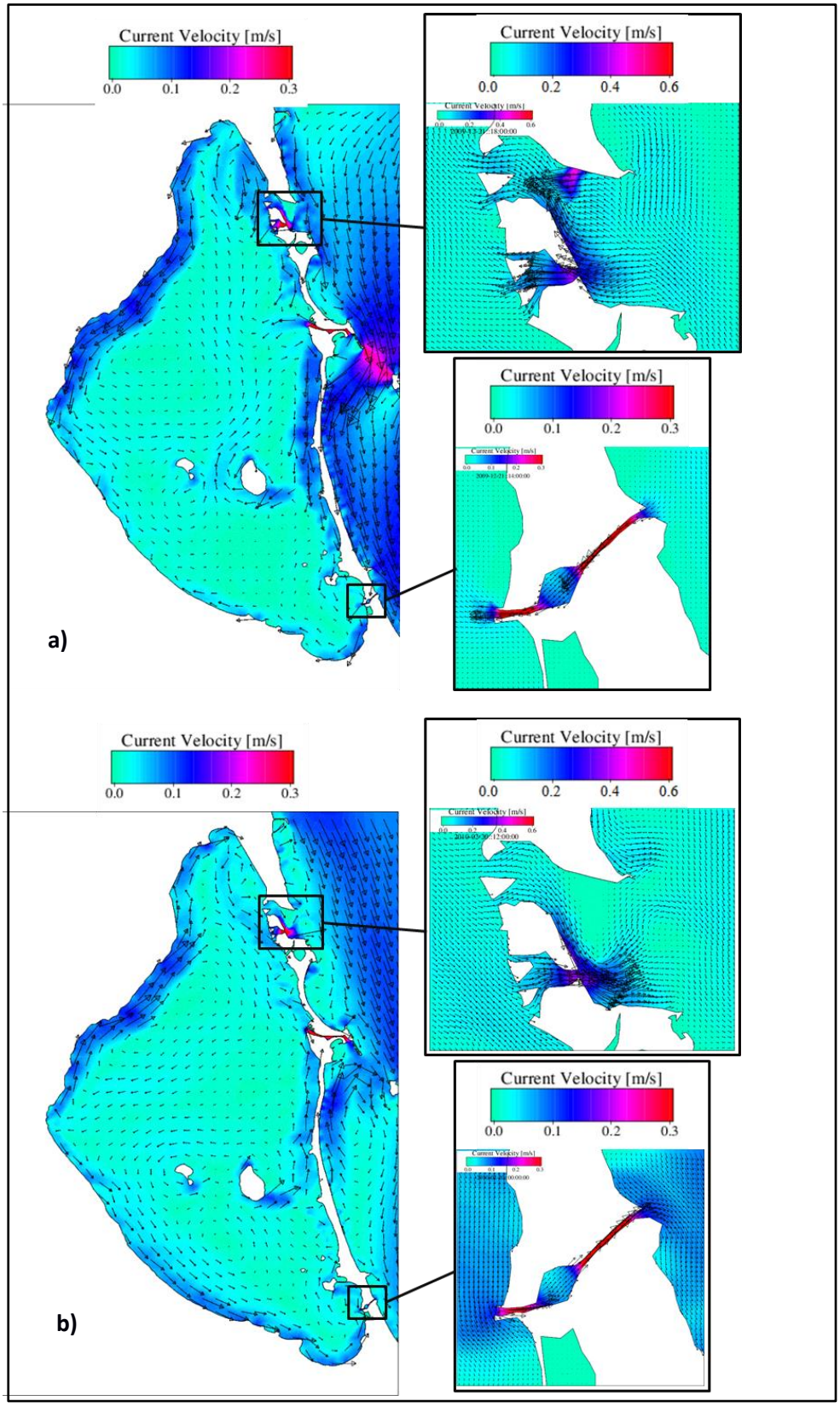


Figure S4. Vertically averaged current speeds during 13-02-2010 and 20-02-2010 (a) Ingoing and b) outgoing situations)

