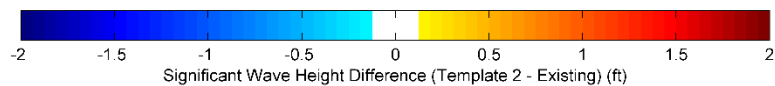
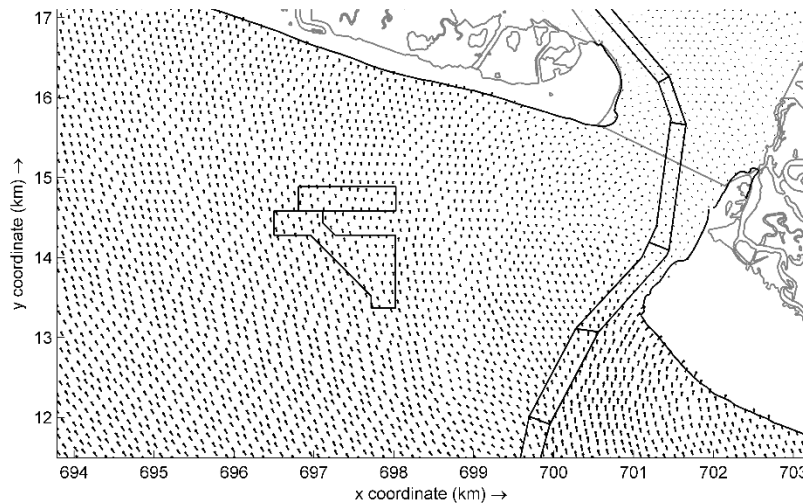
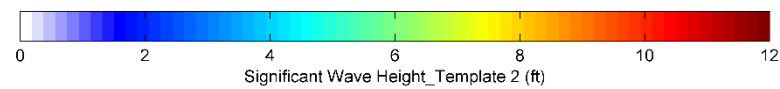
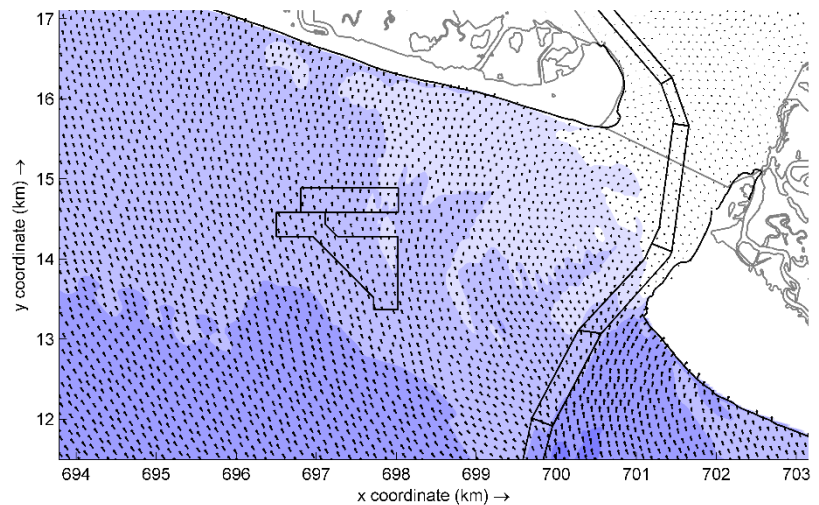
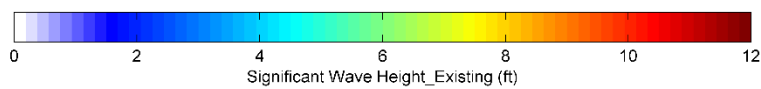
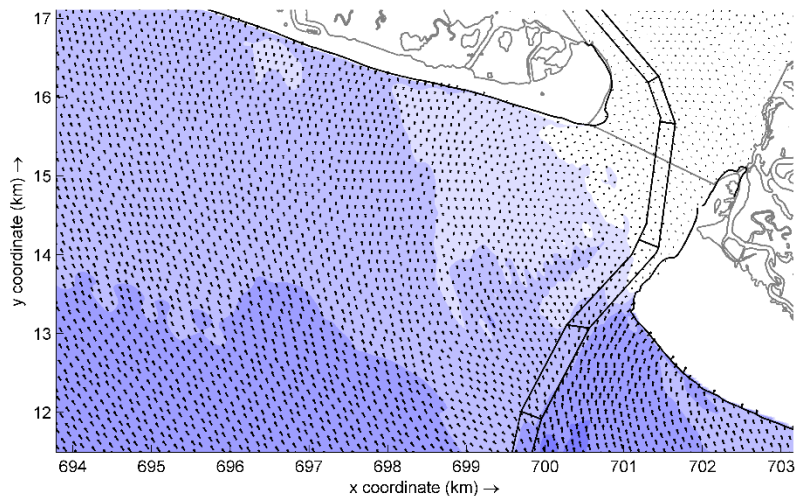




## **APPENDIX C2**

Predicted wave fields for Existing and after-dredge bathymetric conditions  
and changes in wave height caused by after-dredge bathymetric condition

Template 2



### **Offshore Wave Case01:**

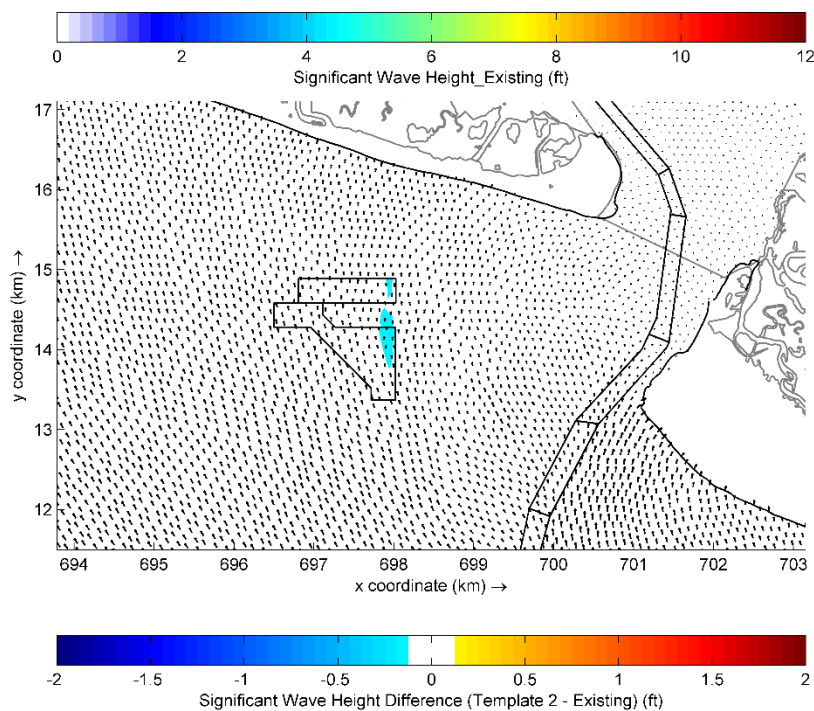
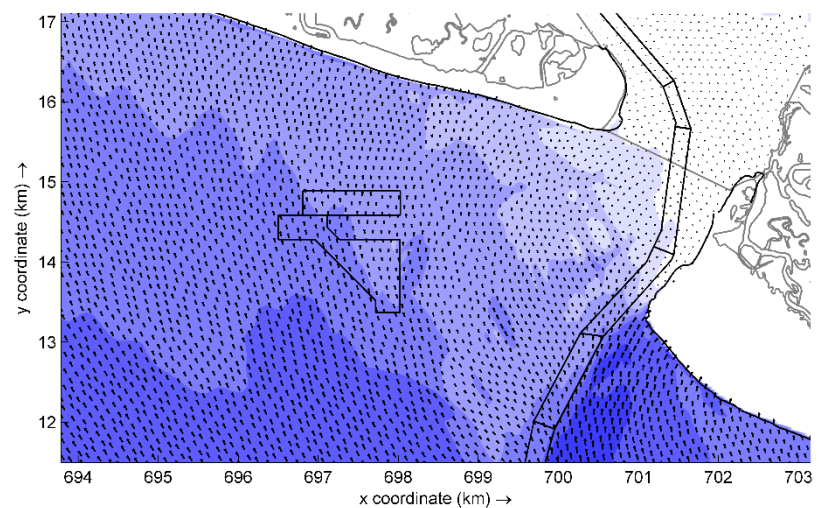
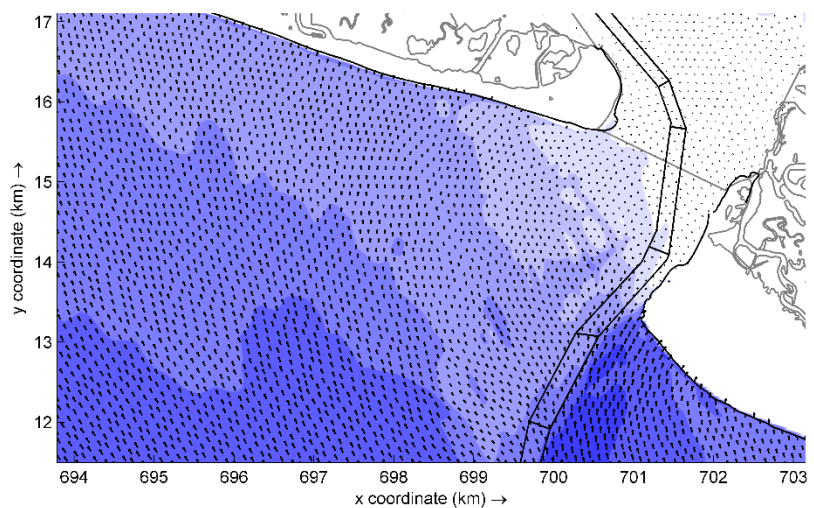
$H_s = 2.5$  ft,  $T_p = 9.0$  s, Dir = 97.7 degN

Percent Occurrence = 4.854%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)





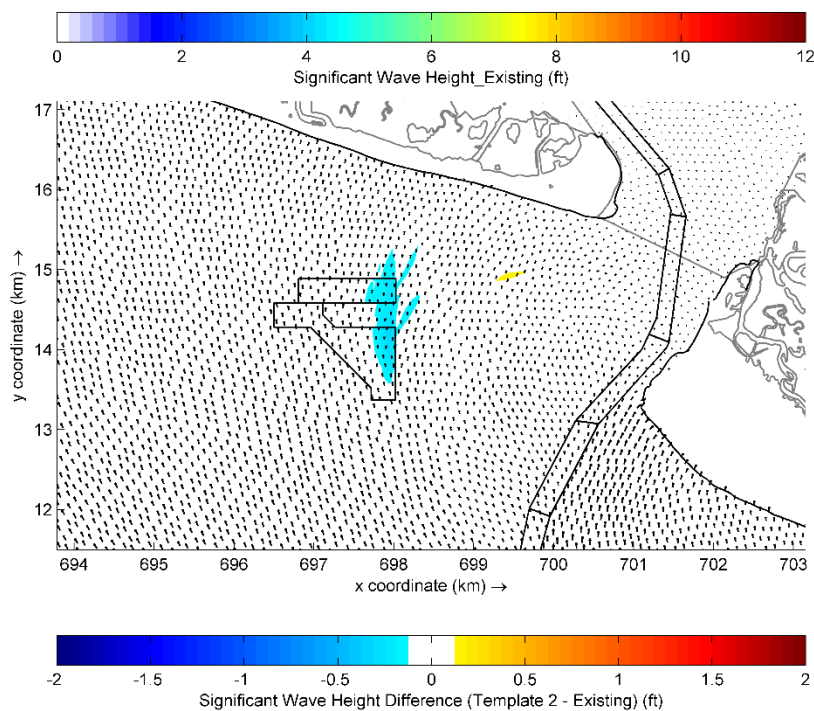
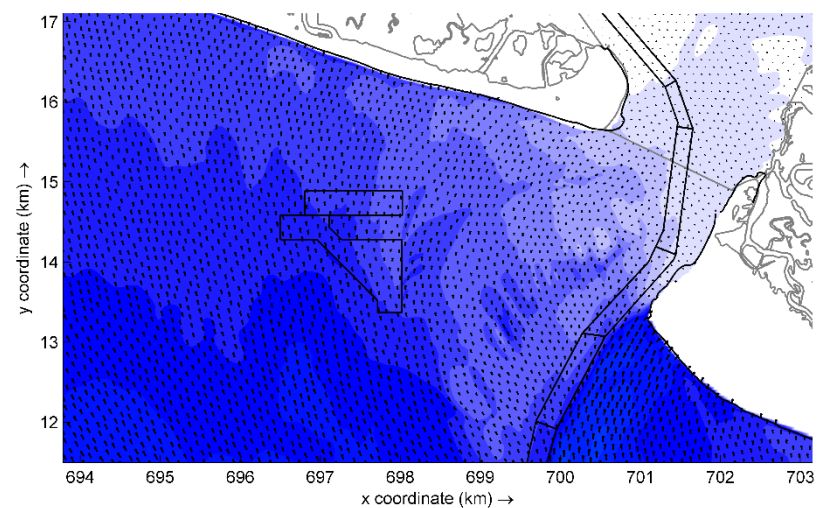
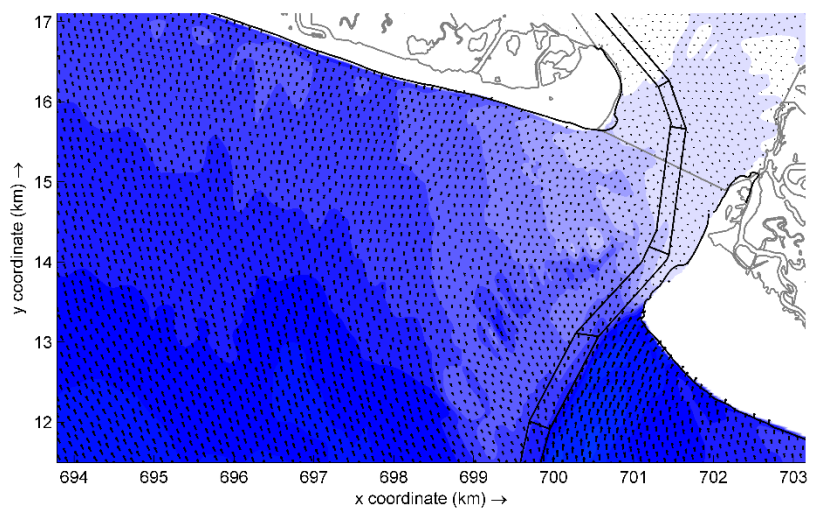
### **Offshore Wave Case02:**

$H_s = 4.4$  ft,  $T_p = 9.5$  s, Dir = 98.0 degN

Percent Occurrence = 3.973%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)



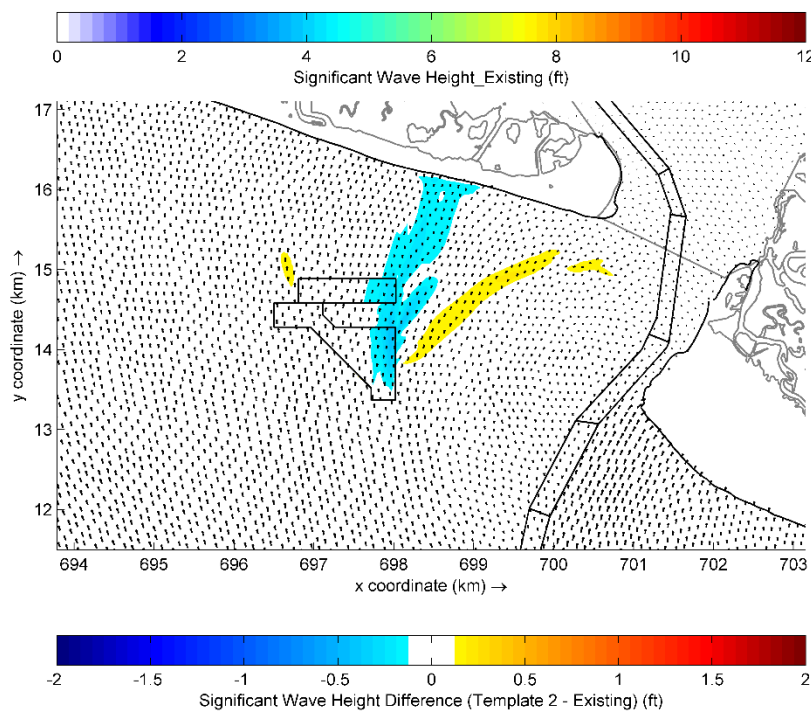
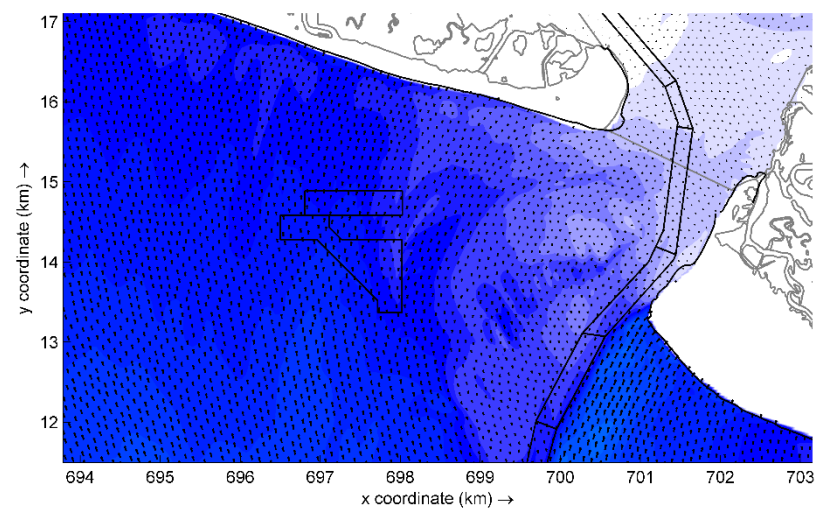
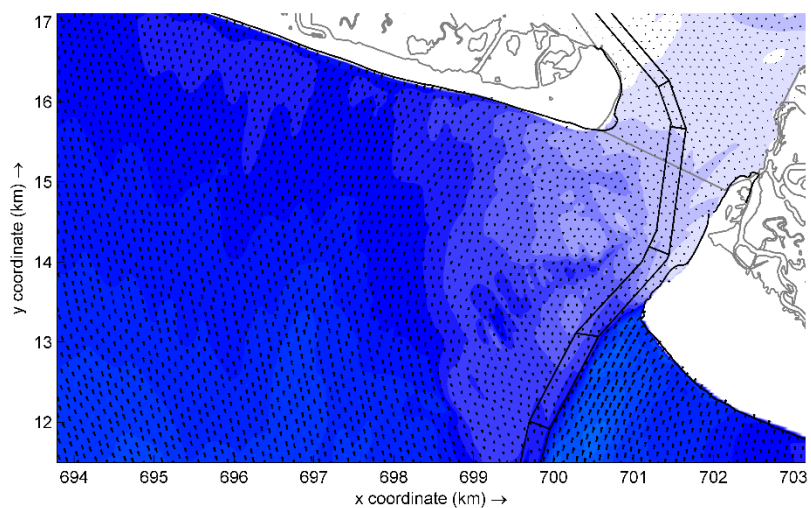
### **Offshore Wave Case03:**

$H_s = 7.8$  ft,  $T_p = 10.1$  s, Dir = 97.3 degN

Percent Occurrence = 0.635%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)



#### **Offshore Wave Case04:**

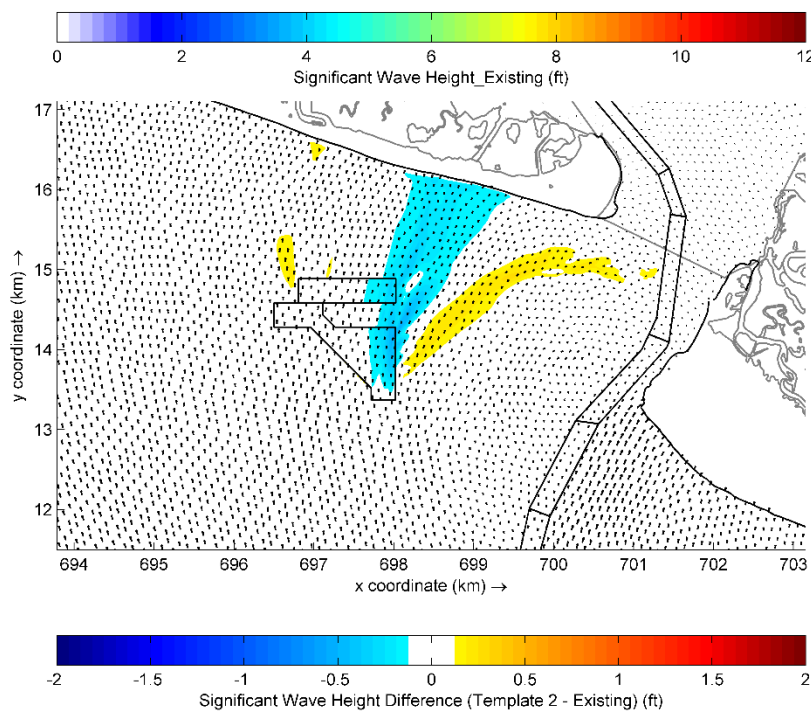
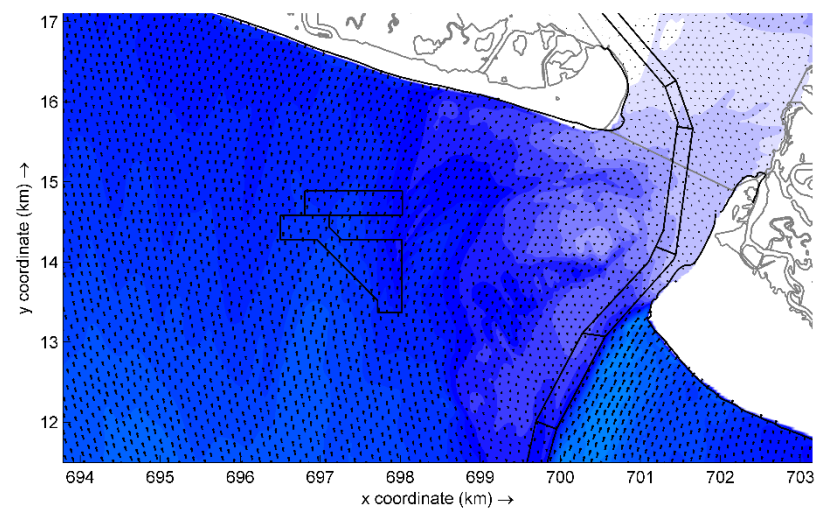
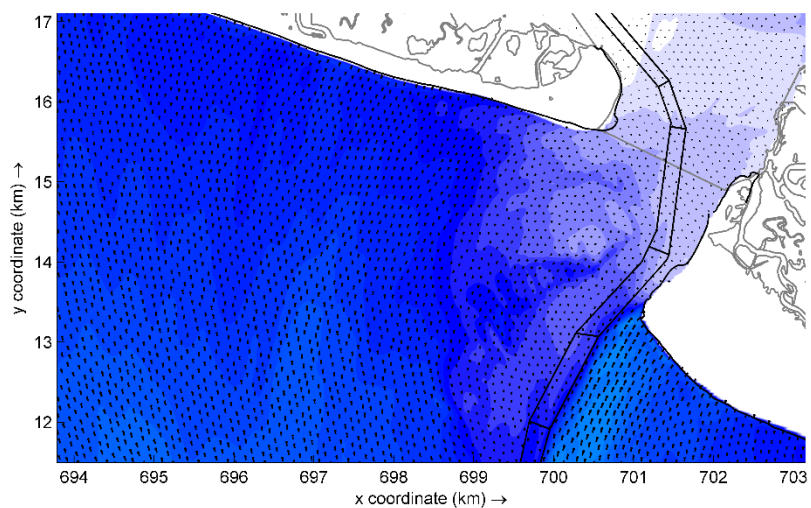
$H_s = 11.3$  ft,  $T_p = 11.8$  s, Dir = 97.1 degN

Percent Occurrence = 0.164%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)





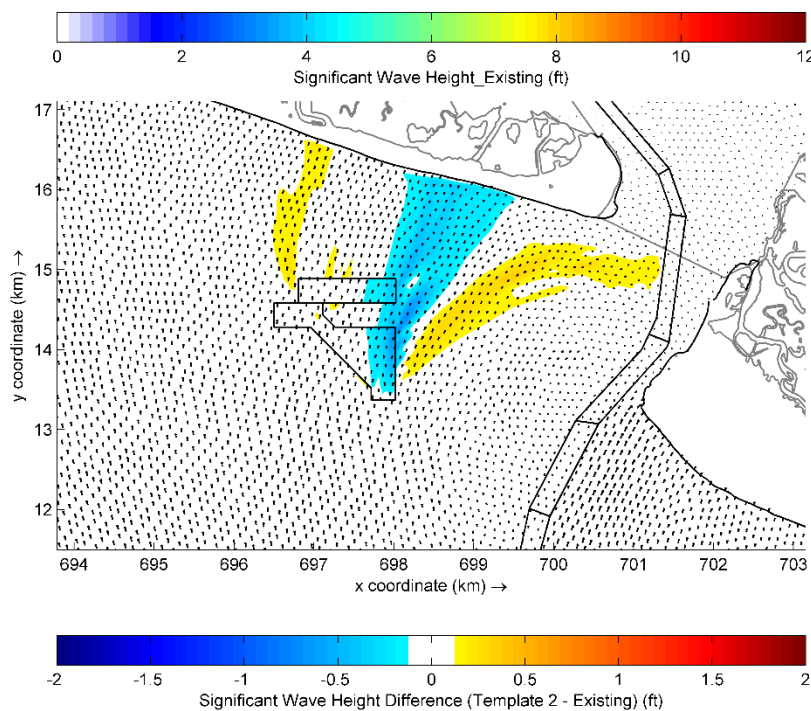
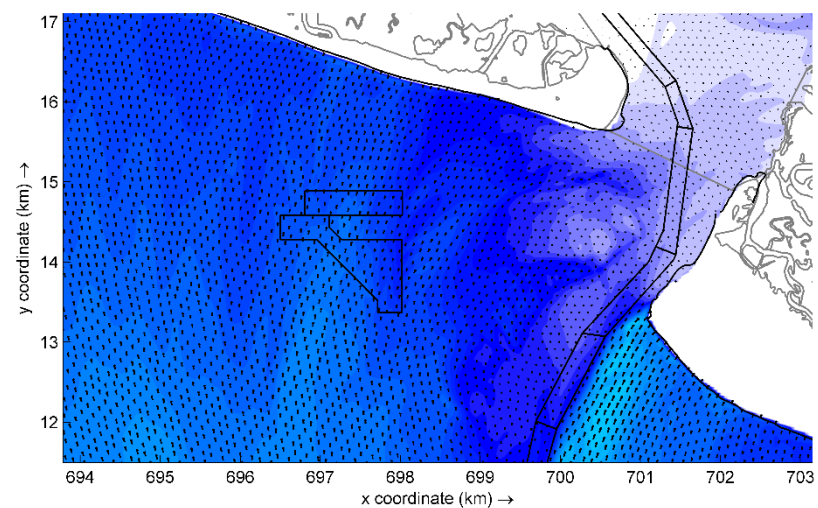
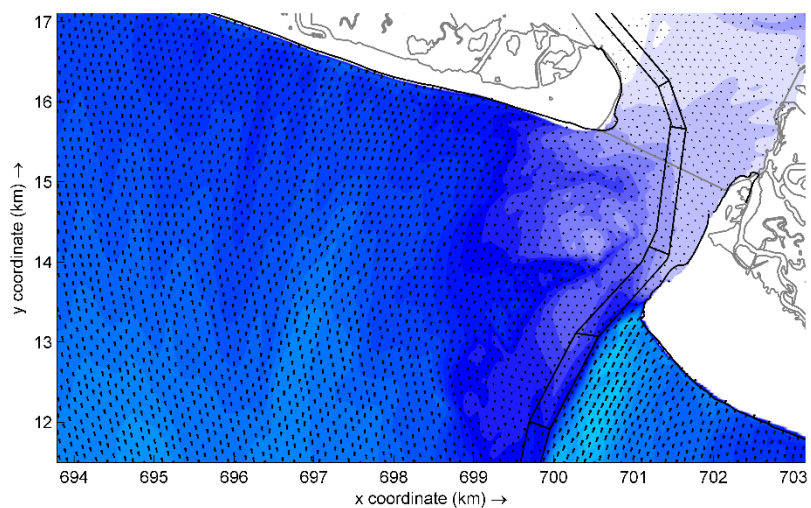
### **Offshore Wave Case05:**

$H_s = 14.2$  ft,  $T_p = 12.4$  s, Dir = 98.0 degN

Percent Occurrence = 0.054%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)



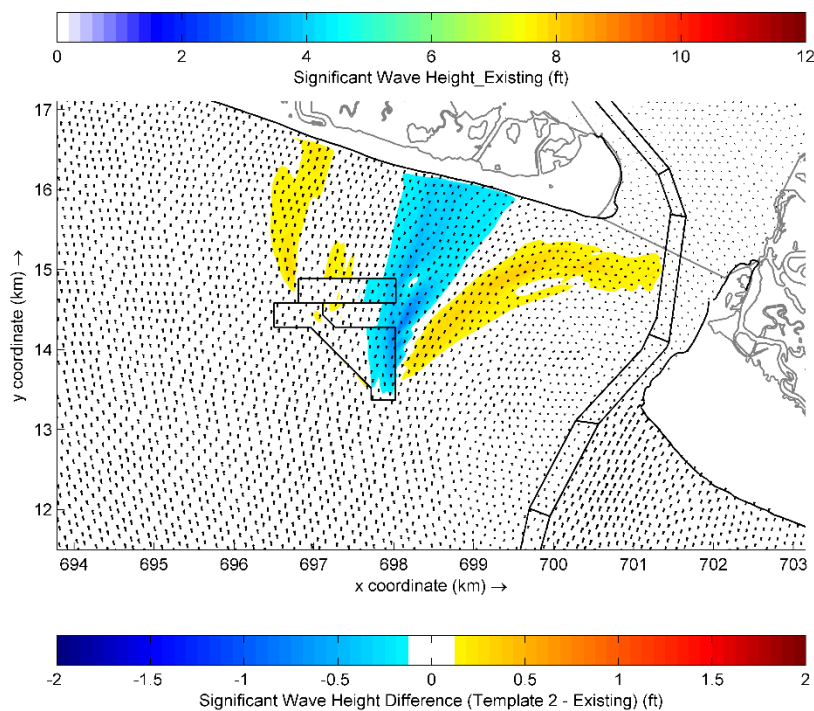
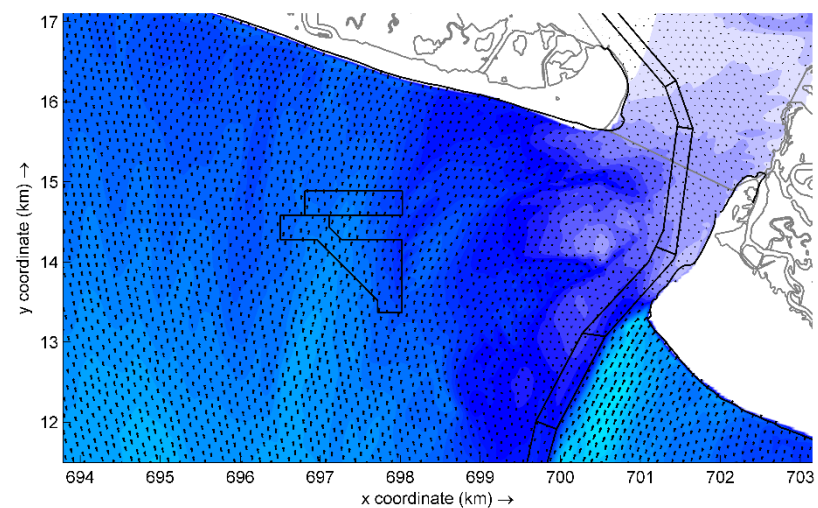
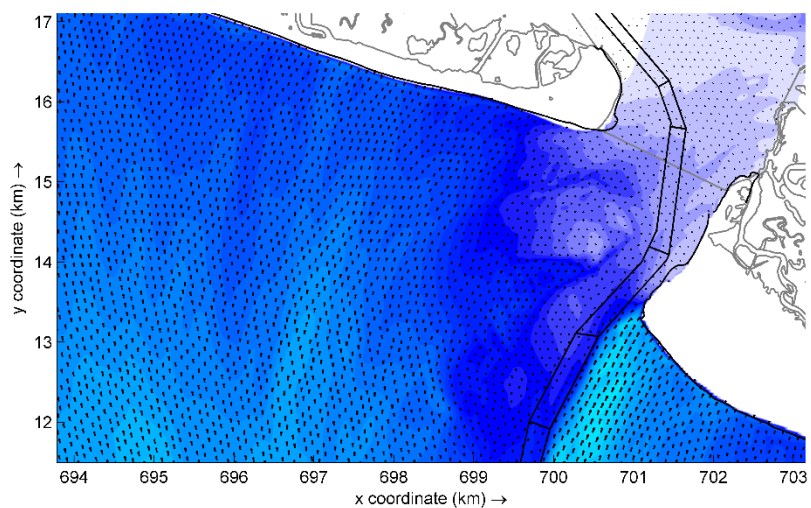
### Offshore Wave Case06:

$H_s = 17.5$  ft,  $T_p = 13.9$  s, Dir = 99.0 degN

Percent Occurrence = 0.016%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)



### Offshore Wave Case07:

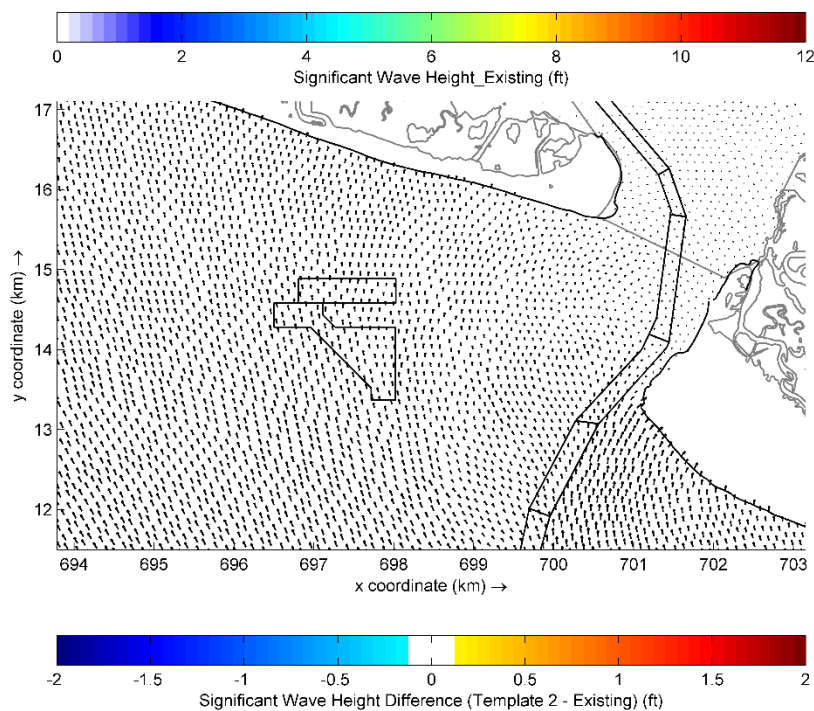
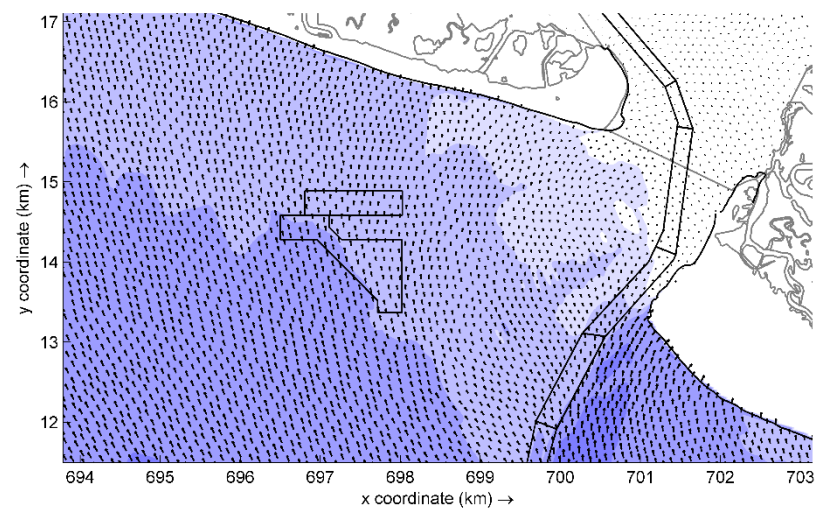
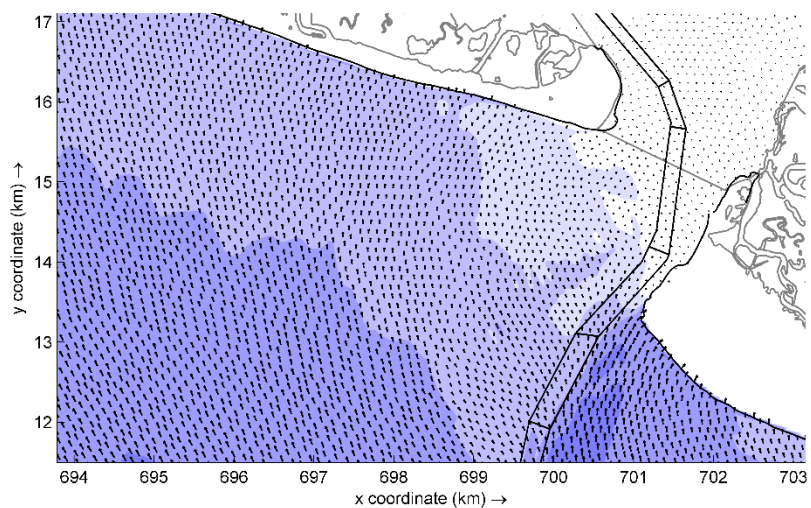
$H_s = 20.7$  ft,  $T_p = 13.1$  s, Dir = 98.0 degN

Percent Occurrence = 0.002%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)





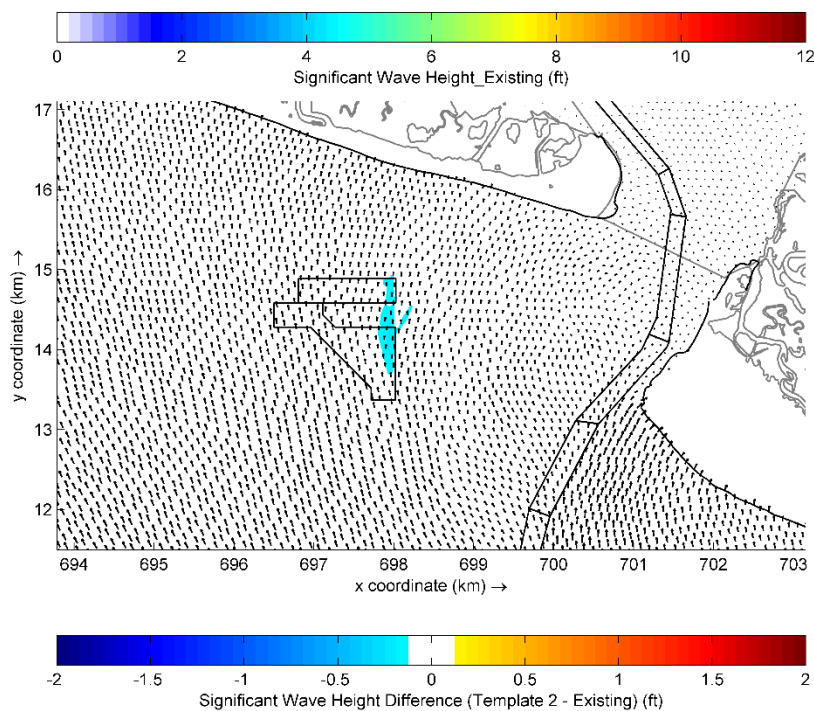
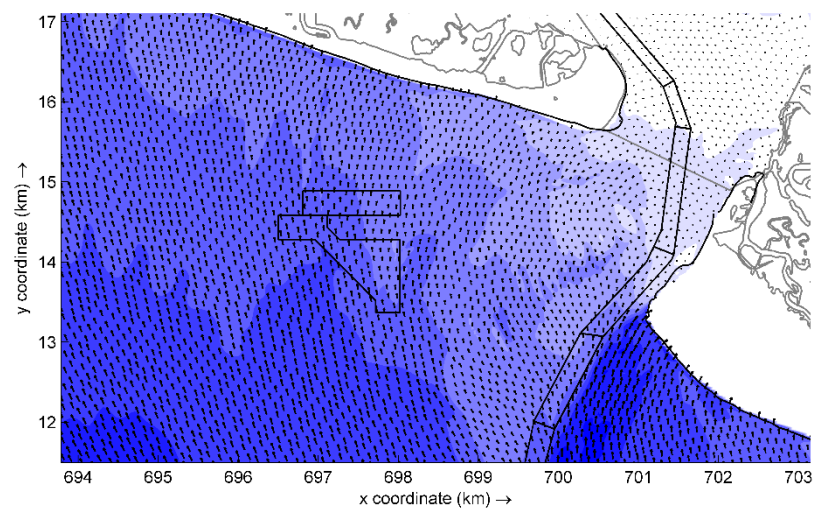
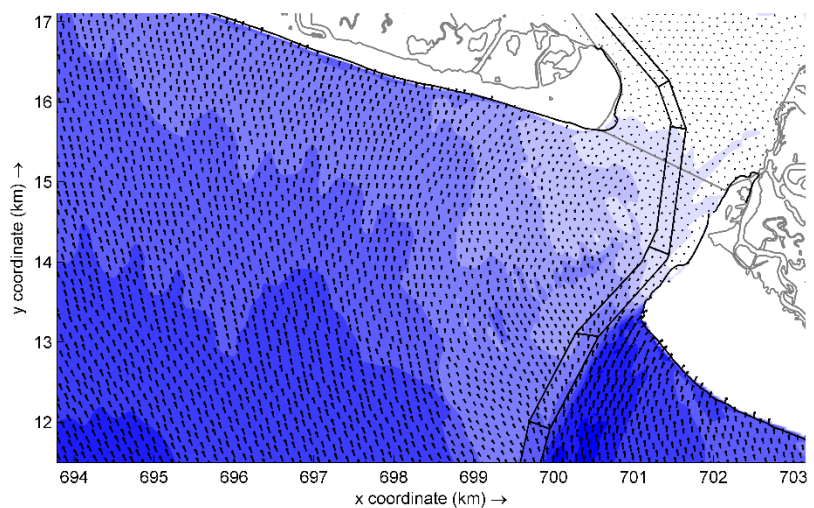
### **Offshore Wave Case08:**

$H_s = 2.4$  ft,  $T_p = 8.9$  s, Dir = 112.5 degN

Percent Occurrence = 6.297%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)



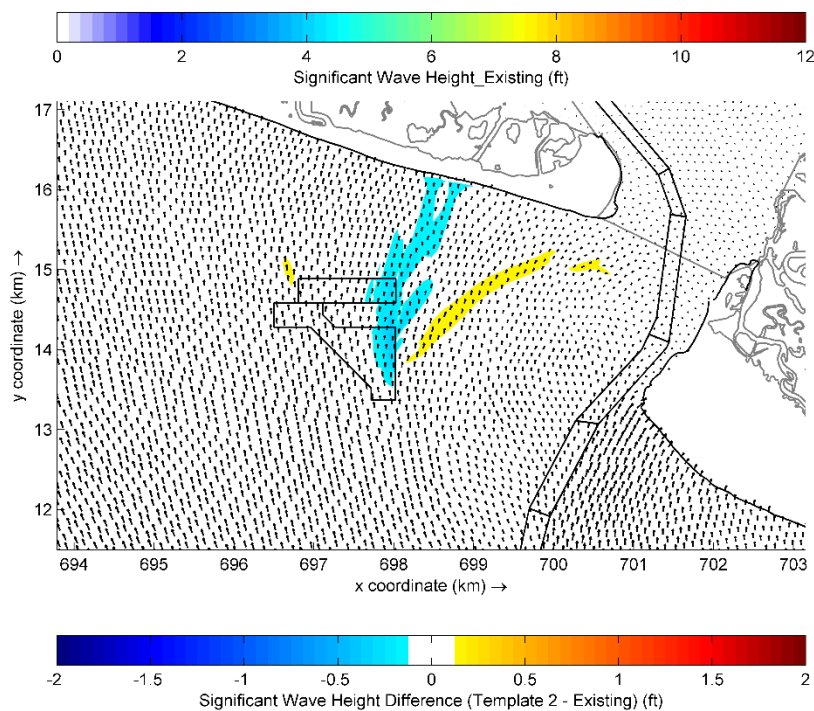
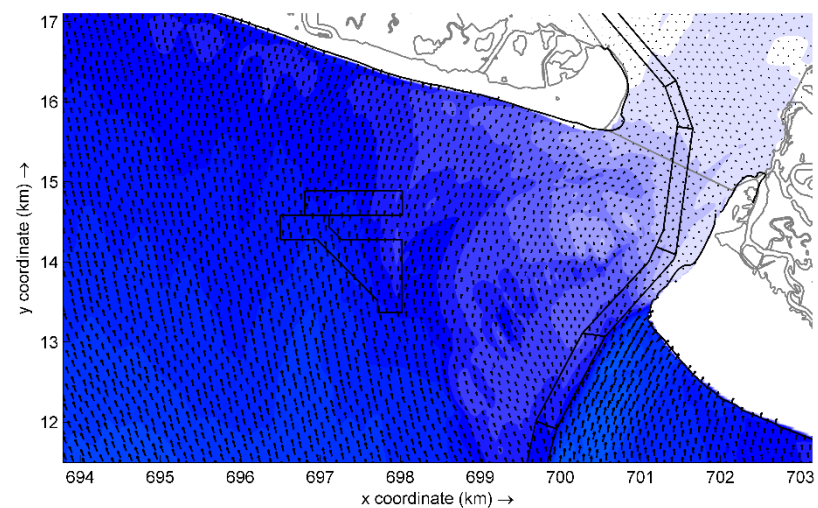
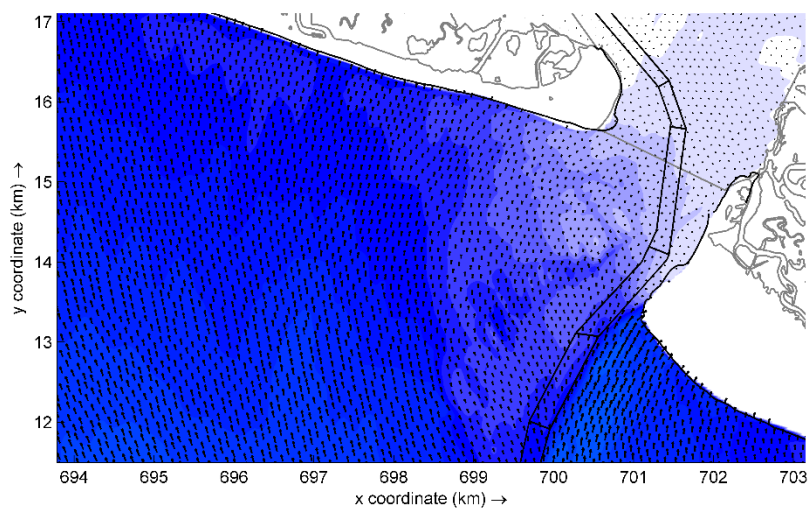
### Offshore Wave Case09:

$H_s = 4.4$  ft,  $T_p = 9.4$  s, Dir = 112.4 degN

Percent Occurrence = 5.030%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)



### **Offshore Wave Case10:**

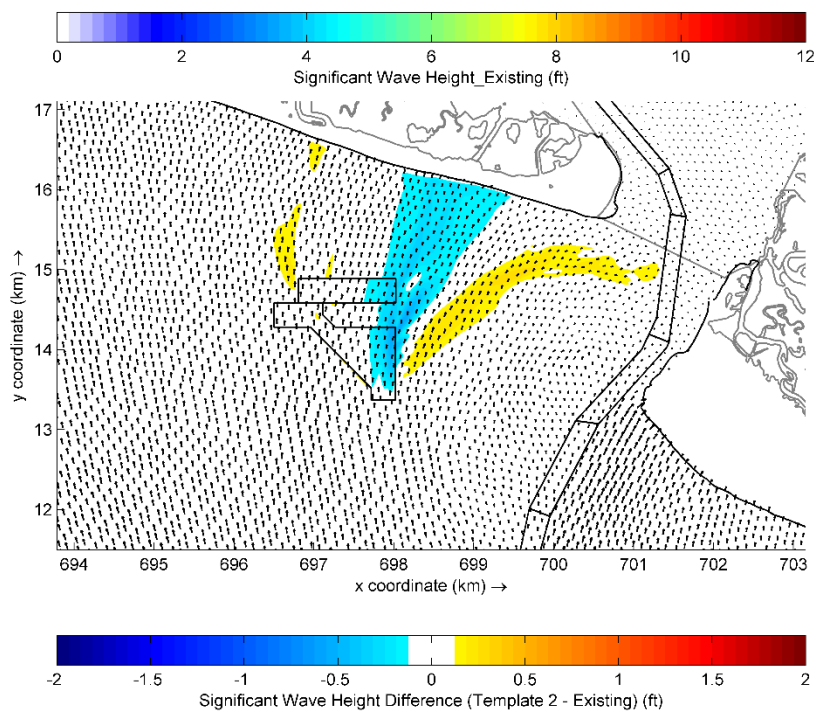
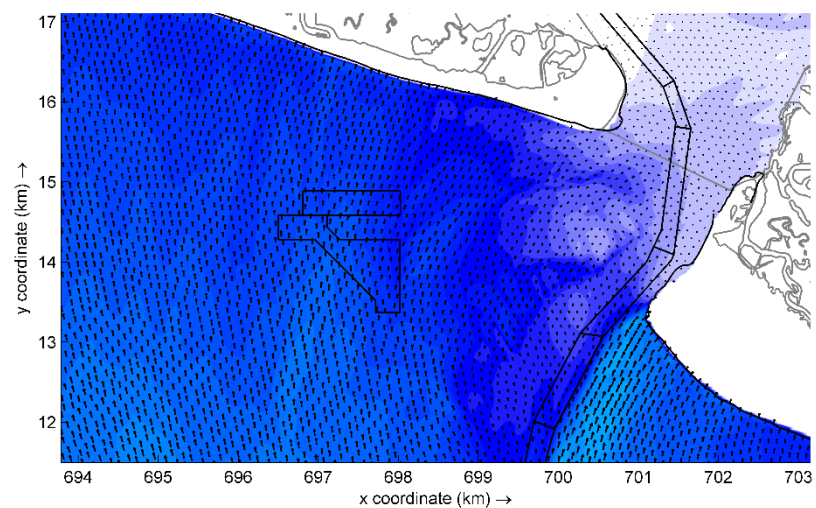
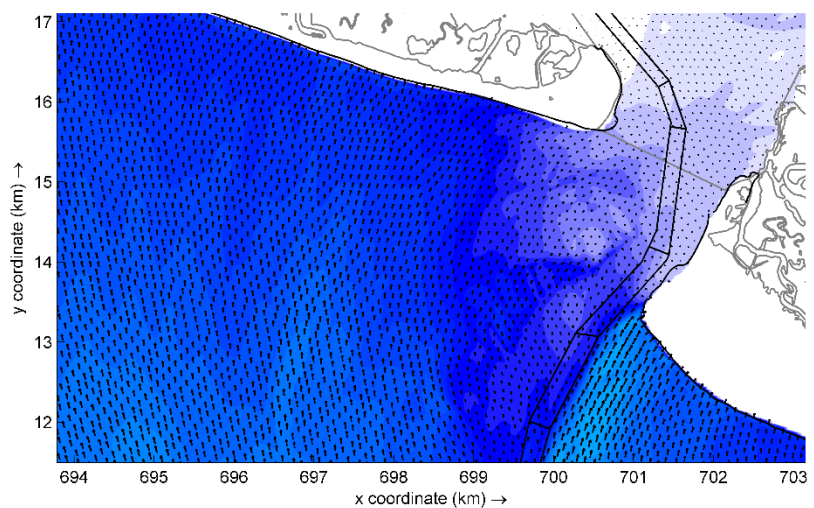
$H_s = 7.7$  ft,  $T_p = 9.6$  s, Dir = 112.8 degN

