## 8:11



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- c. wounds that do not heal (tissue infection, skin conditions, lice parasitism, impaired locomotion)
- d. disfigurement
- (5) Vibration and Long turbulent wakes "Von Karman Street" vortex shedding (caused by water current passing by cylindrical masts of the turbines), as well as changes to water turbidity and weather from operation of the plants.
  - f. ocean vertical strata mixing
  - g. changes to turbidity
  - h. changes to water current velocity, direction, and flow, and concomitant effects on geographic distribution of zooplankton
  - weather changes, including cloud cover that may impact zooplankton abundance and ecosystems (Figure E)

Figure E Example of weather changes likely to result from OSW operation



## DISCONTINUE USE OF BAD PRACTICES IN ASSESSING EFFECTS OF OPERATIONAL NOISE

In the Underwater Acoustic Mitigation Assessments that are being used to review effects of turbine operation (For example, Equinor's Empire Wind COP, at Appendix M, on page M21), the information from Nedwel et al 2004<sup>20</sup>, on which multiple COPs have relied, is completely outdated and inapplicable to the proposed power plant's expected operational noise. This reference in the COP assessment to the frequency and associated decibel levels of turbine-produced underwater sound is invalid. In the year 2004, a large commercial wind turbine had a rotor diameter of 114 m or so. The rotor sweep