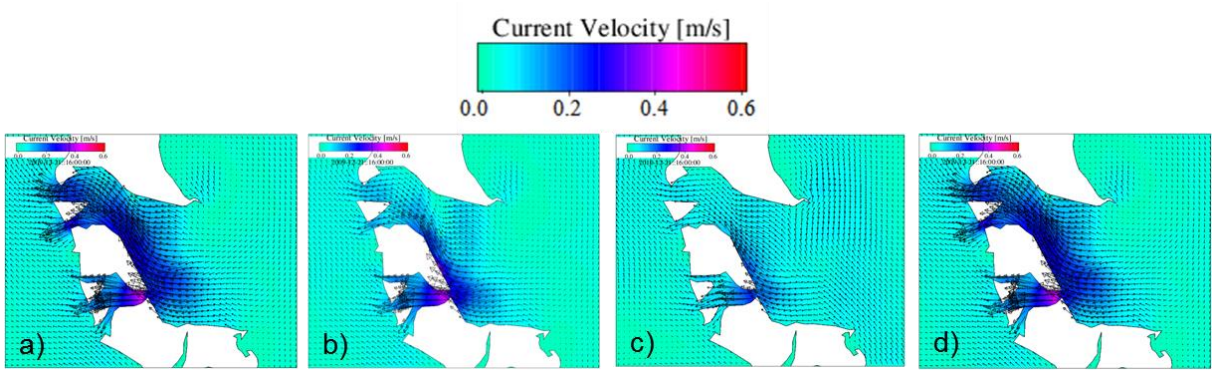


Figure S5. Vertically averaged current speeds in Encañizadas at maximum discharge into the lagoon through El Estacio: a) Maint_Enc/ b) Mar_part_0.5m/ c) Mar_0.5m/ d) Maint_Enc_Mar_0.5m

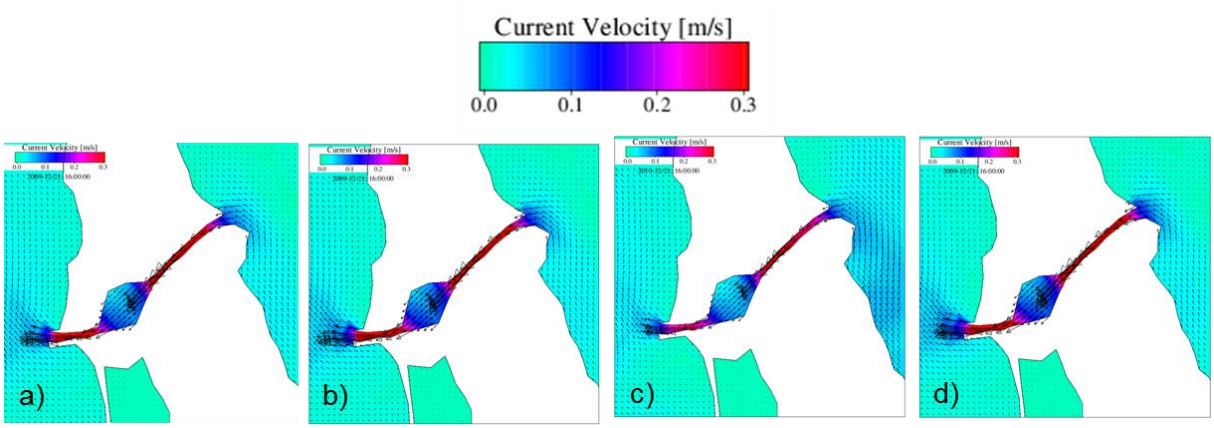


Figure S6. Vertically averaged current speeds in Marchamalo at maximum discharge into the lagoon through El Estacio: a) Maint_Enc/ b) Mar_part_0.5m/ c) Mar_0.5m/ d) Maint_Enc_Mar_0.5m