Percent Occurrence = 0.714%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)





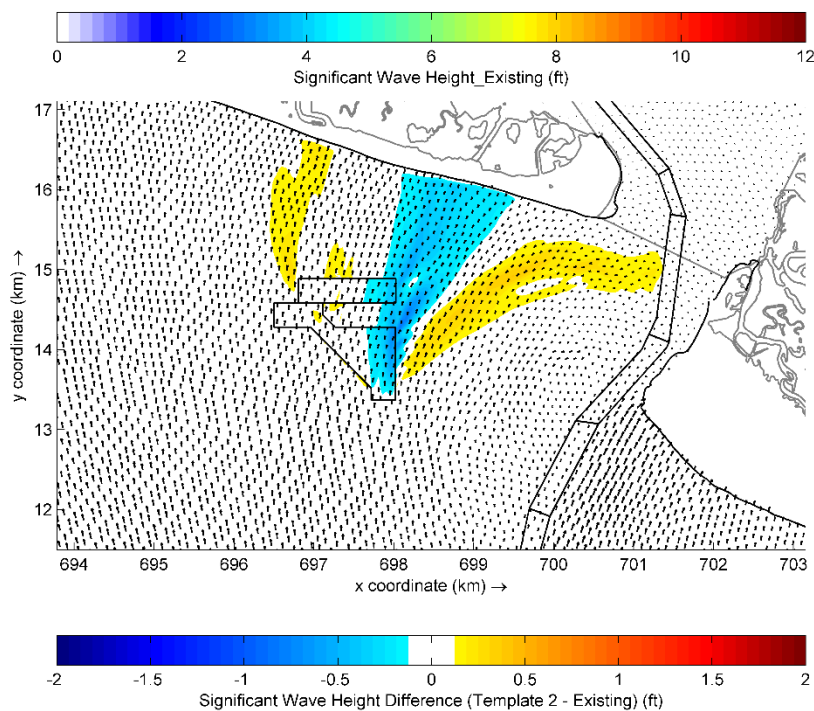
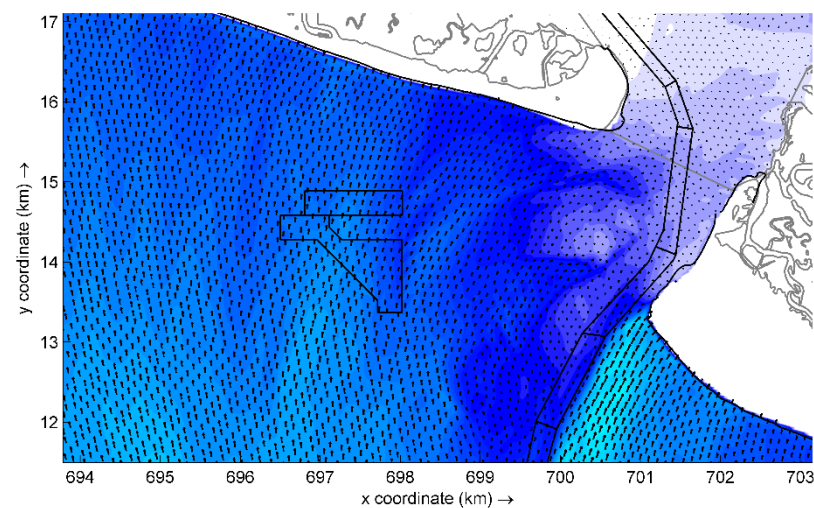
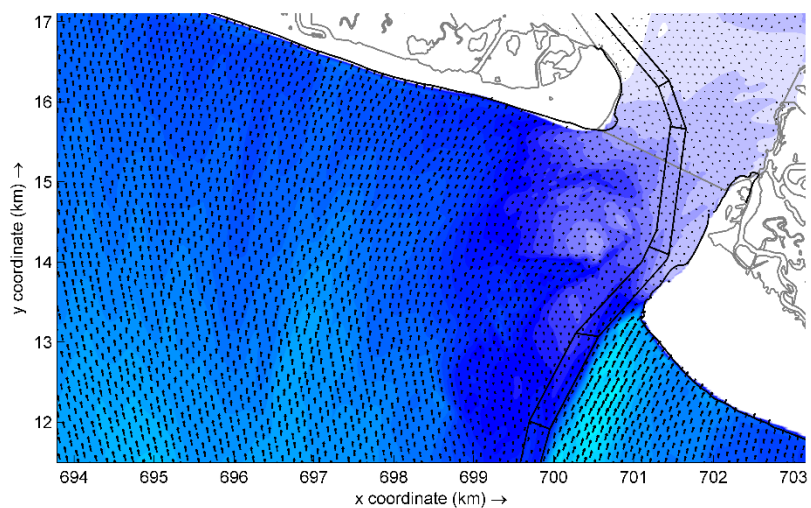
### **Offshore Wave Case11:**

$H_s = 11.3$  ft,  $T_p = 10.9$  s, Dir = 112.2 degN

Percent Occurrence = 0.129%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)



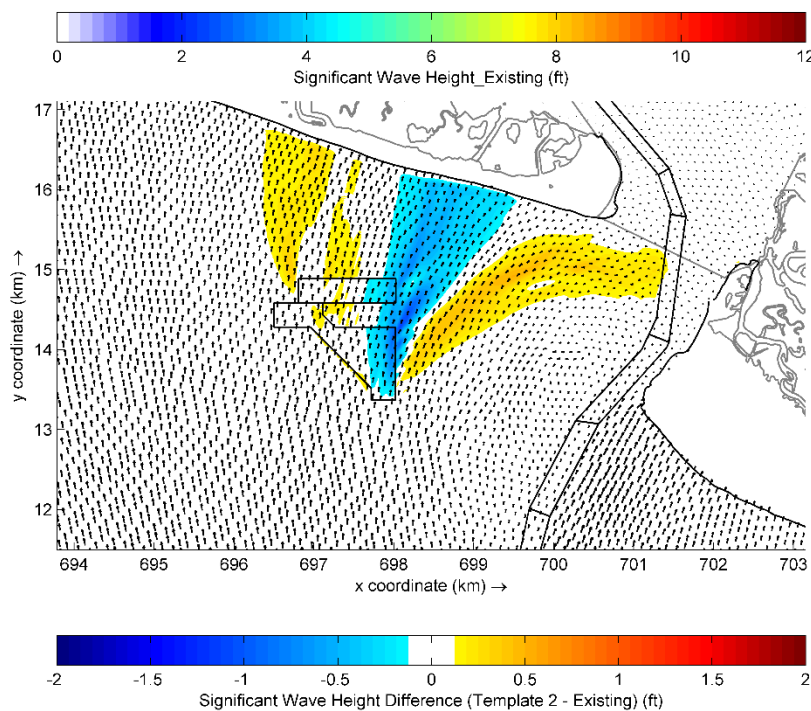
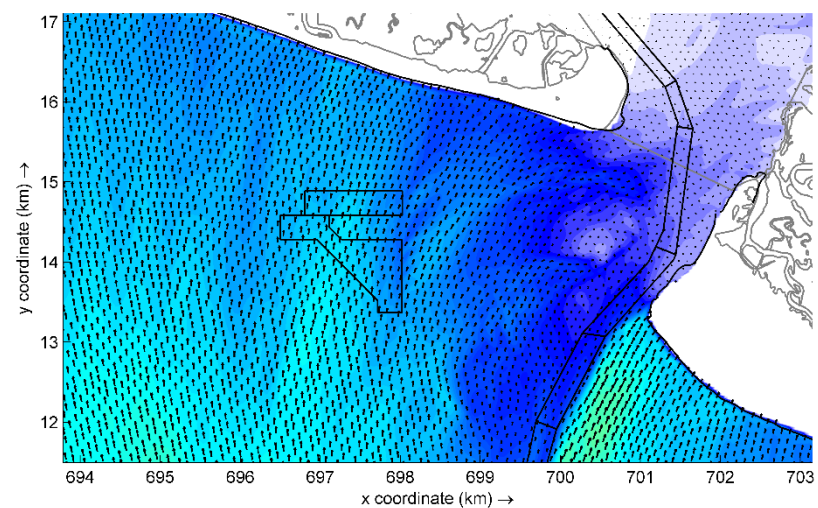
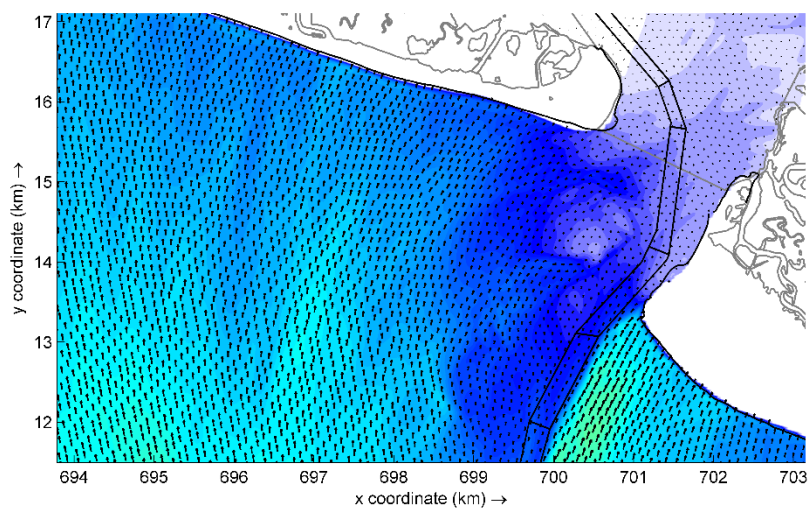
### **Offshore Wave Case12:**

$H_s = 14.1$  ft,  $T_p = 12.2$  s, Dir = 112.0 degN

Percent Occurrence = 0.038%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)



### **Offshore Wave Case13:**

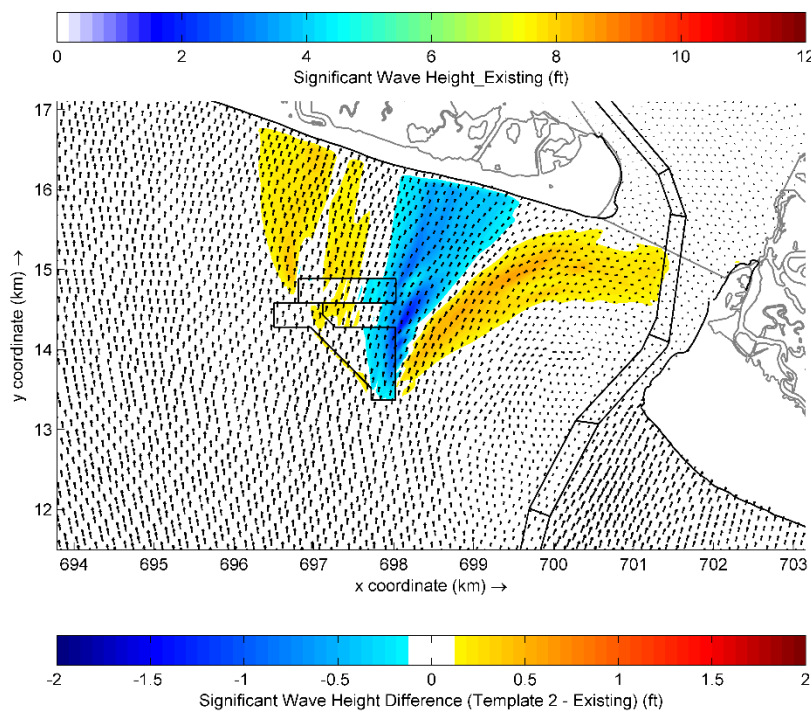
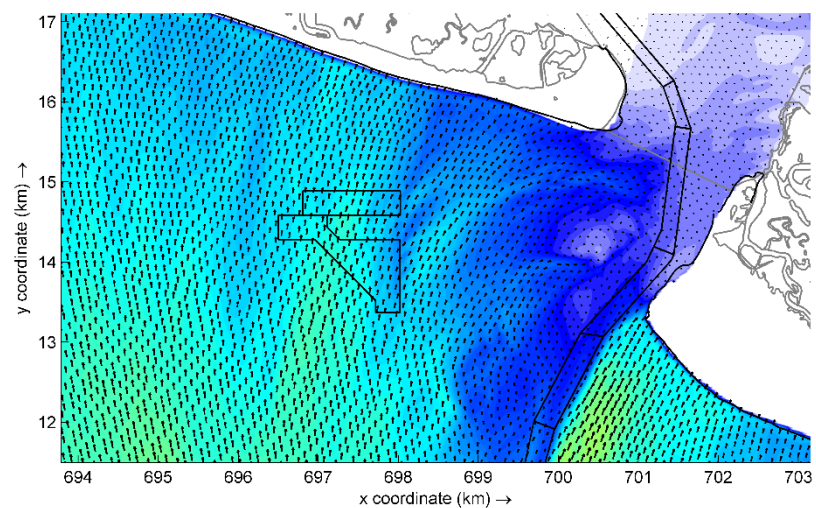
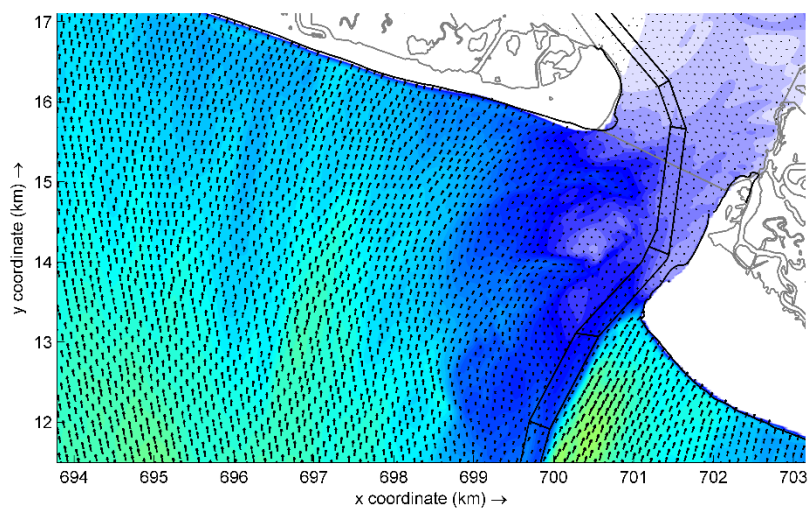
$H_s = 17.6$  ft,  $T_p = 11.2$  s, Dir = 115.9 degN

Percent Occurrence = 0.005%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)





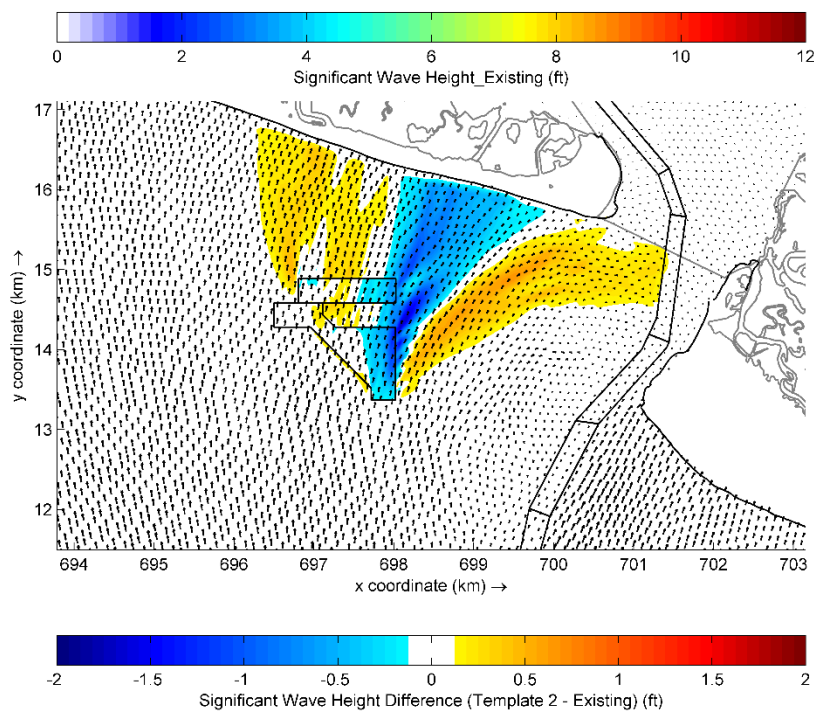
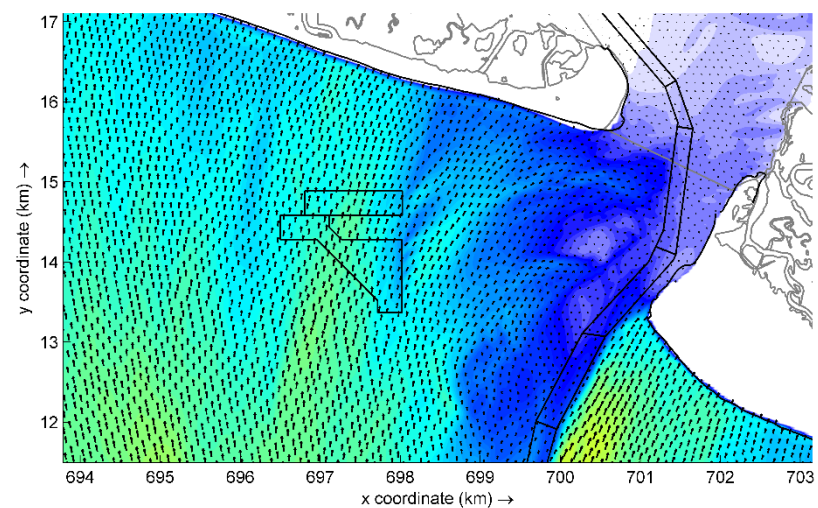
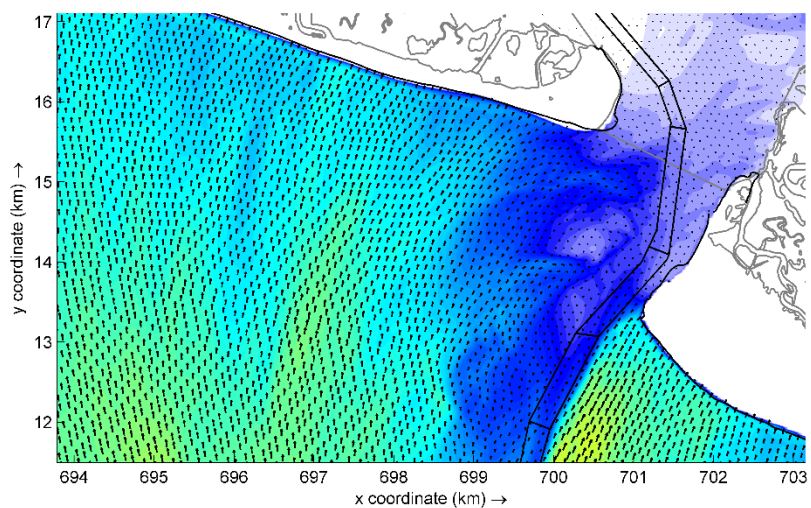
#### **Offshore Wave Case14:**

$H_s = 20.7$  ft,  $T_p = 12.3$  s, Dir = 115.8 degN

Percent Occurrence = 0.002%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)



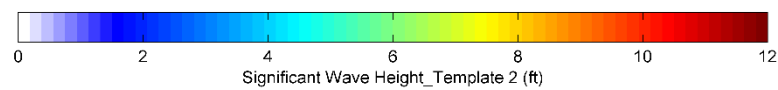
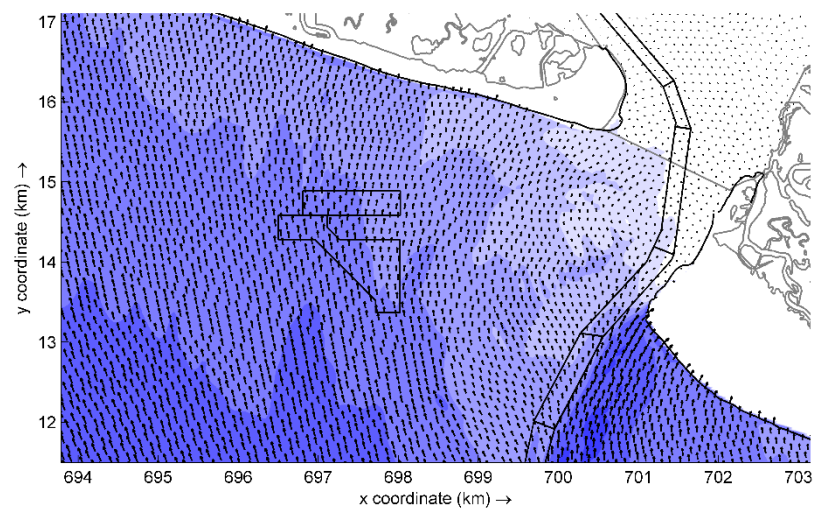
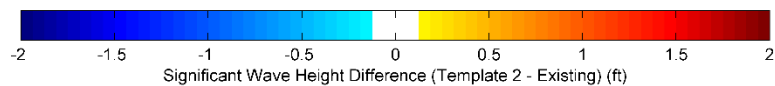
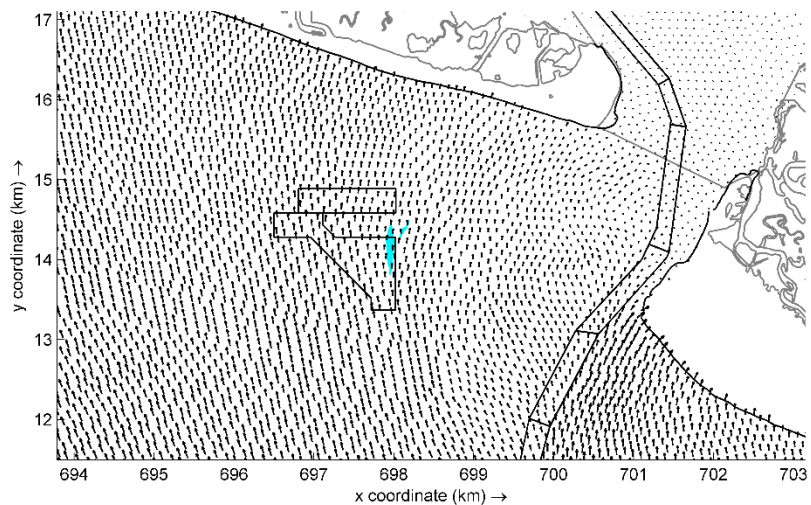
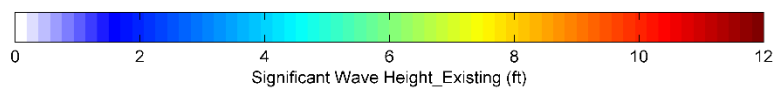
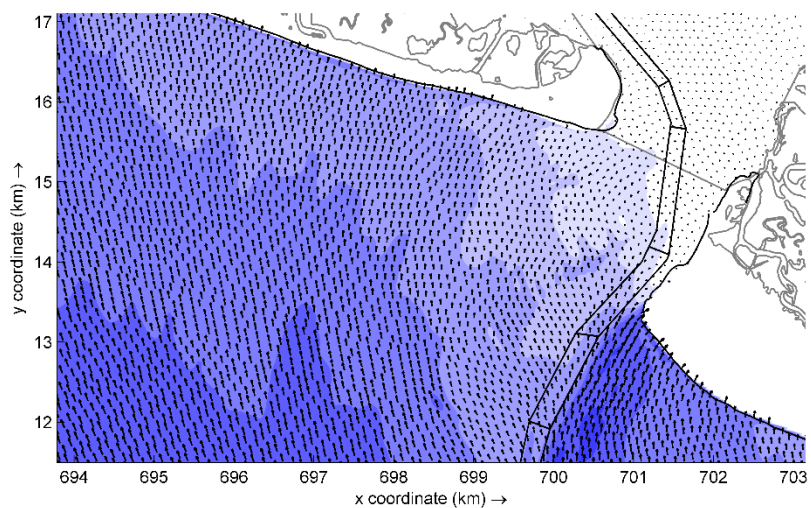
### Offshore Wave Case15:

$H_s = 23.3$  ft,  $T_p = 15.3$  s, Dir = 115.1 degN

Percent Occurrence = 0.002%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)



### **Offshore Wave Case16:**

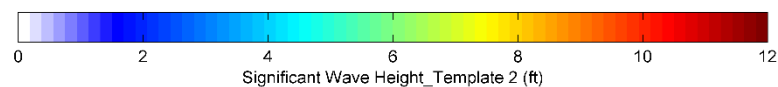
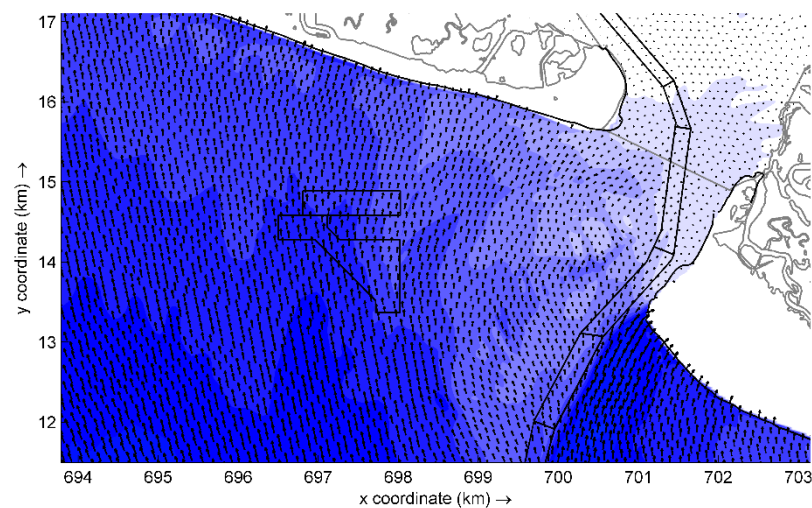
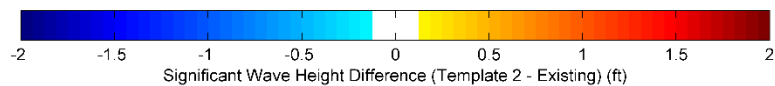
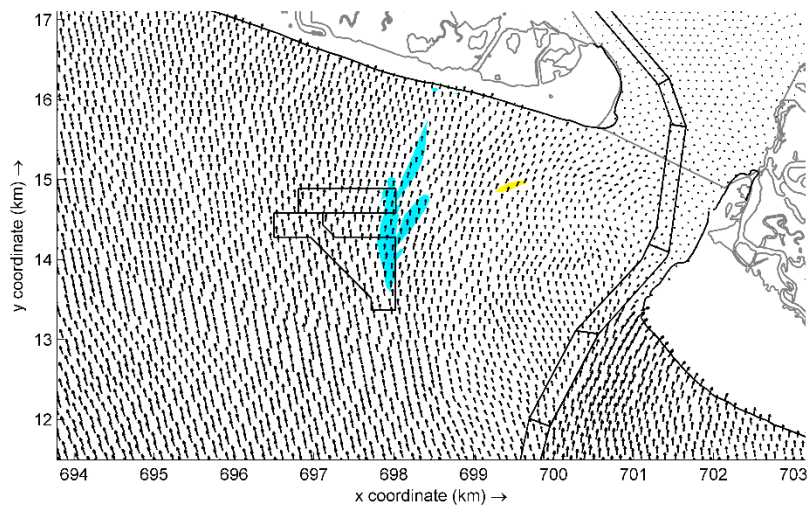
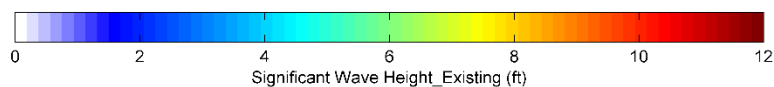
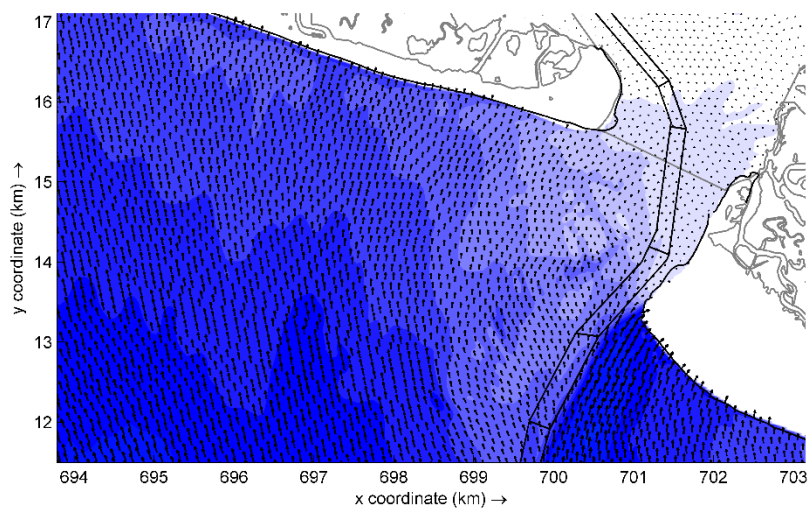
$H_s = 2.5$  ft,  $T_p = 8.6$  s, Dir = 126.91 degN

Percent Occurrence = 5.573%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)





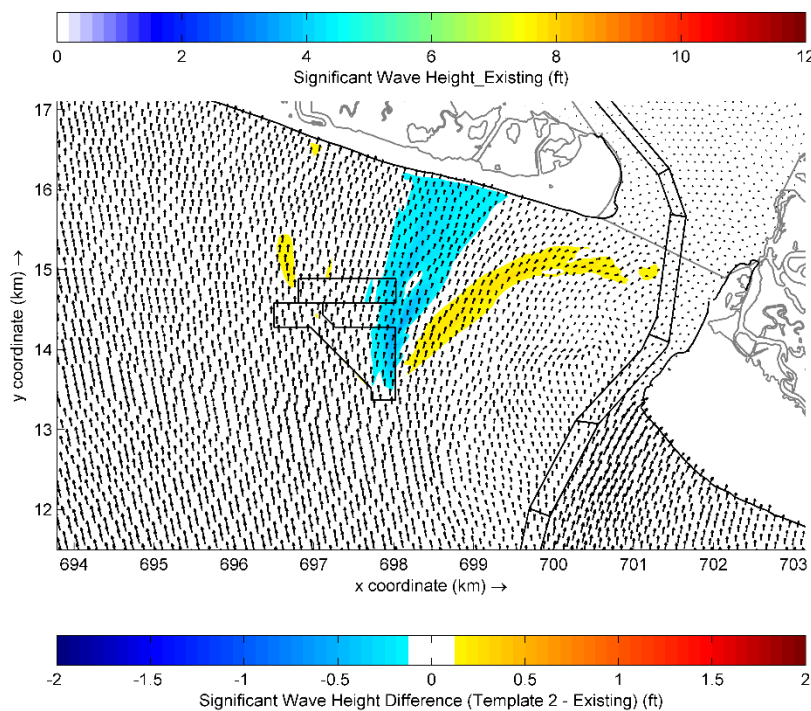
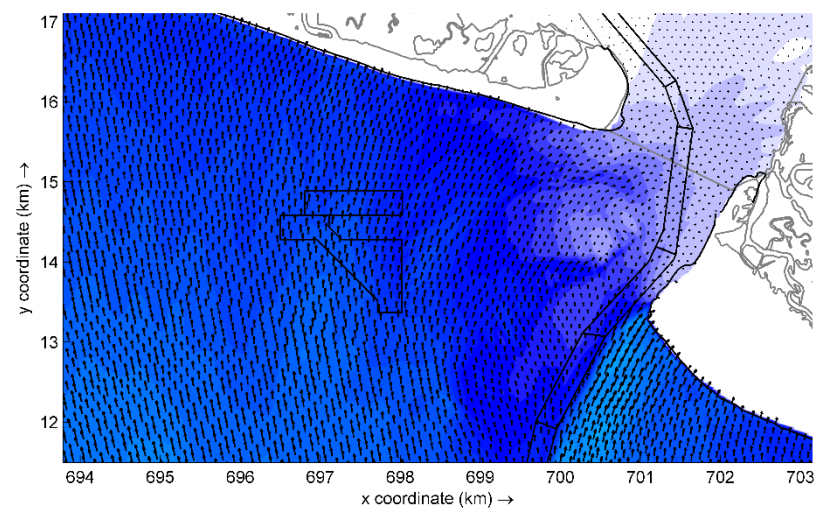
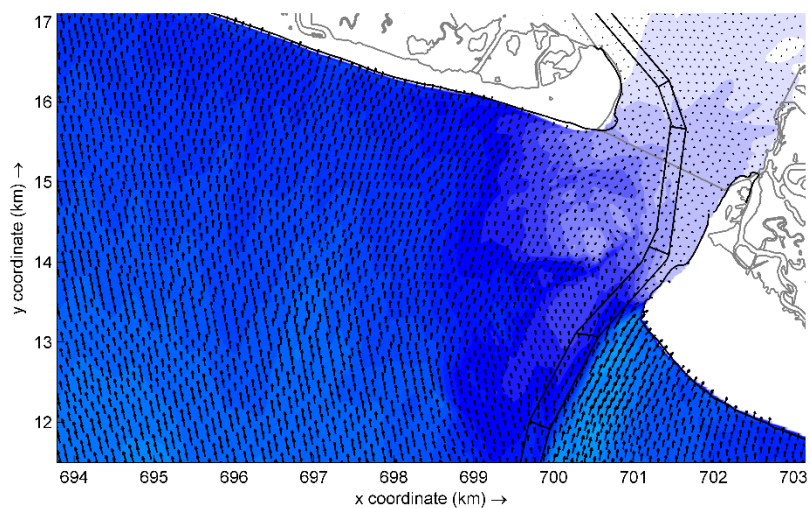
### **Offshore Wave Case17:**

$H_s = 4.4$  ft,  $T_p = 9.0$  s, Dir = 127.3 degN

Percent Occurrence = 4.728%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)



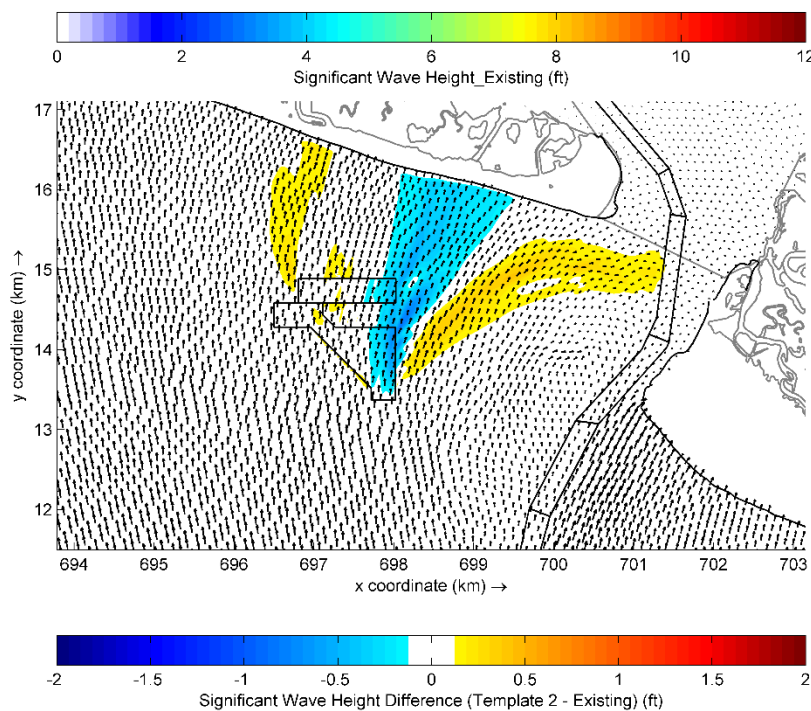
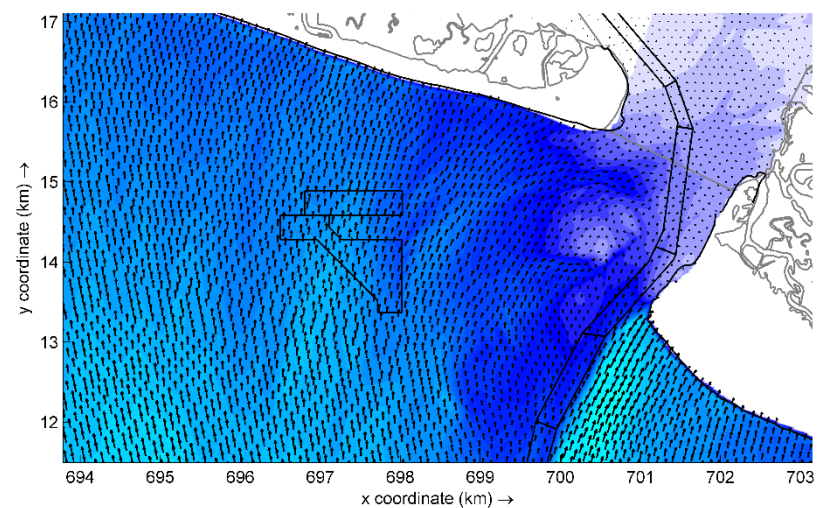
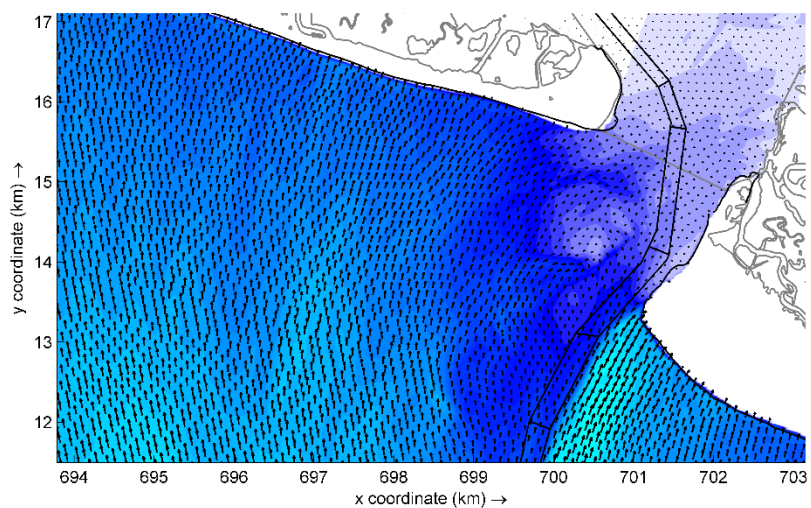
### **Offshore Wave Case18:**

$H_s = 7.7$  ft,  $T_p = 9.6$  s, Dir = 127.1 degN

Percent Occurrence = 0.789%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)



### **Offshore Wave Case19:**

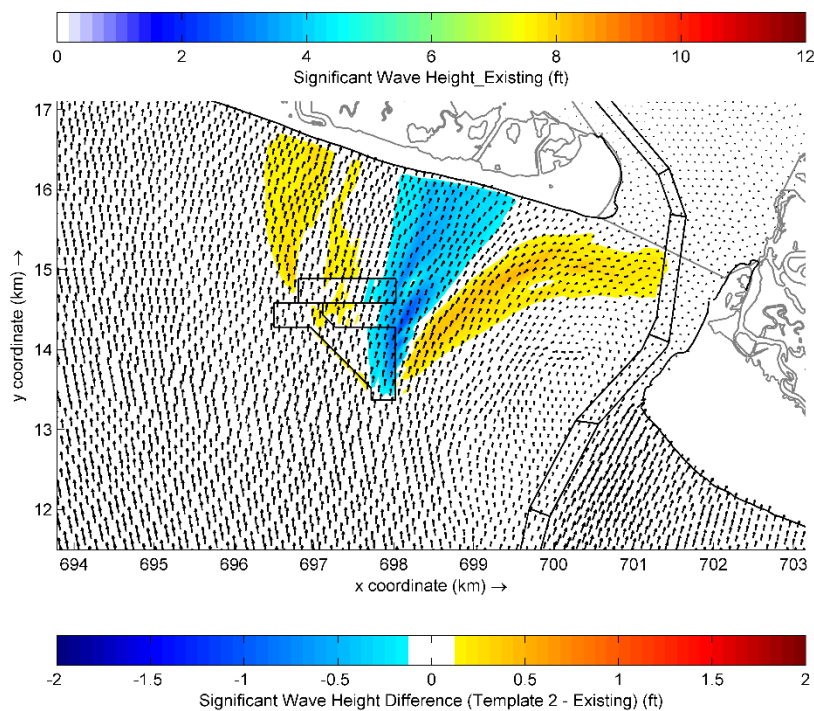
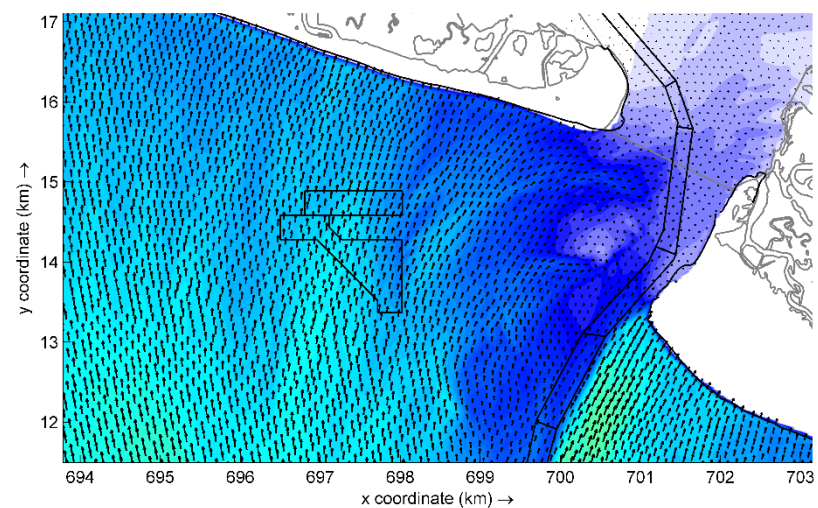
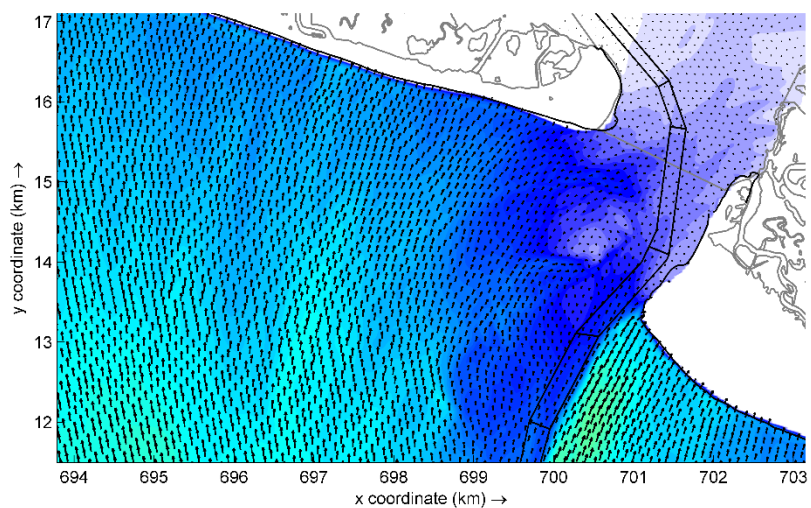
$H_s = 11.1$  ft,  $T_p = 10.1$  s, Dir = 128.1 degN

Percent Occurrence = 0.135%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)





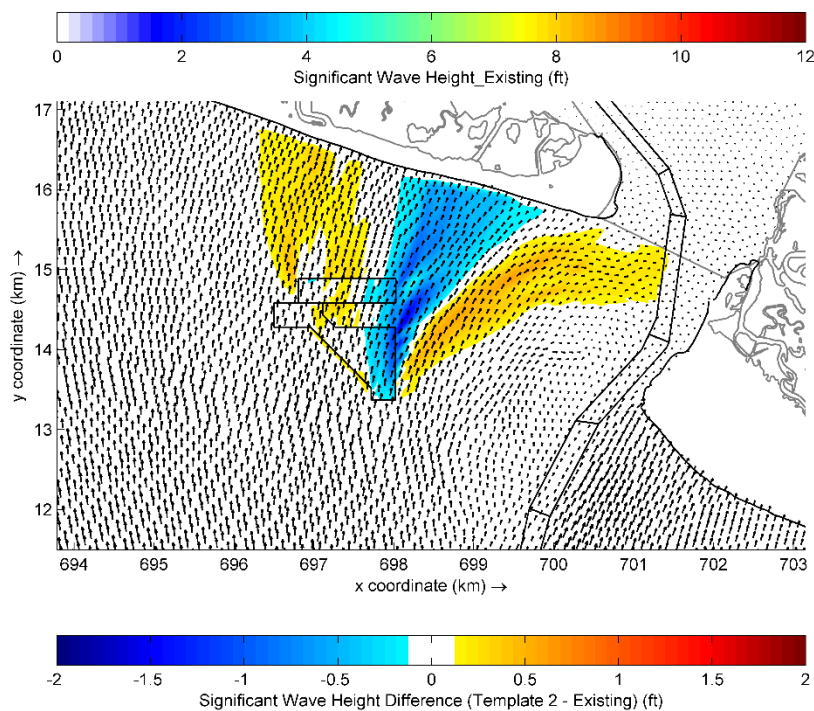
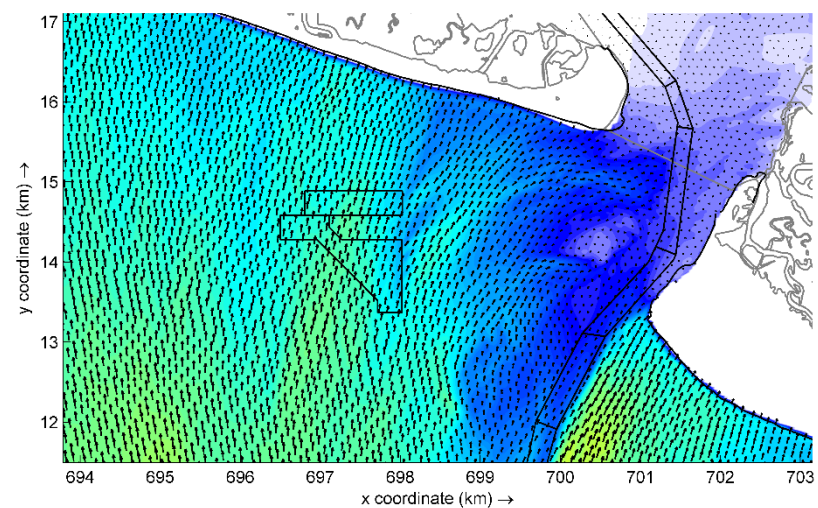
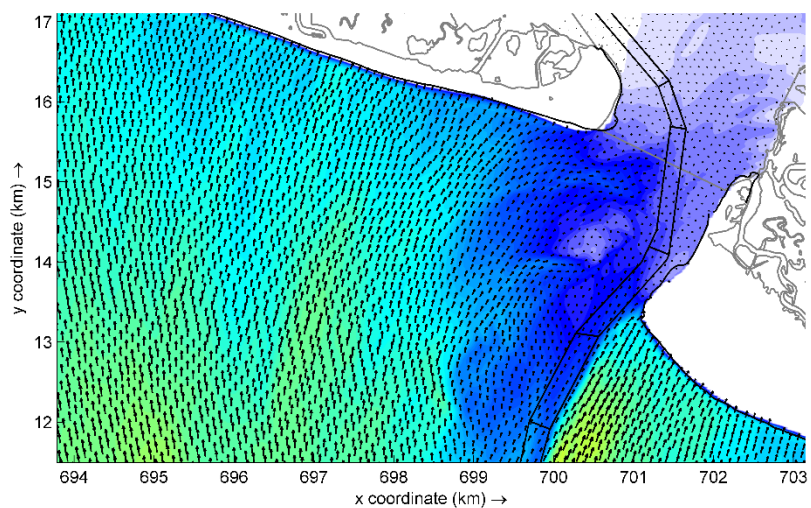
### **Offshore Wave Case20:**

$H_s = 14.4$  ft,  $T_p = 10.2$  s, Dir = 126.9 degN

Percent Occurrence = 0.035%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)



### **Offshore Wave Case21:**

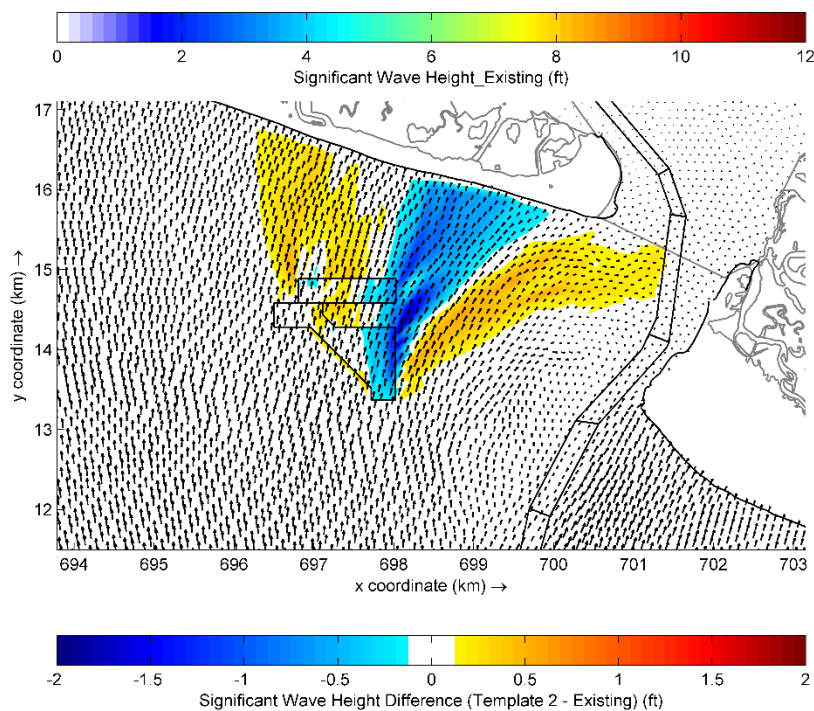
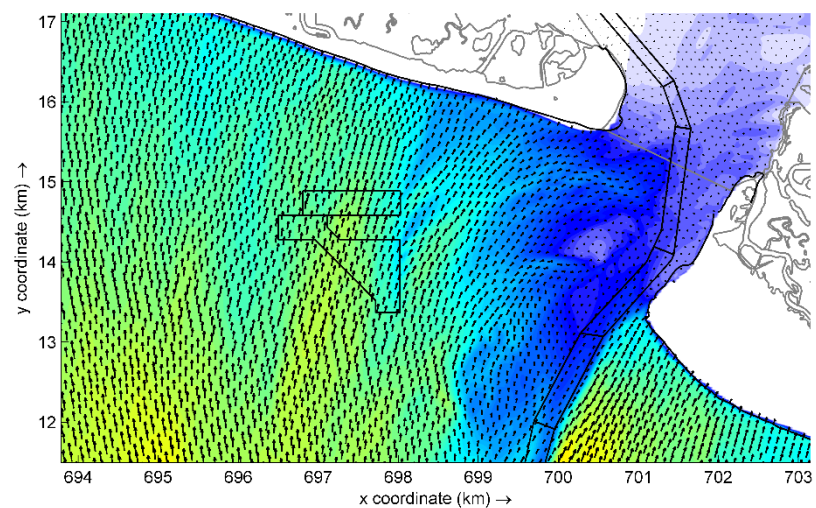
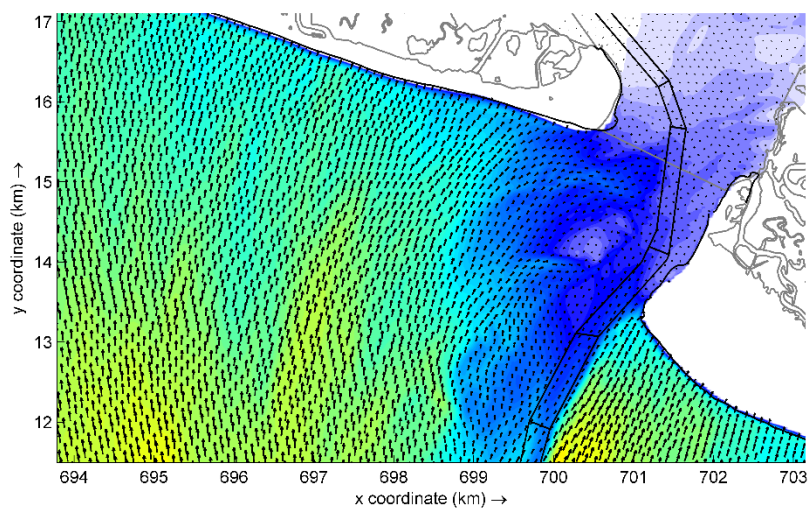
$H_s = 18.0$  ft,  $T_p = 11.3$  s, Dir = 128.7 degN

Percent Occurrence = 0.010%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)





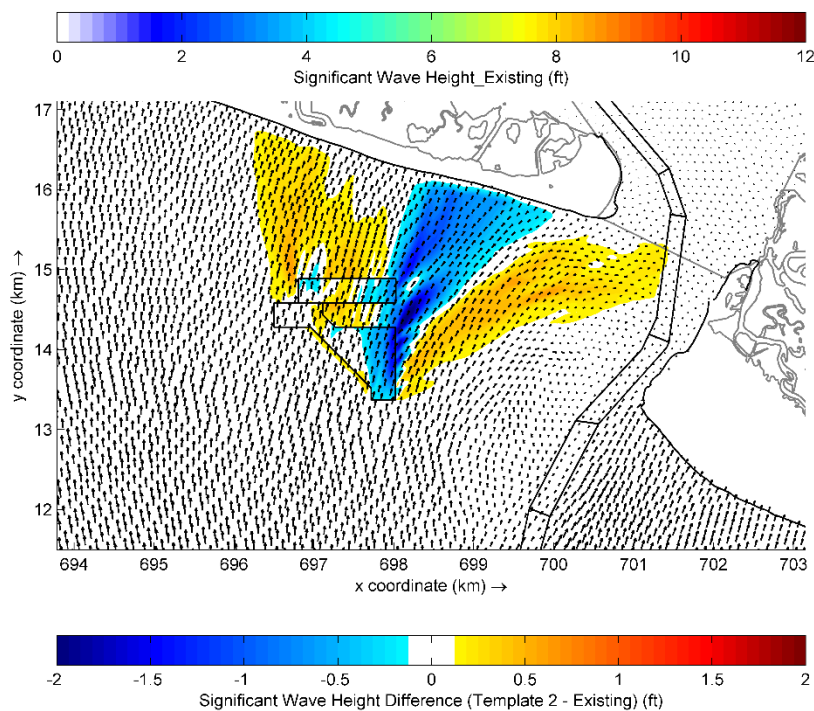
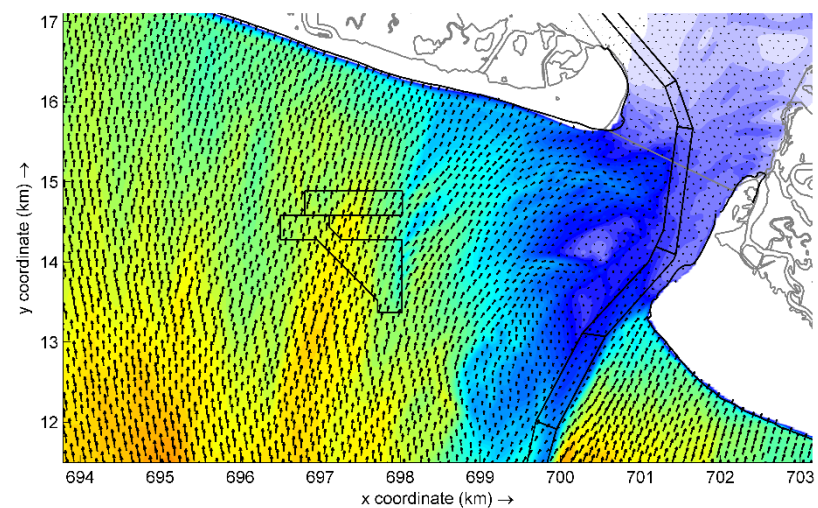
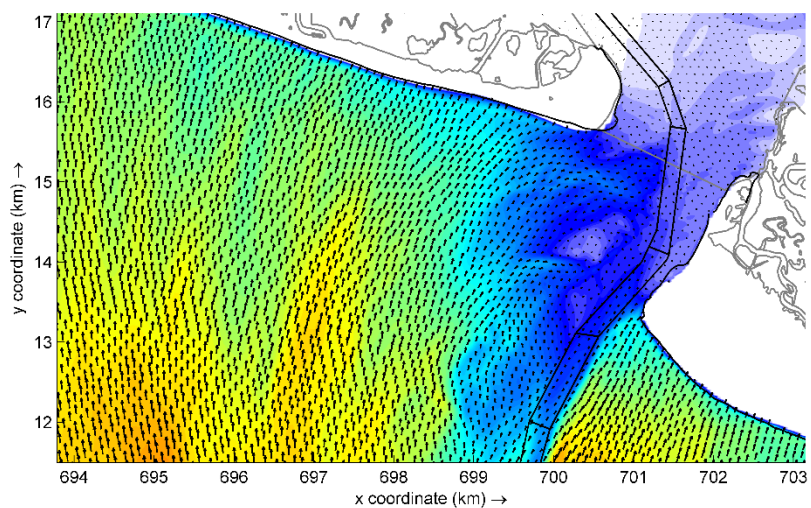
### Offshore Wave Case22:

$H_s = 20.2$  ft,  $T_p = 12.2$  s,  $Dir = 130.1$  degN

Percent Occurrence = 0.002%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)



### **Offshore Wave Case23:**

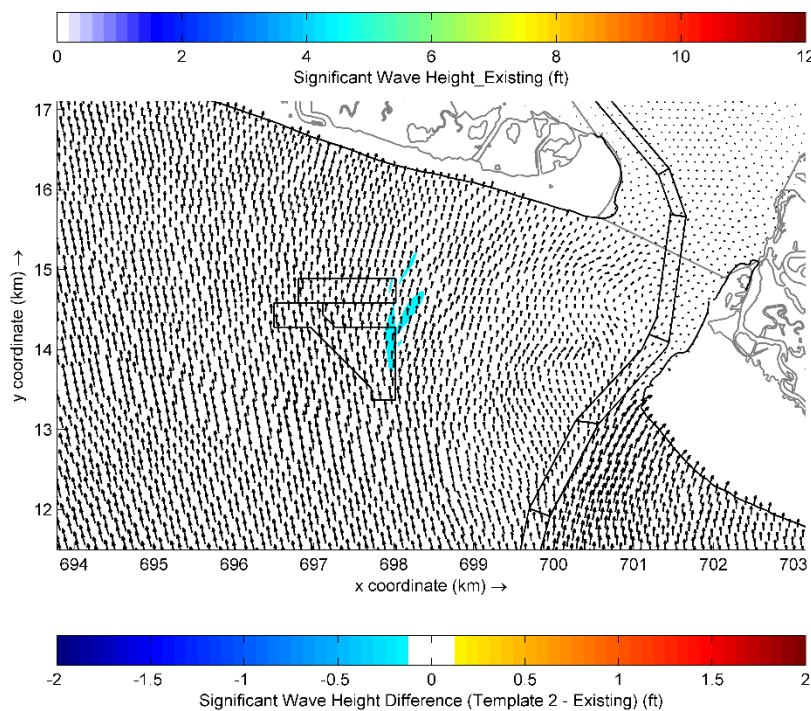
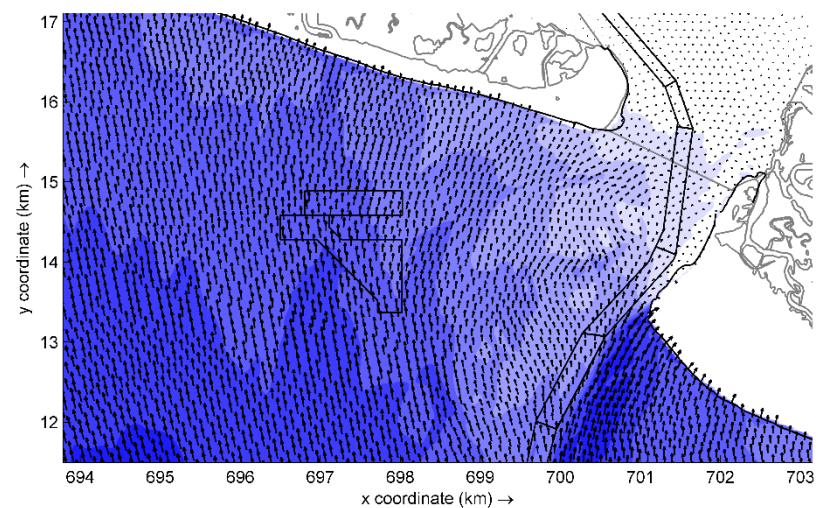
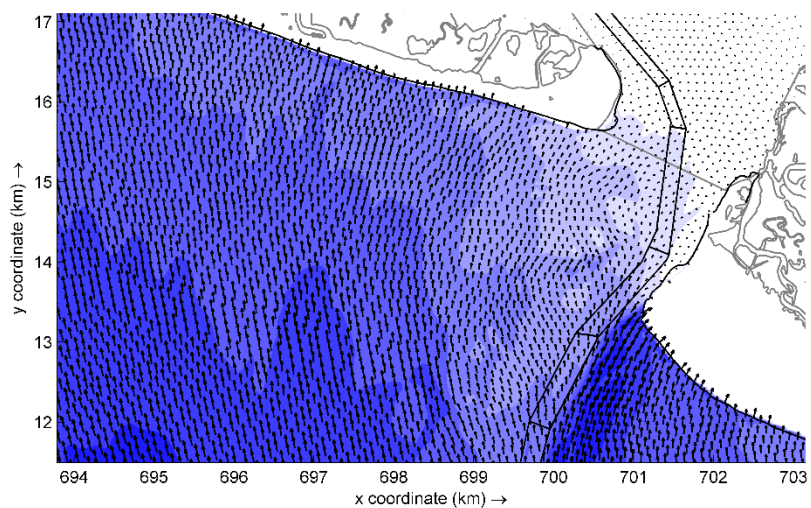
$H_s = 26.8$  ft,  $T_p = 14.8$  s, Dir = 128.6 degN

Percent Occurrence = 0.002%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)





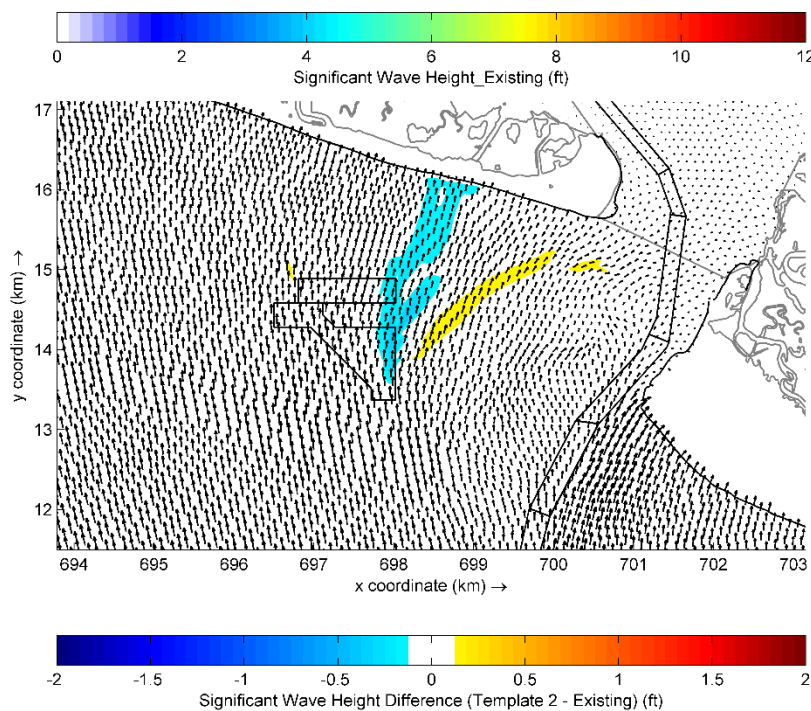
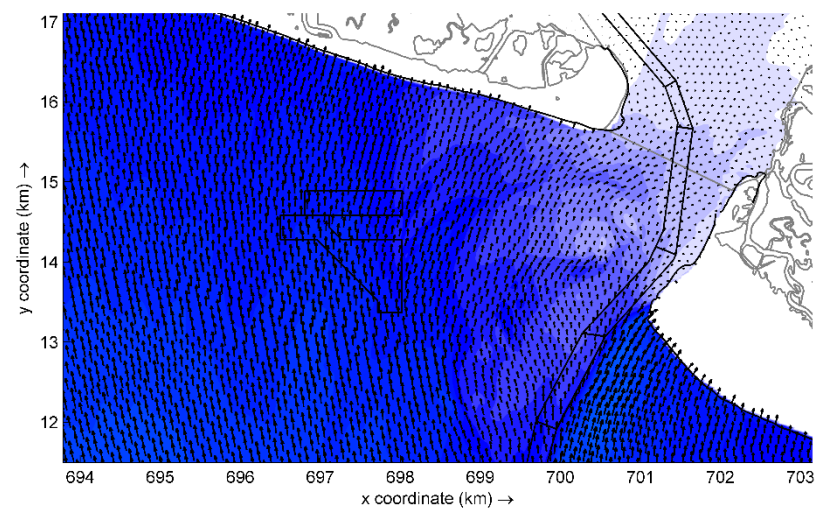
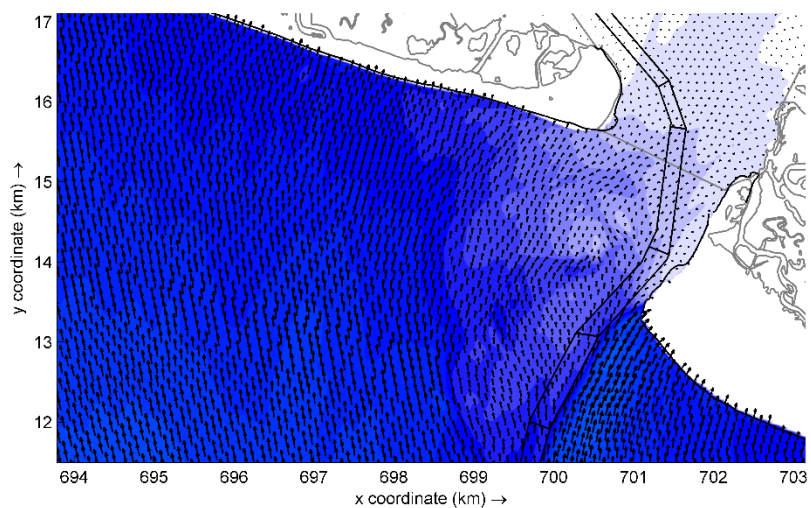
### **Offshore Wave Case24:**

$H_s = 2.5$  ft,  $T_p = 8.0$  s, Dir = 141.6 degN

Percent Occurrence = 3.391%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)



### **Offshore Wave Case25:**

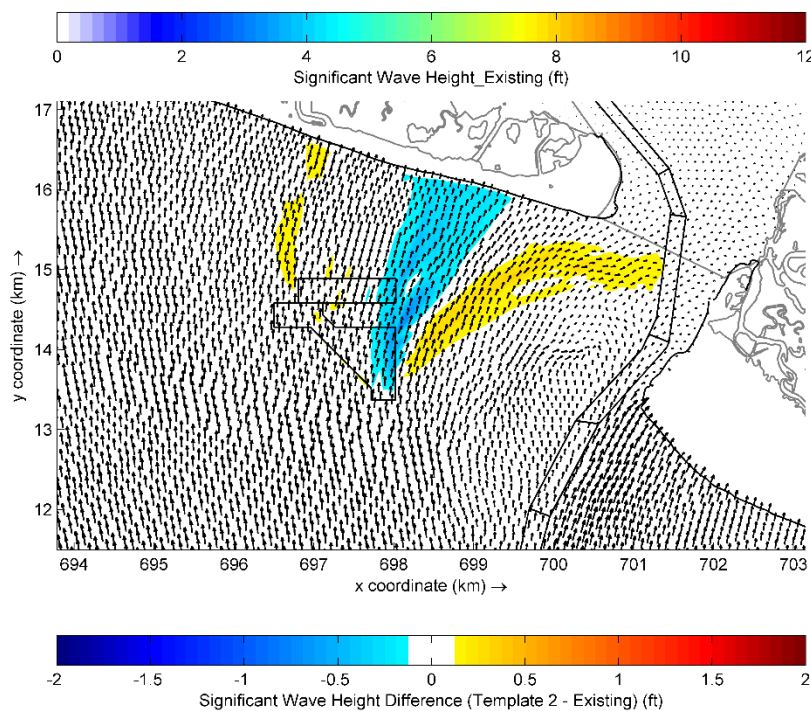
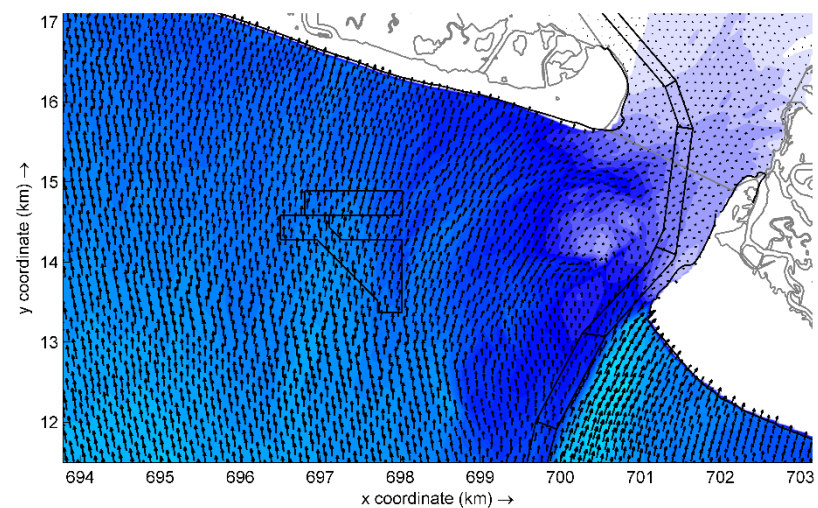
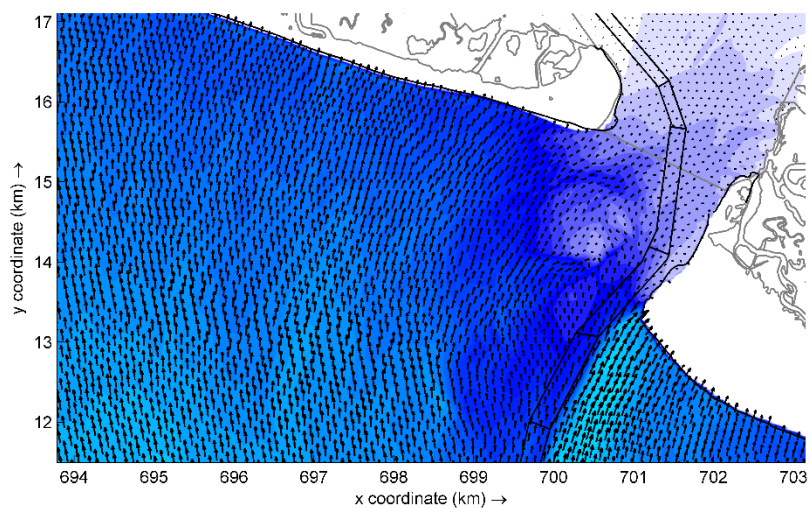
$H_s = 4.5$  ft,  $T_p = 8.3$  s, Dir = 142.0 degN

Percent Occurrence = 3.696%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)





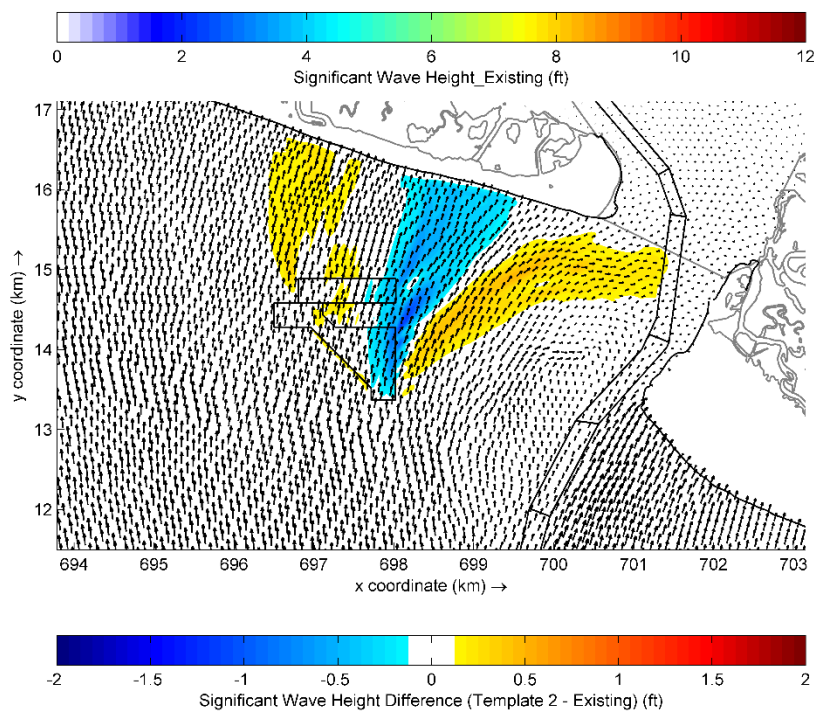
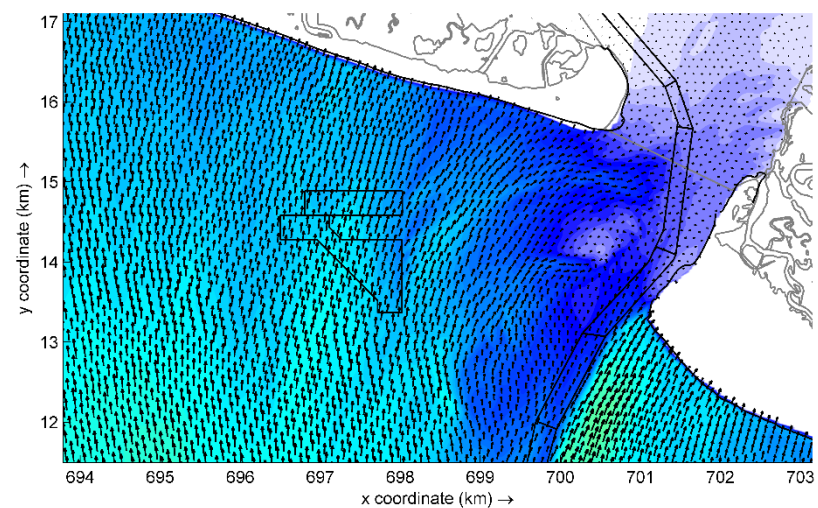
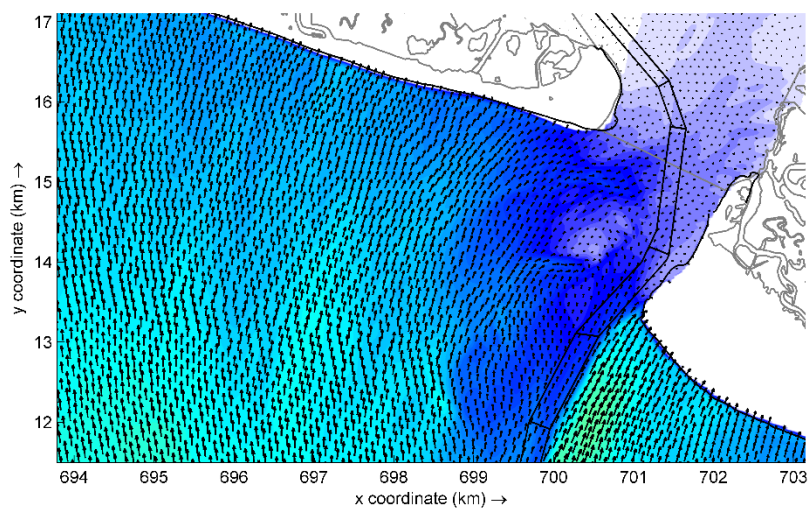
### Offshore Wave Case26:

$H_s = 7.8$  ft,  $T_p = 8.9$  s, Dir = 142.5 degN

Percent Occurrence = 0.646%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)



### **Offshore Wave Case27:**

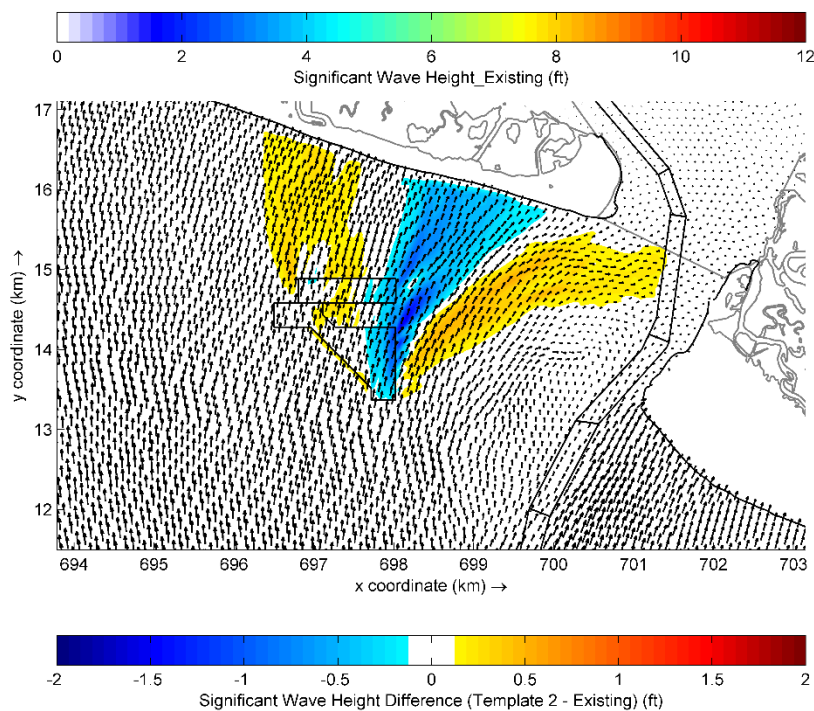
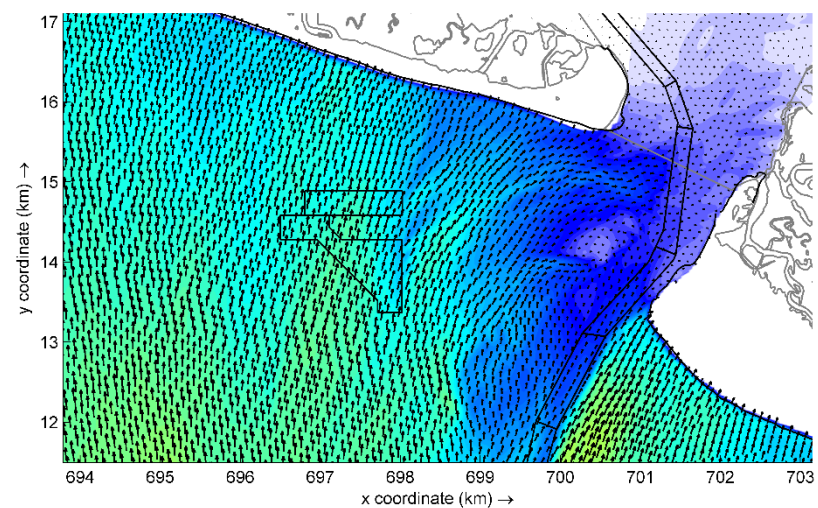
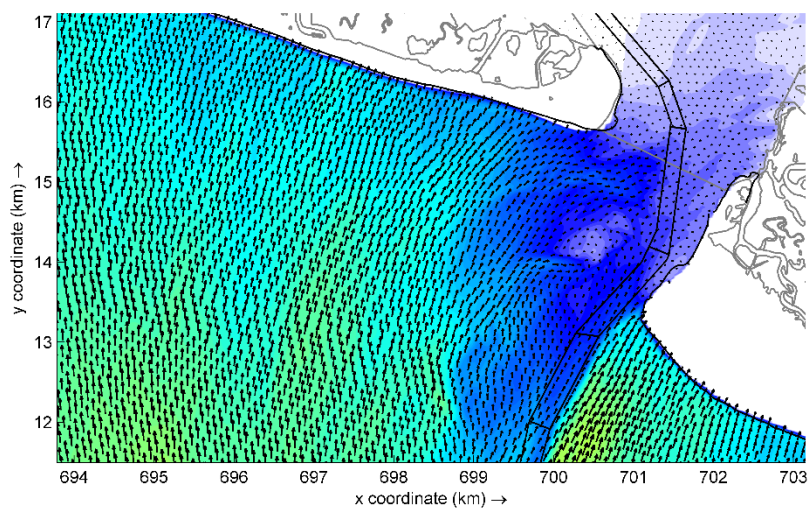
$H_s = 11.3$  ft,  $T_p = 9.9$  s, Dir = 142.2 degN

Percent Occurrence = 0.193%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)





### Offshore Wave Case28:

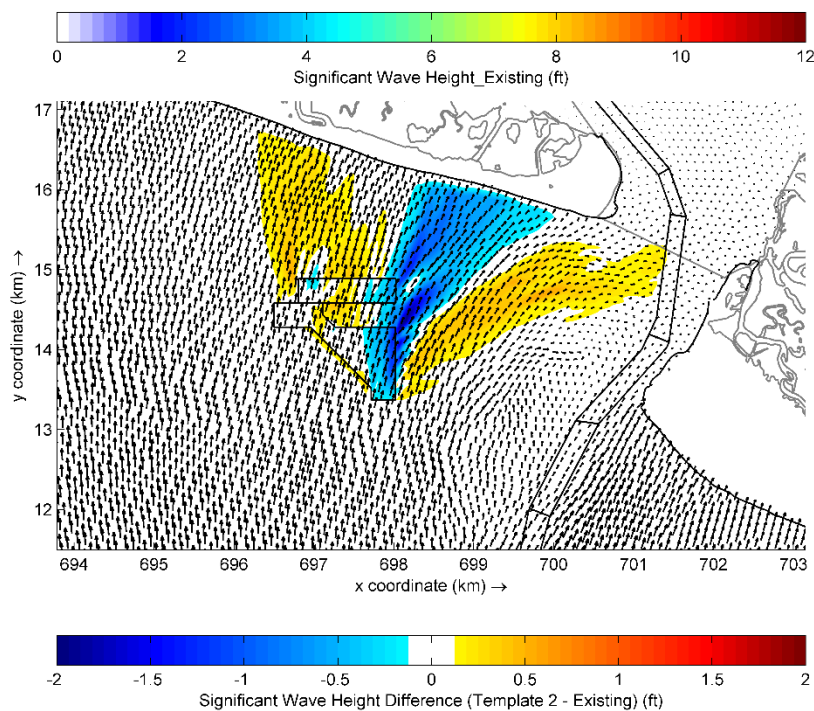
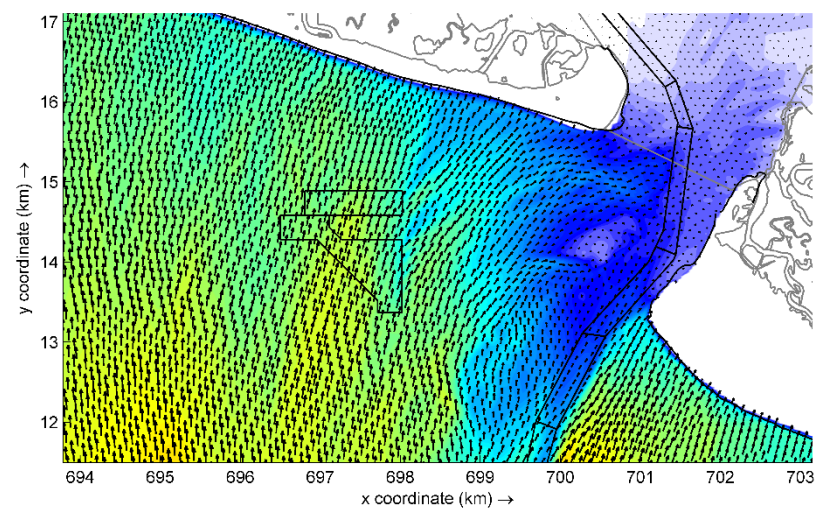
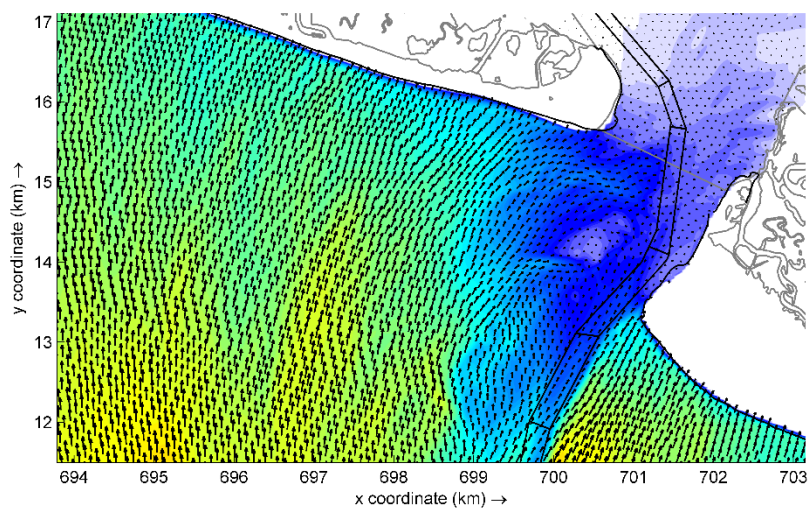
$H_s = 14.1$  ft,  $T_p = 10.4$  s, Dir = 142.1 degN

Percent Occurrence = 0.054%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)





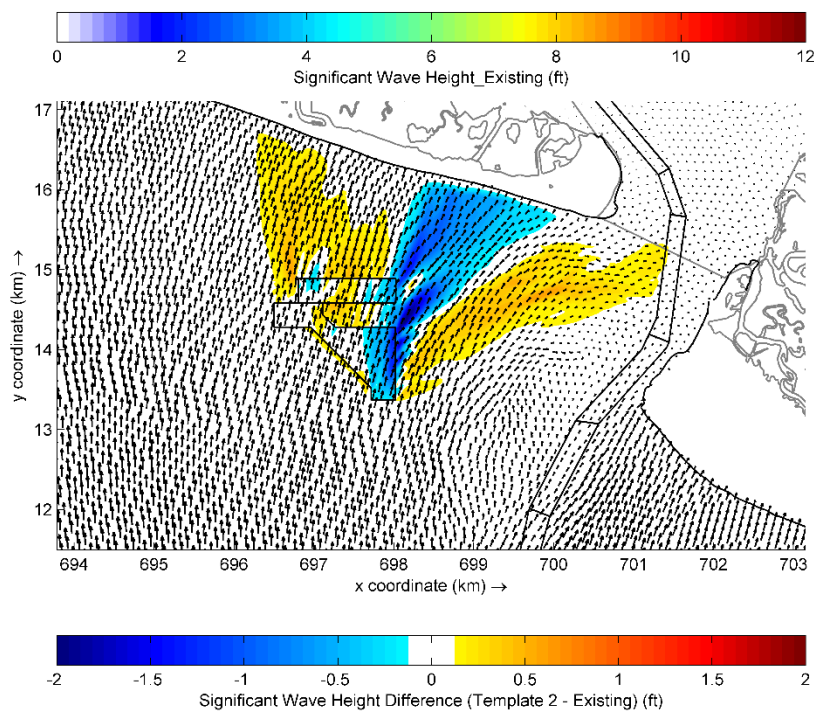
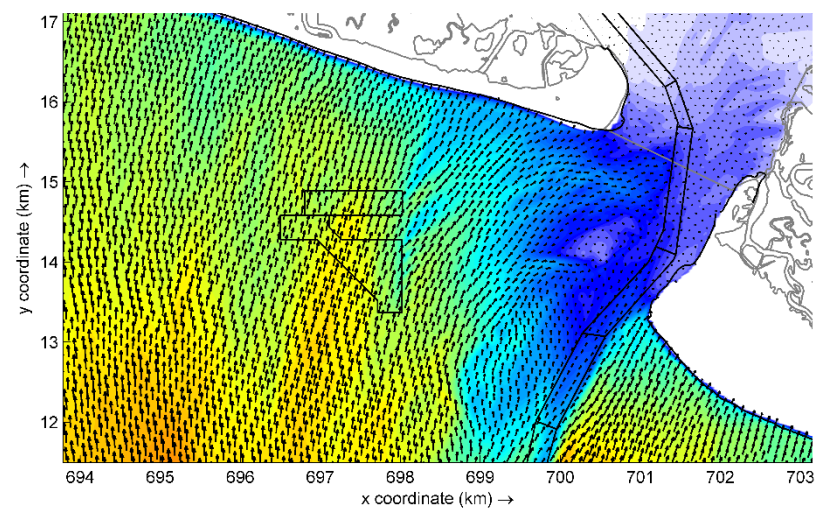
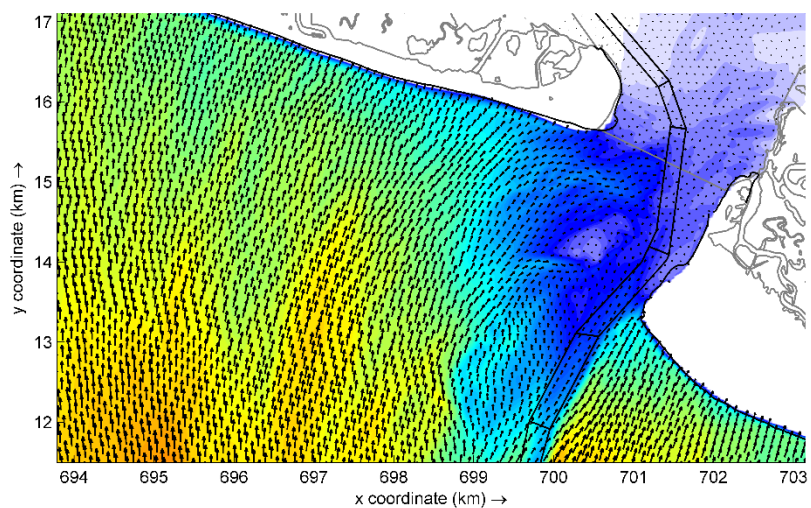
### **Offshore Wave Case29:**

$H_s = 18.3$  ft,  $T_p = 11.1$  s, Dir = 142.9 degN

Percent Occurrence = 0.011%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)



### **Offshore Wave Case30:**

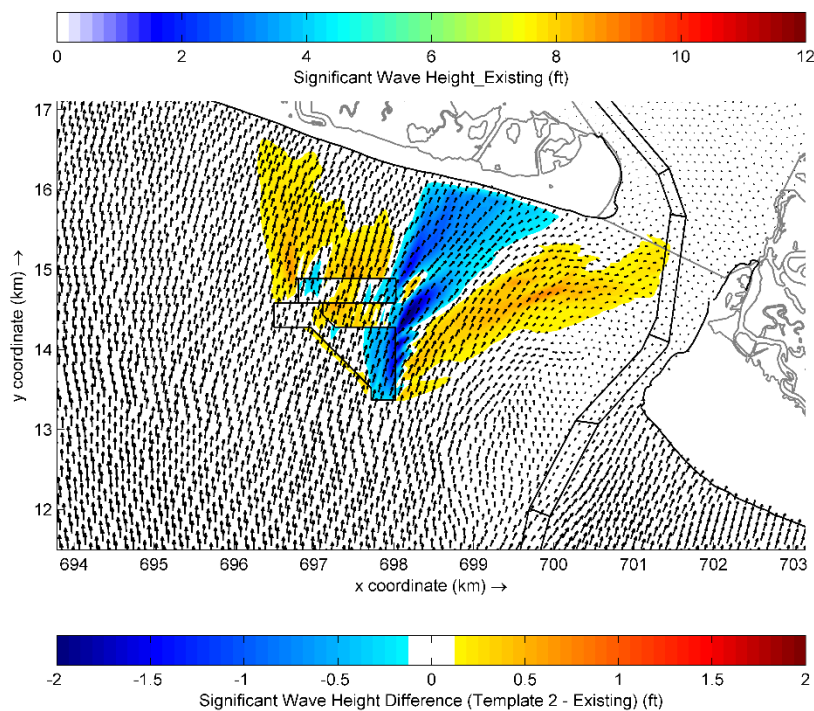
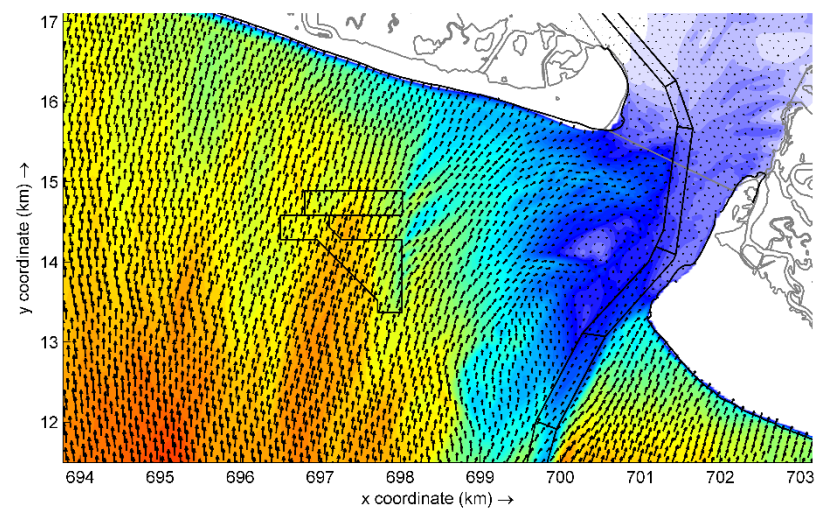
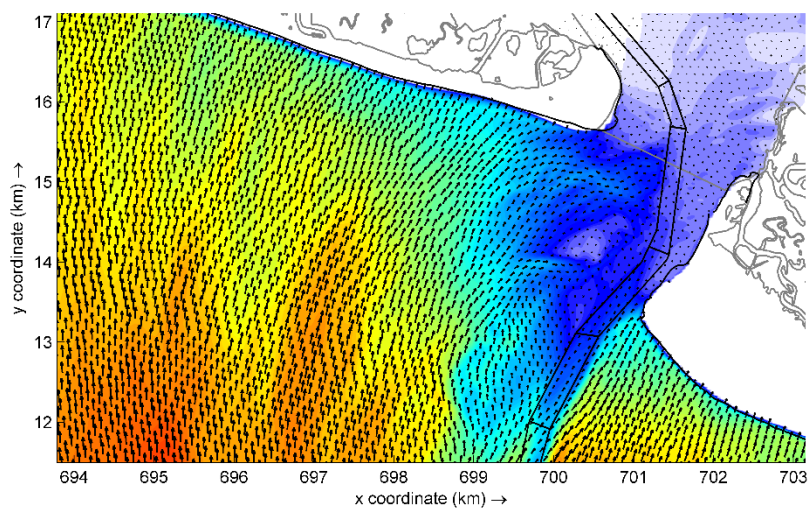
$H_s = 20.2$  ft,  $T_p = 12.3$  s, Dir = 142.6 degN

Percent Occurrence = 0.003%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)





### **Offshore Wave Case31:**

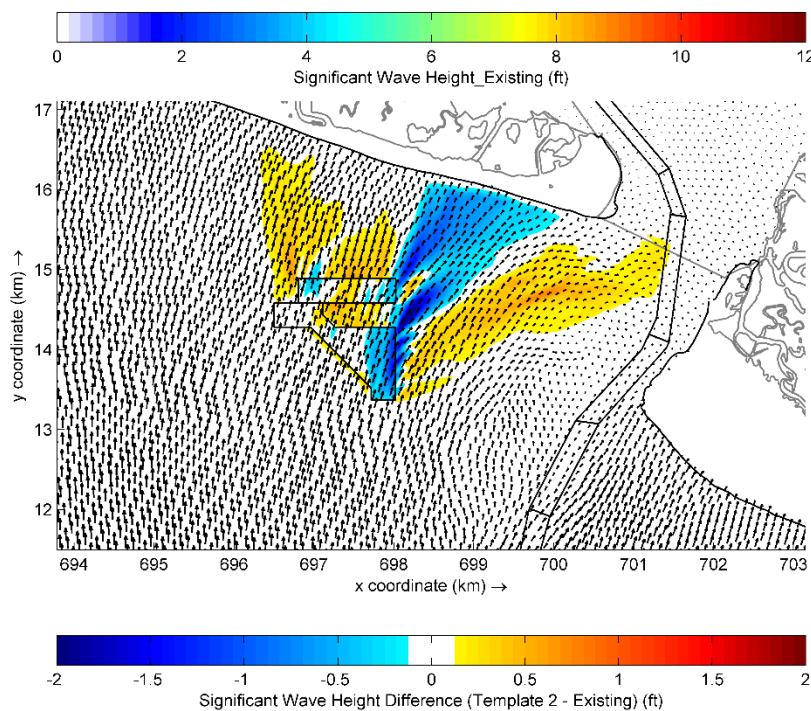
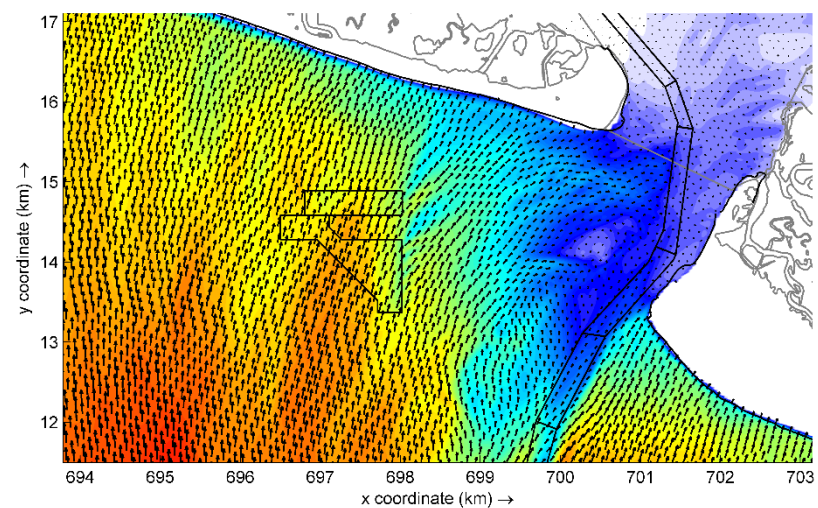
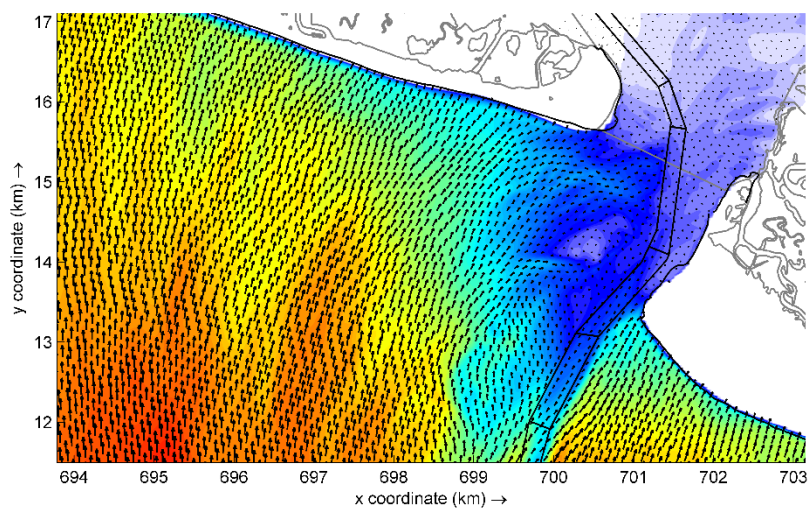
$H_s = 25.2$  ft,  $T_p = 15.9$  s, Dir = 141.2 degN

Percent Occurrence = 0.002%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)