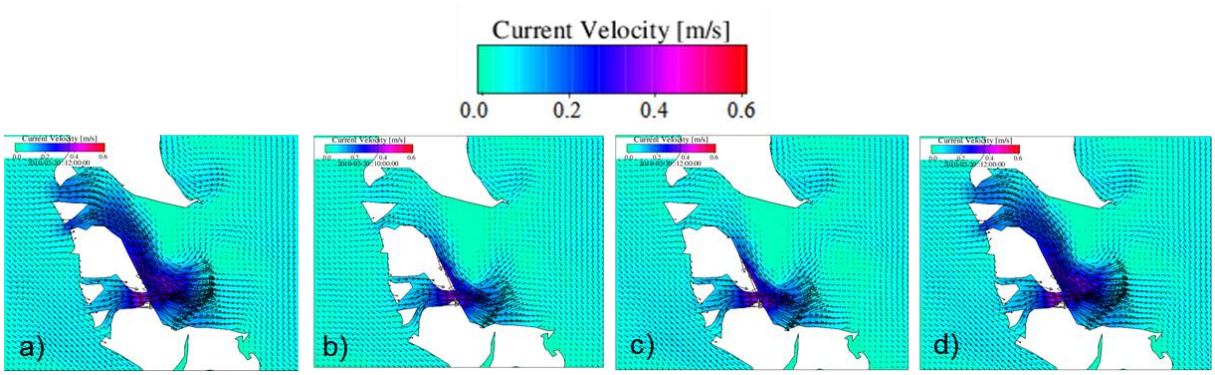


Figure S7. Vertically averaged current speeds in Encañizadas at maximum discharge out of the lagoon through El Estacio: a) Maint_Enc/ b) Mar_part_0.5m/ c) Mar_0.5m/ d) Maint_Enc_Mar_0.5m

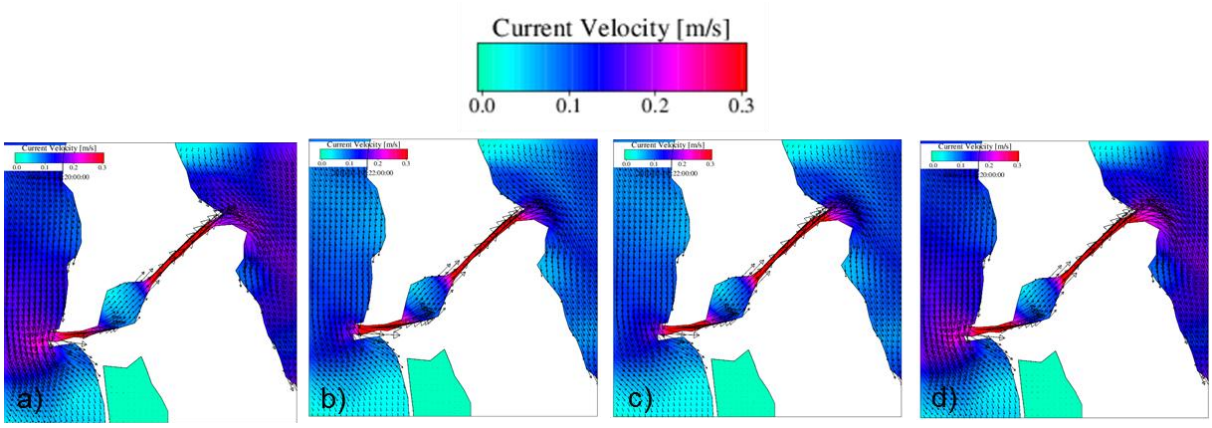


Figure S8. Vertically averaged current speeds in Marchamalo at maximum discharge out of the lagoon through El Estacio: a) Maint_Enc/ b) Mar_part_0.5m/ c) Mar_0.5m/ d) Maint_Enc_Mar_0.5m