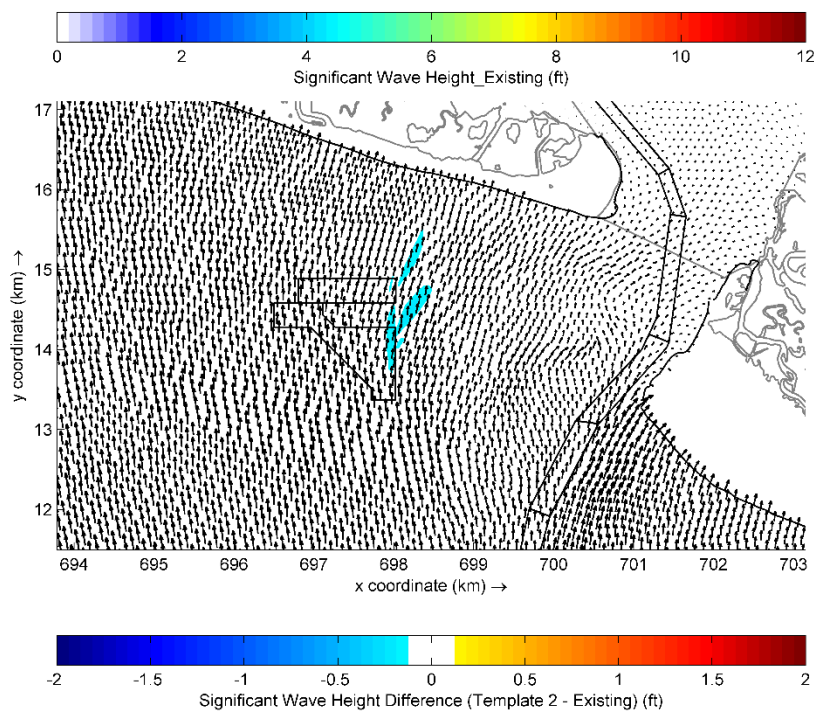
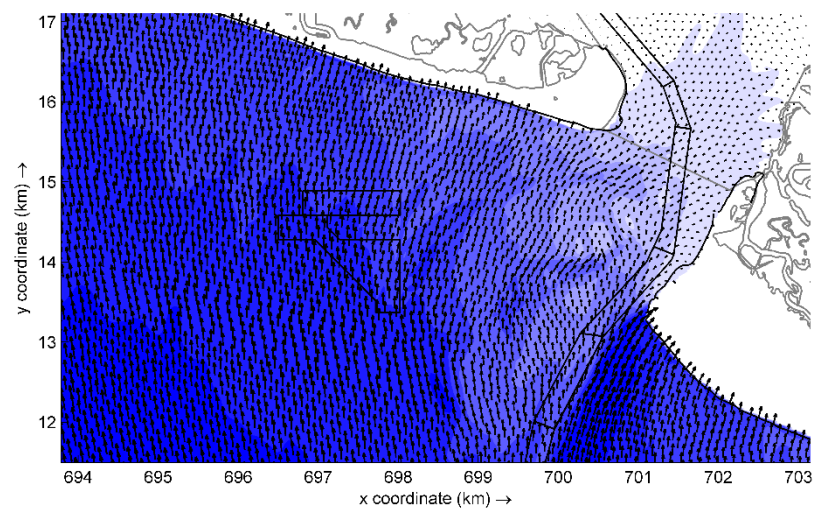
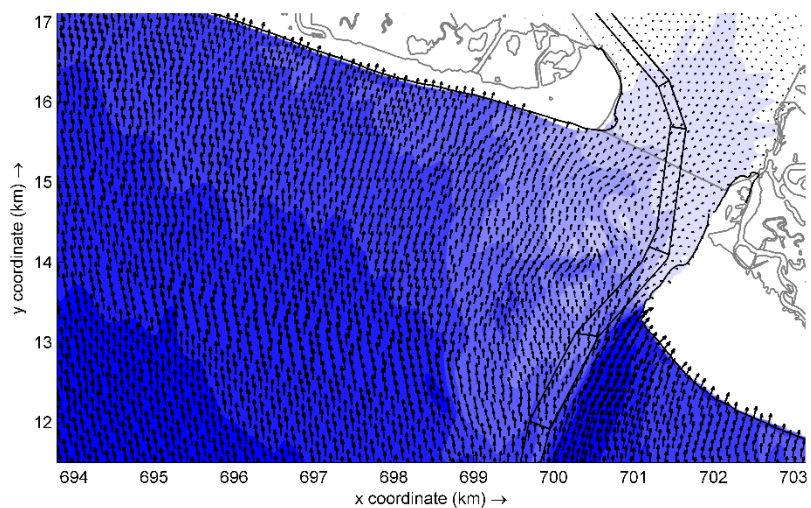
### **Offshore Wave Case32:**

$H_s = 27.6$  ft,  $T_p = 14.8$  s, Dir = 143.3 degN

Percent Occurrence = 0.001%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)



### **Offshore Wave Case33:**

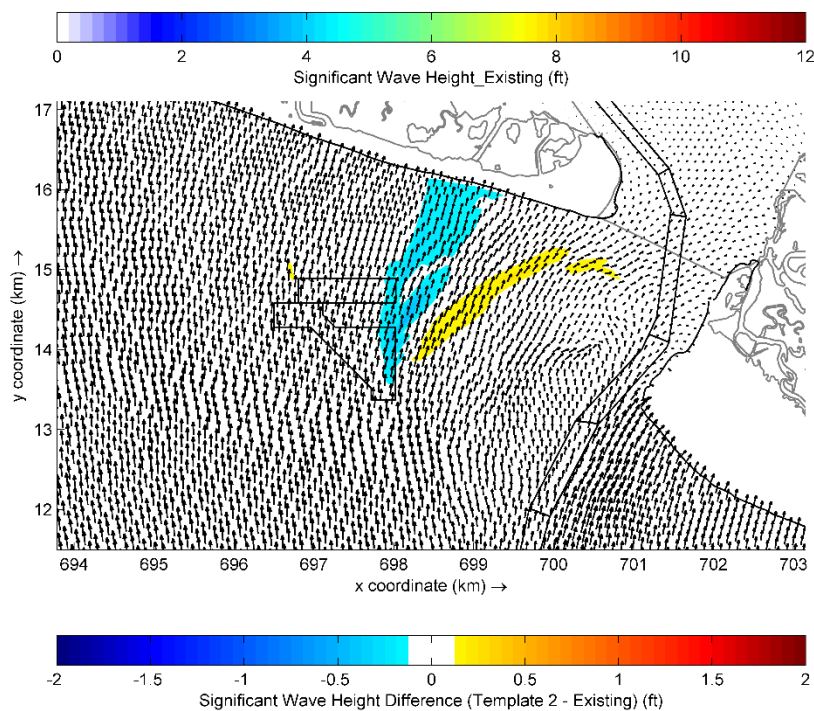
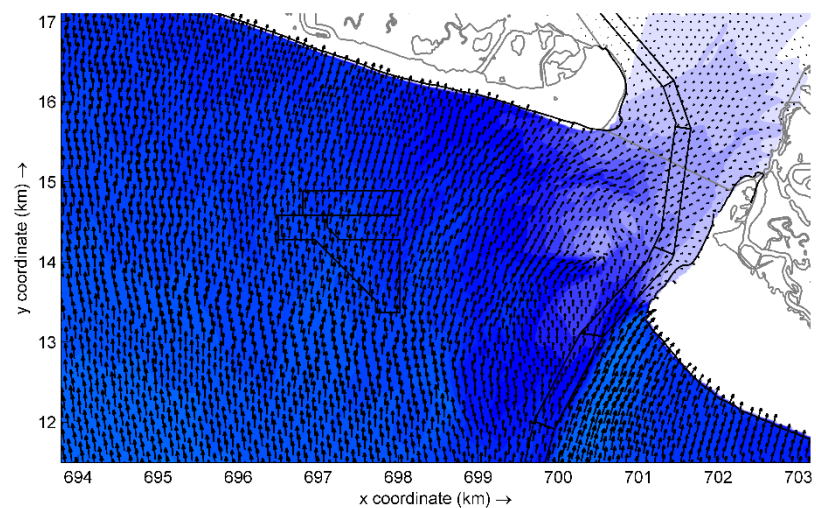
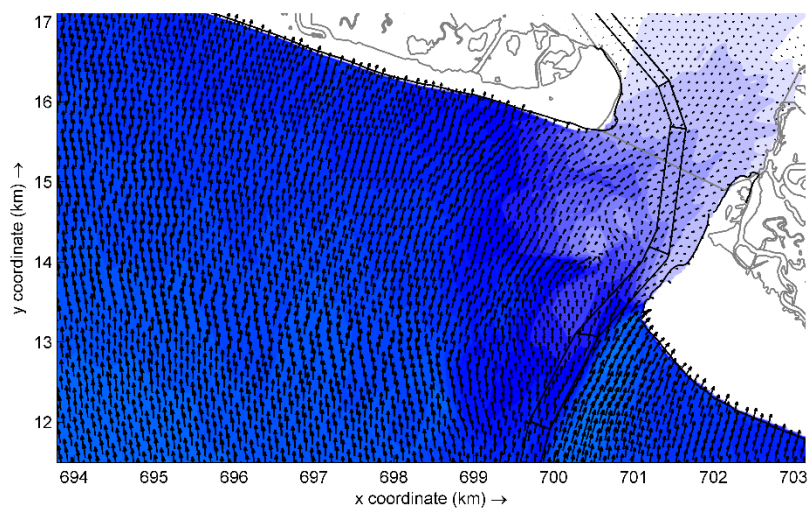
$H_s = 2.6$  ft,  $T_p = 7.1$  s, Dir = 156.91 degN

Percent Occurrence = 2.225%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)





### **Offshore Wave Case34:**

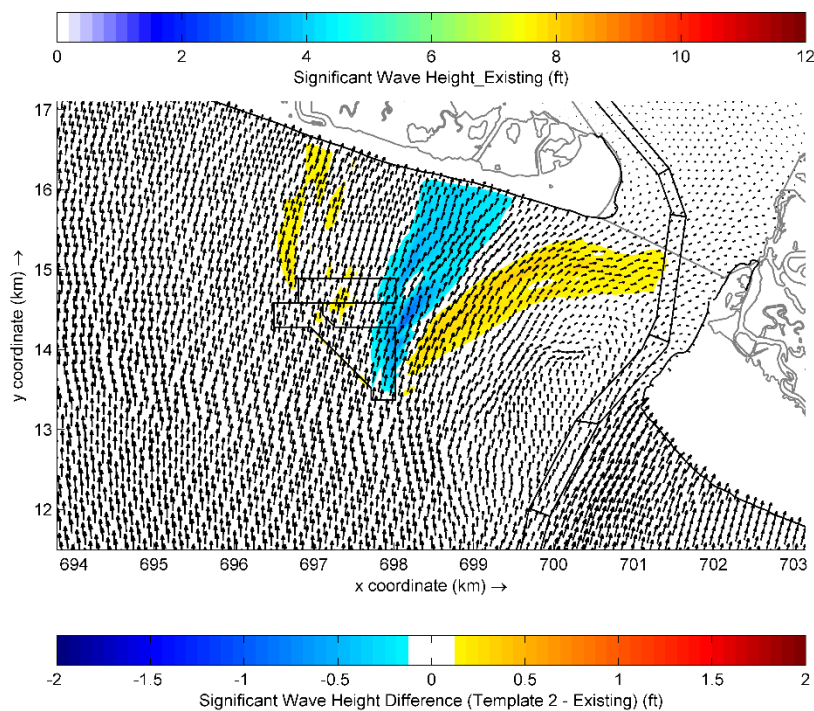
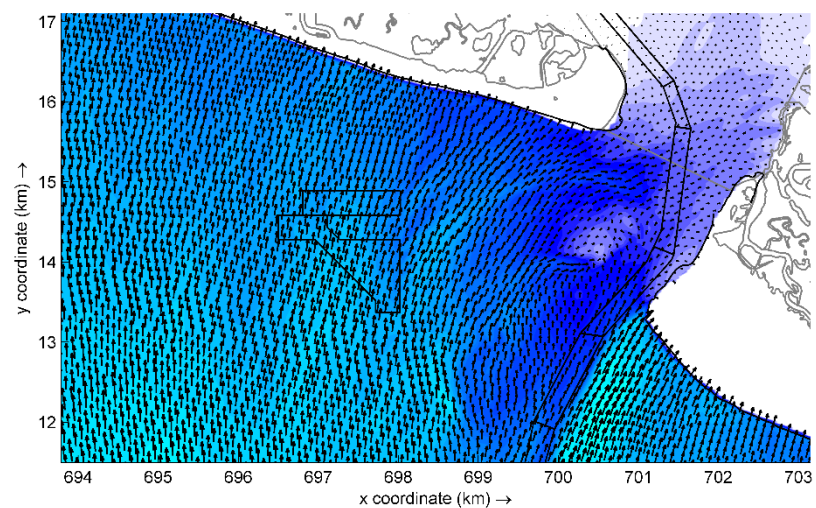
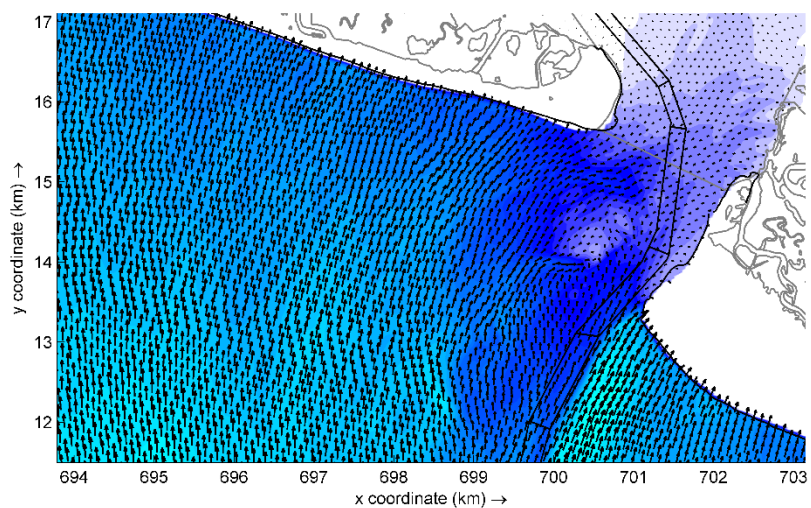
$H_s = 4.6$  ft,  $T_p = 7.4$  s, Dir = 157.3 degN

Percent Occurrence = 2.810%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)





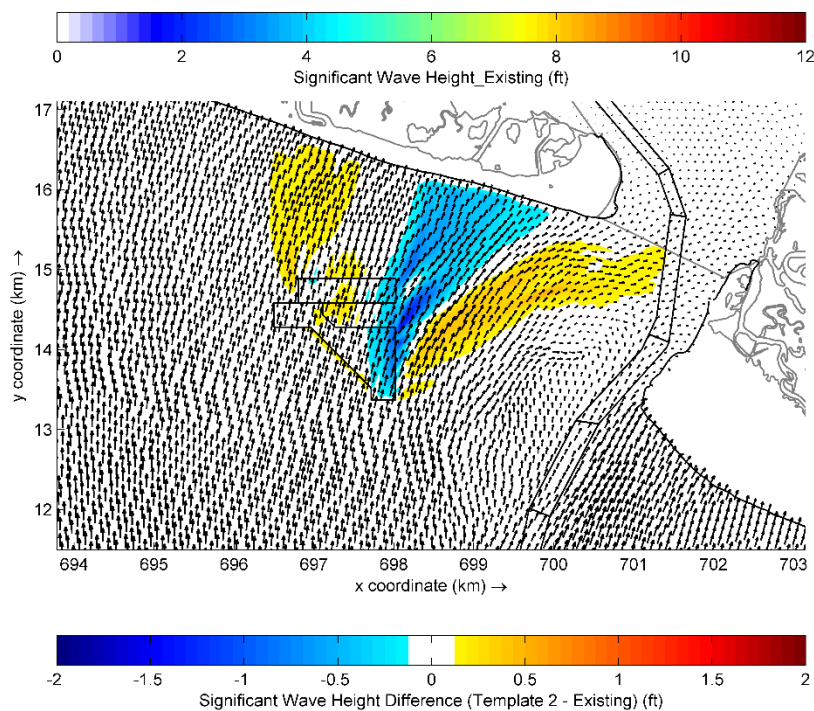
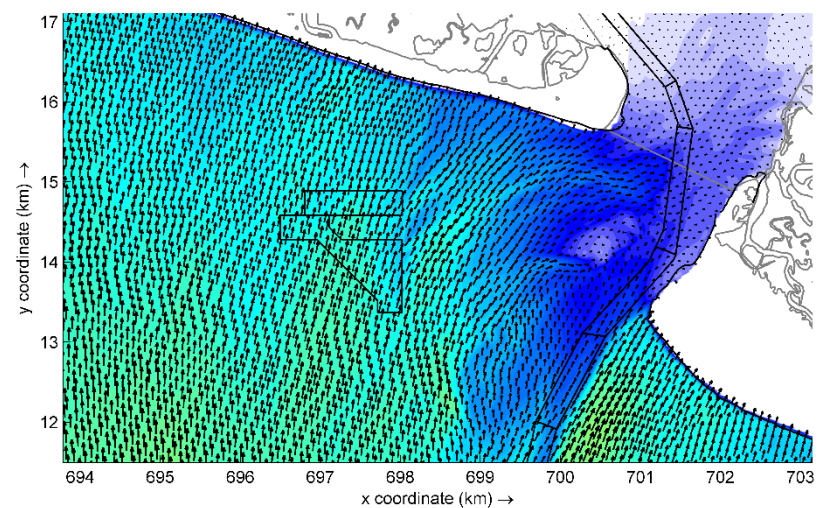
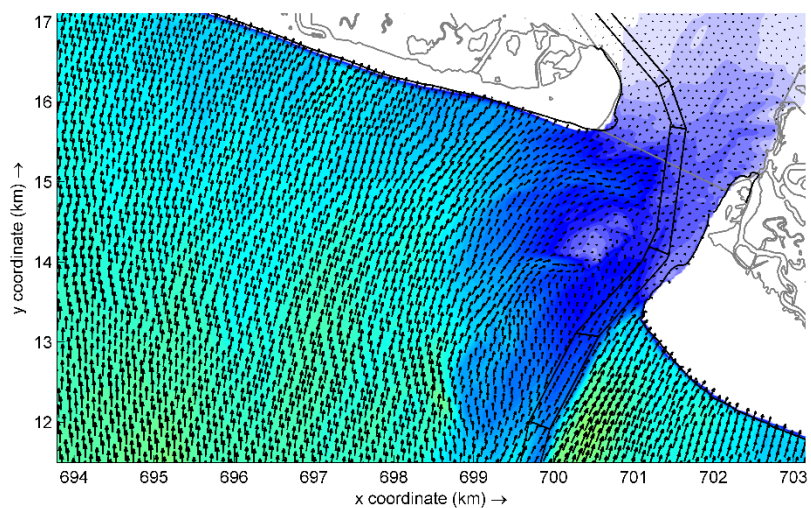
### **Offshore Wave Case35:**

$H_s = 7.8$  ft,  $T_p = 8.1$  s, Dir = 157.7 degN

Percent Occurrence = 0.739%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)



### Offshore Wave Case36:

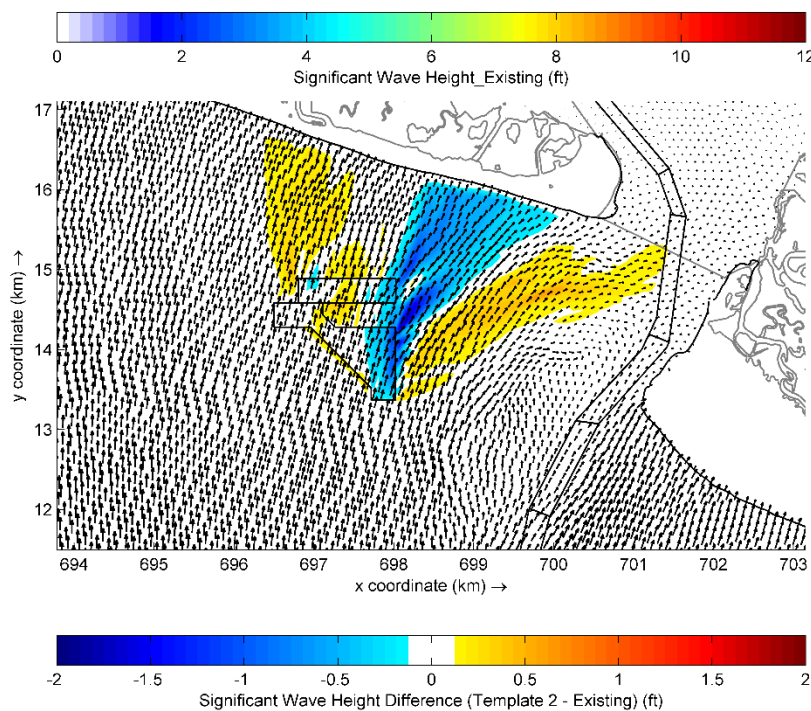
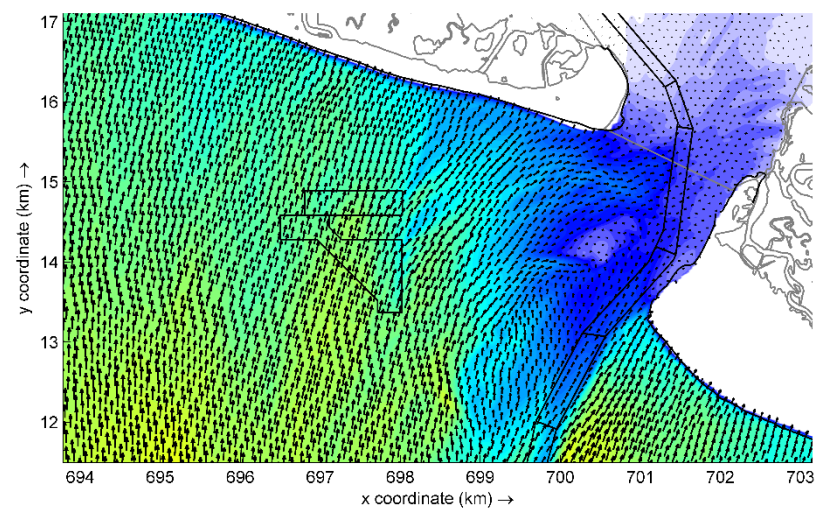
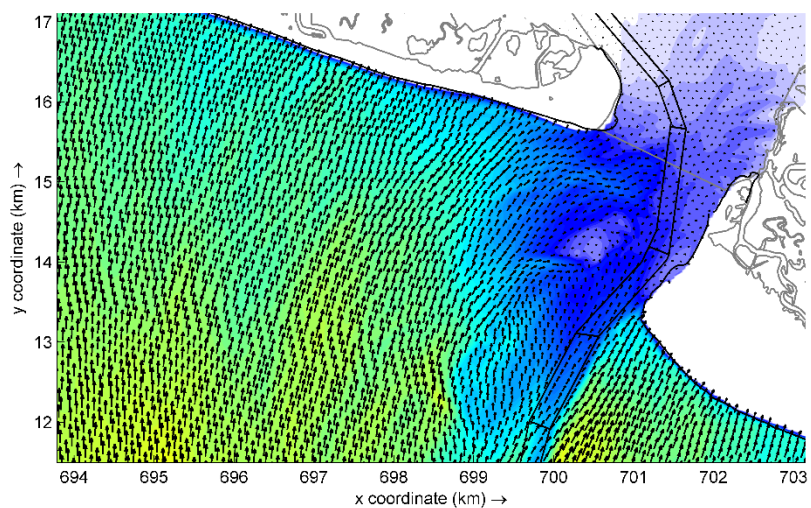
$H_s = 11.0$  ft,  $T_p = 9.2$  s, Dir = 157.3 degN

Percent Occurrence = 0.174%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)





### **Offshore Wave Case37:**

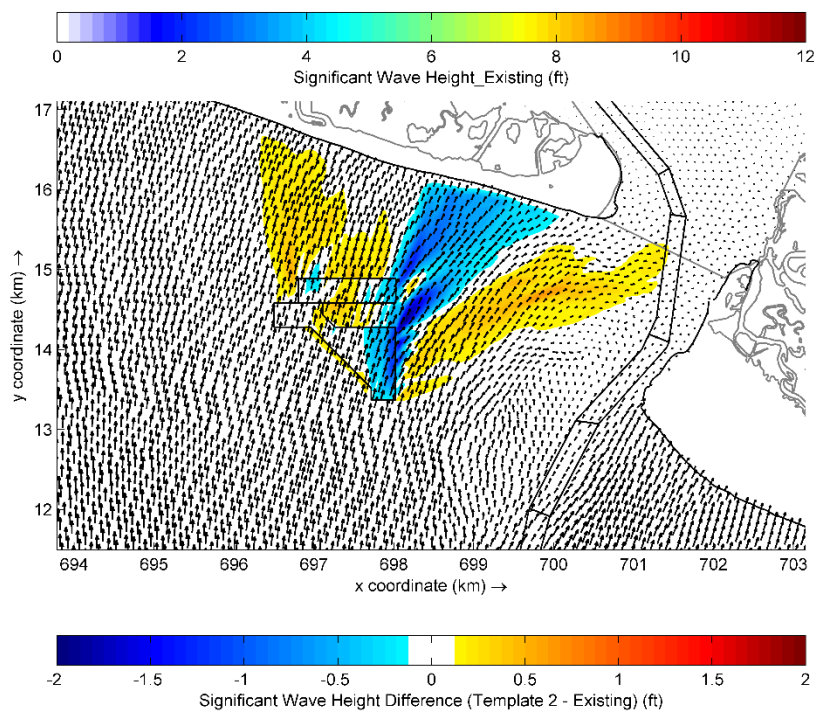
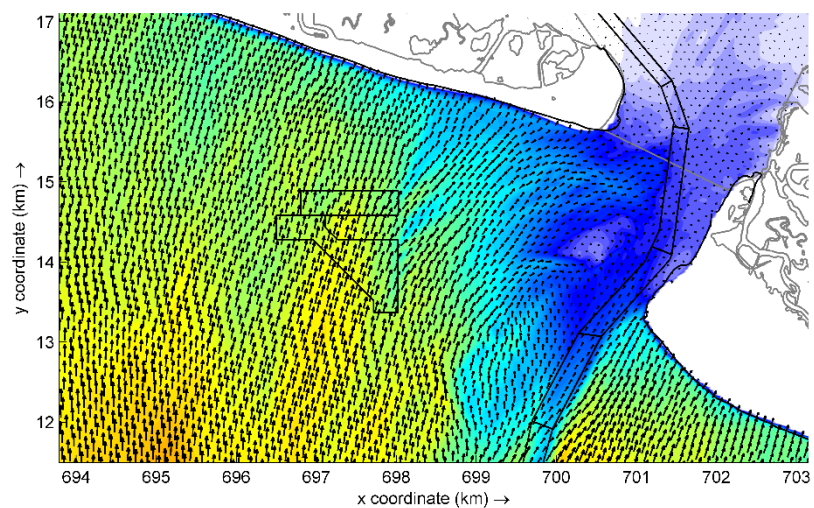
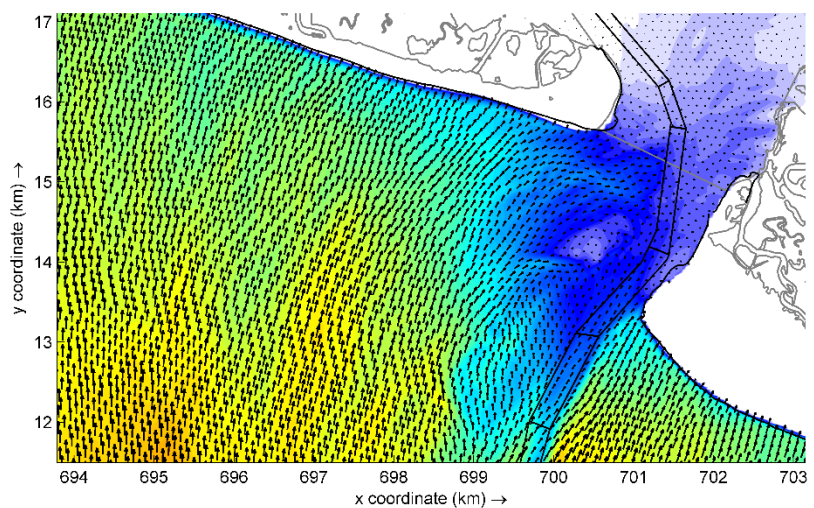
$H_s = 14.6$  ft,  $T_p = 9.7$  s, Dir = 157.6 degN

Percent Occurrence = 0.035%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)





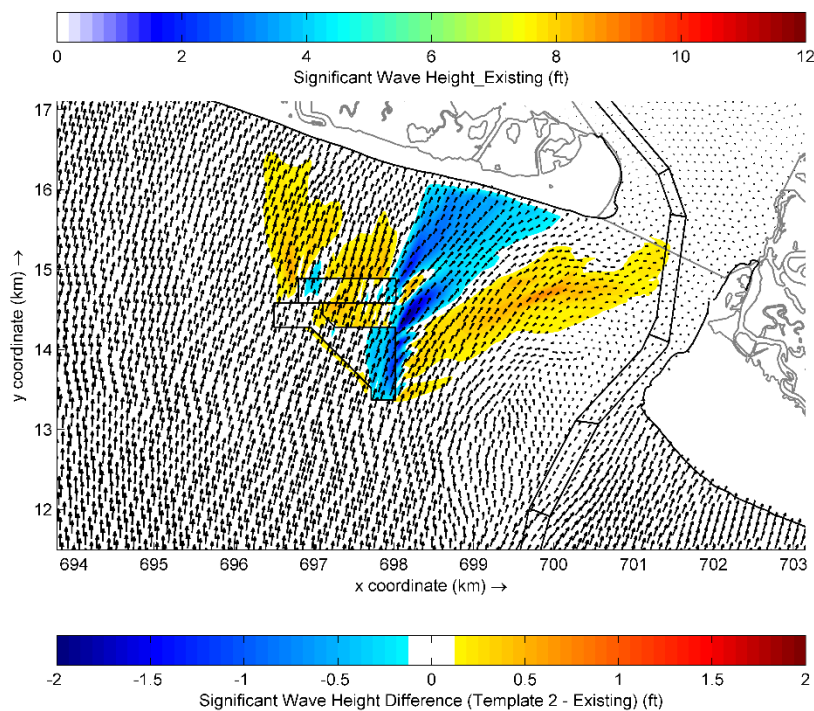
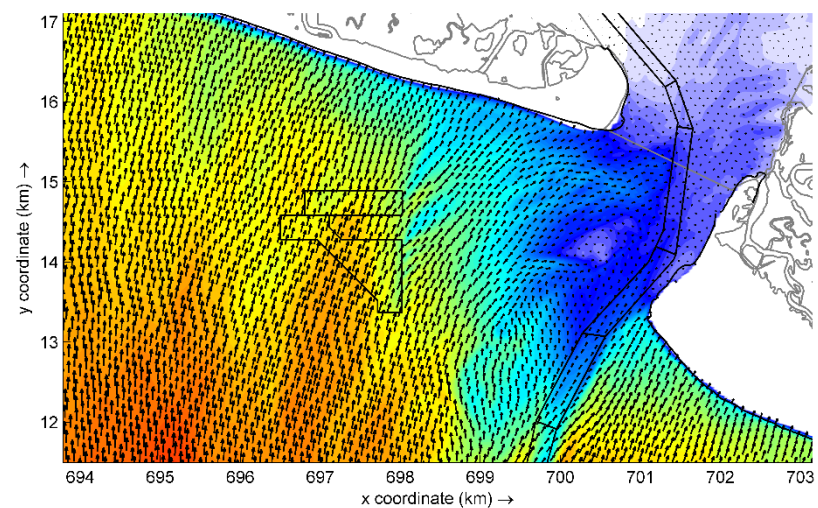
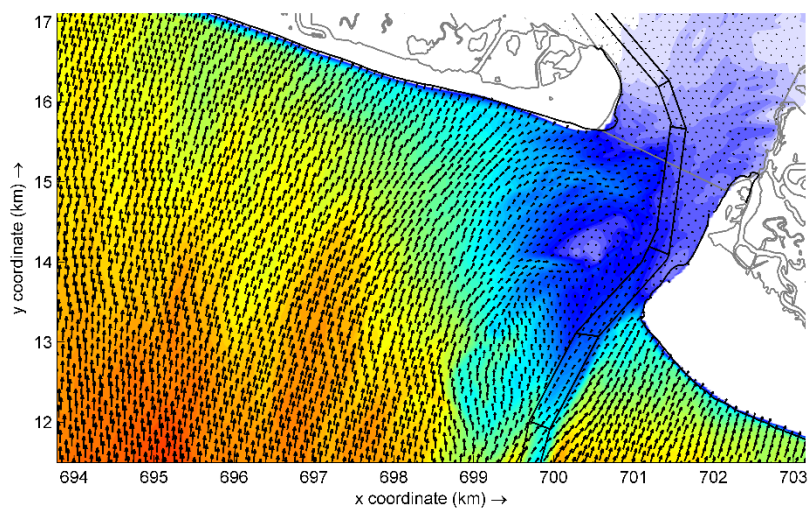
### **Offshore Wave Case38:**

$H_s = 17.4$  ft,  $T_p = 11.1$  s, Dir = 154.1 degN

Percent Occurrence = 0.007%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)



### **Offshore Wave Case39:**

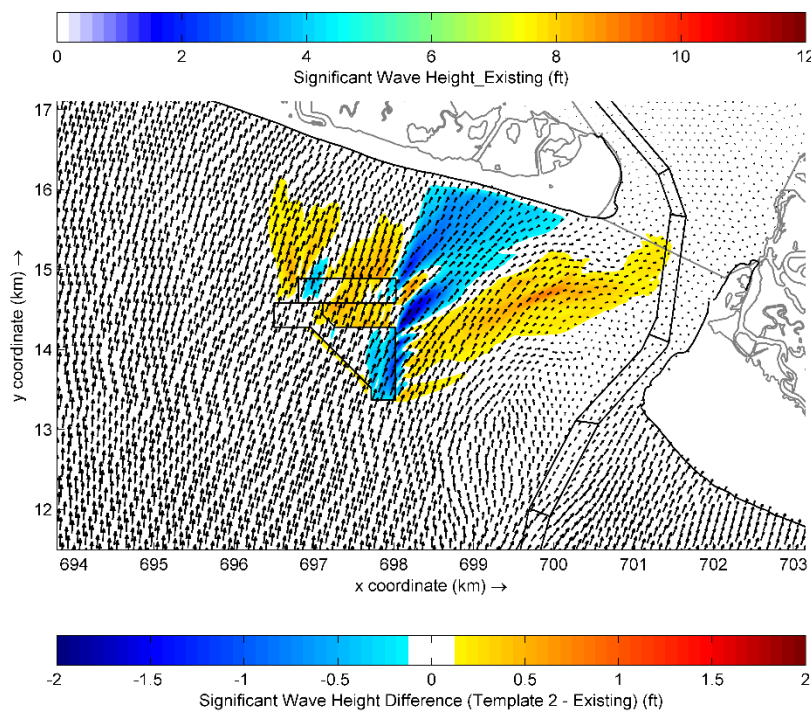
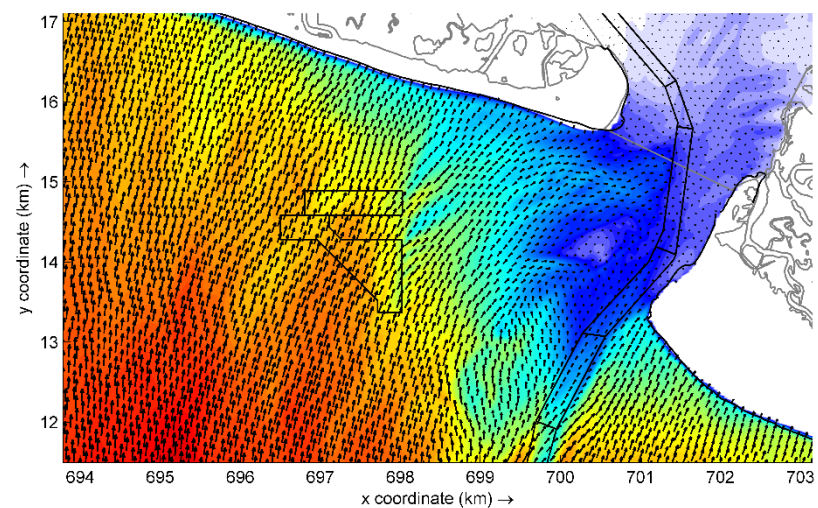
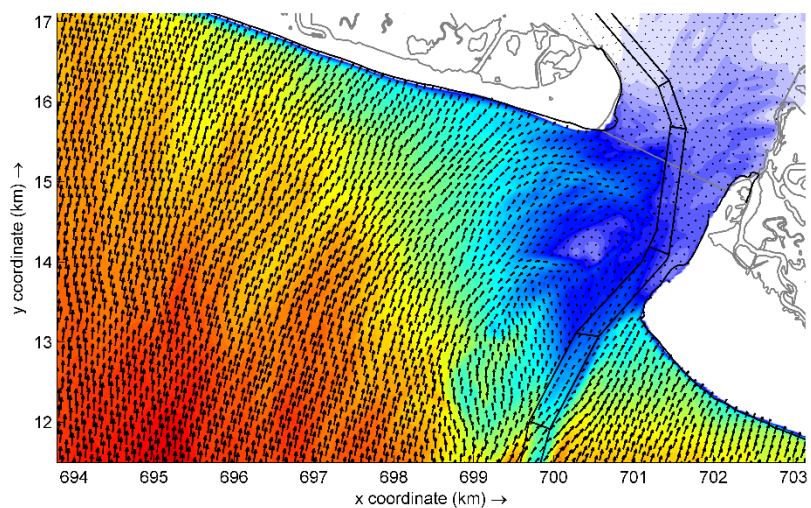
$H_s = 20.5$  ft,  $T_p = 11.9$  s, Dir = 154.8 degN

Percent Occurrence = 0.003%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)





### **Offshore Wave Case40:**

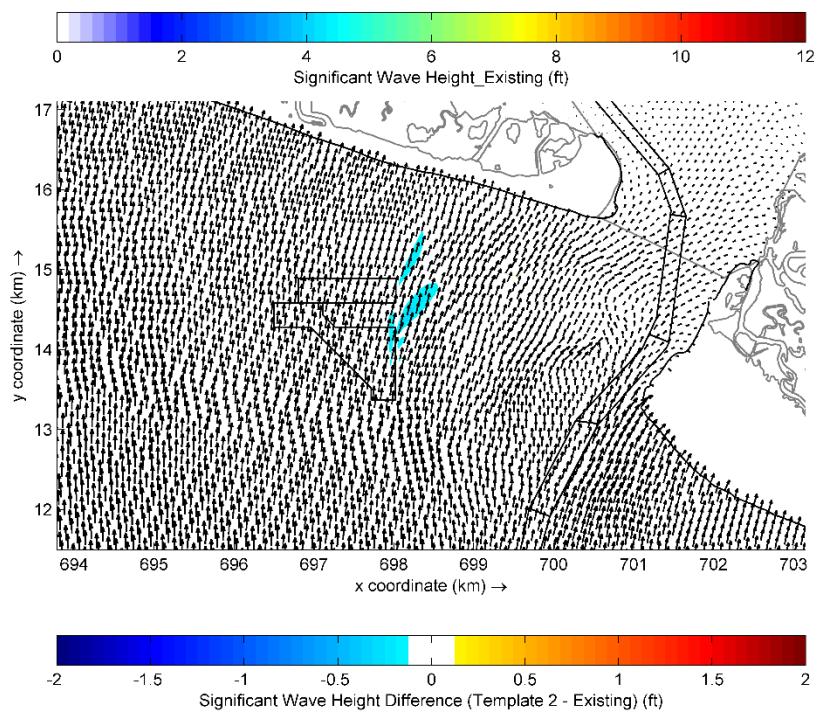
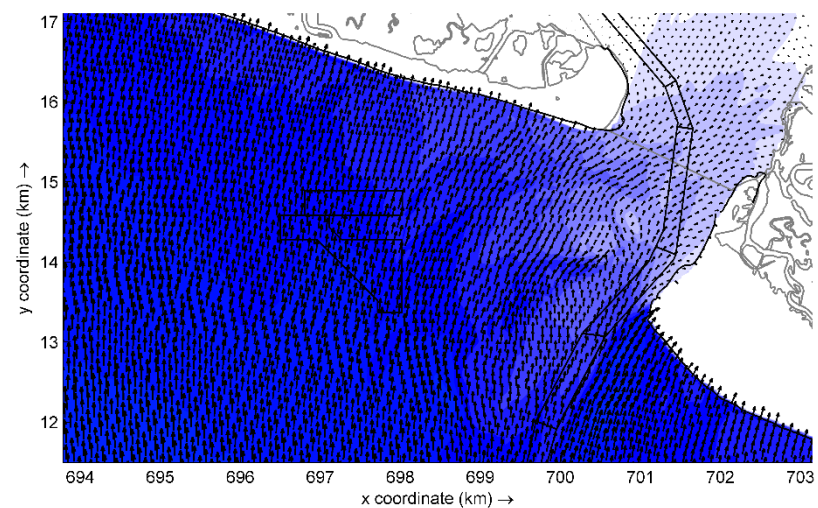
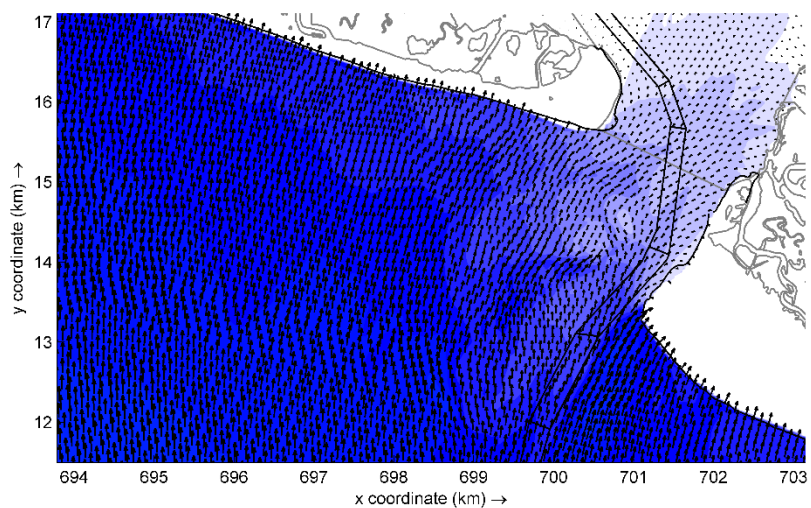
$H_s = 23.9$  ft,  $T_p = 13.0$  s, Dir = 159.0 degN

Percent Occurrence = 0.001%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)





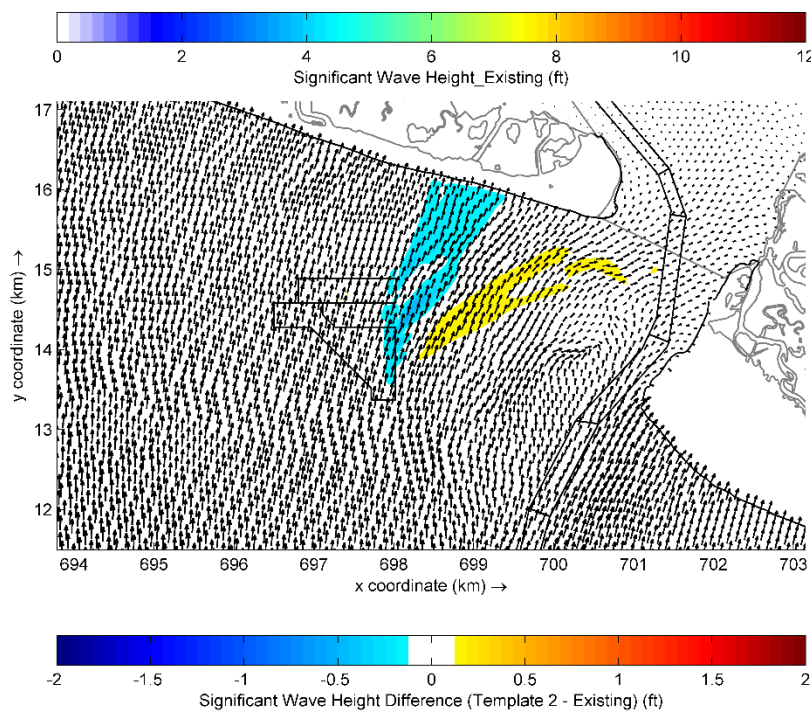
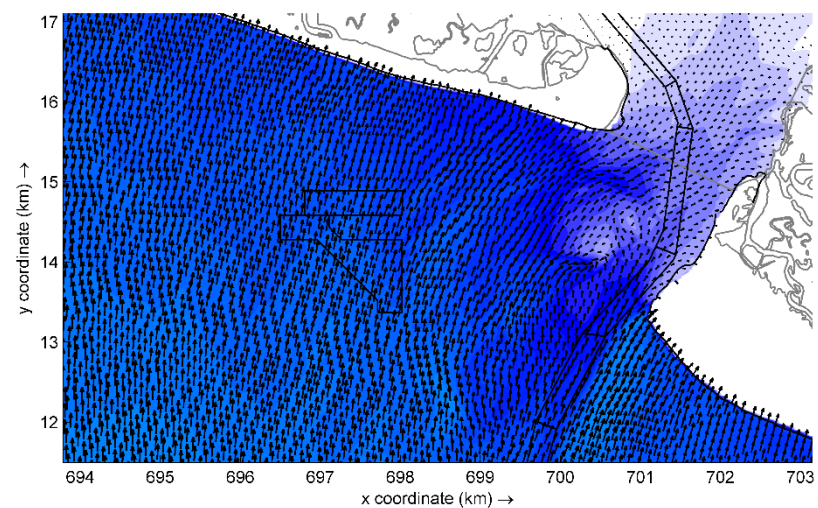
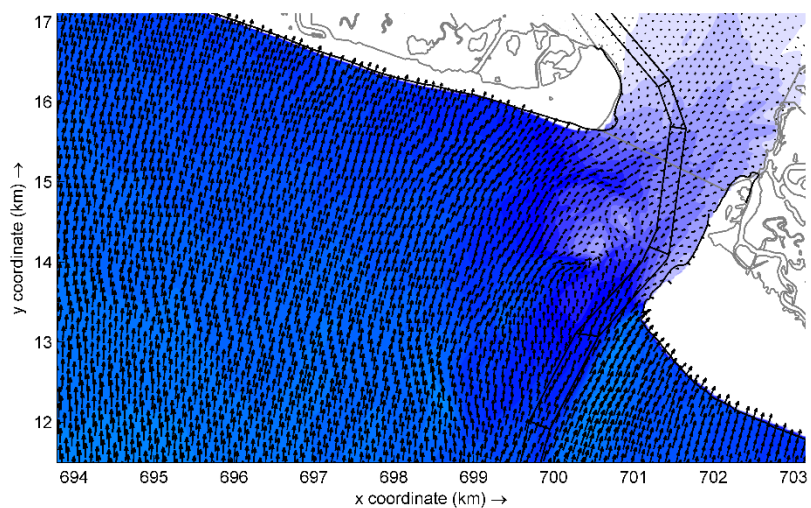
### Offshore Wave Case41:

$H_s = 2.7$  ft,  $T_p = 6.1$  s, Dir = 172.3 degN

Percent Occurrence = 1.770%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)



### Offshore Wave Case42:

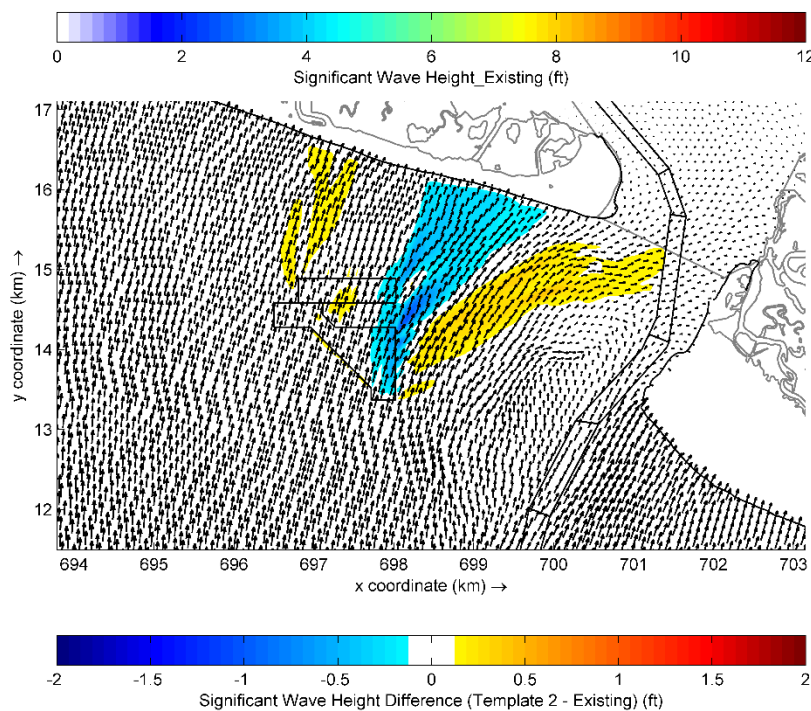
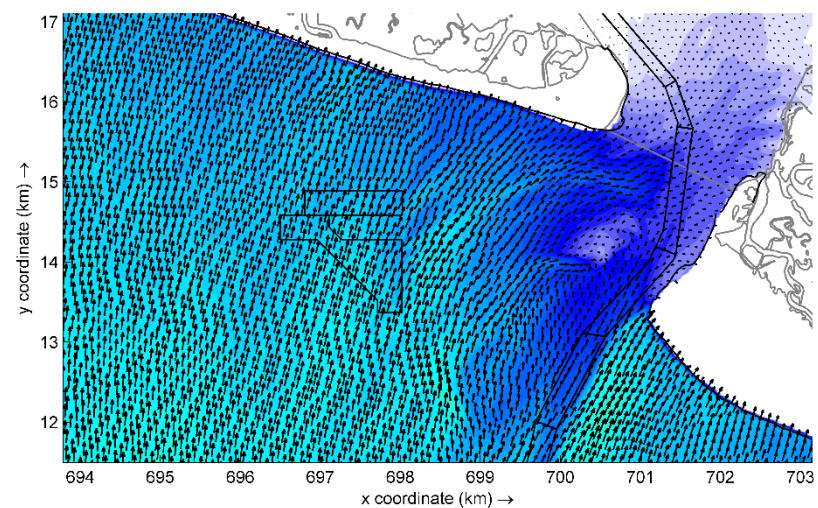
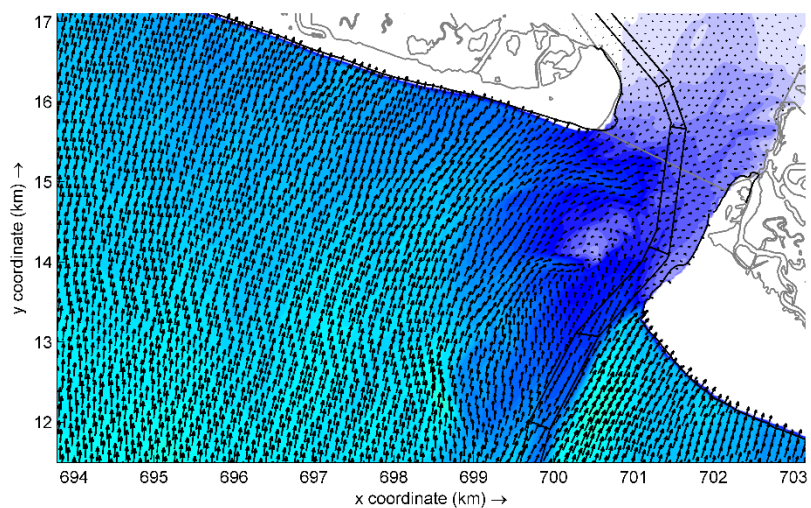
$H_s = 4.6$  ft,  $T_p = 6.7$  s, Dir = 172.6 degN

Percent Occurrence = 3.194%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)





### Offshore Wave Case43:

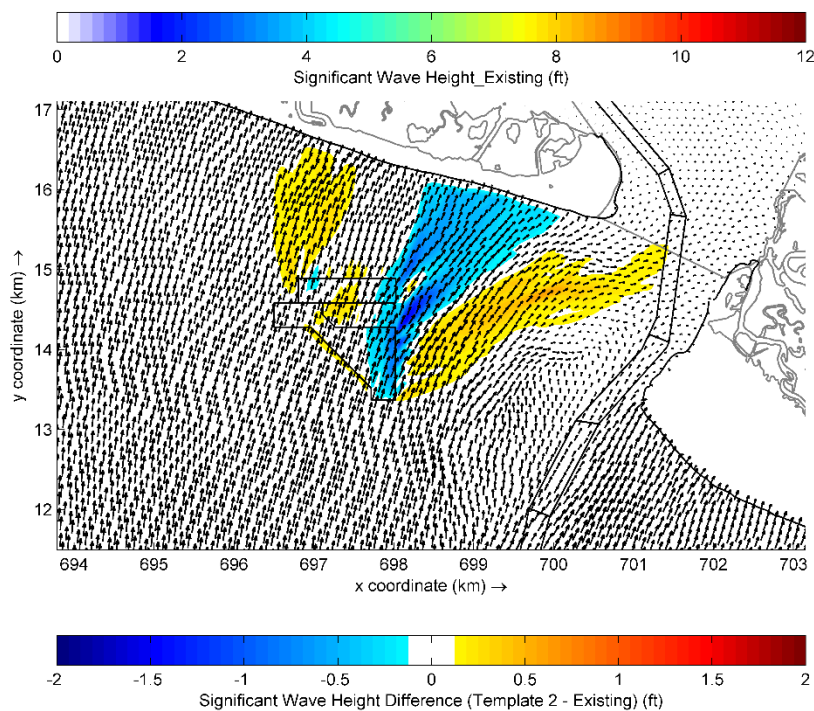
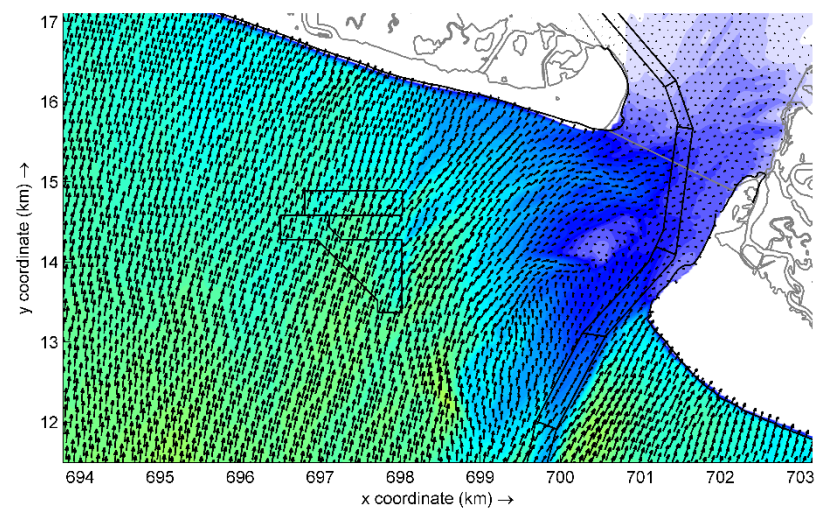
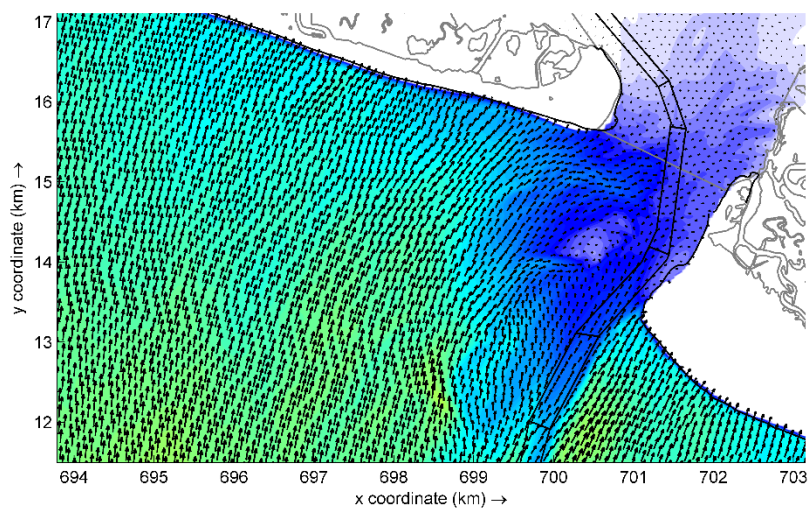
$H_s = 7.8$  ft,  $T_p = 8.0$  s, Dir = 172.5 degN

Percent Occurrence = 1.012%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)





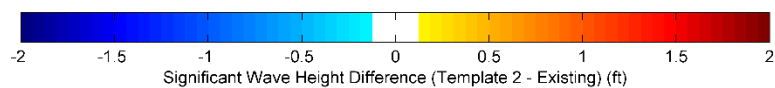
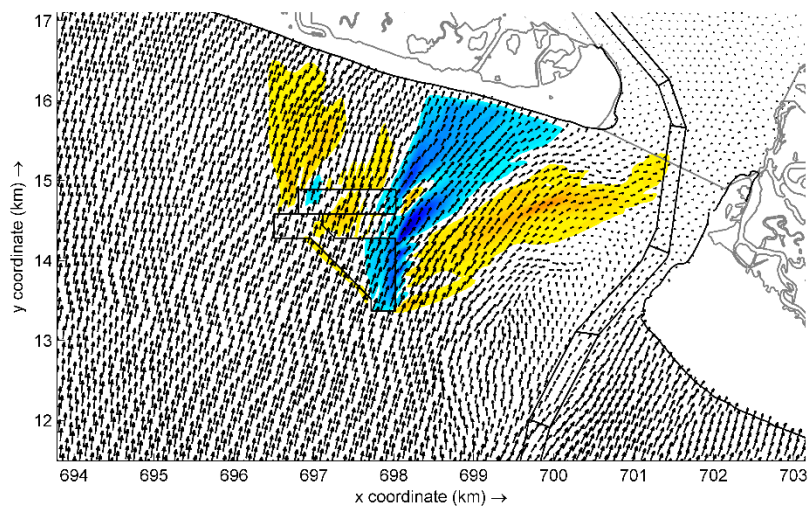
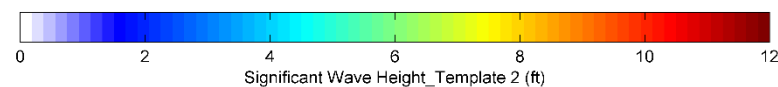
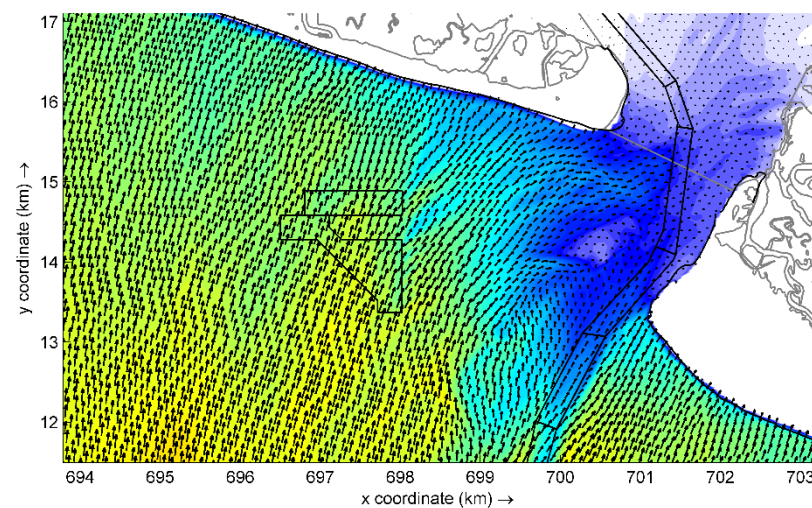
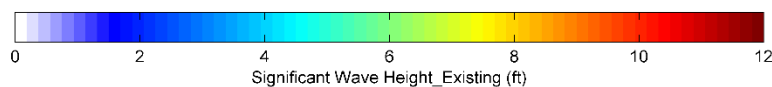
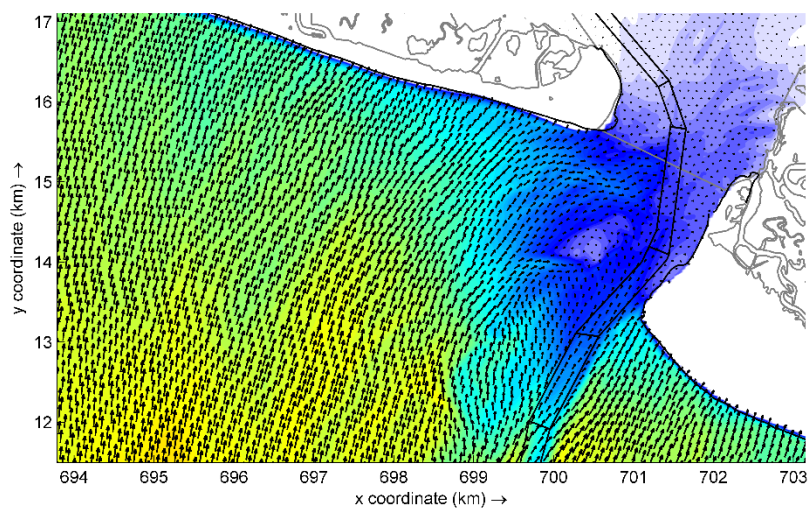
**Offshore Wave Case44:**

$H_s = 11.1$  ft,  $T_p = 9.0$  s, Dir = 172.9 degN

Percent Occurrence = 0.204%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)



### Offshore Wave Case45:

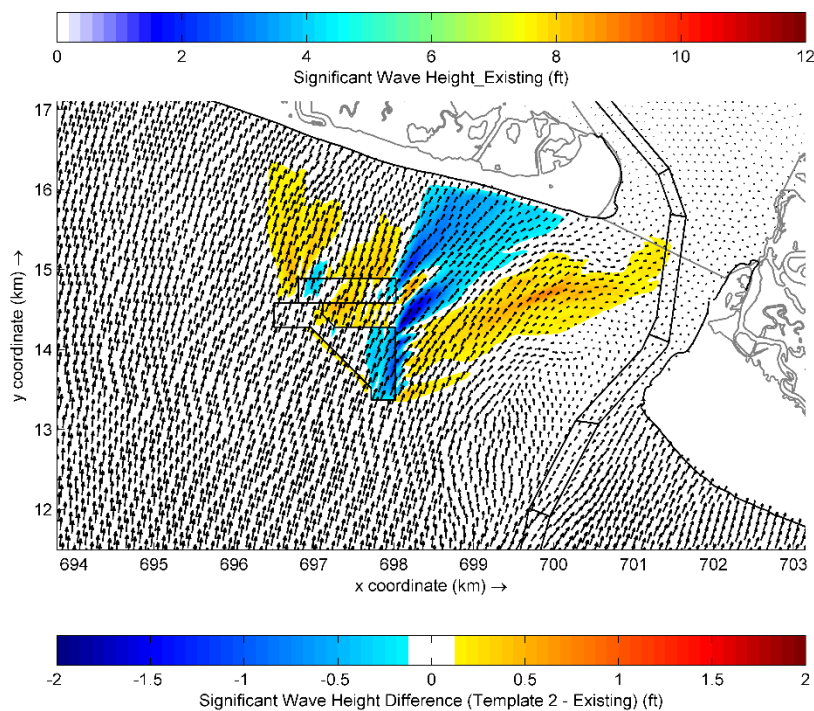
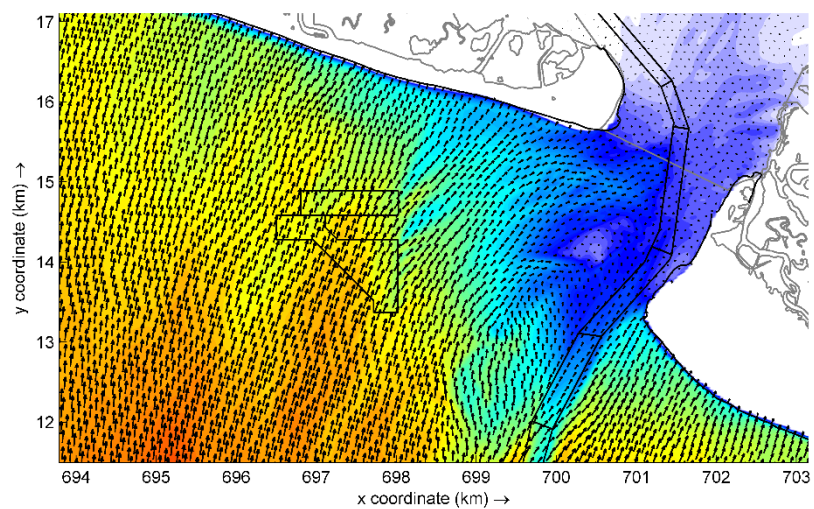
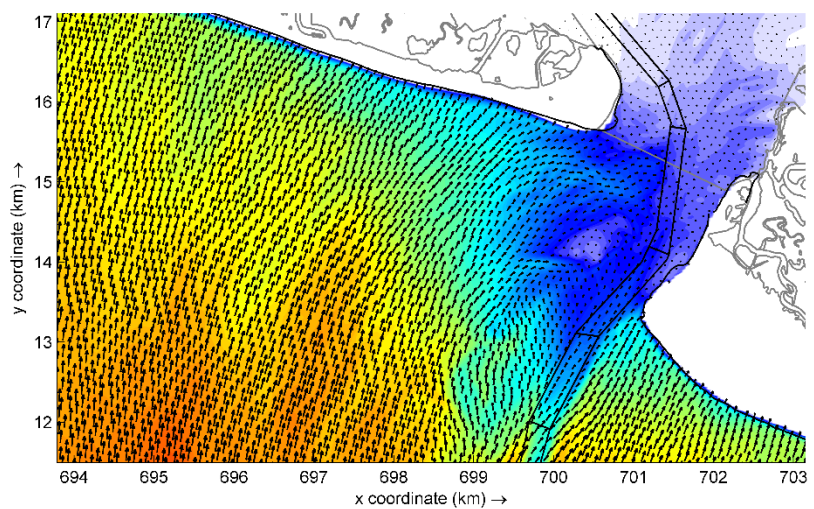
$H_s = 14.3$  ft,  $T_p = 9.6$  s, Dir = 173.7 degN

Percent Occurrence = 0.029%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)





**Offshore Wave Case46:**

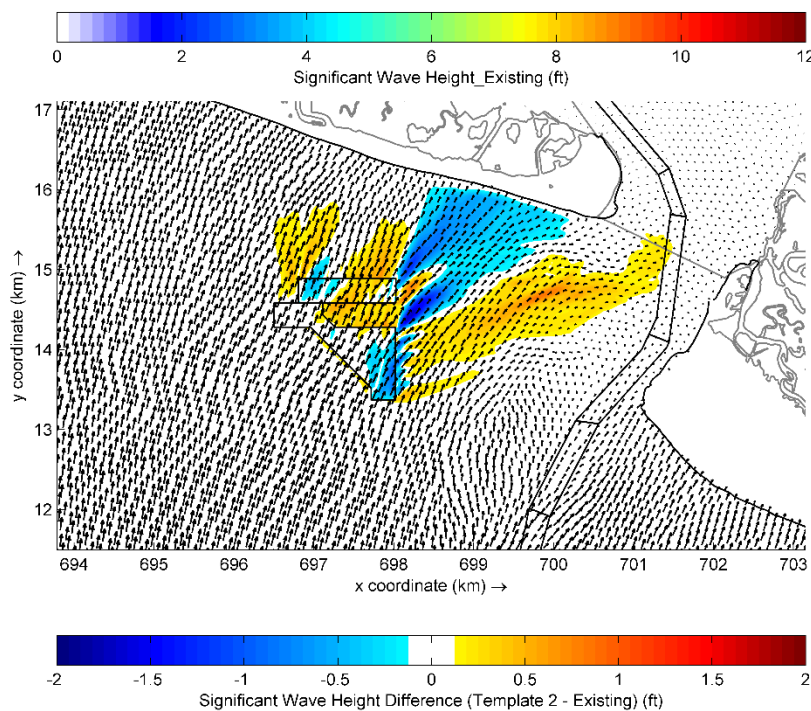
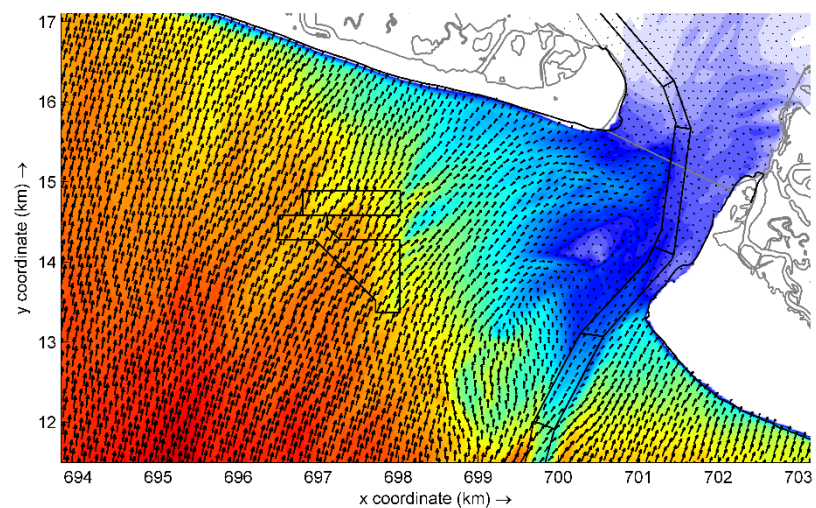
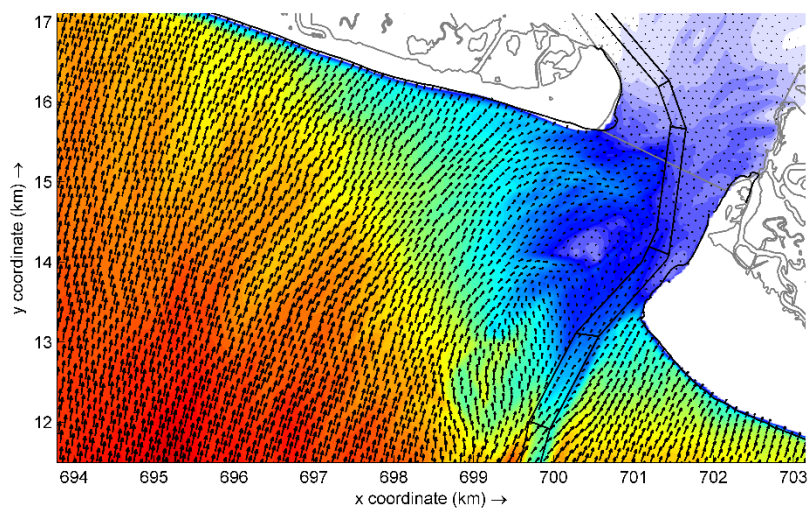
$H_s = 17.6$  ft,  $T_p = 11.2$  s, Dir = 169.7 degN

Percent Occurrence = 0.004%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)





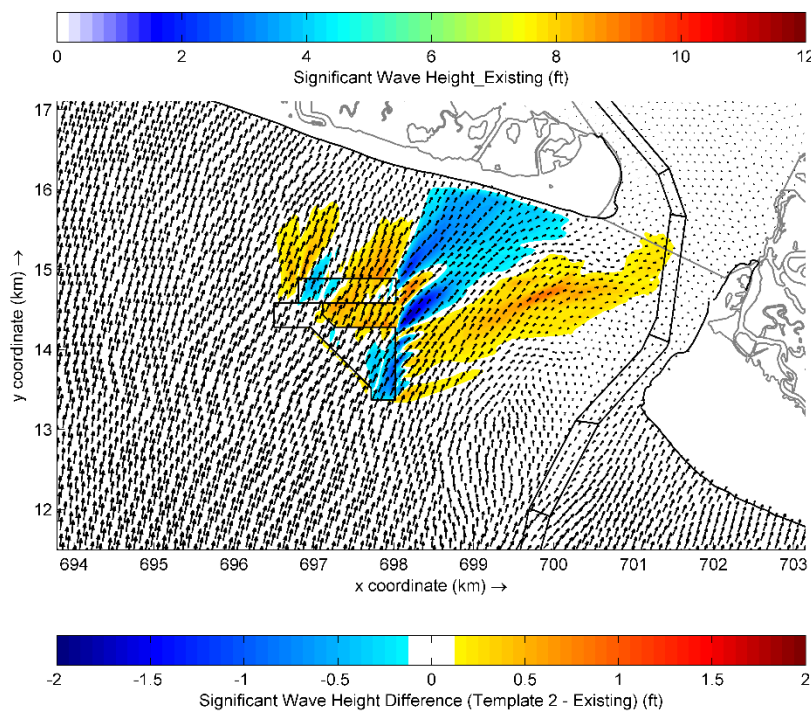
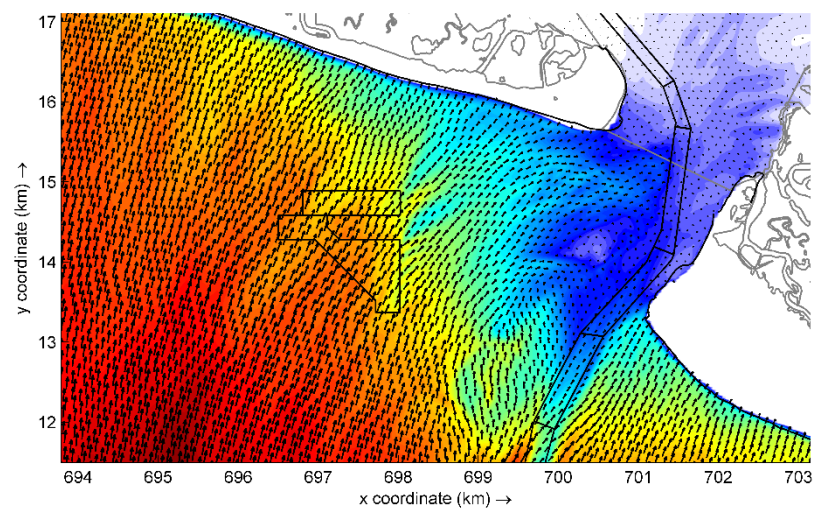
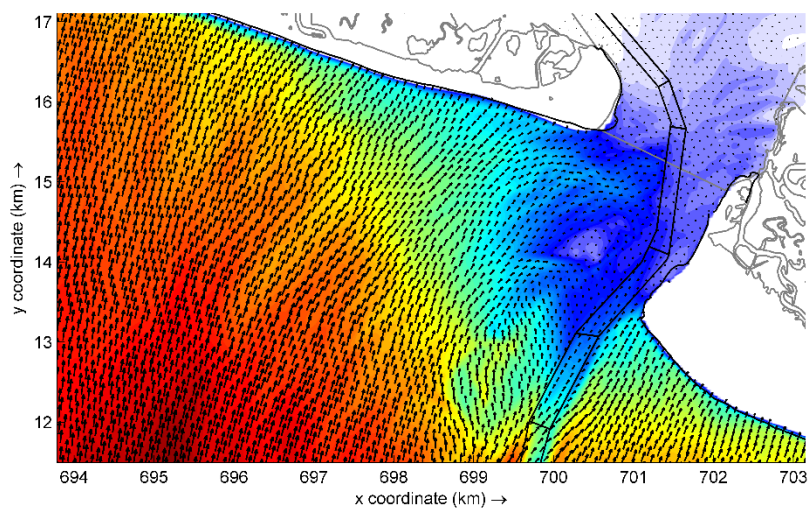
#### **Offshore Wave Case47:**

$H_s = 20.7$  ft,  $T_p = 12.0$  s, Dir = 175.7 degN

Percent Occurrence = 0.004%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)



#### **Offshore Wave Case48:**

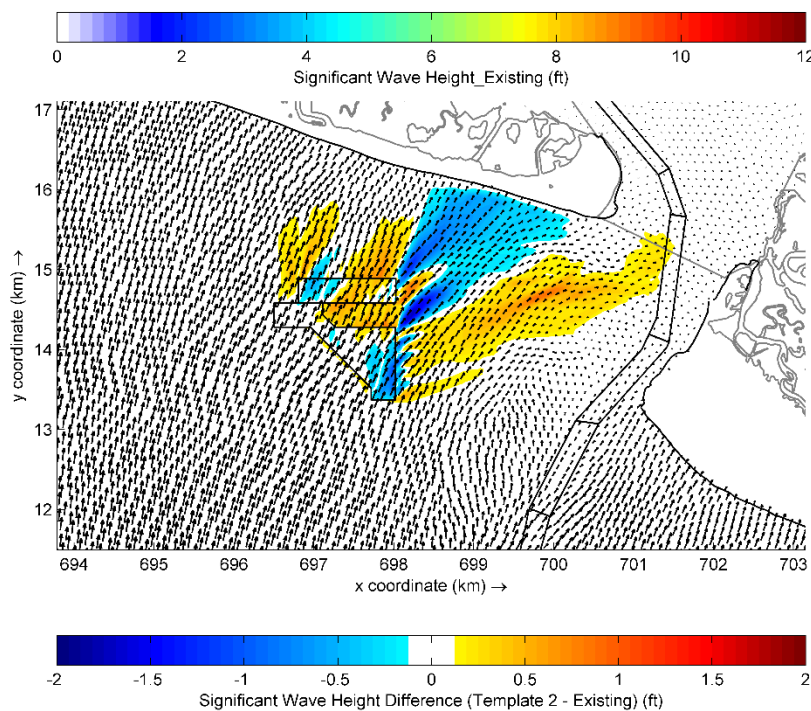
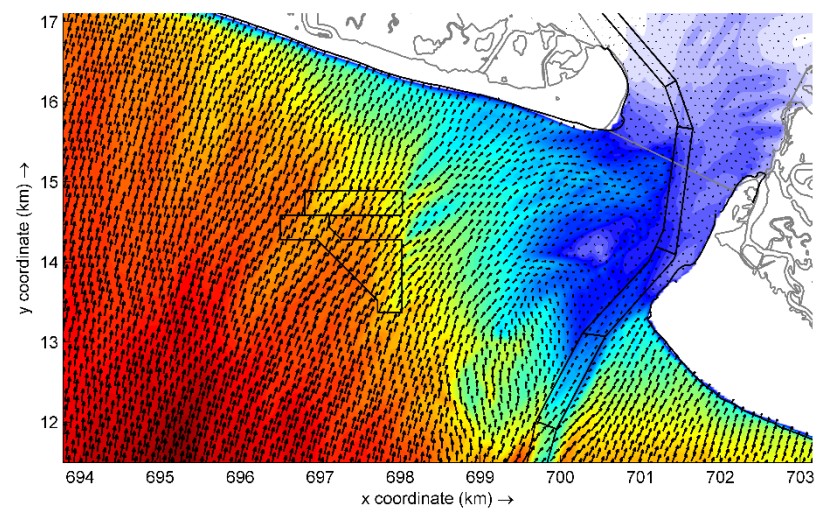
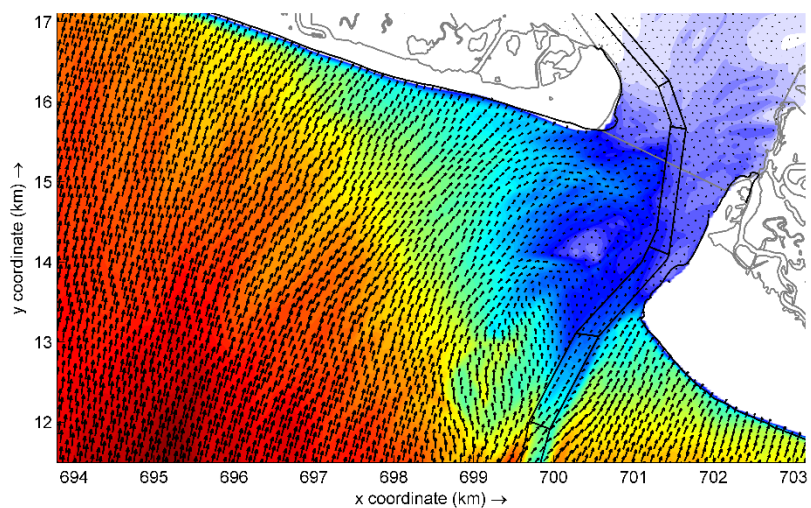
$H_s = 25.8$  ft,  $T_p = 13.8$  s, Dir = 169.7 degN

Percent Occurrence = 0.002%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)





### **Offshore Wave Case49:**

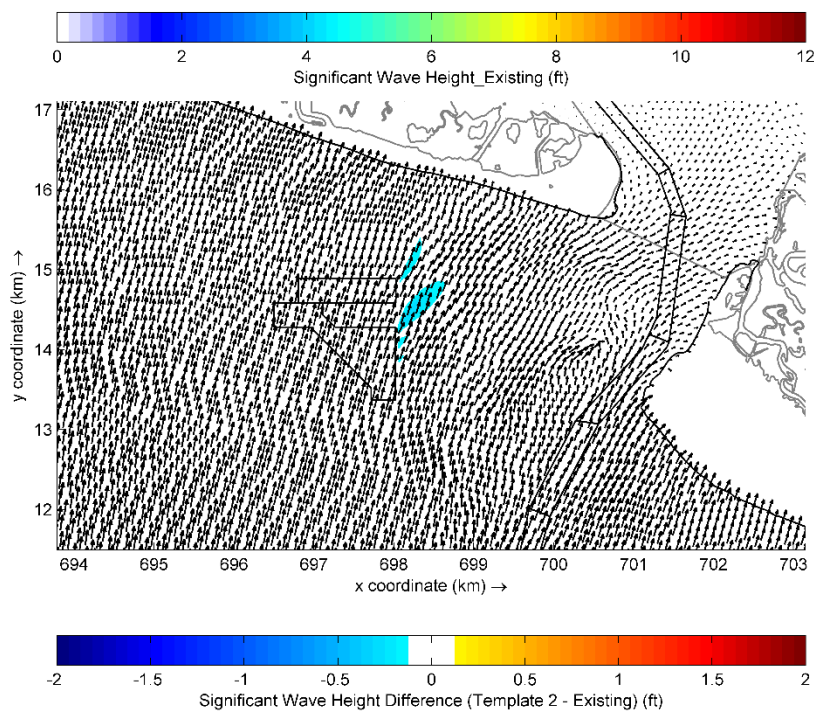
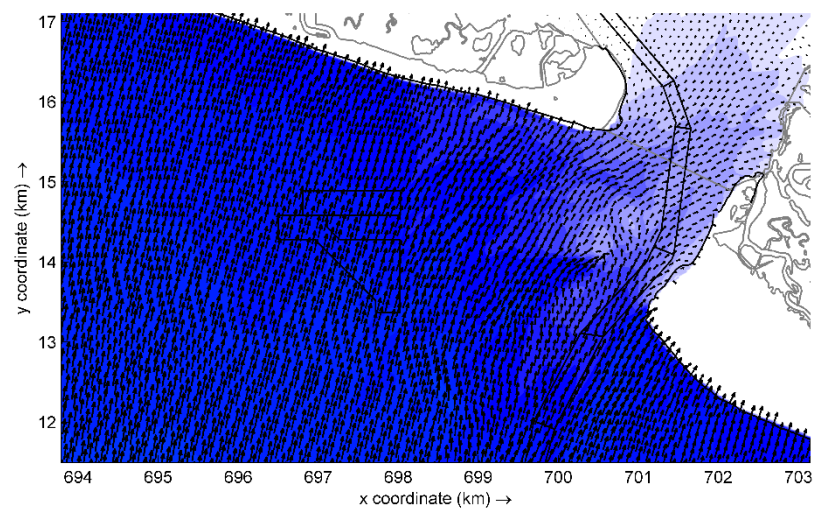
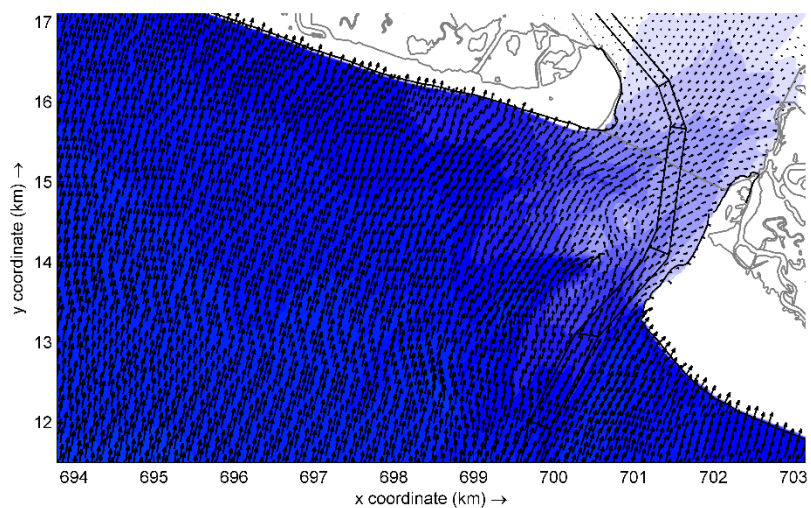
$H_s = 26.8$  ft,  $T_p = 14.2$  s, Dir = 170.8 degN

Percent Occurrence = 0.002%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)





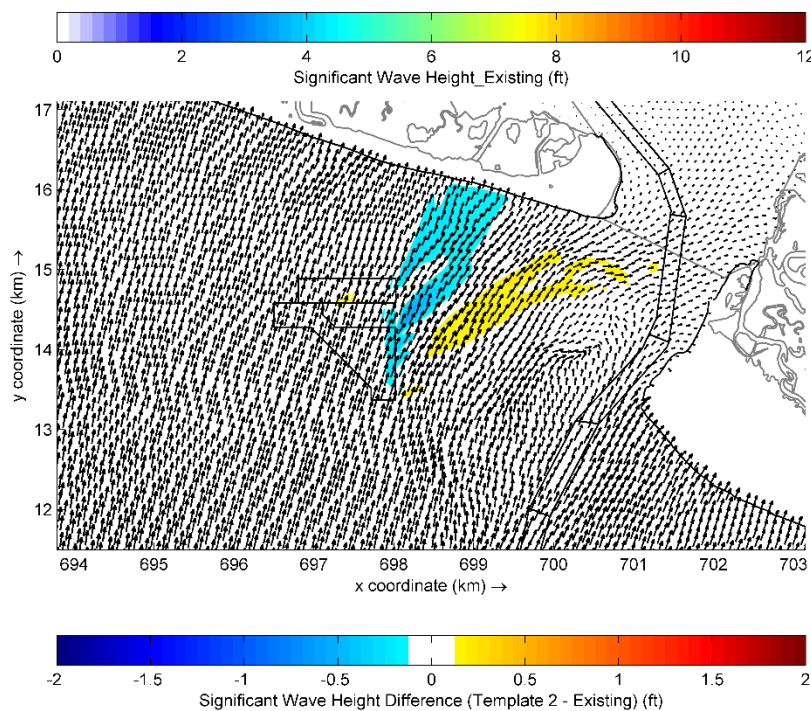
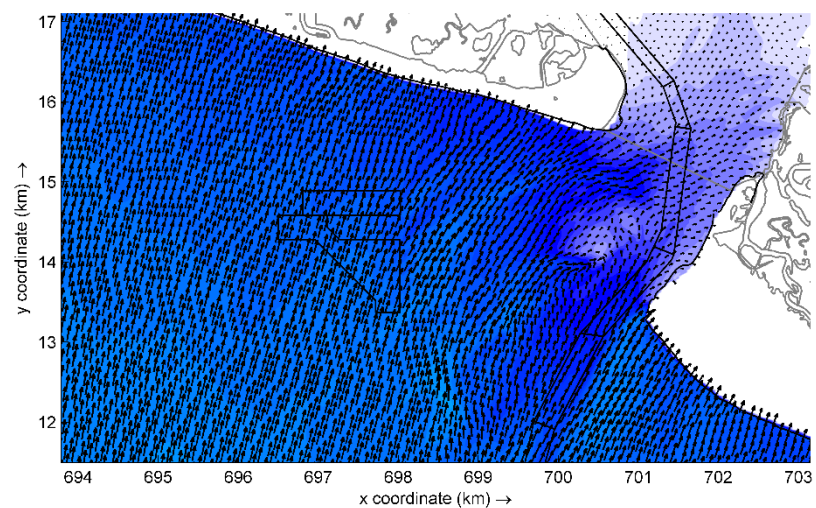
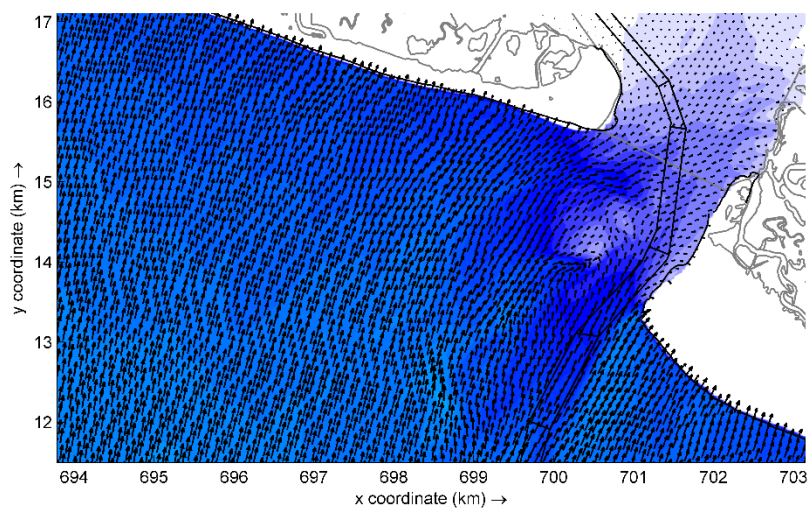
### Offshore Wave Case50:

$H_s = 2.7$  ft,  $T_p = 5.5$  s, Dir = 187.0 degN

Percent Occurrence = 1.607%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)



### Offshore Wave Case51:

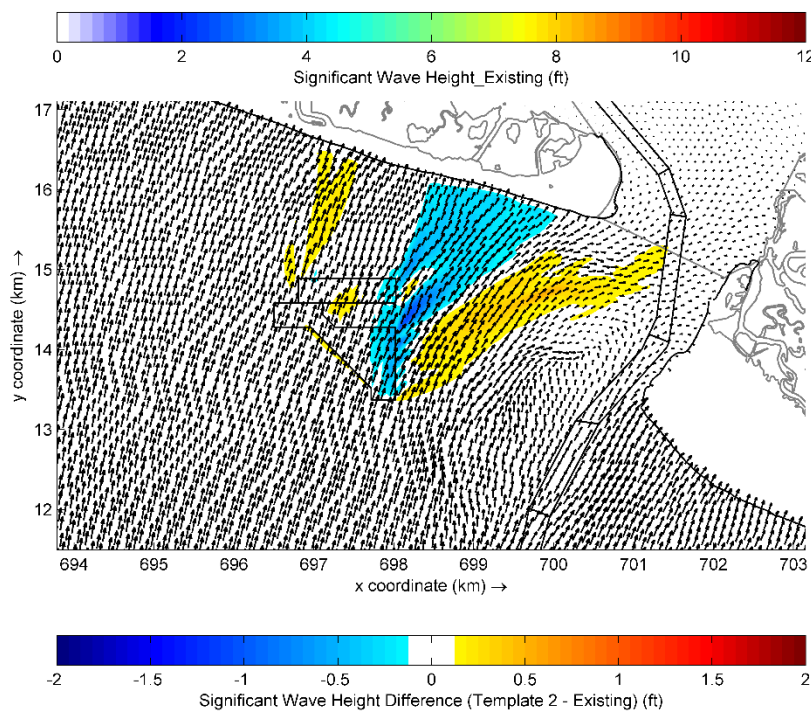
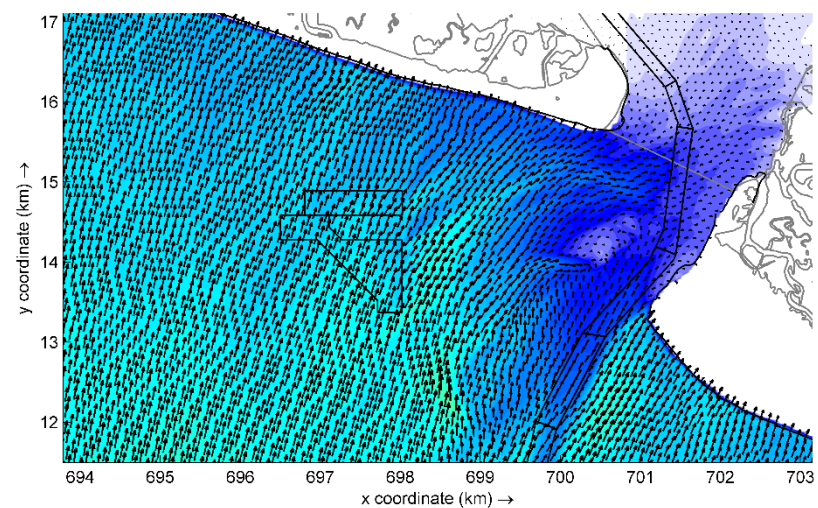
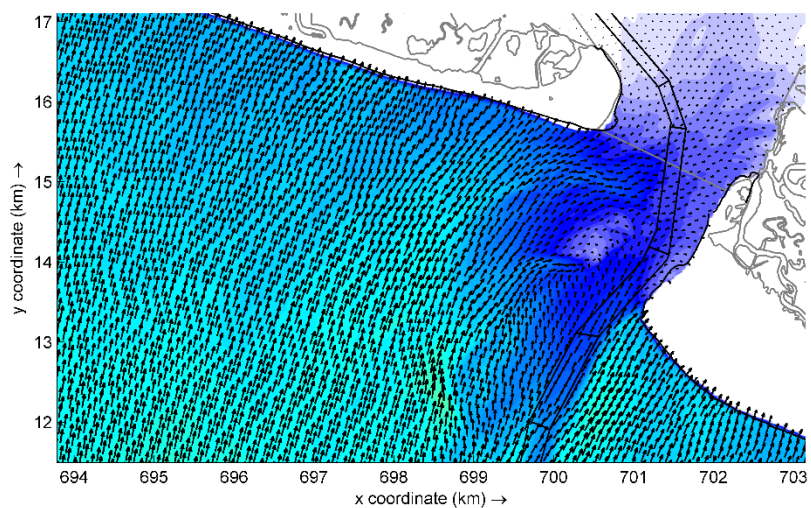
$H_s = 4.5$  ft,  $T_p = 6.4$  s, Dir = 187.2 degN

Percent Occurrence = 3.474%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)





**Offshore Wave Case52:**

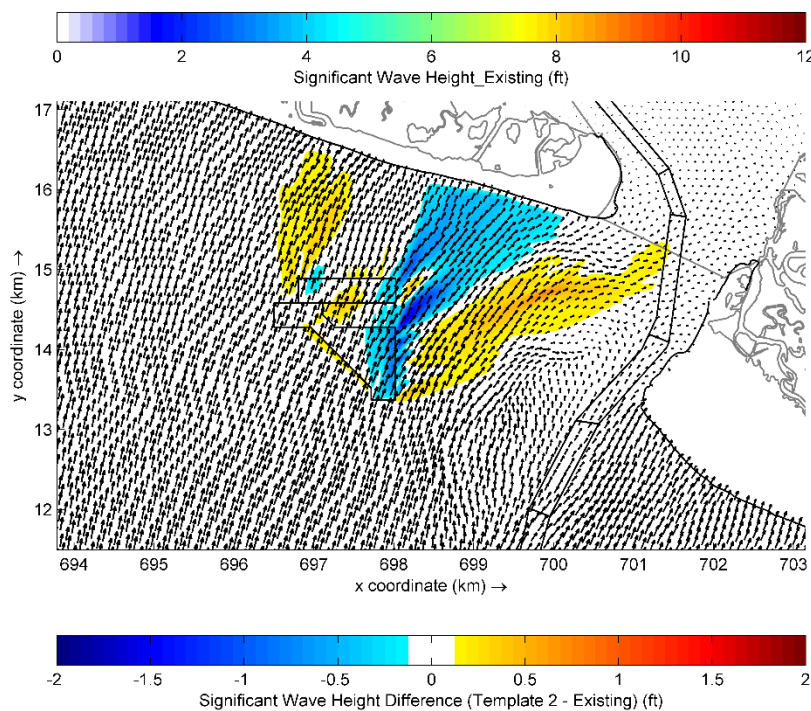
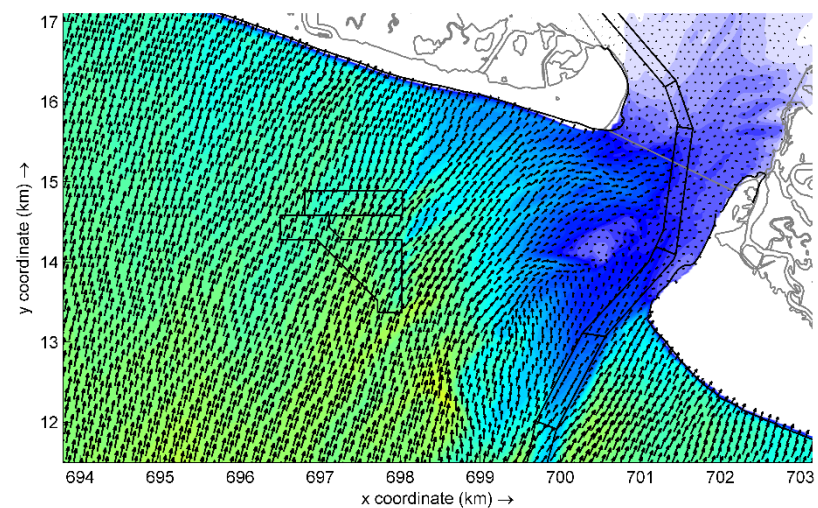
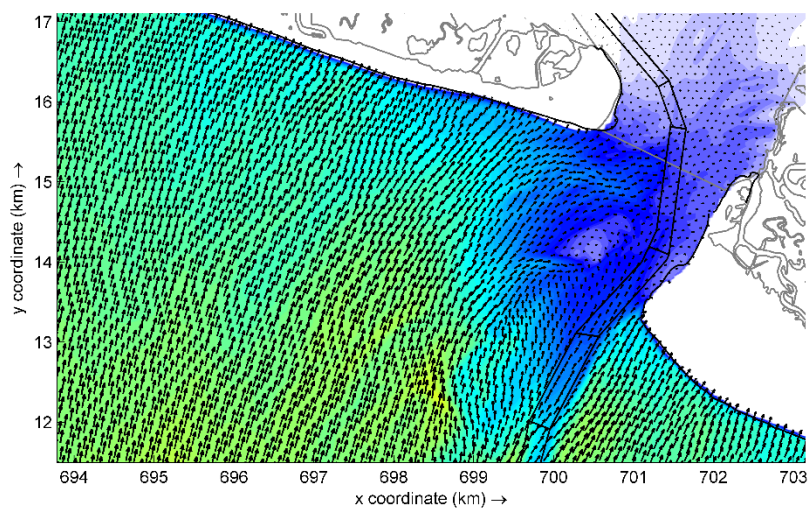
$H_s = 7.9$  ft,  $T_p = 8.0$  s, Dir = 186.7 degN

Percent Occurrence = 1.063%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)





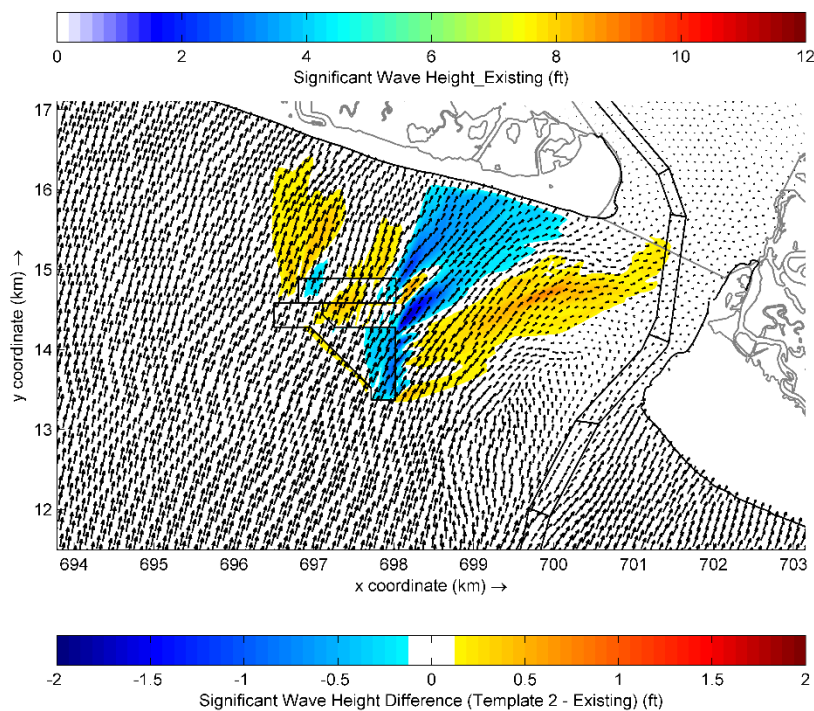
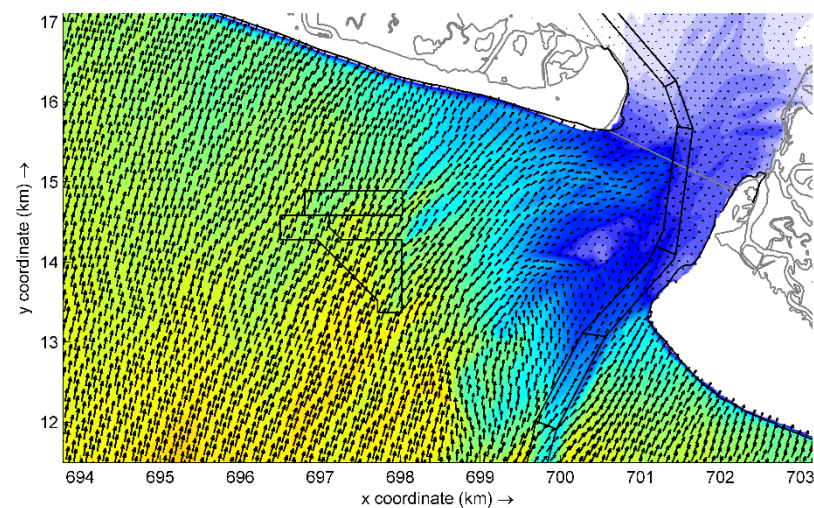
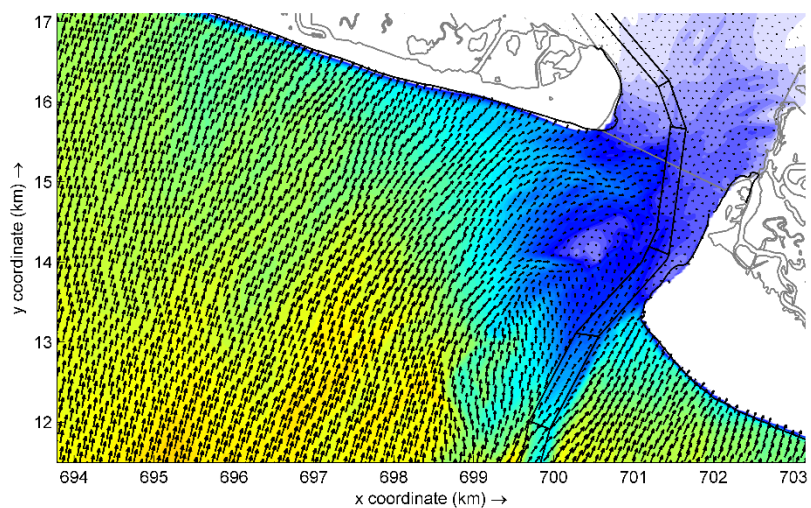
### **Offshore Wave Case53:**