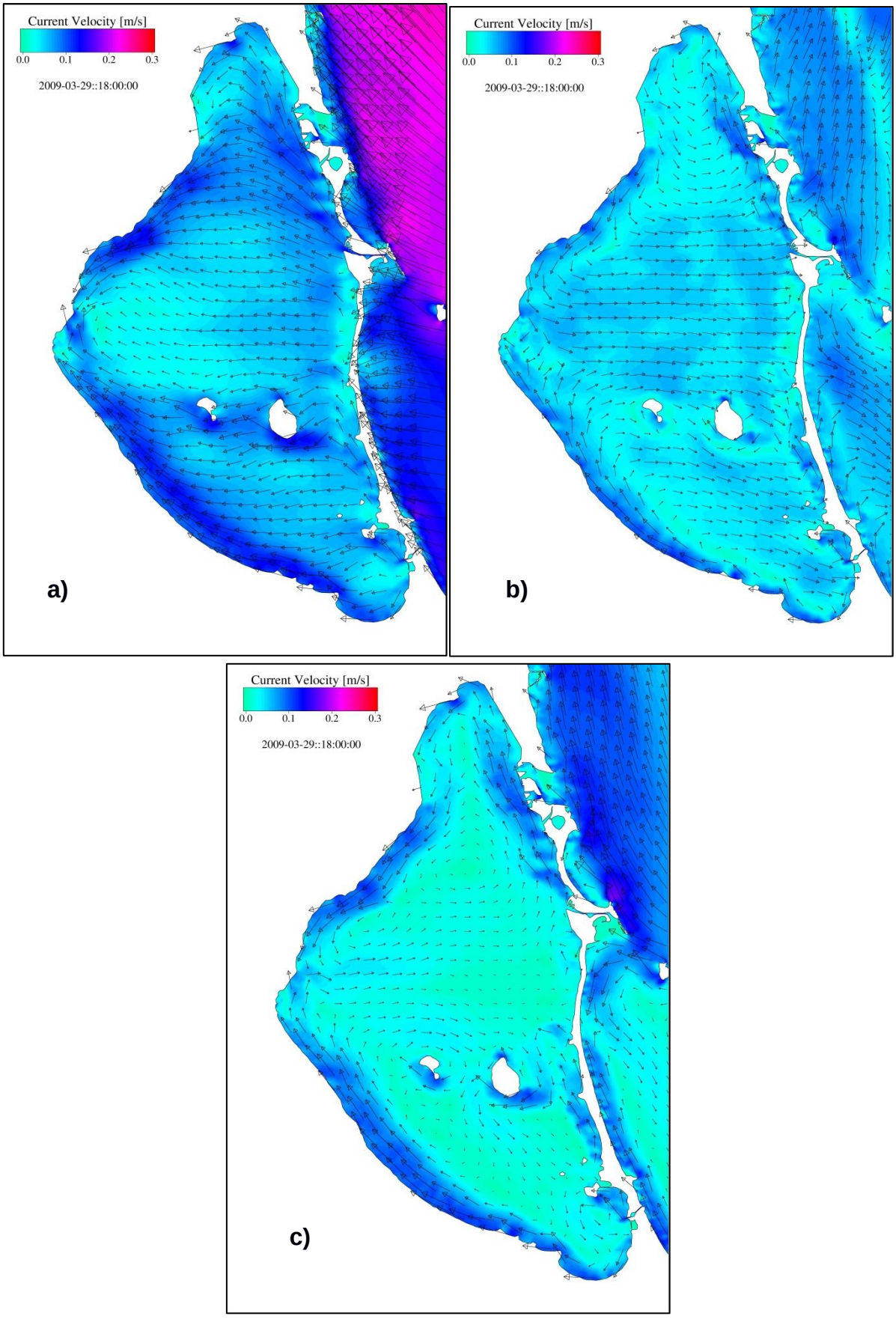


Figure S9. Current velocity field on 29/03/2009 at 18:00 (winds from the eastern direction): a) Surface layer/ b) Bottom layer/ c) Vertical average.