$H_s = 11.2$  ft,  $T_p = 9.2$  s, Dir = 186.9 degN

Percent Occurrence = 0.232%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)



**Offshore Wave Case54:**

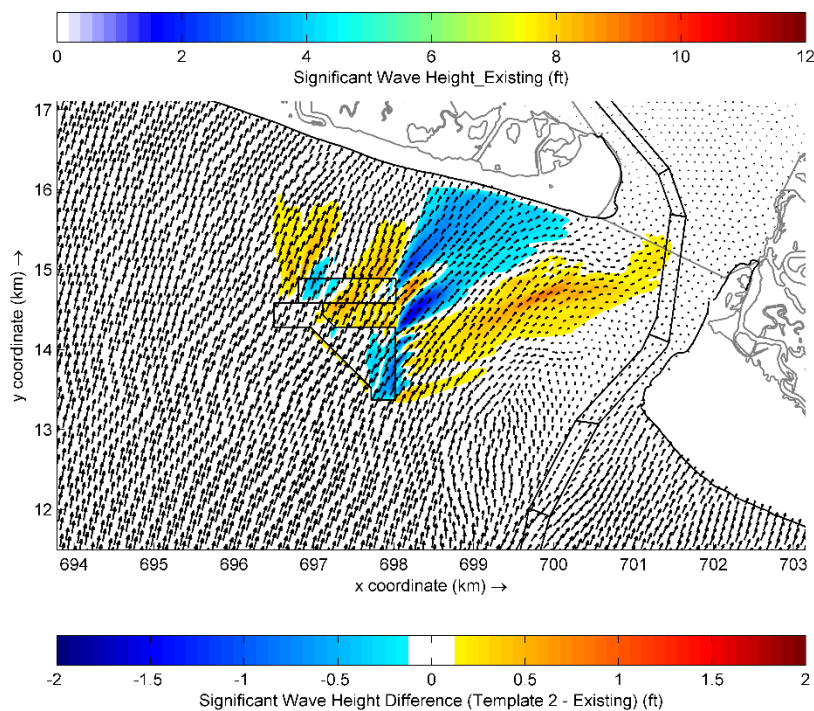
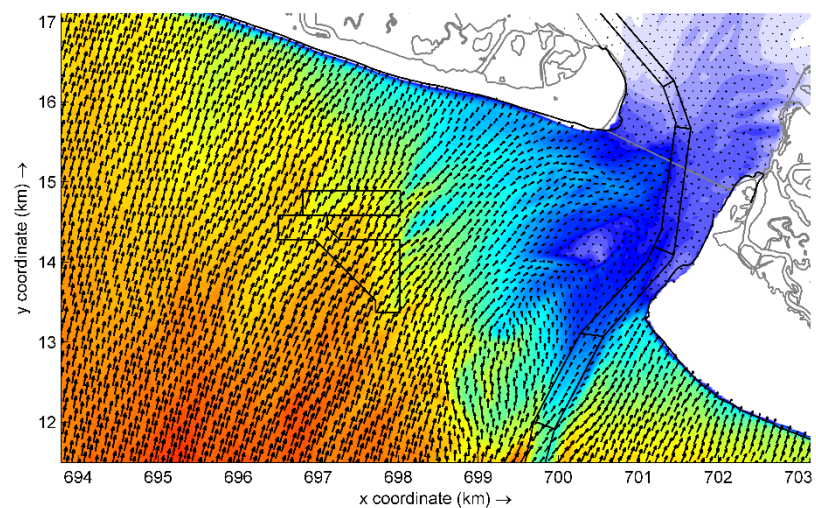
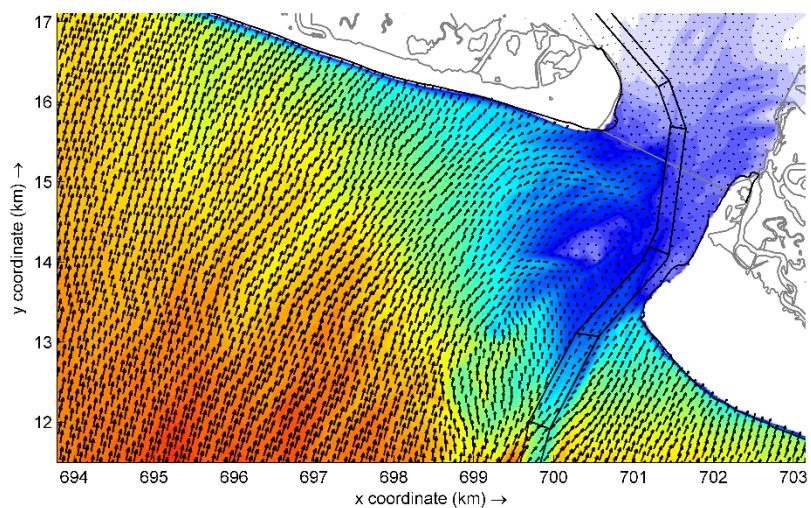
$H_s = 14.2$  ft,  $T_p = 10.0$  s, Dir = 186.9 degN

Percent Occurrence = 0.050%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)





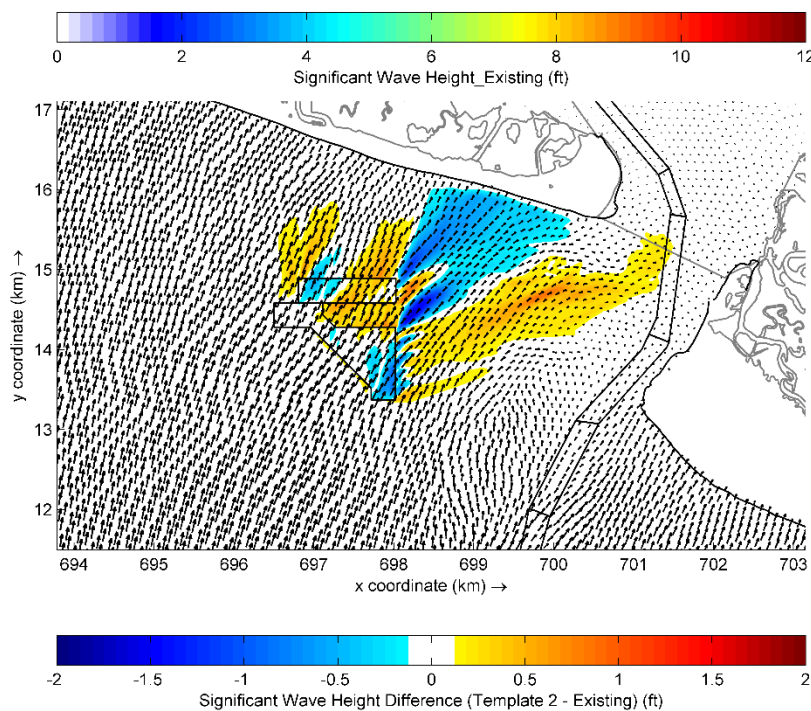
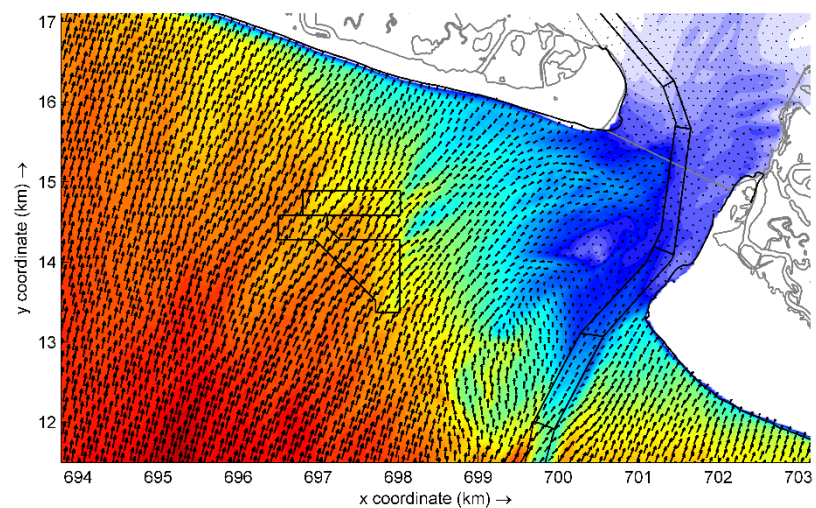
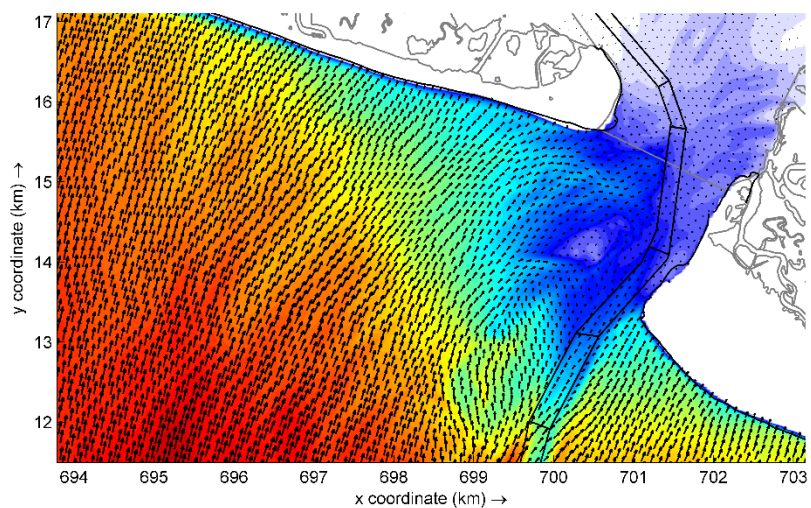
### **Offshore Wave Case55:**

$H_s = 17.6$  ft,  $T_p = 11.2$  s, Dir = 186.6 degN

Percent Occurrence = 0.005%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)



### Offshore Wave Case56:

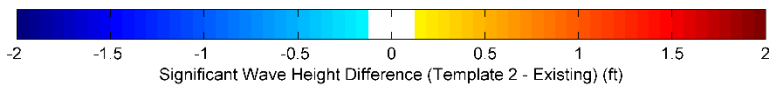
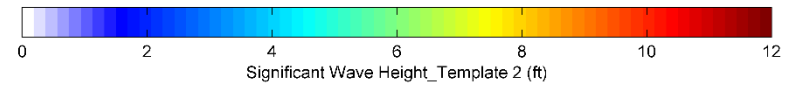
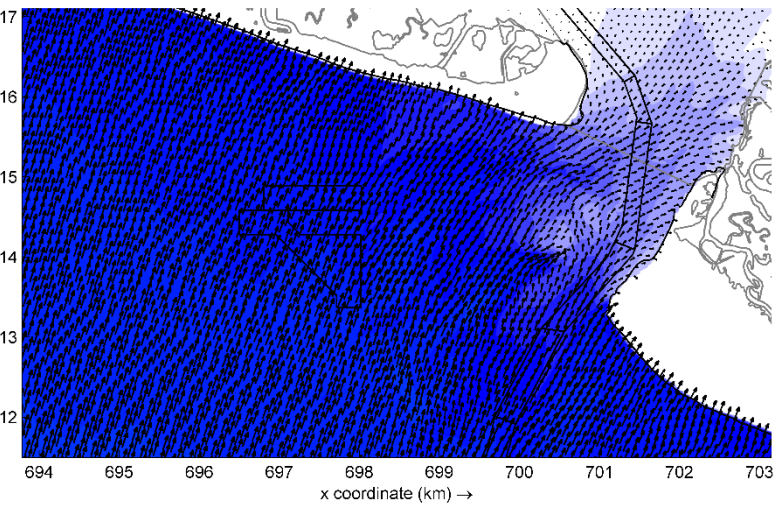
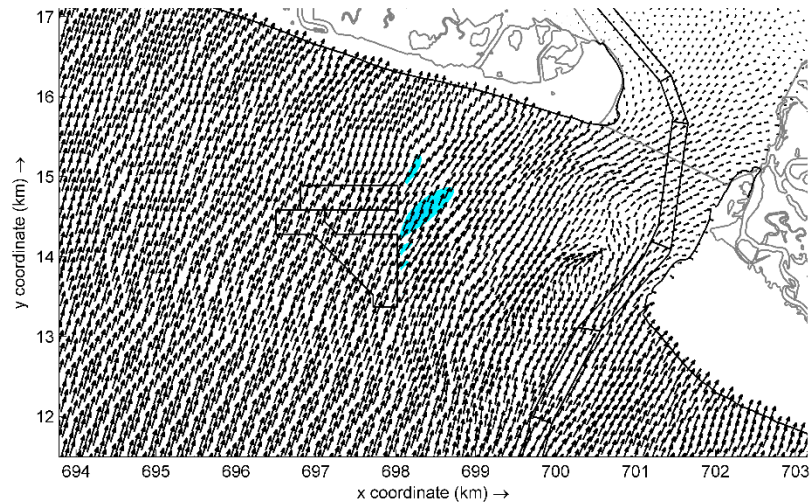
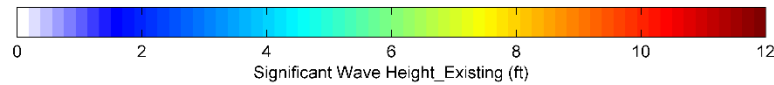
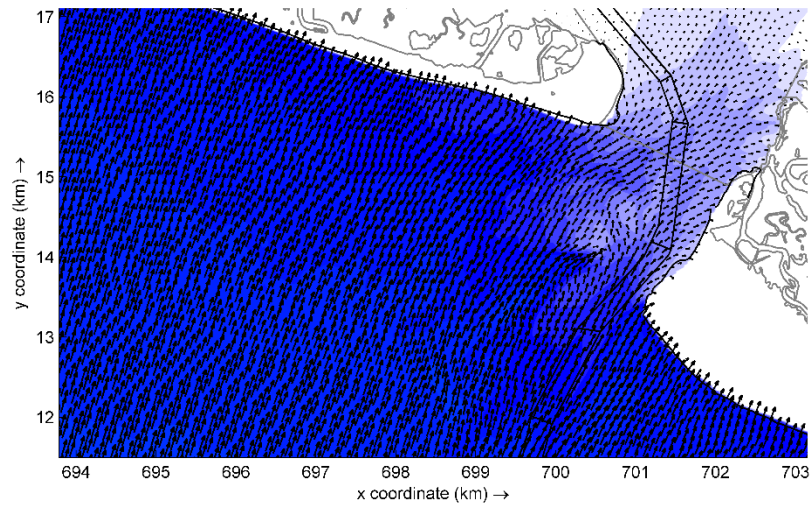
$H_s = 20.2$  ft,  $T_p = 12.8$  s, Dir = 183.0 degN

Percent Occurrence = 0.001%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)





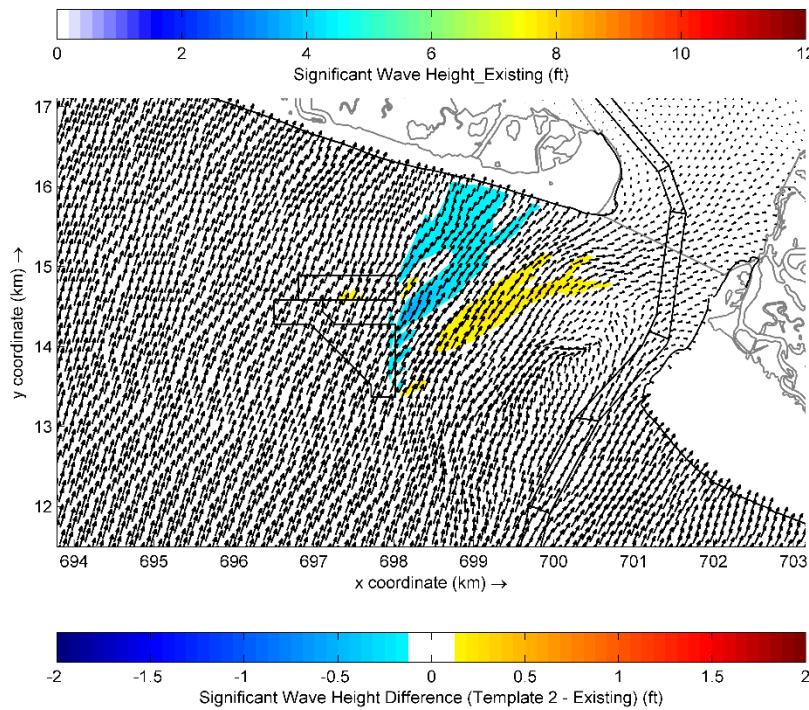
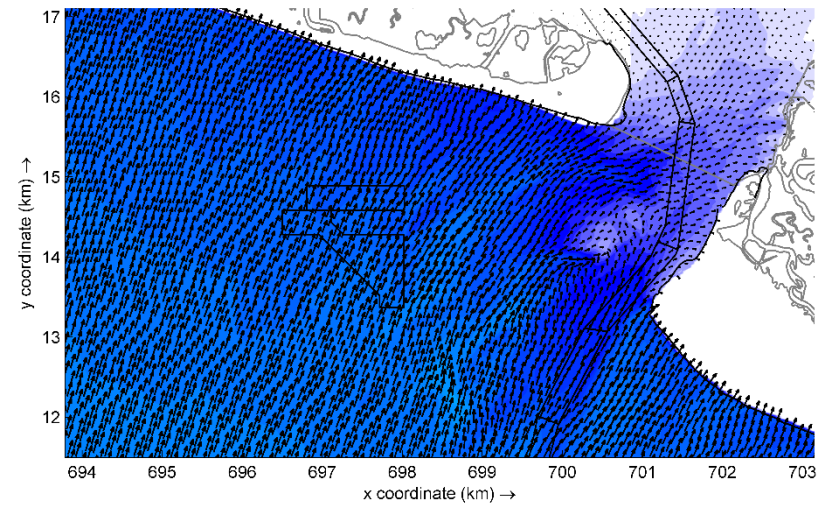
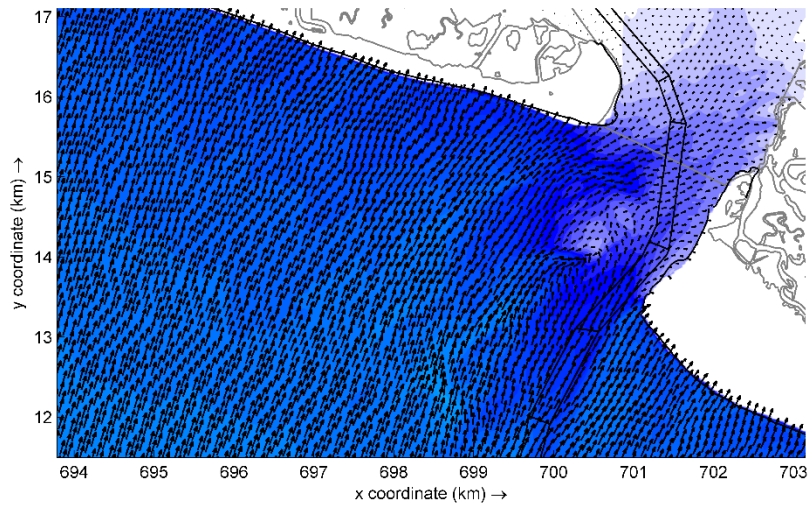
### **Offshore Wave Case57:**

$H_s = 2.7$  ft,  $T_p = 5.1$  s, Dir = 202.1 degN

Percent Occurrence = 1.613%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)



**Offshore Wave Case58:**

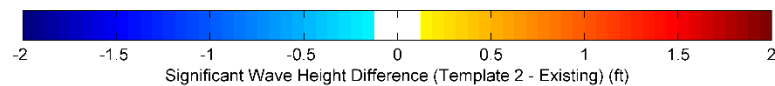
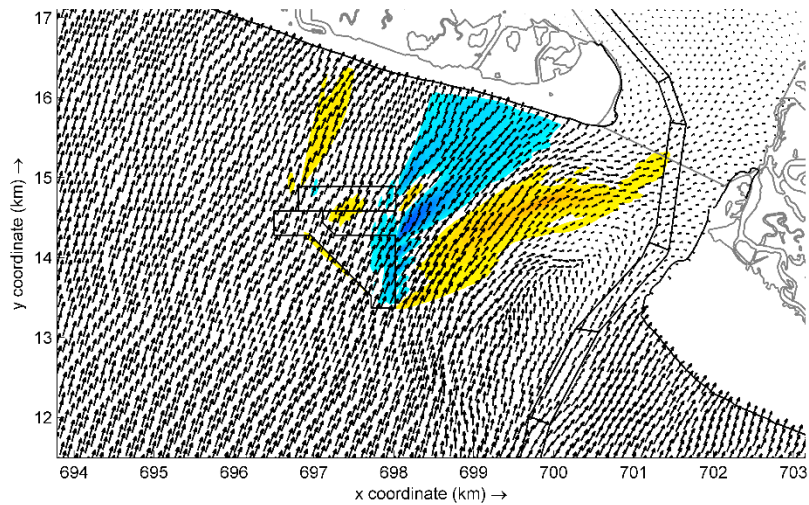
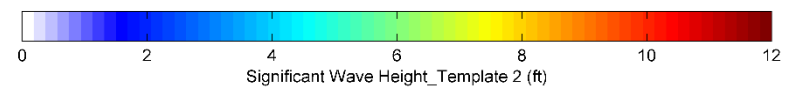
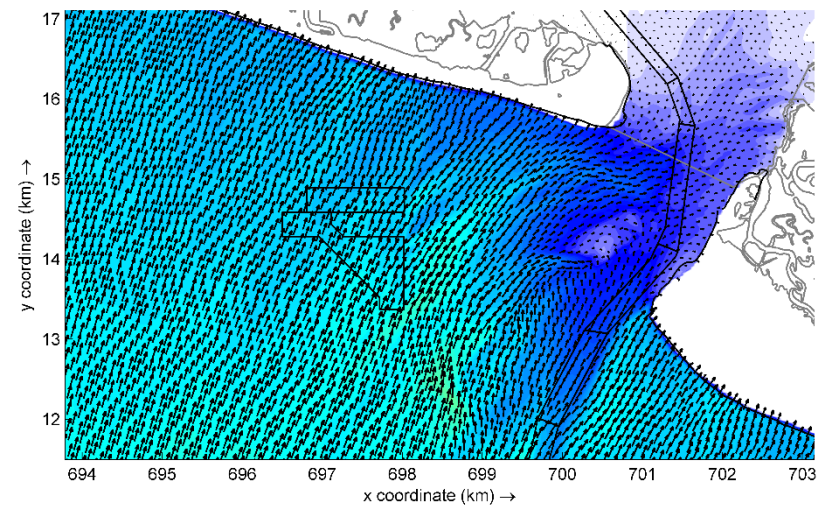
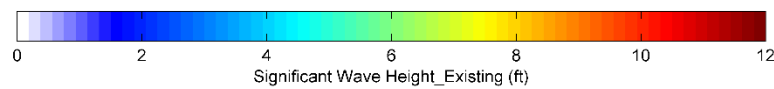
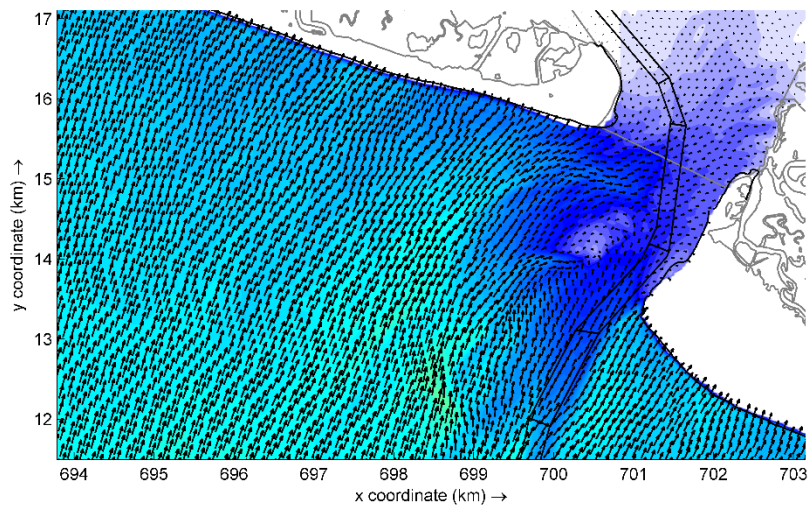
$H_s = 4.5$  ft,  $T_p = 6.0$  s, Dir = 202.4 degN

Percent Occurrence = 3.239%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)





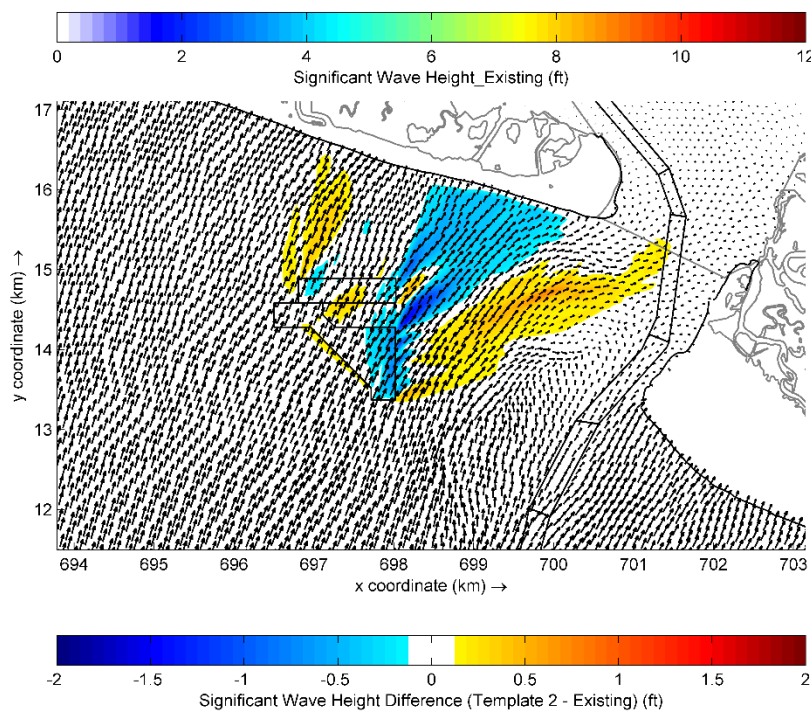
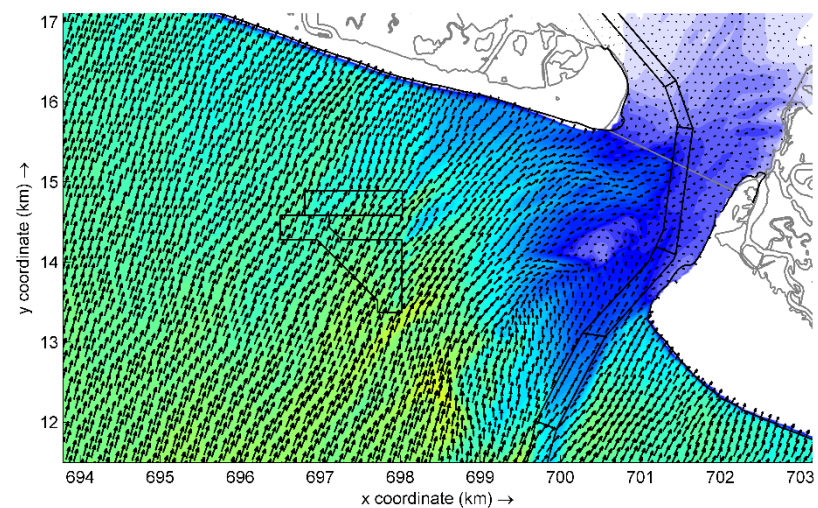
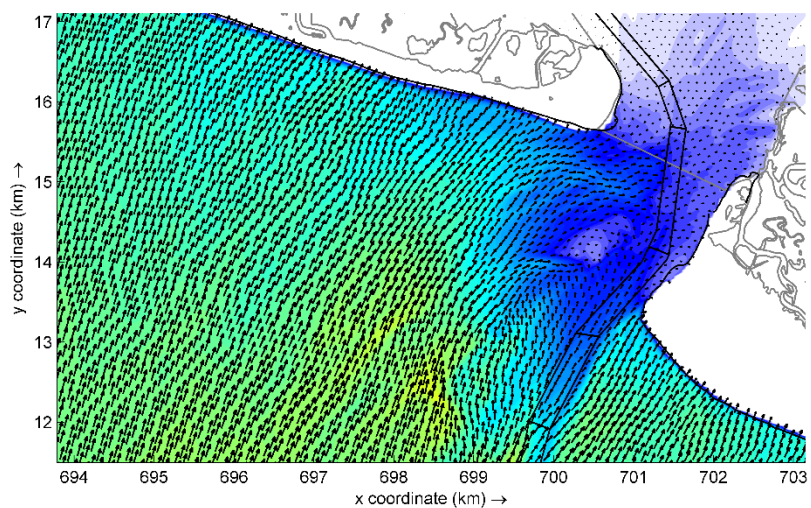
### **Offshore Wave Case59:**

$H_s = 7.8$  ft,  $T_p = 7.6$  s, Dir = 201.7 degN

Percent Occurrence = 0.727%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)



### Offshore Wave Case60:

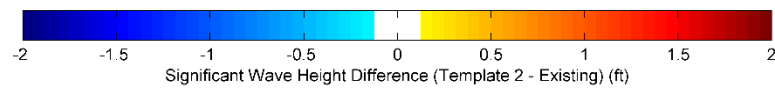
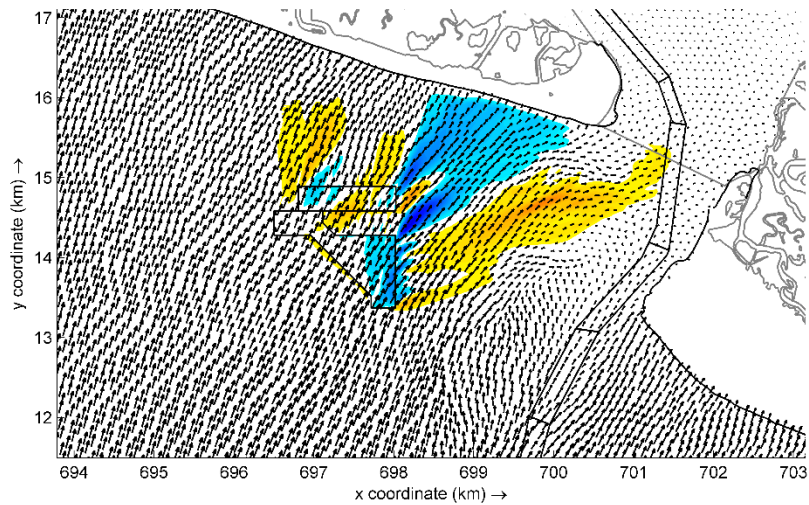
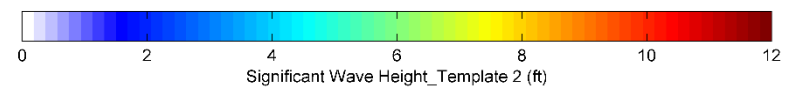
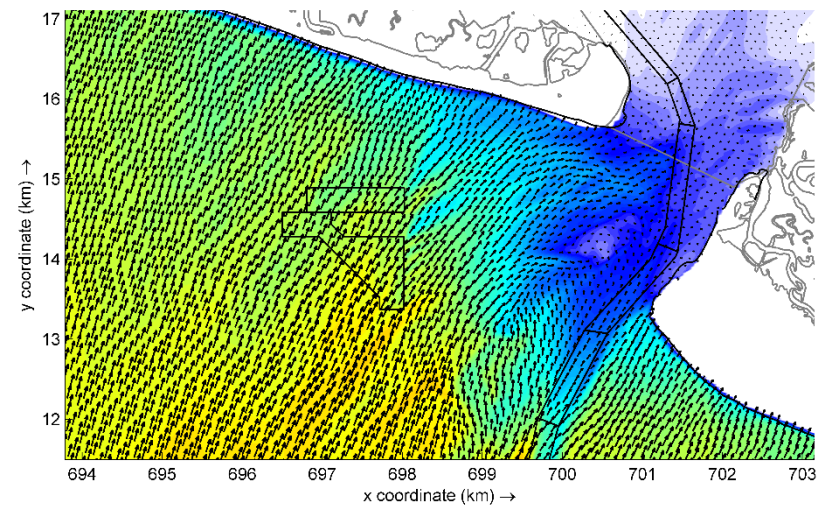
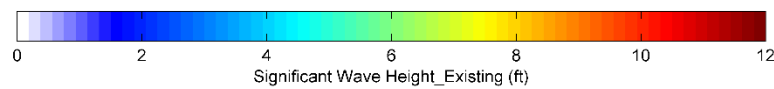
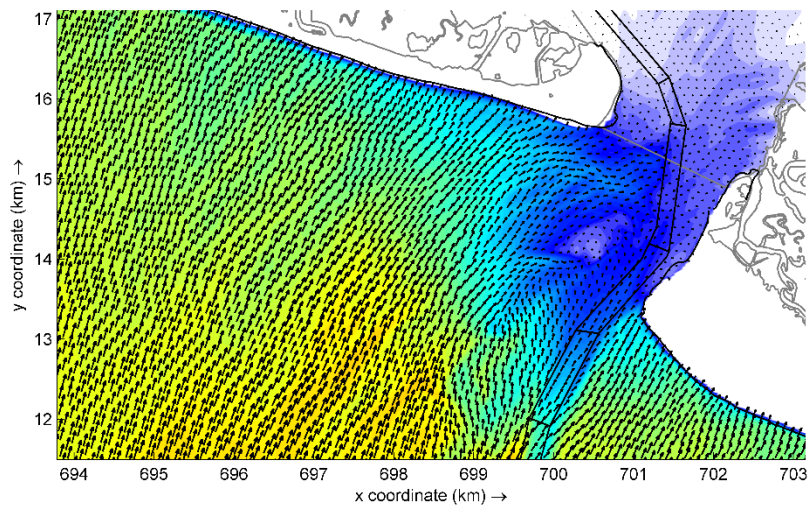
$H_s = 11.1$  ft,  $T_p = 8.9$  s, Dir = 201.9 degN

Percent Occurrence = 0.189%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)





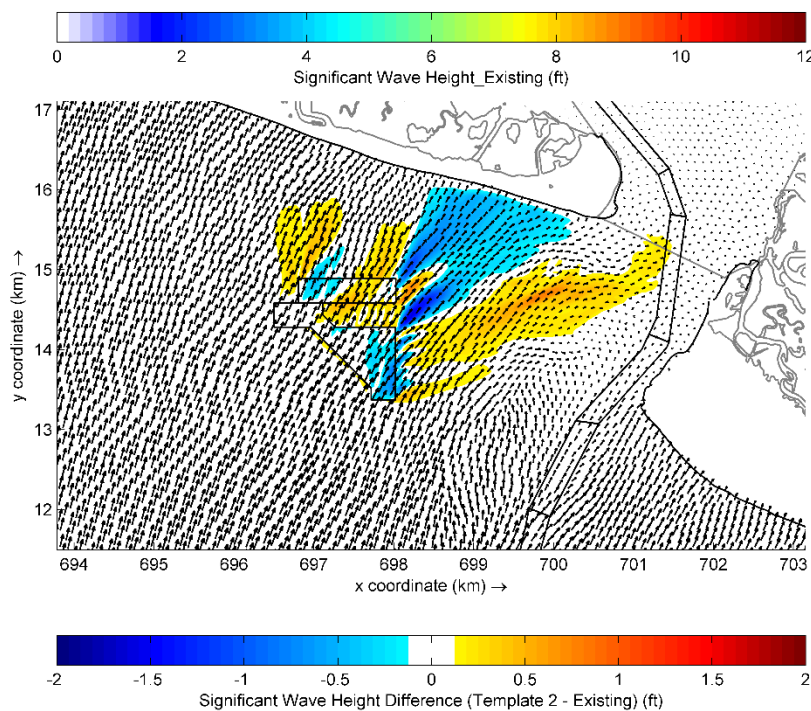
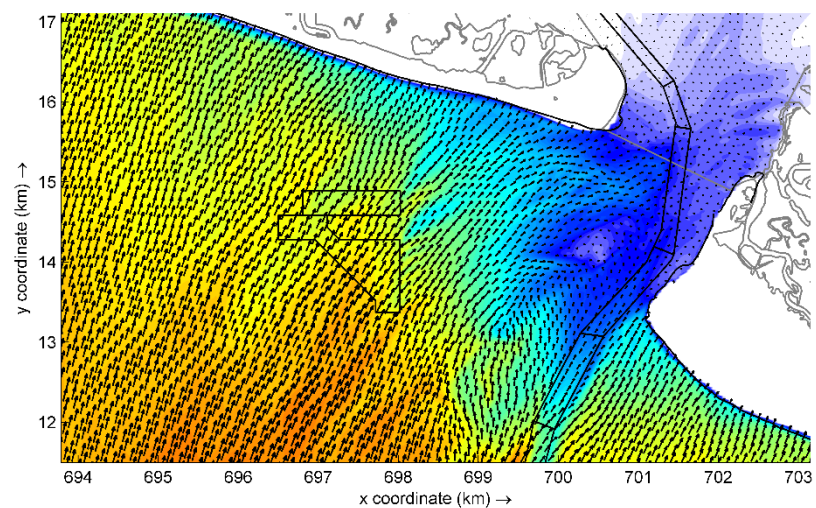
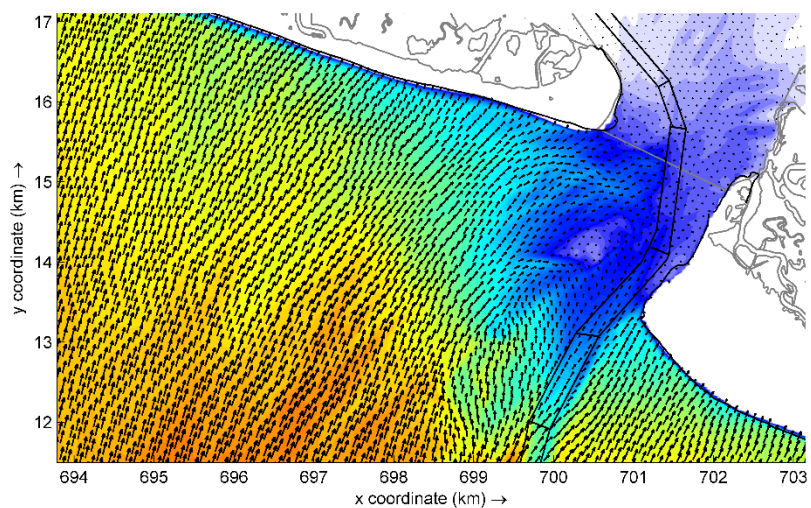
### **Offshore Wave Case61:**

$H_s = 14.3$  ft,  $T_p = 9.4$  s, Dir = 201.9 degN

Percent Occurrence = 0.040%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)



### Offshore Wave Case62:

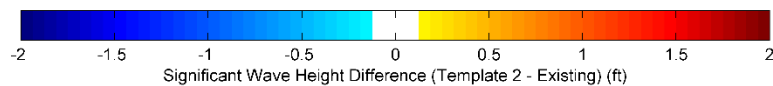
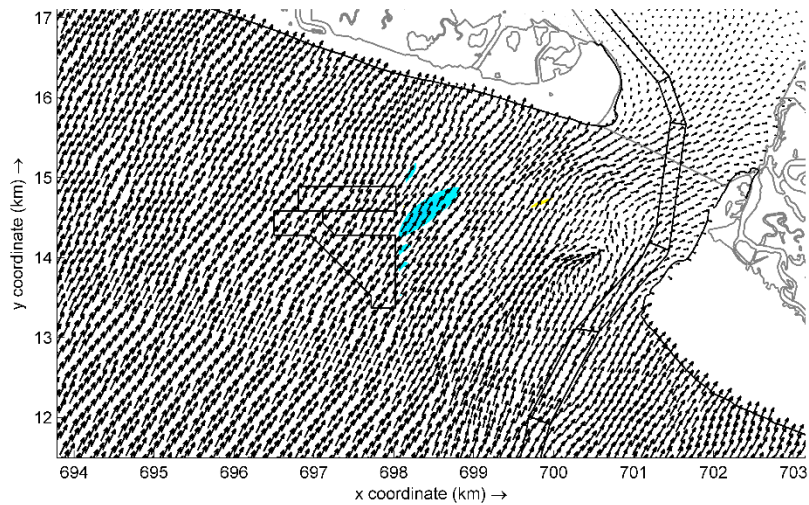
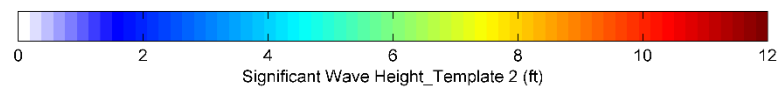
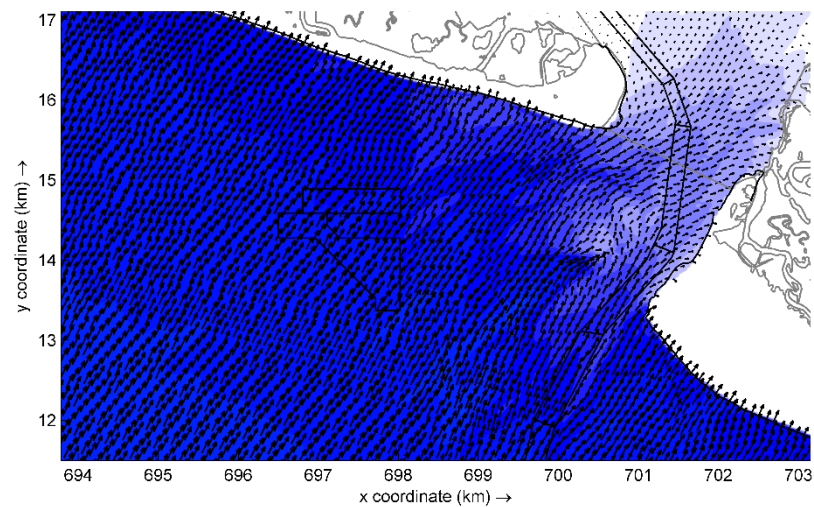
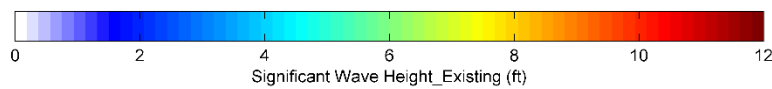
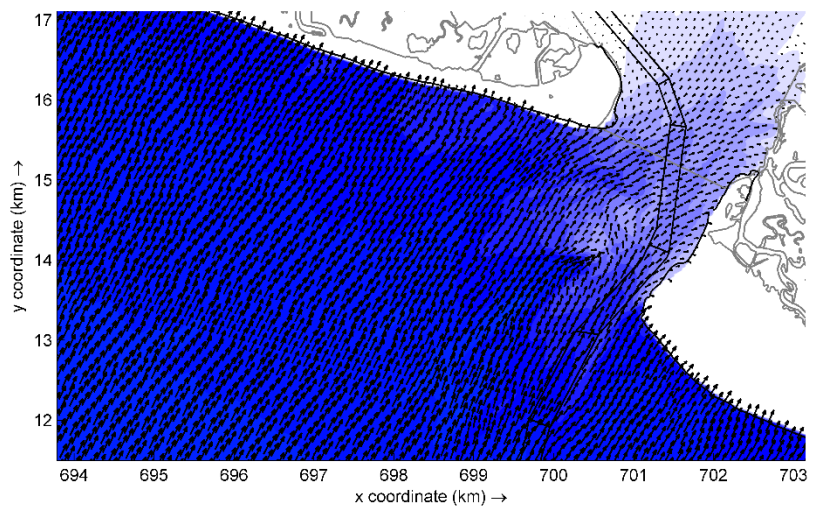
$H_s = 17.0$  ft,  $T_p = 10.0$  s, Dir = 199.6 degN

Percent Occurrence = 0.003%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)





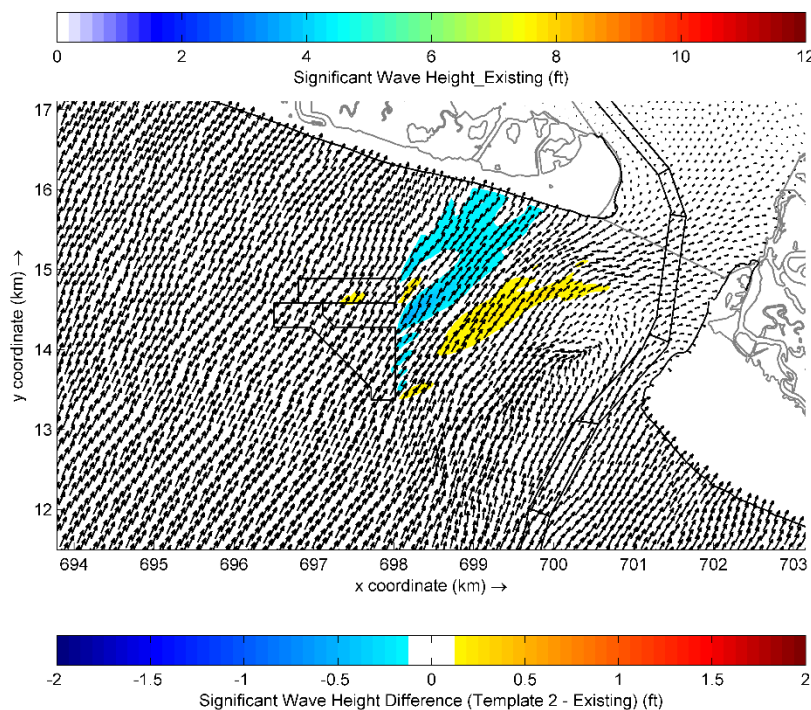
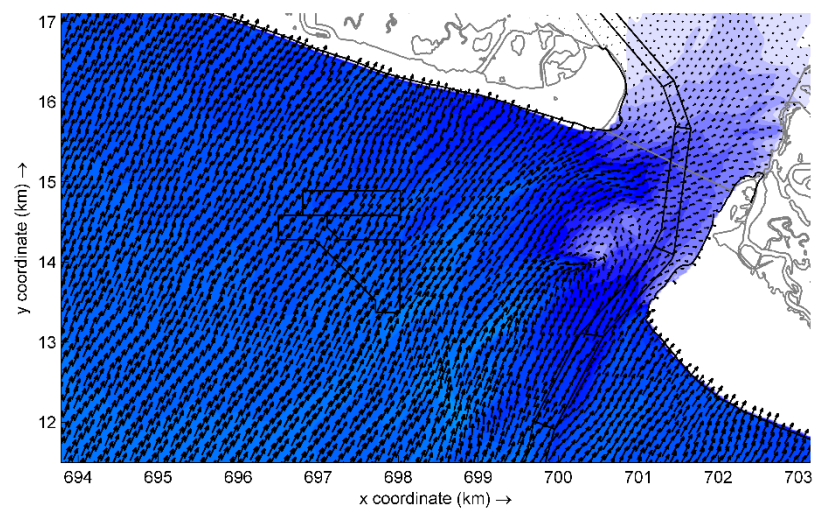
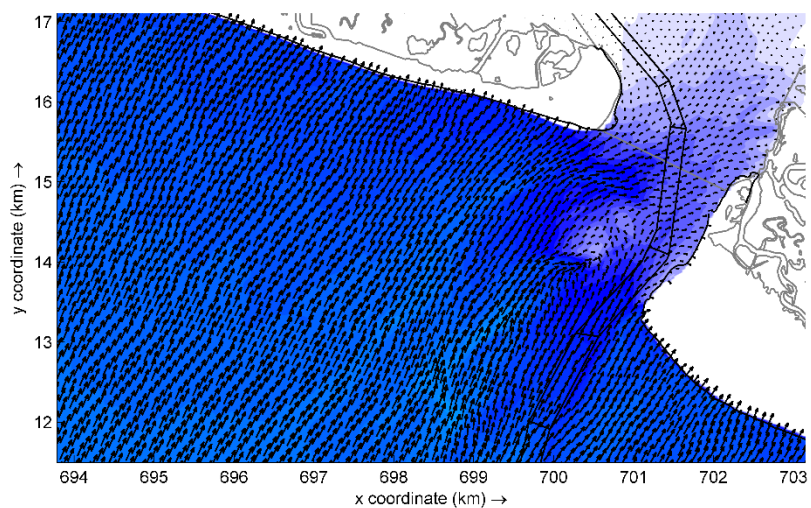
### Offshore Wave Case63:

$H_s = 2.7$  ft,  $T_p = 4.9$  s, Dir = 216.8 degN

Percent Occurrence = 1.319%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)



**Offshore Wave Case64:**

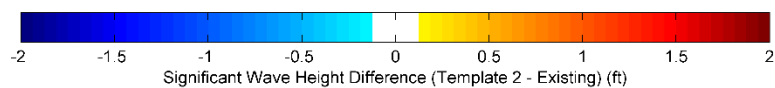
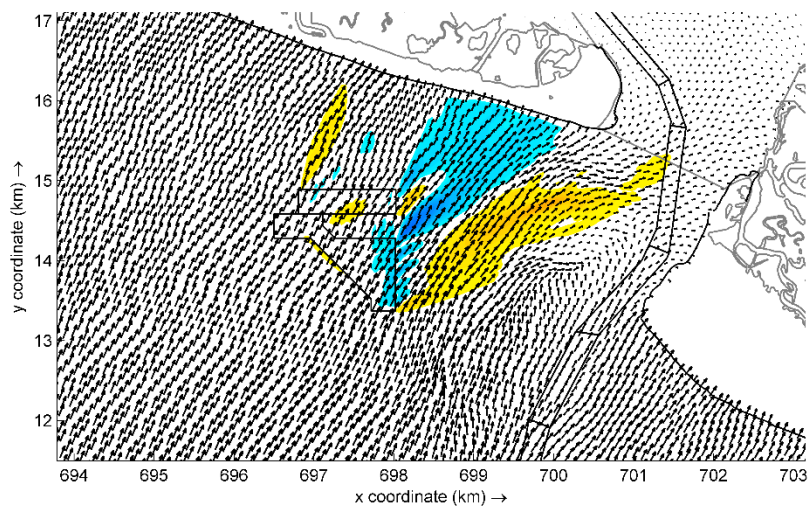
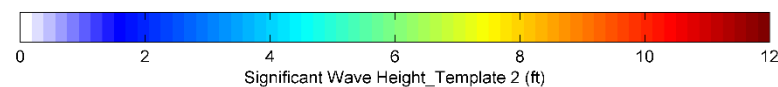
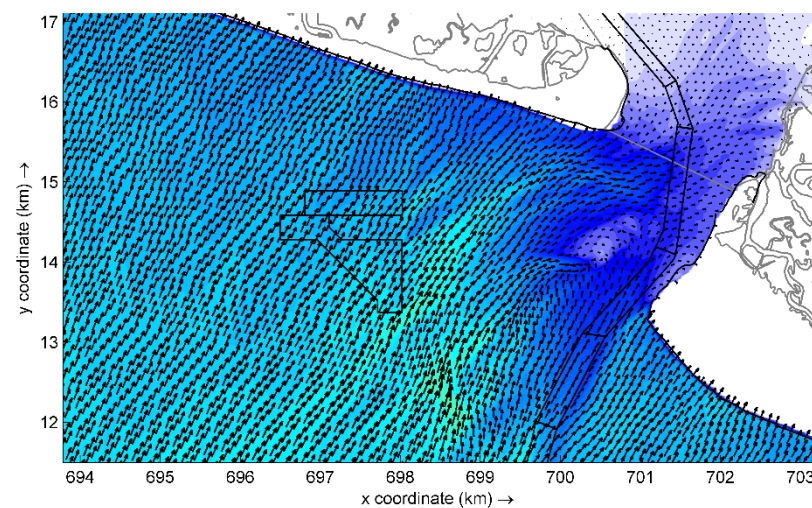
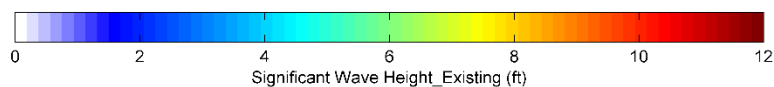
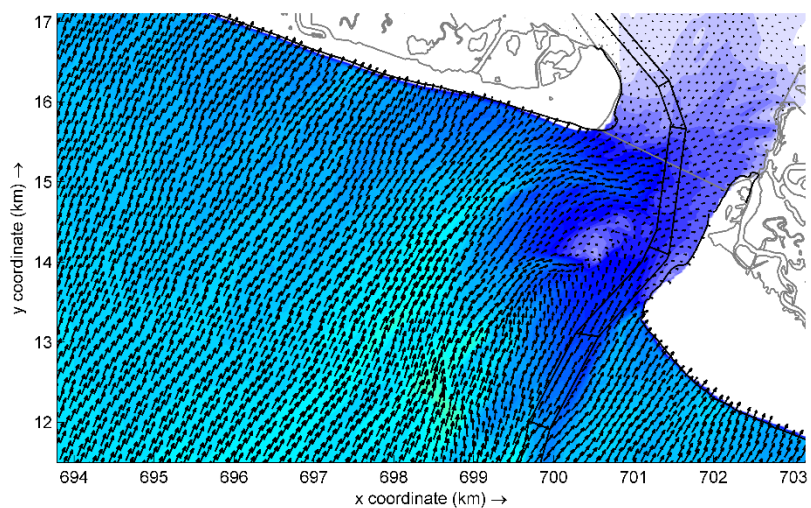
$H_s = 4.6$  ft,  $T_p = 5.8$  s, Dir = 217.1 degN

Percent Occurrence = 3.141%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)





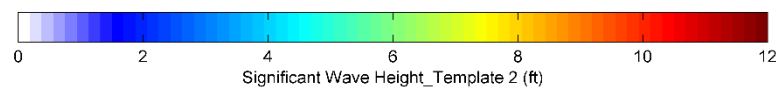
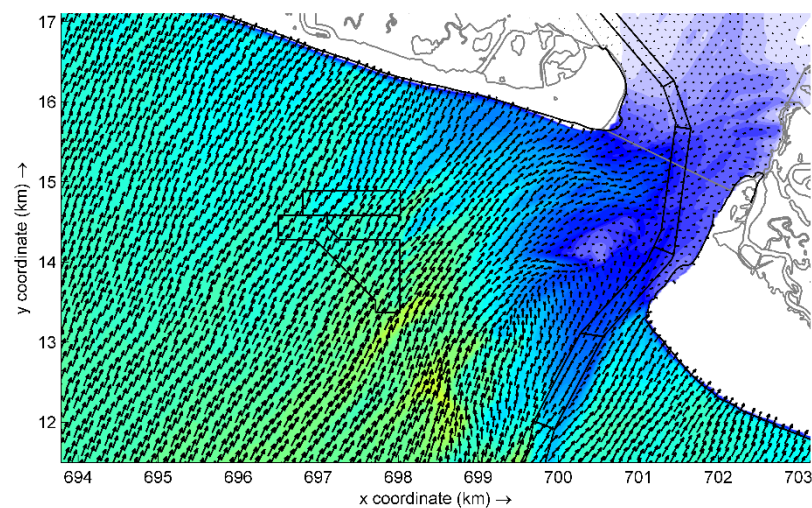
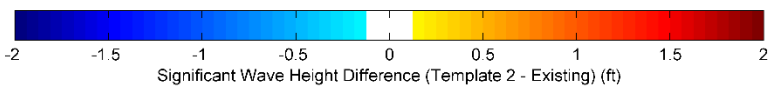
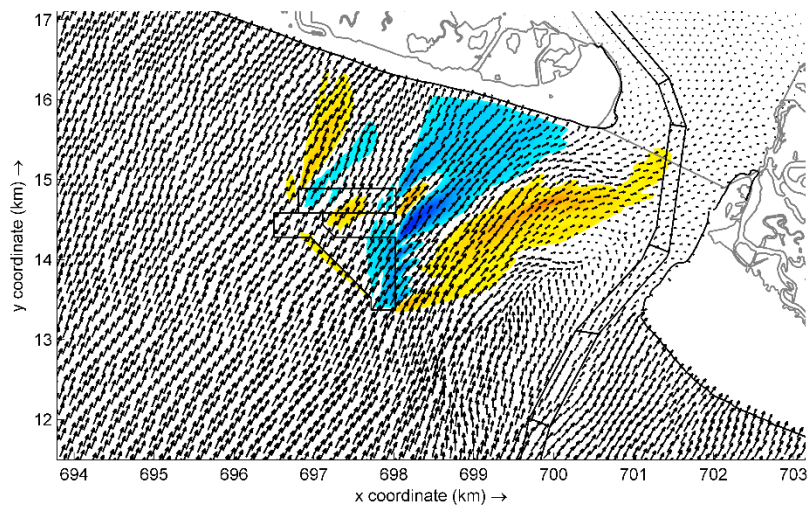
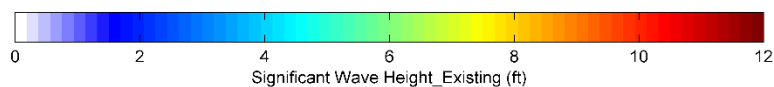
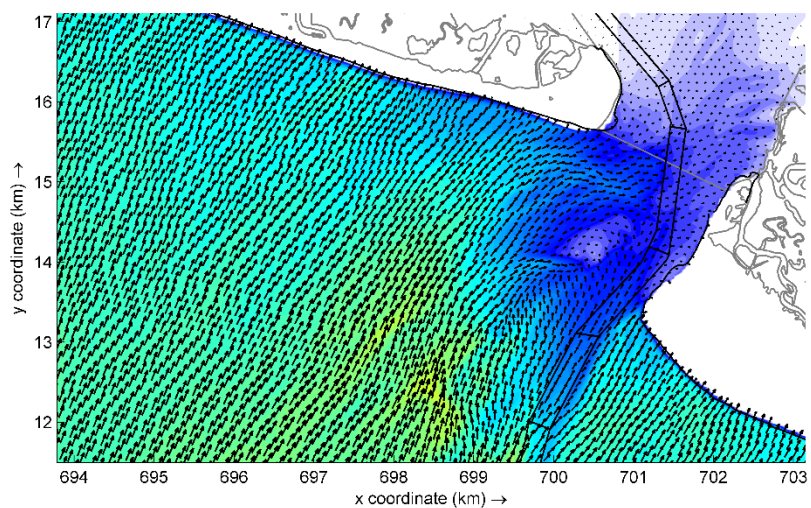
### Offshore Wave Case65:

$H_s = 7.7$  ft,  $T_p = 7.2$  s, Dir = 217.4 degN

Percent Occurrence = 0.666%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)



### **Offshore Wave Case66:**

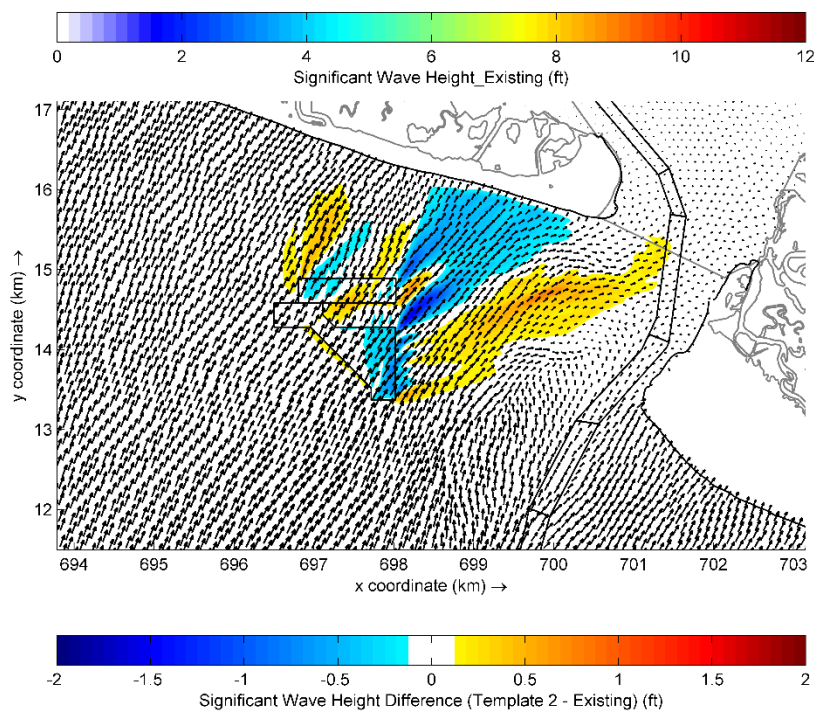
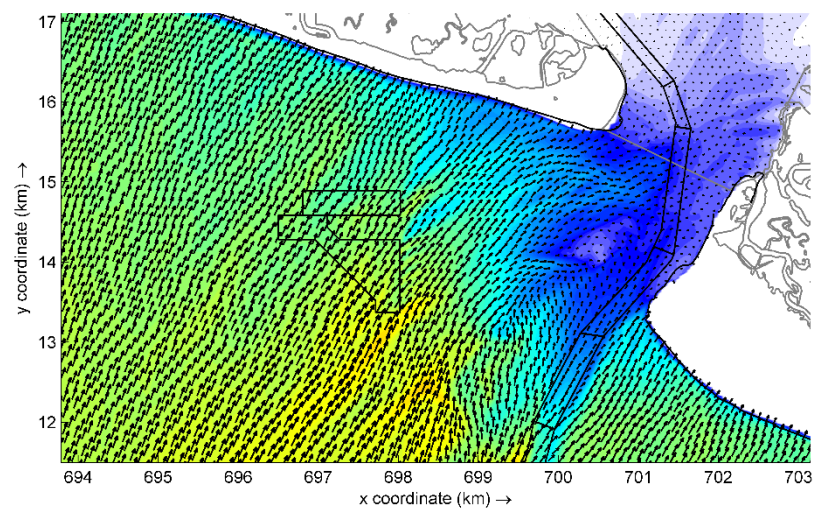
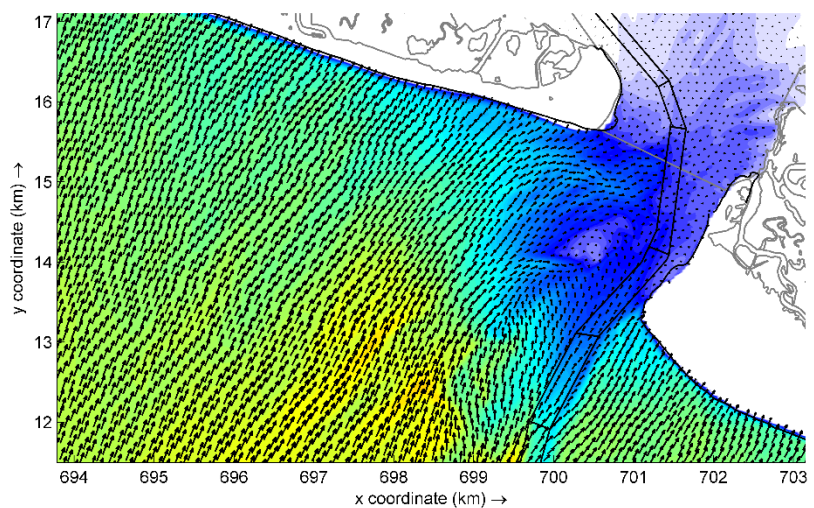
$H_s = 11.0$  ft,  $T_p = 8.3$  s, Dir = 217.9 degN

Percent Occurrence = 0.115%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)





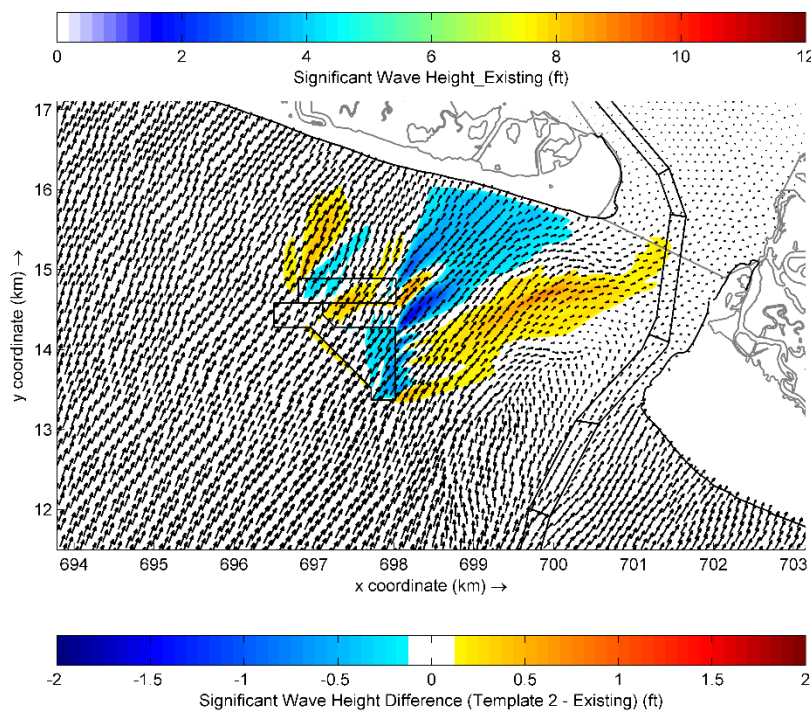
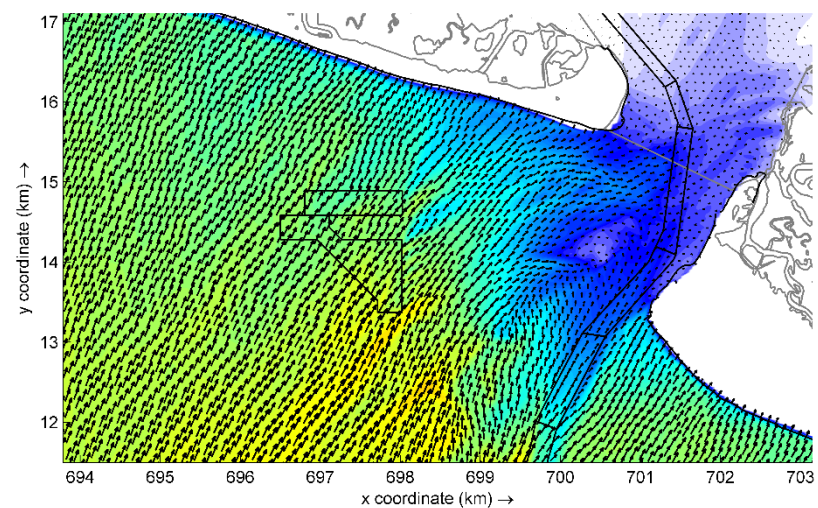
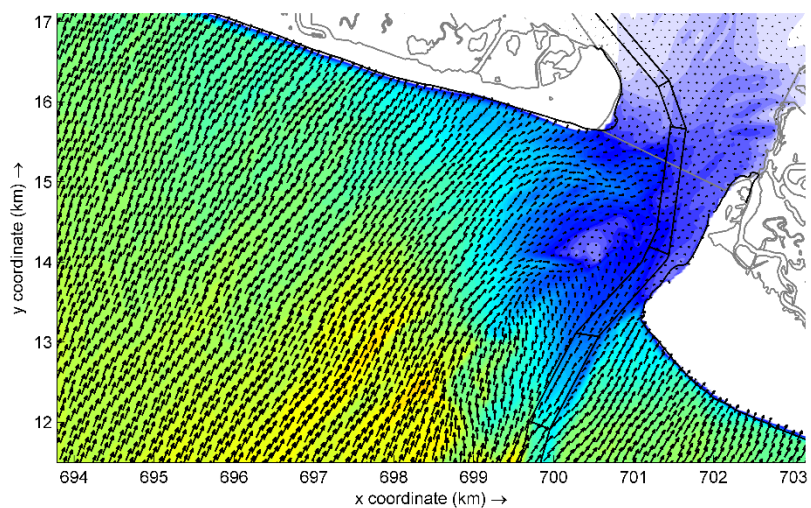
### **Offshore Wave Case67:**

$H_s = 14.2$  ft,  $T_p = 9.2$  s, Dir = 215.3 degN

Percent Occurrence = 0.015%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)



### Offshore Wave Case68:

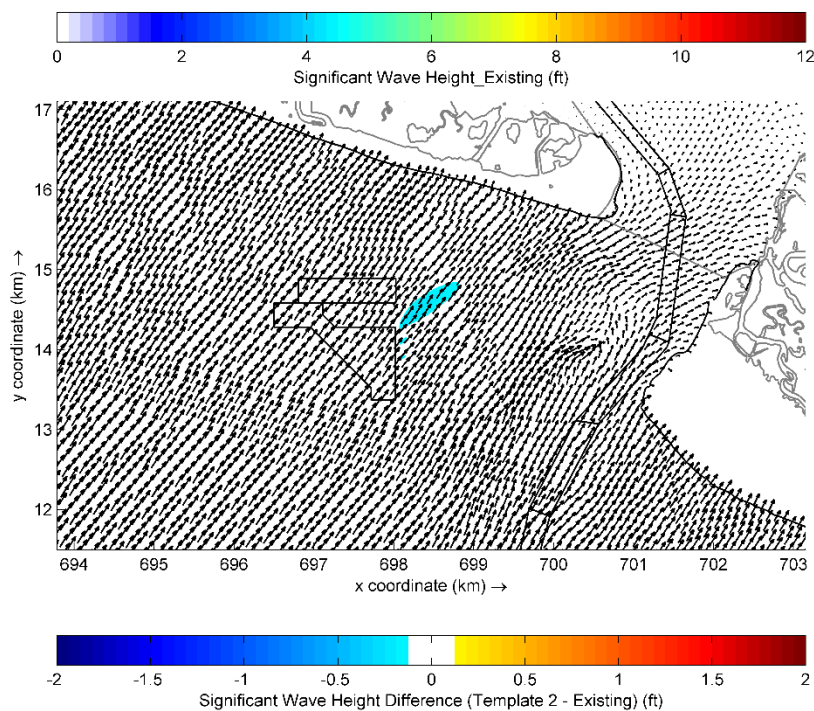
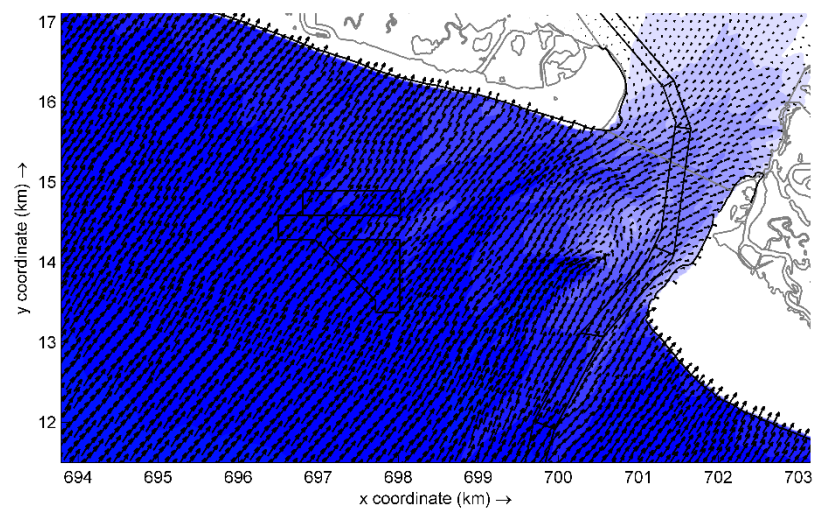
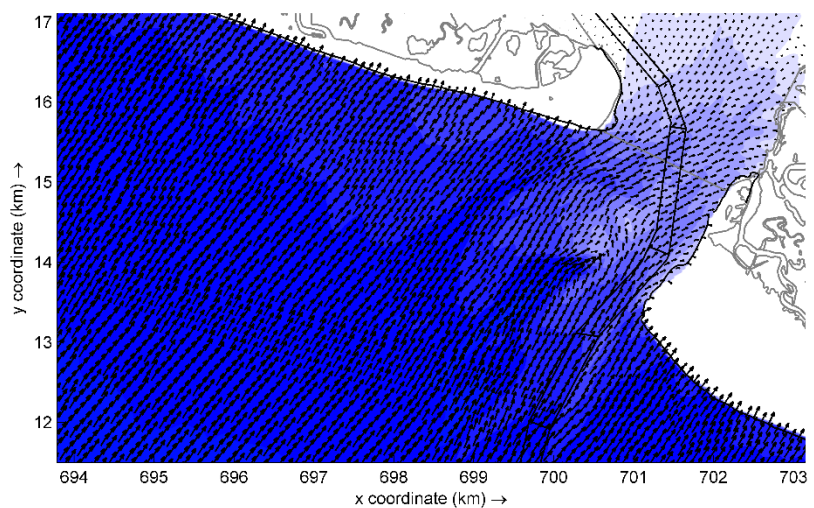
$H_s = 16.8$  ft,  $T_p = 8.3$  s, Dir = 219.7 degN

Percent Occurrence = 0.001%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)





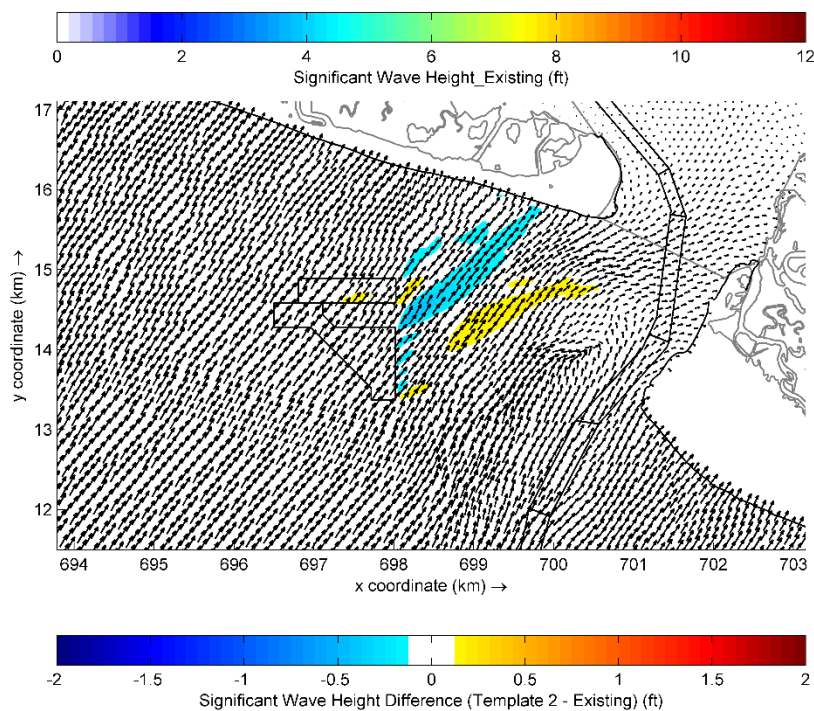
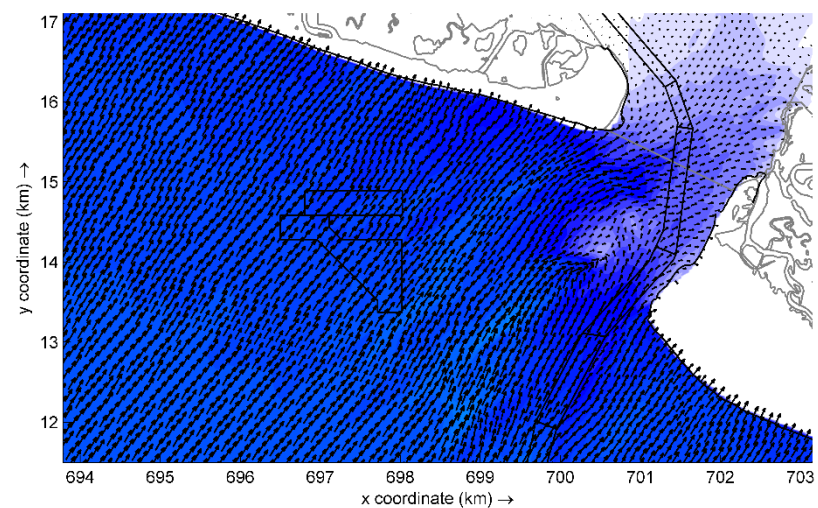
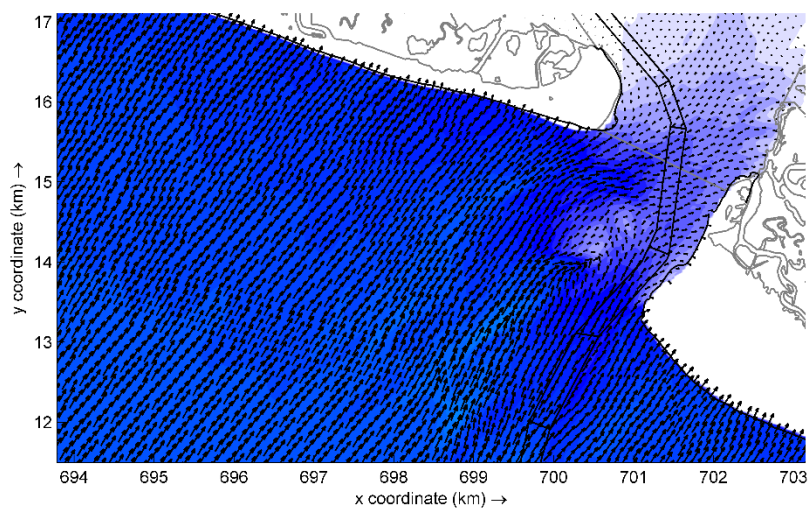
### **Offshore Wave Case69:**

$H_s = 2.6$  ft,  $T_p = 4.6$  s, Dir = 231.3 degN

Percent Occurrence = 0.688%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)



### Offshore Wave Case70:

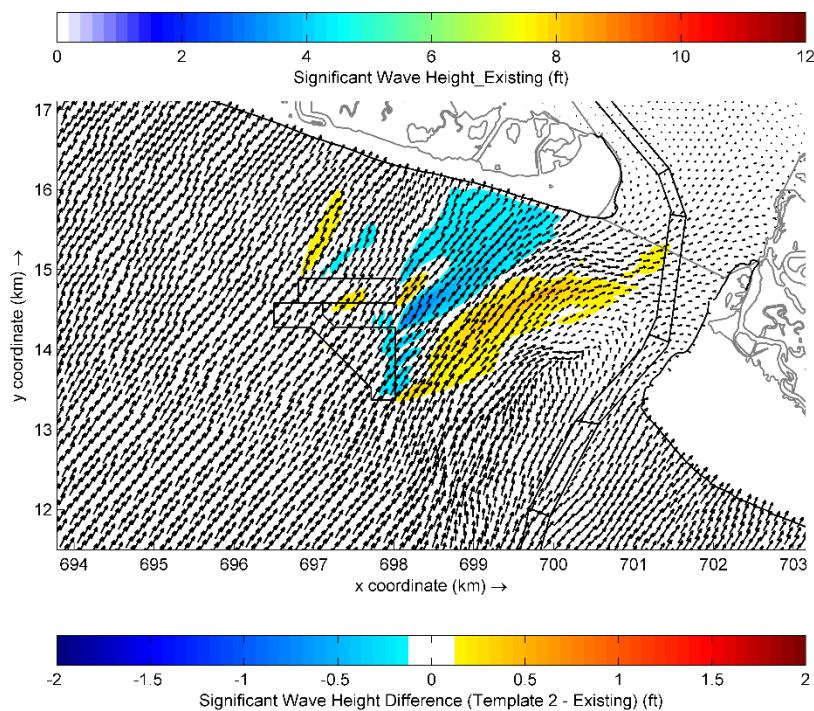
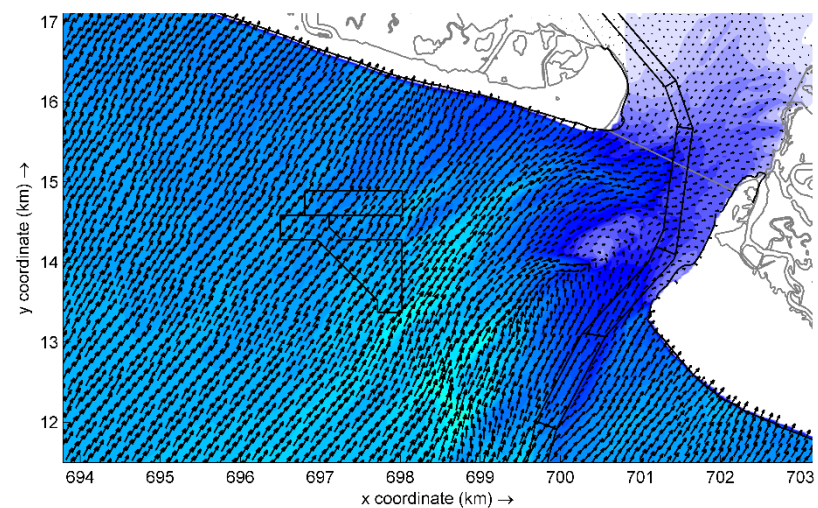
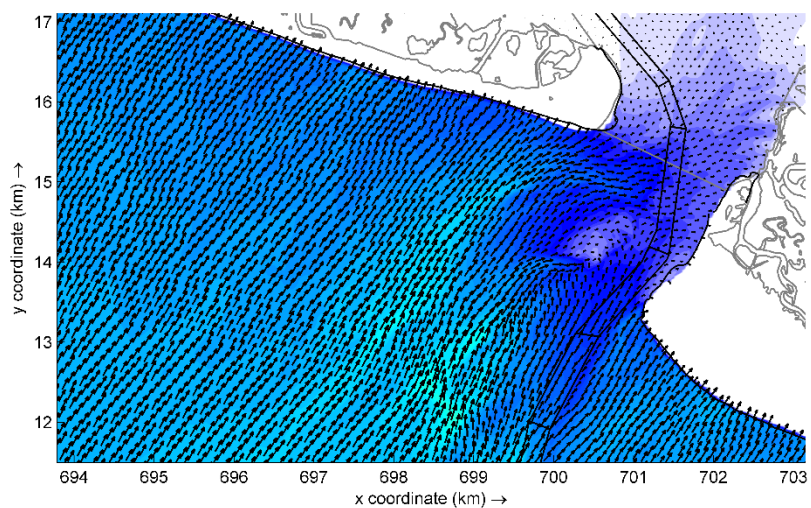
$H_s = 4.6$  ft,  $T_p = 5.5$  s, Dir = 230.8 degN

Percent Occurrence = 1.609%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)





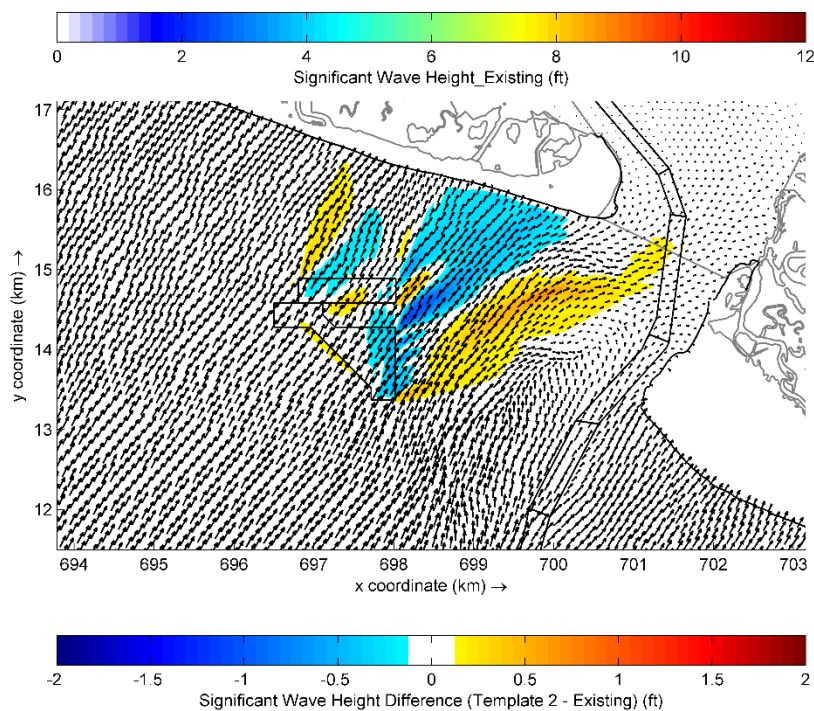
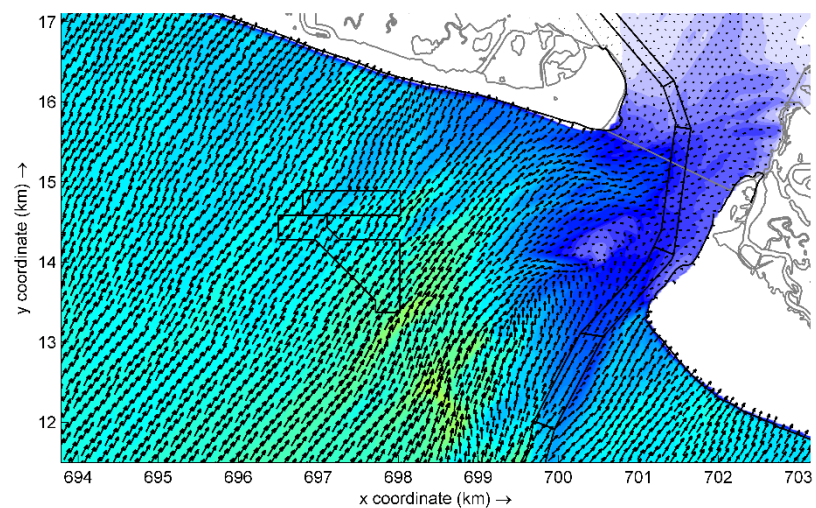
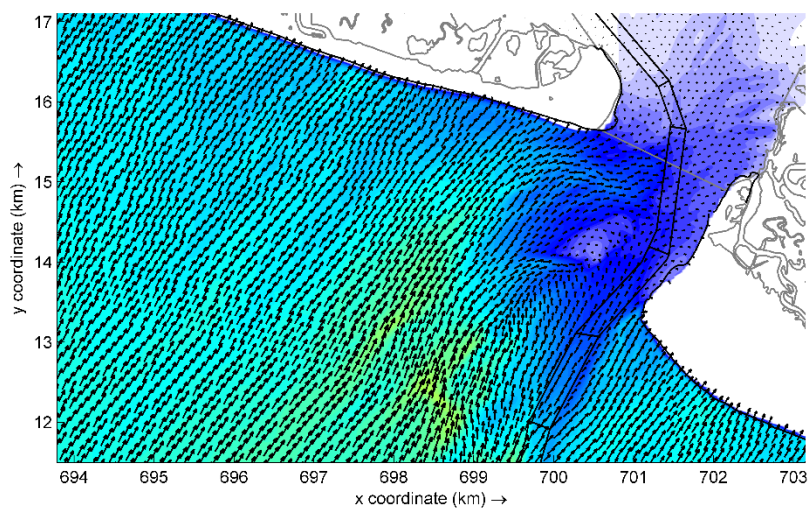
### **Offshore Wave Case71:**

$H_s = 7.8$  ft,  $T_p = 7.0$  s, Dir = 231.2 degN

Percent Occurrence = 0.367%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)



### Offshore Wave Case72:

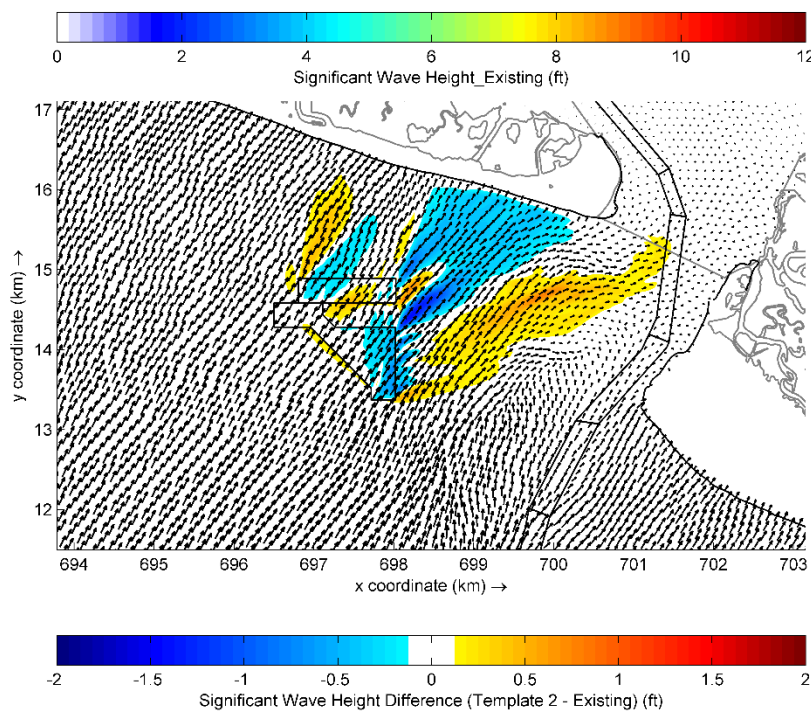
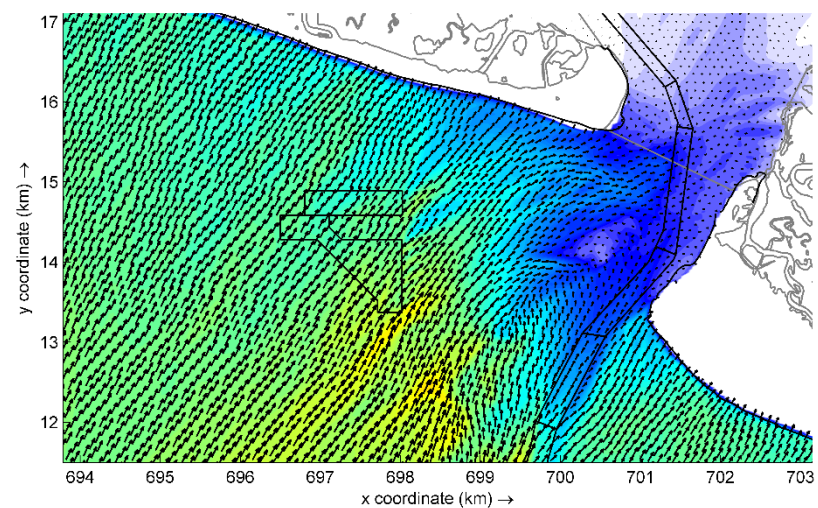
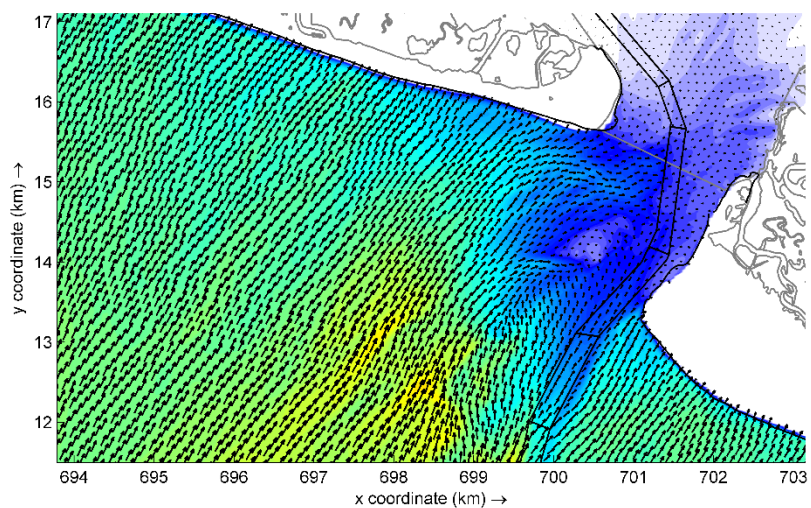
$H_s = 10.8$  ft,  $T_p = 8.3$  s, Dir = 231.0 degN

Percent Occurrence = 0.071%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)





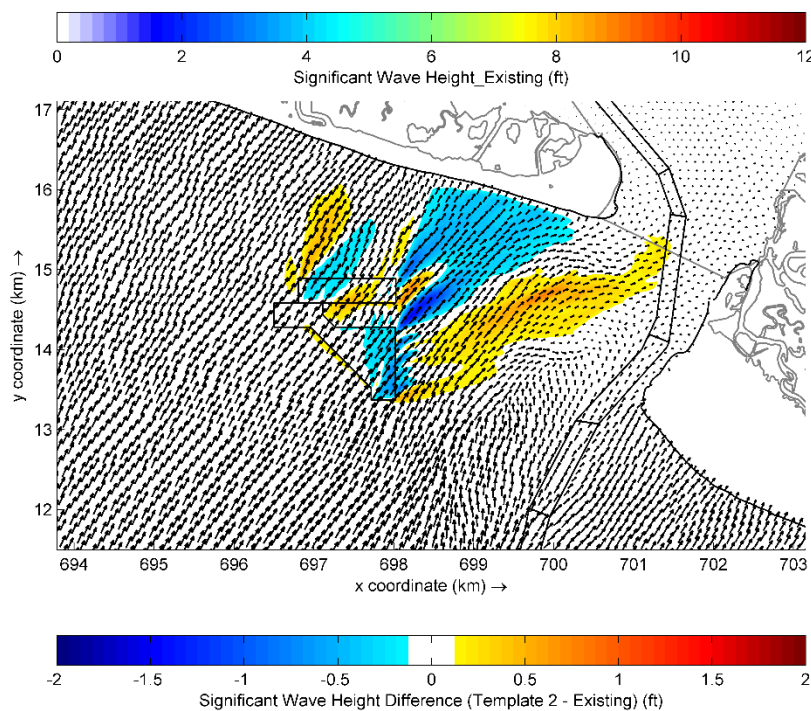
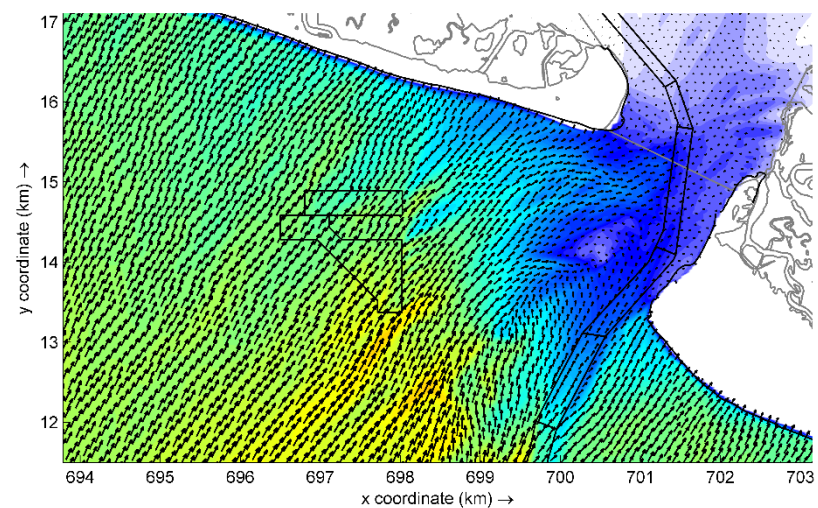
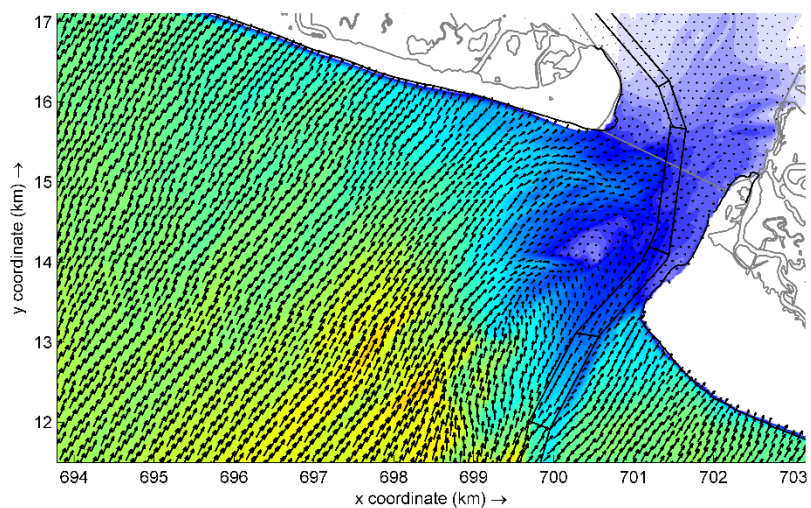
### **Offshore Wave Case73:**

$H_s = 14.2$  ft,  $T_p = 9.2$  s, Dir = 228.9 degN

Percent Occurrence = 0.007%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)



### **Offshore Wave Case74:**

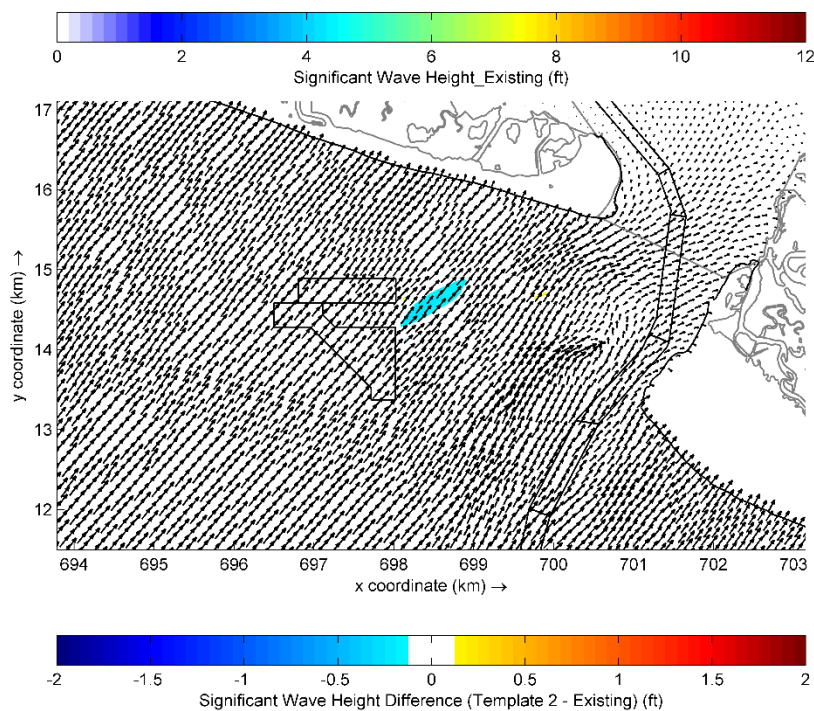
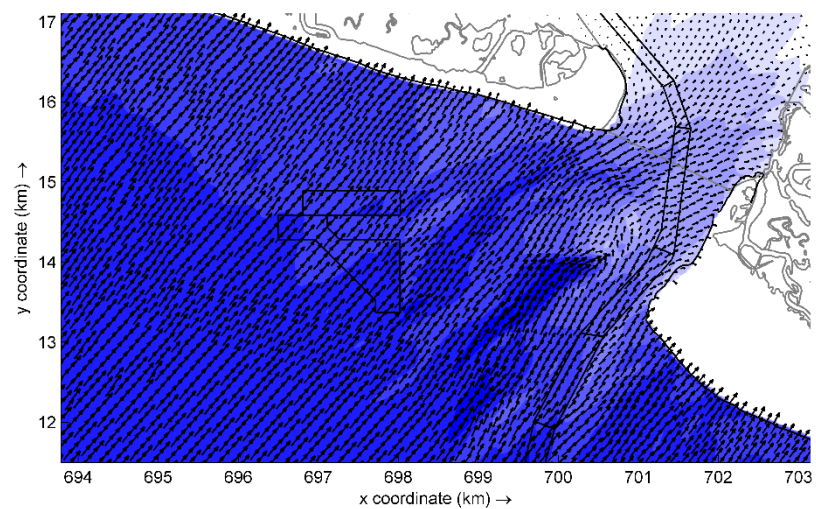
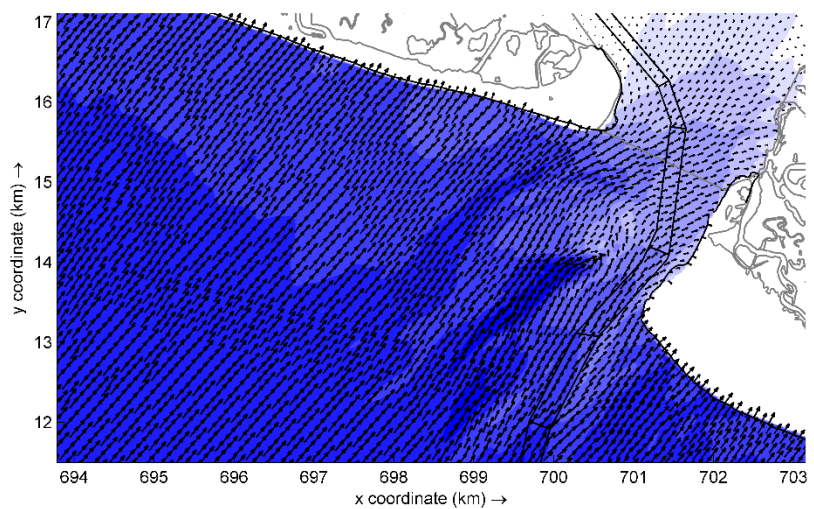
$H_s = 17.4$  ft,  $T_p = 8.8$  s, Dir = 231.2 degN

Percent Occurrence = 0.005%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)