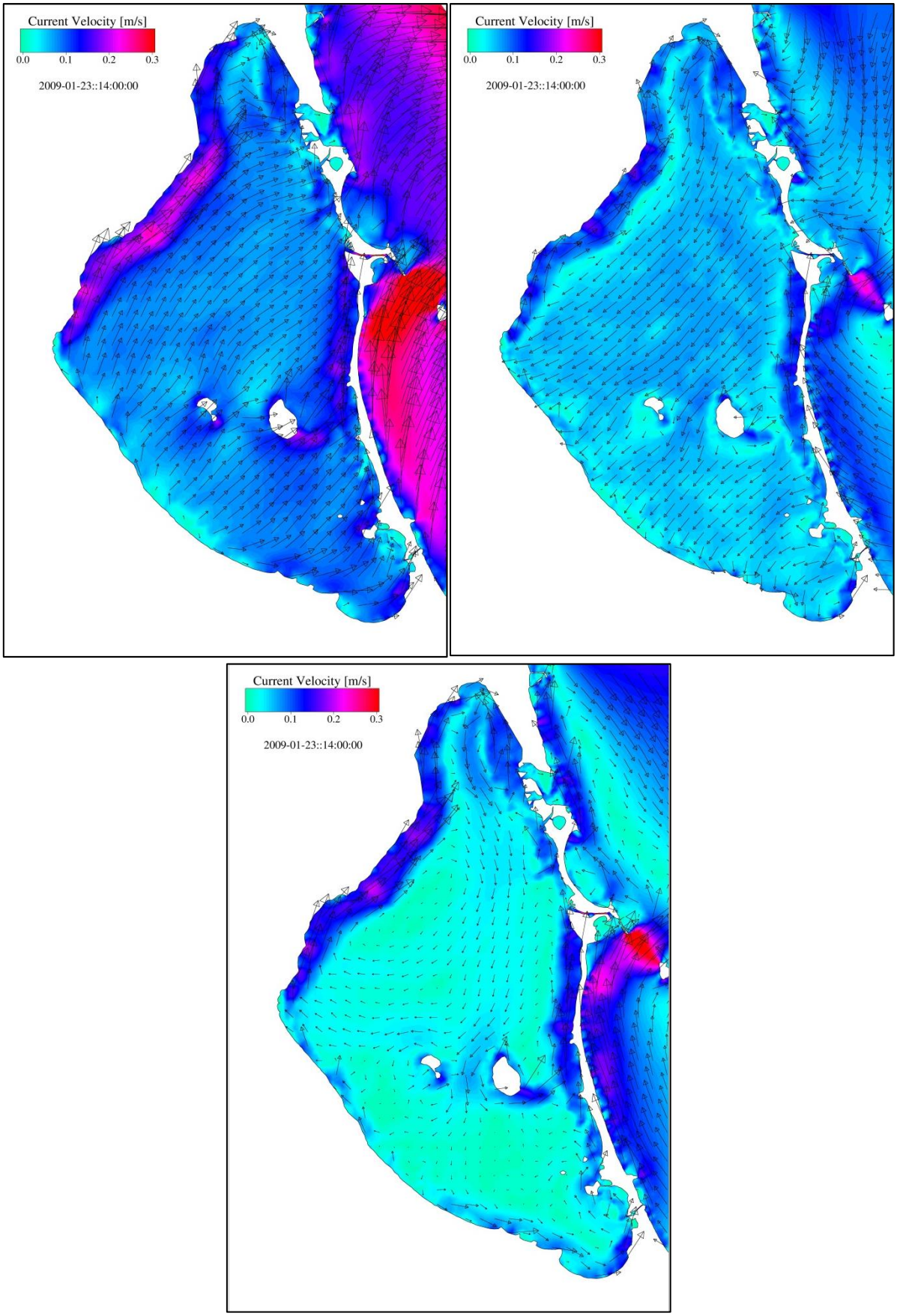


Figure S10. Current velocity field on 23/01/2009 at 13:00 (winds from the southwestern direction): a) Surface layer/ b) Bottom layer/ c) Vertical average.