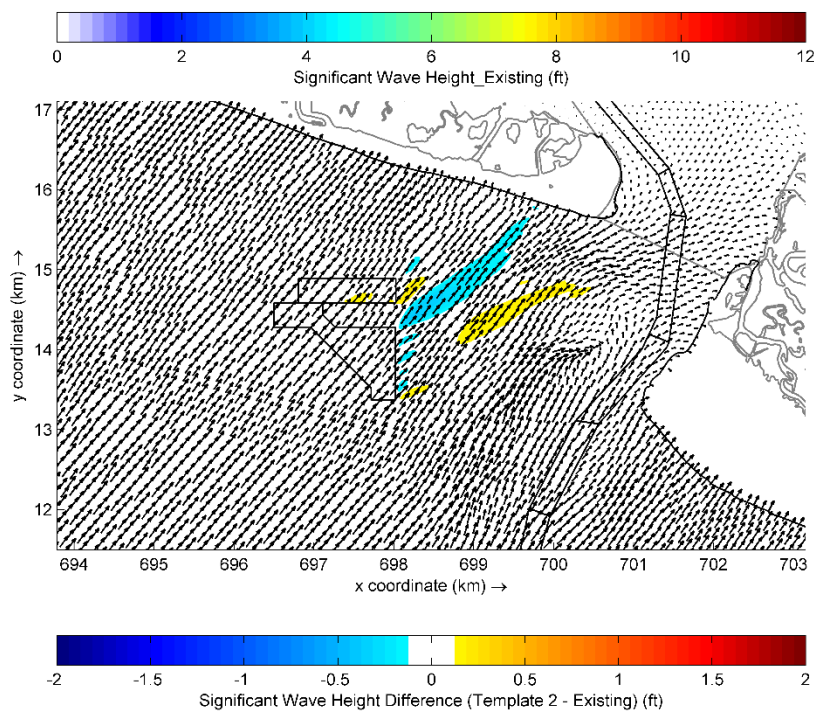
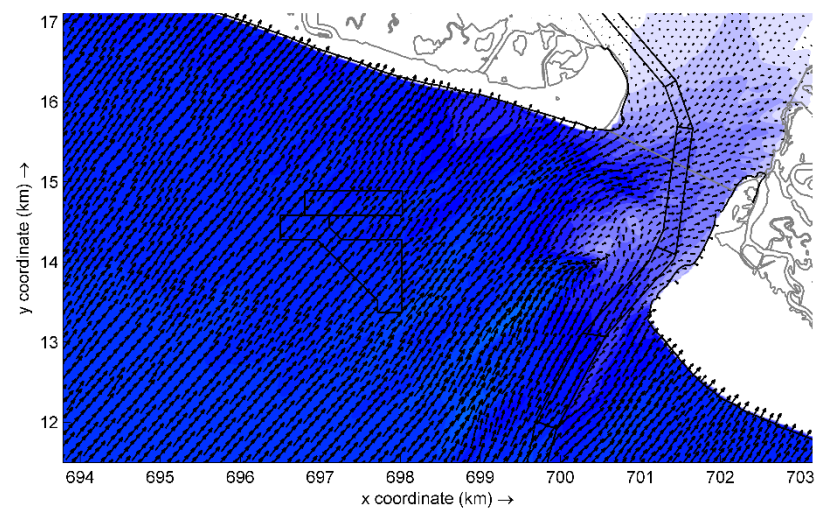
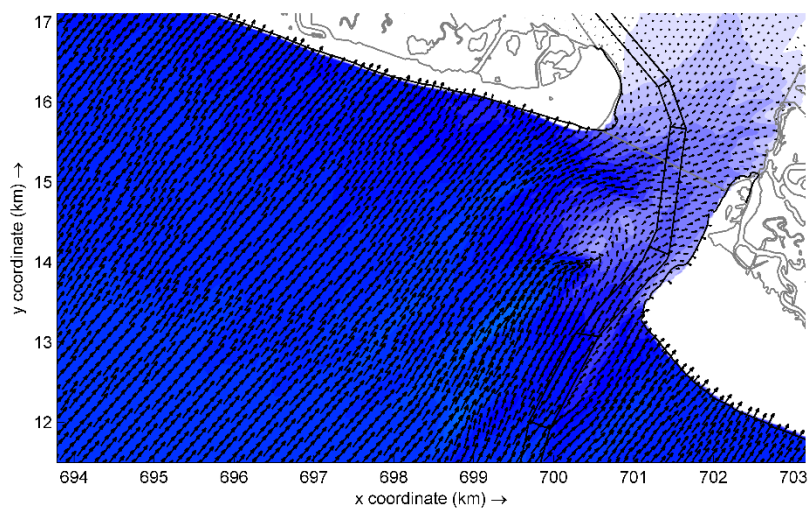
### Offshore Wave Case75:

$H_s = 2.6$  ft,  $T_p = 4.9$  s, Dir = 246.5 degN

Percent Occurrence = 0.301%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)



### **Offshore Wave Case76:**

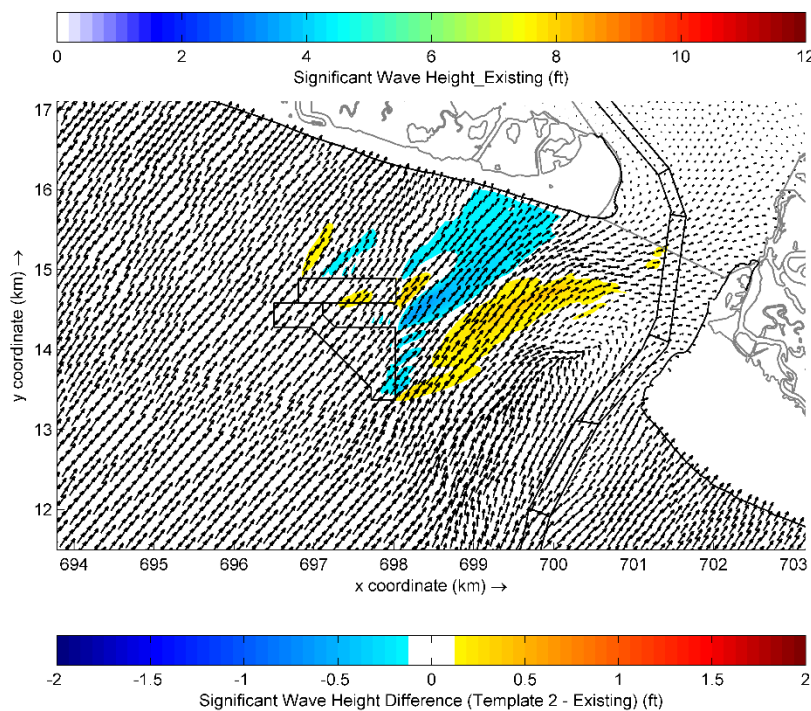
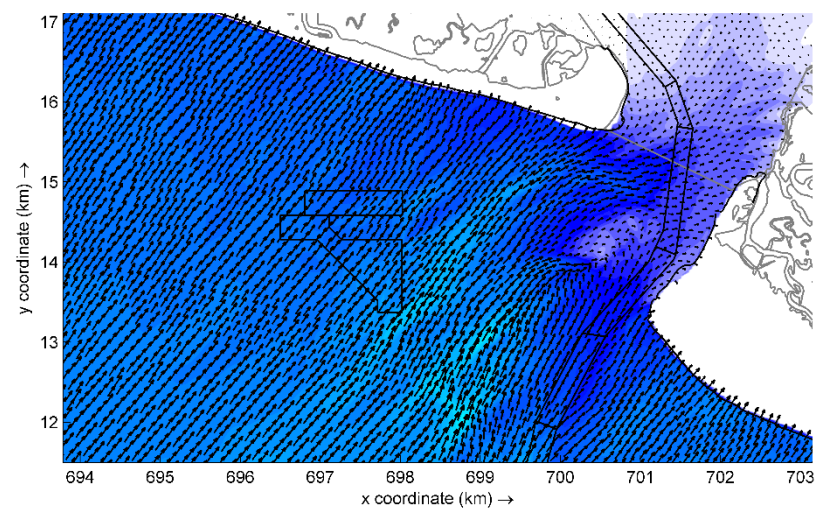
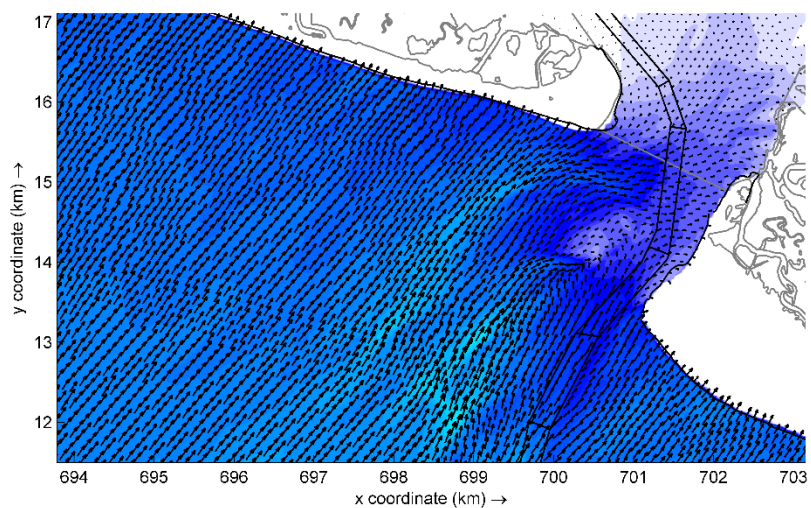
$H_s = 4.7$  ft,  $T_p = 5.5$  s, Dir = 246.3 degN

Percent Occurrence = 0.539%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)





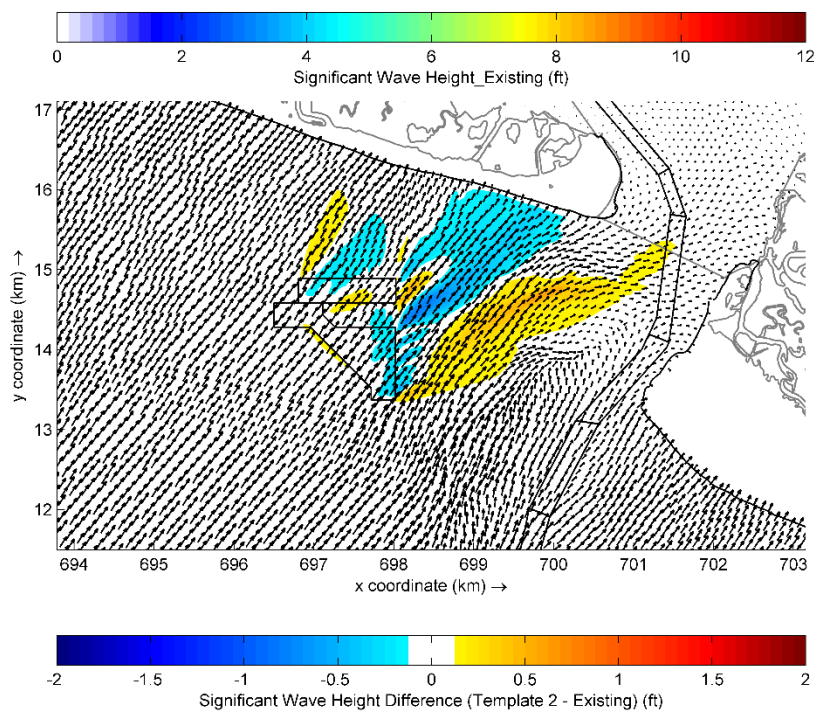
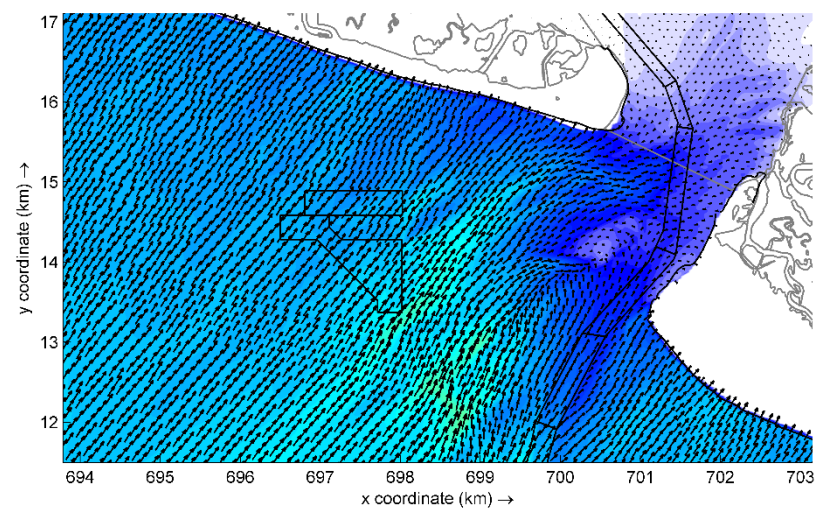
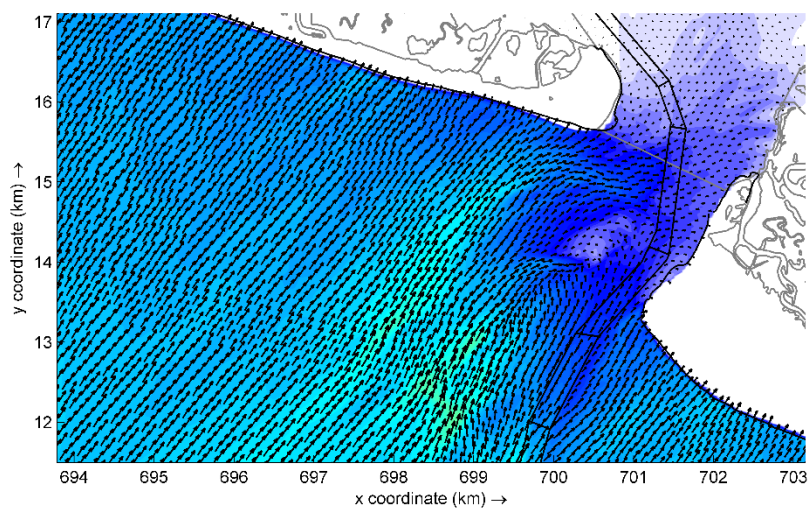
### **Offshore Wave Case77:**

$H_s = 7.9$  ft,  $T_p = 6.7$  s, Dir = 246.4 degN

Percent Occurrence = 0.190%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)



### **Offshore Wave Case78:**

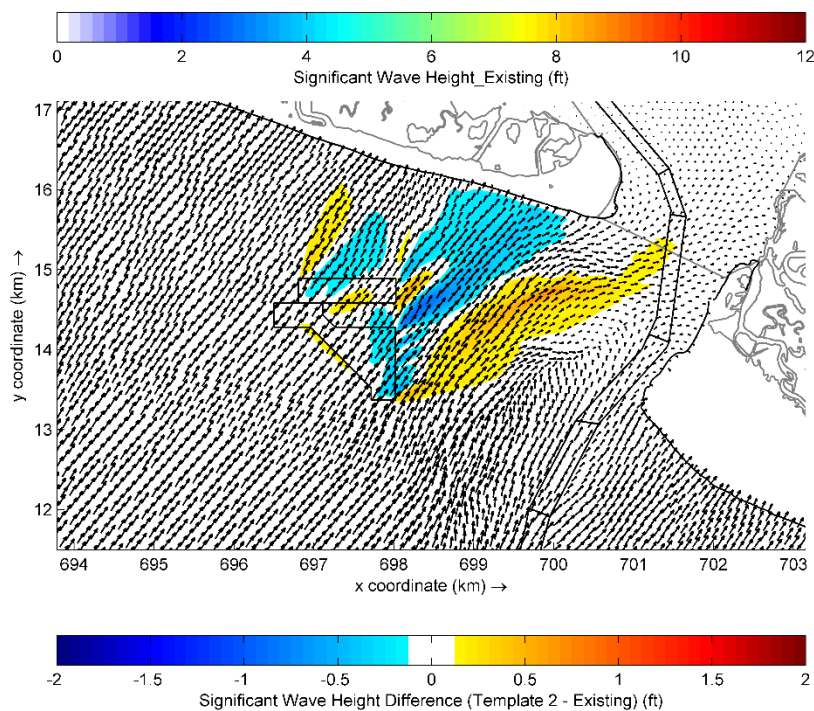
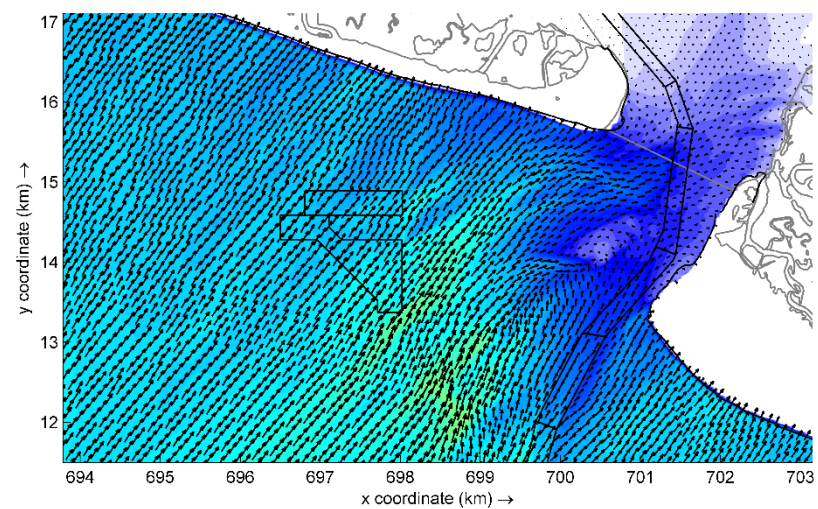
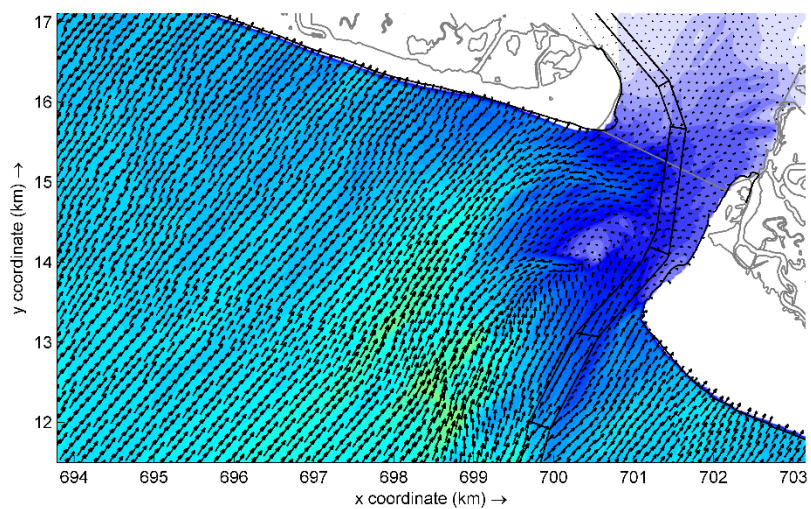
$H_s = 10.8$  ft,  $T_p = 7.4$  s, Dir = 246.9 degN

Percent Occurrence = 0.039%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)





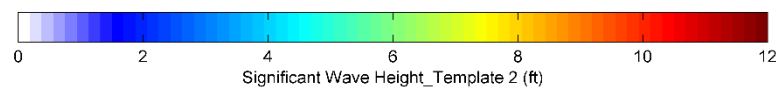
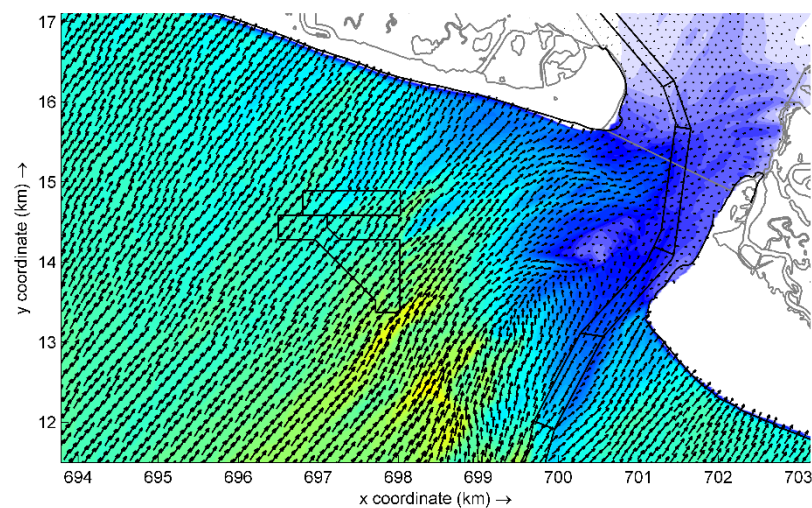
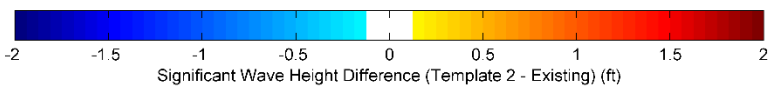
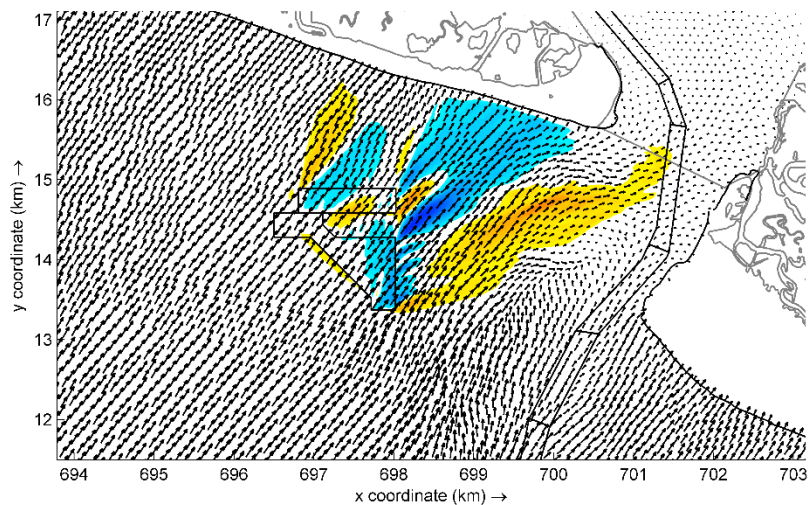
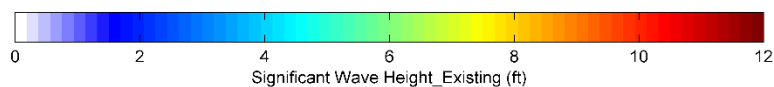
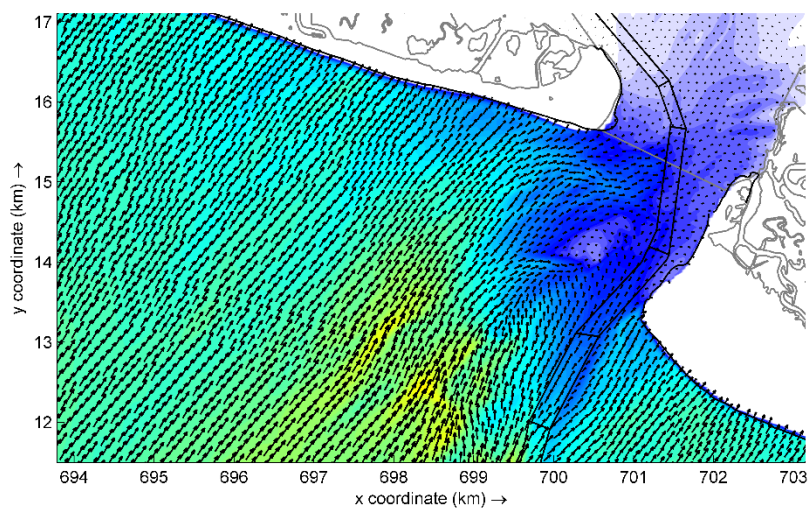
### **Offshore Wave Case79:**

$H_s = 13.5$  ft,  $T_p = 7.5$  s, Dir = 249.3 degN

Percent Occurrence = 0.002%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)



### Offshore Wave Case80:

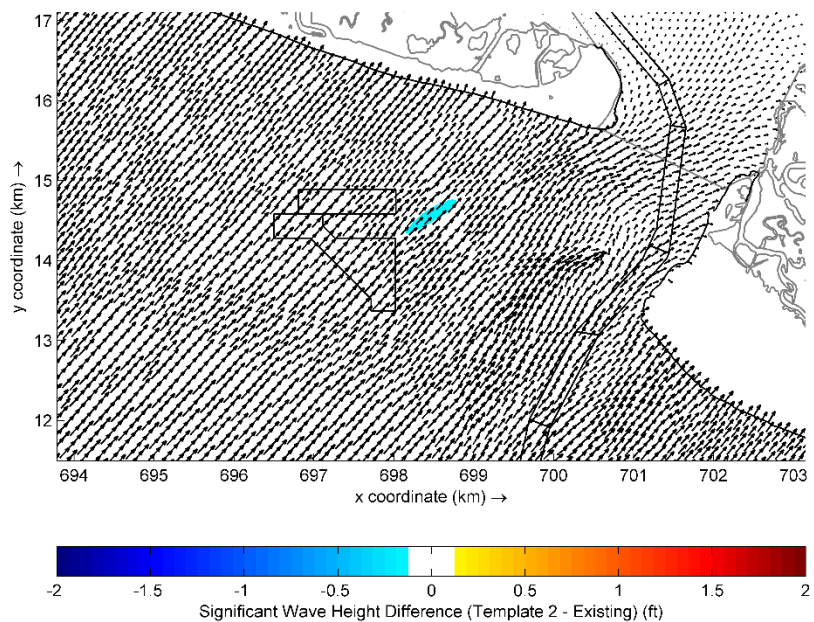
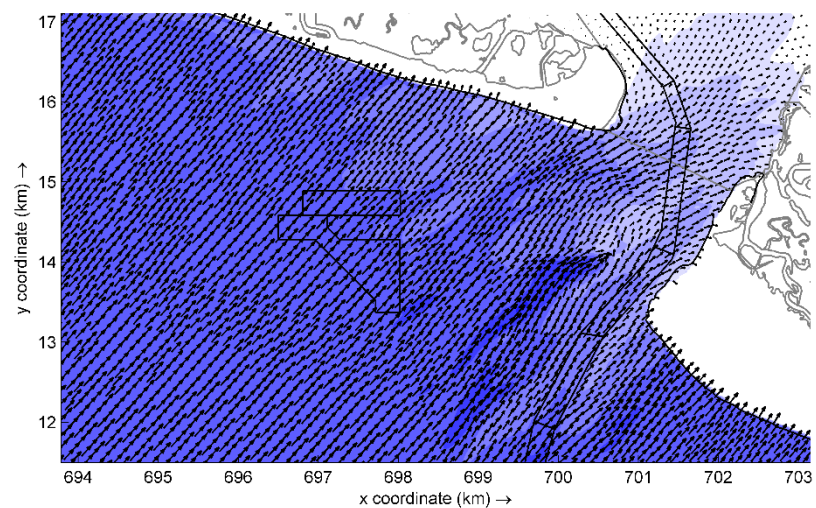
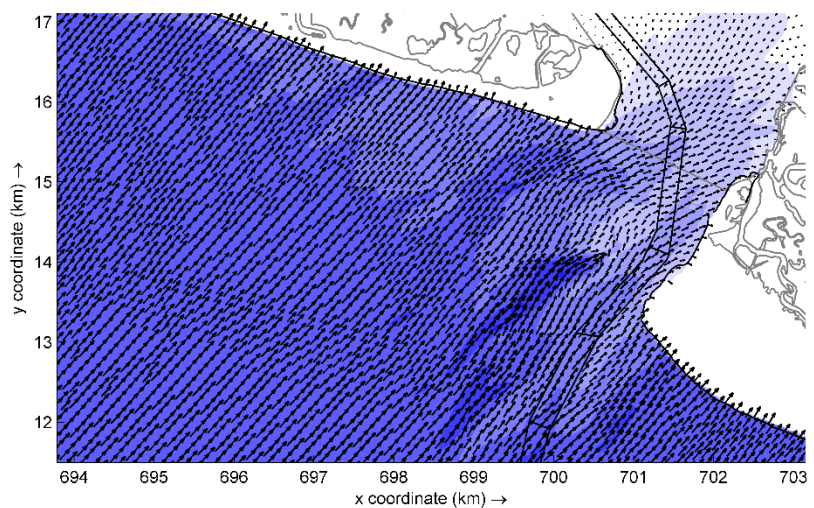
$H_s = 17.8$  ft,  $T_p = 8.6$  s, Dir = 248.0 degN

Percent Occurrence = 0.001%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)





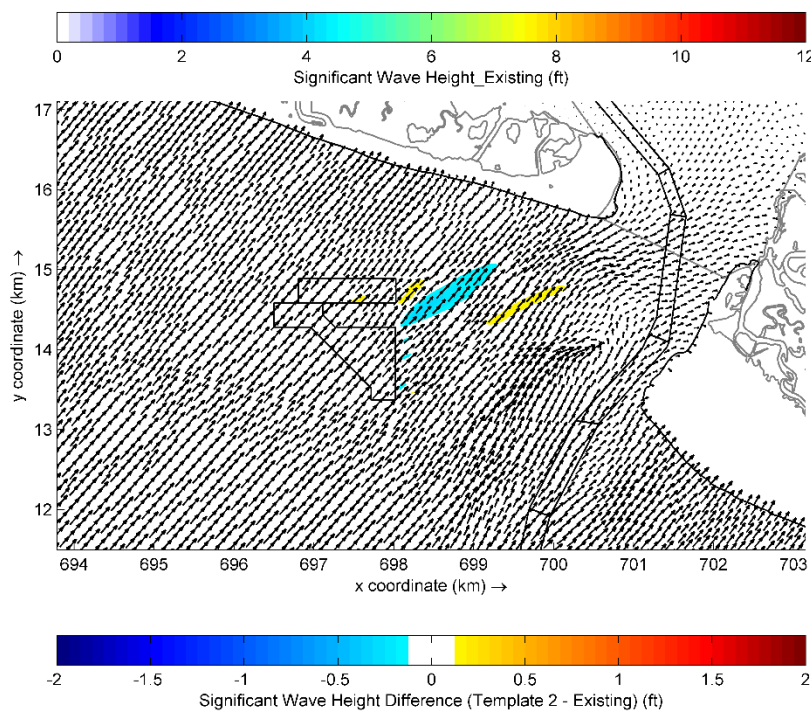
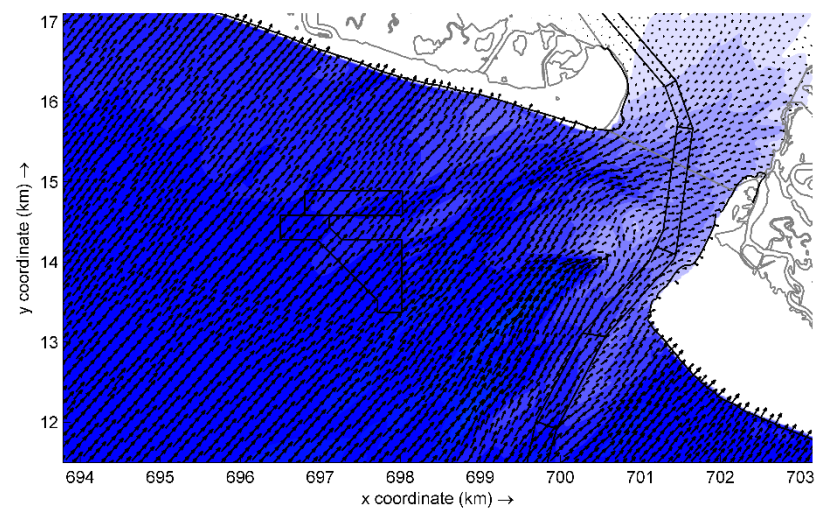
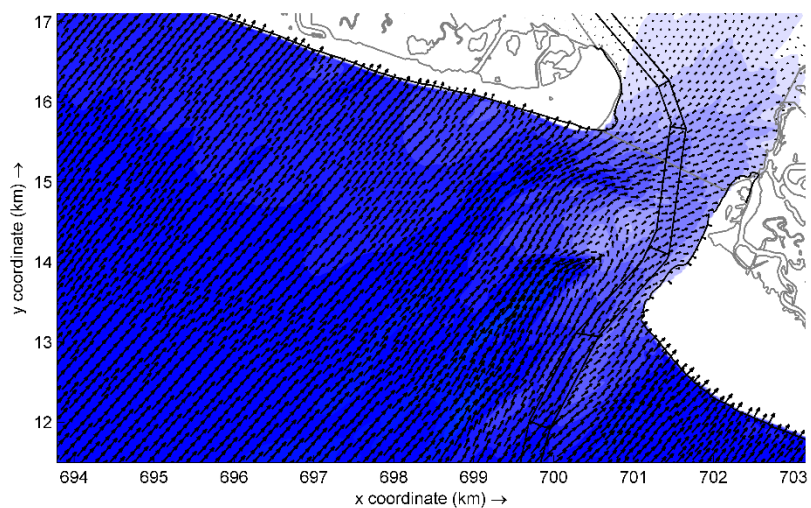
### Offshore Wave Case81:

$H_s = 2.6$  ft,  $T_p = 4.8$  s, Dir = 261.3 degN

Percent Occurrence = 0.169%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)



### Offshore Wave Case82:

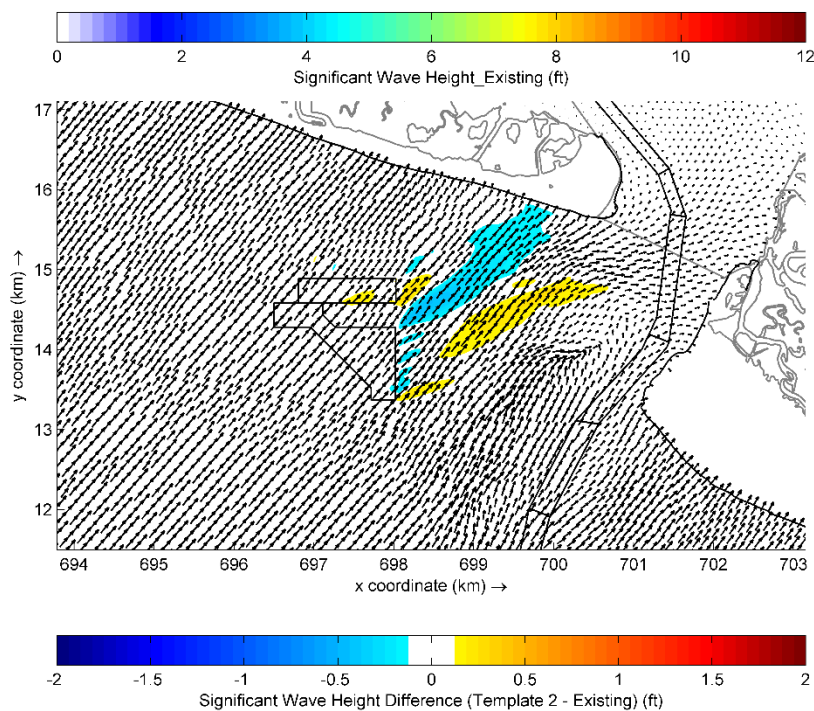
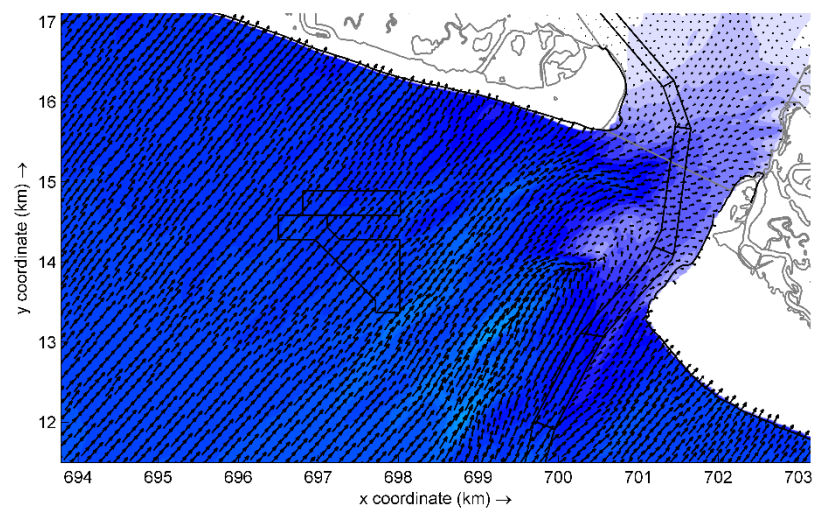
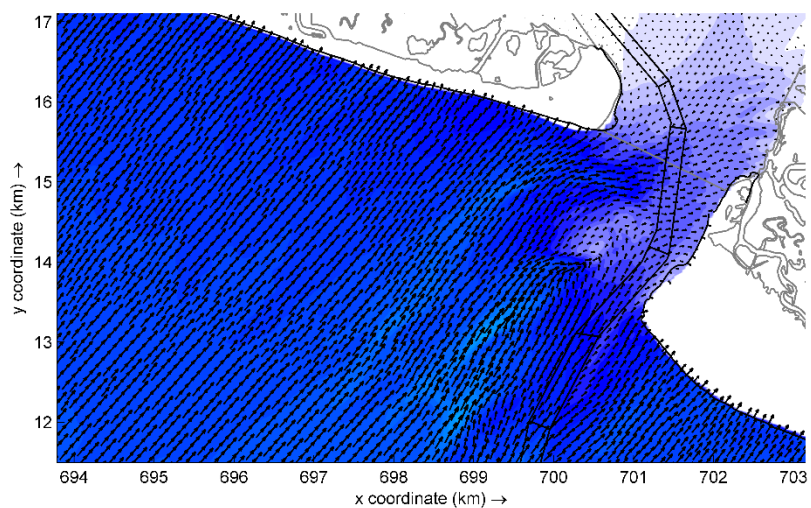
$H_s = 4.7$  ft,  $T_p = 5.4$  s, Dir = 262.0 degN

Percent Occurrence = 0.321%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)





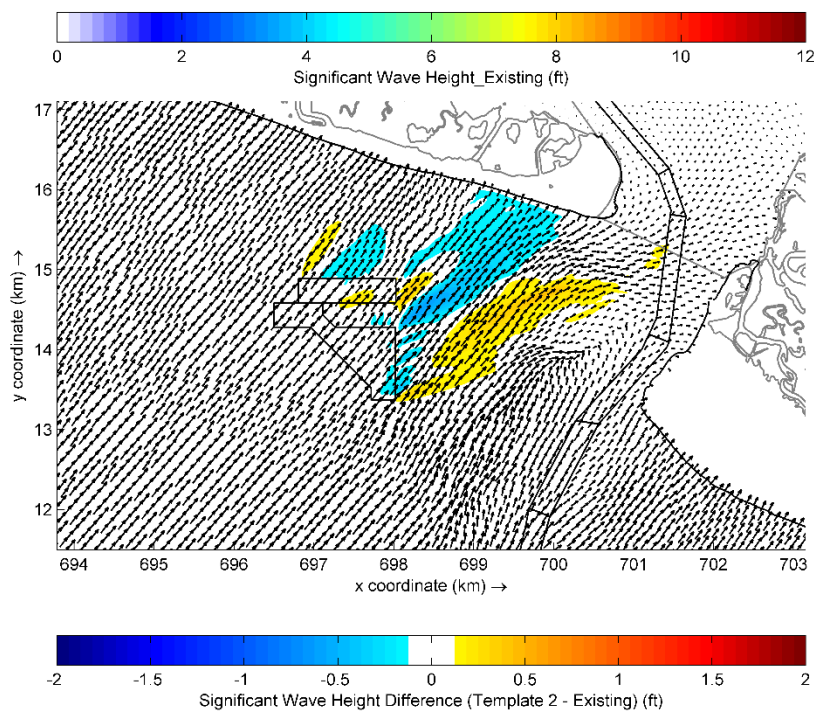
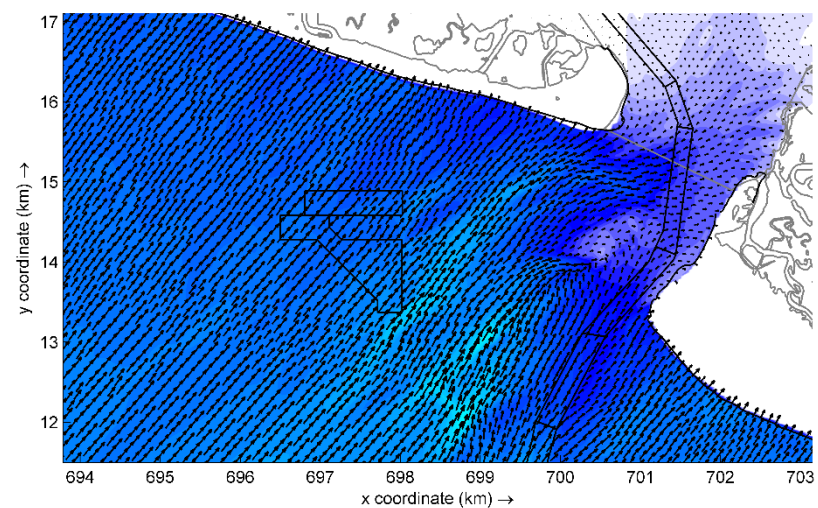
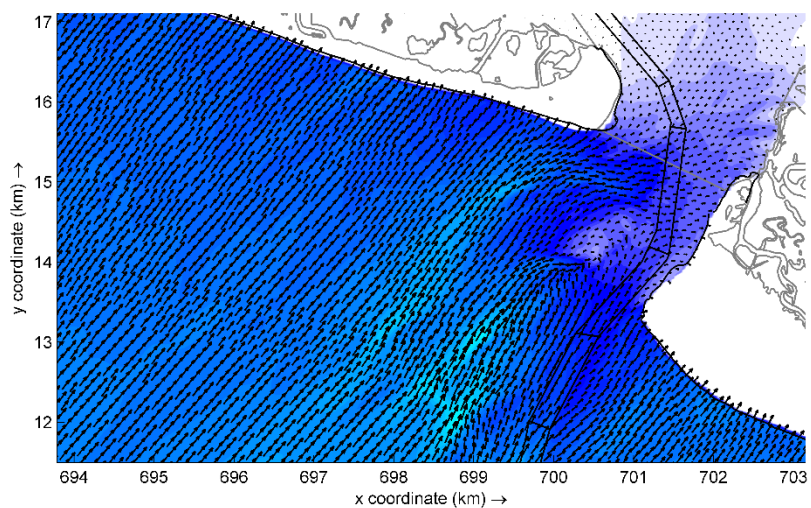
### Offshore Wave Case83:

$H_s = 7.8$  ft,  $T_p = 6.3$  s, Dir = 262.3 degN

Percent Occurrence = 0.168%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)



#### **Offshore Wave Case84:**

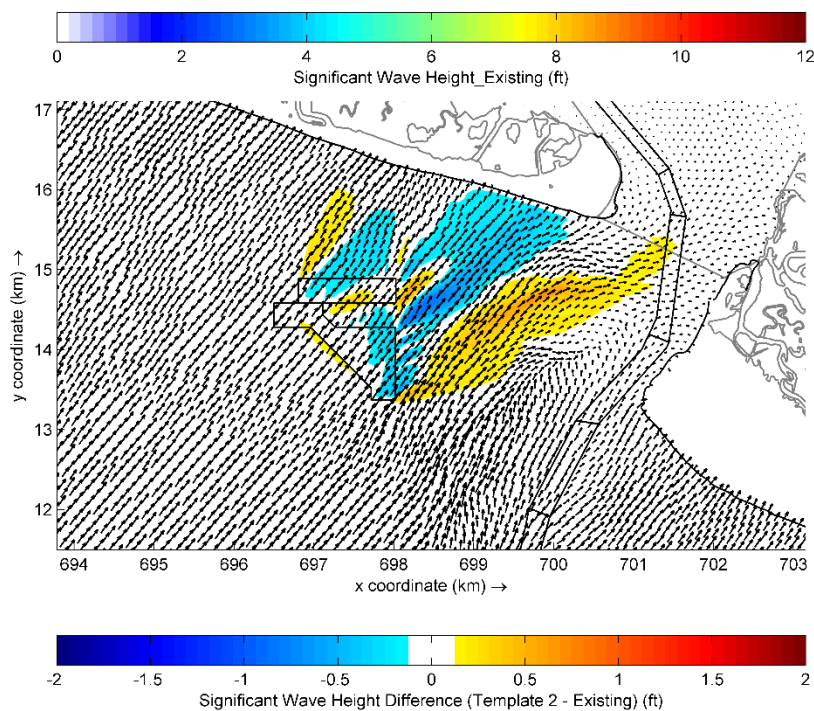
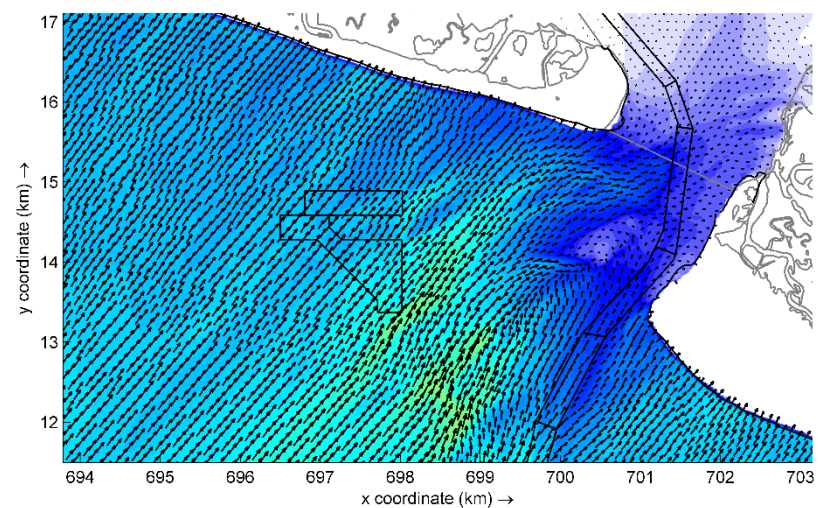
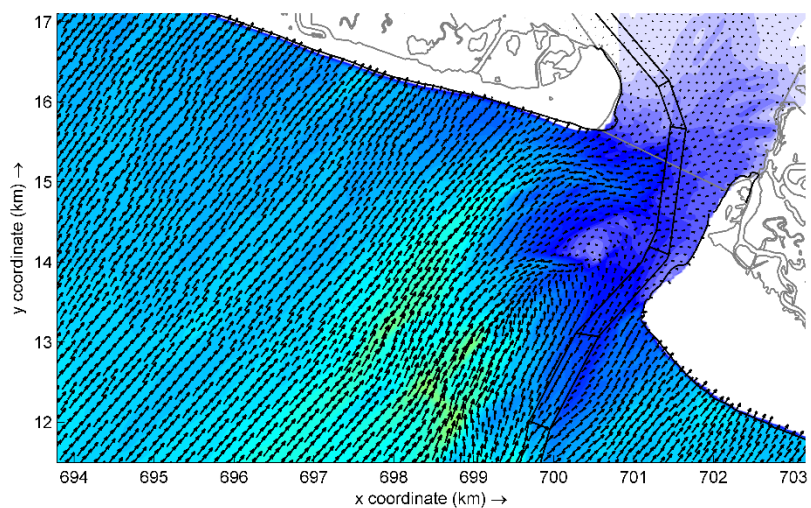
$H_s = 10.7$  ft,  $T_p = 6.9$  s, Dir = 261.3 degN

Percent Occurrence = 0.040%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)





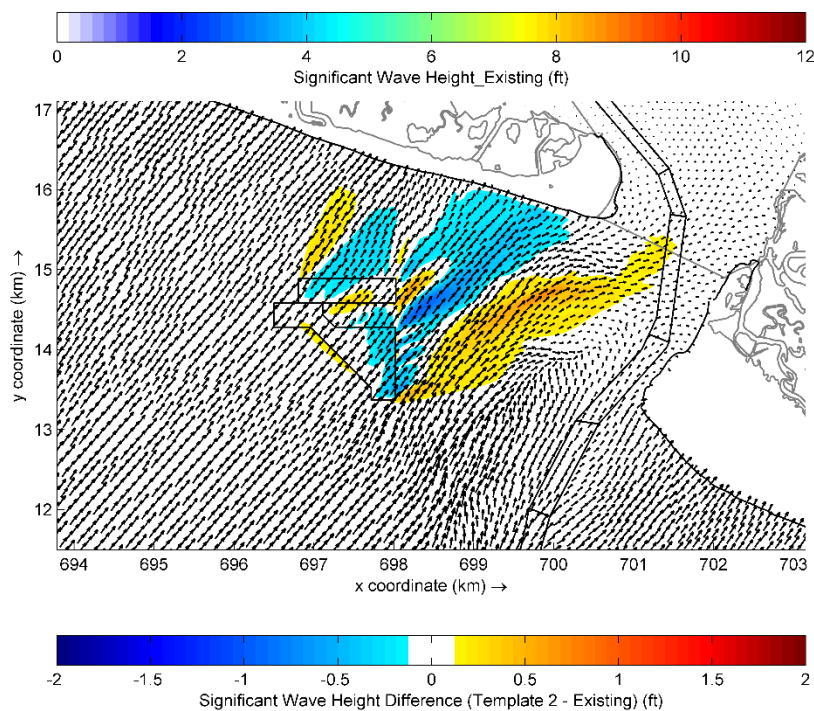
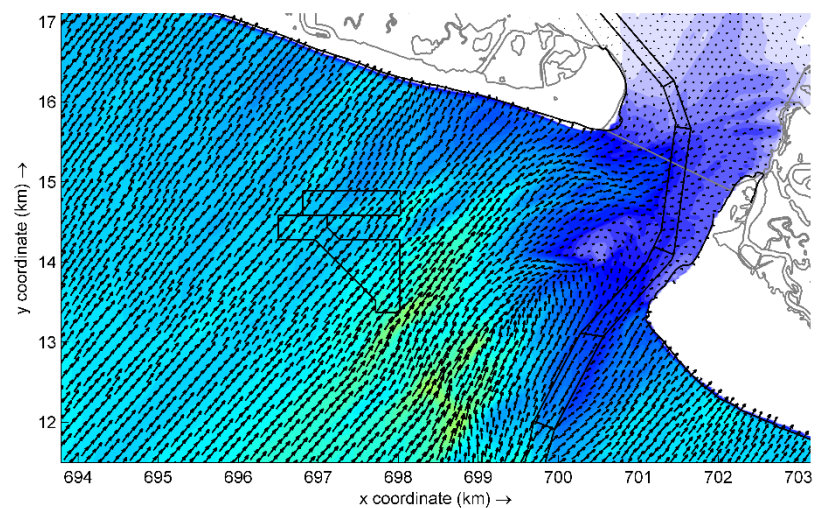
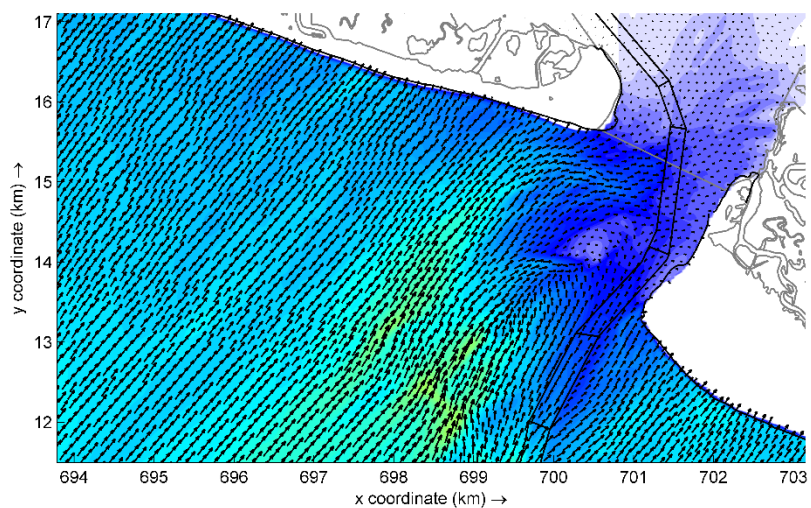
### **Offshore Wave Case85:**

$H_s = 15.0$  ft,  $T_p = 8.2$  s, Dir = 259.0 degN

Percent Occurrence = 0.002%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)



### Offshore Wave Case86:

$H_s = 17.9$  ft,  $T_p = 8.3$  s, Dir = 263.5 degN

Percent Occurrence = 0.002%

From left to right and top to bottom:

- Wave under Existing condition (Existing)
- Wave under After-Dredge condition (Template 2)
- Changes in wave height (Template 2 – Existing)