

#### Question 6: Description of Research Project

a. The overarching goal of MARES is to understand the impact of physical drivers (ocean, ice, atmosphere) on the trophic structure and function of the Eastern Beaufort Sea marine ecosystem, with a focus on the implications on marine mammals and local communities. The program includes conducting oceanographic studies, tagging marine mammals, and habitat modelling. The program will begin with a pilot program in 2015, with proposed continuation of the field components in 2016 and 2017. This component of the work is being conducted by a collaborative group including researchers from Stantec, Monterey Bay Aquarium, WHOI, and University of Alaska Fairbanks.

The marine mammal component of MARES will provide habitat use information through the use of animal mounted sensors which will collect location and environmental data for periods of six months or longer. The proposed tags are CTD-fluorometer tags which will provide oceanographic data , in addition to location information on the movements of tagged marine mammals. Field work during the program will focus on tagging bearded seals (*Erignathus barbatus*), spotted seals (*Phoca largha*), bowhead whales (*Balaena mysticetus*) and beluga whales (*Delphinapterus leucas*). The data collected will be used to inform habitat modelling, to determine home ranges, feeding hotspots and habitat requirements. This data will also aid in the prediction of potential impacts on changes in the ocean environment on marine mammal distribution and abundance in the Beaufort Sea.

b. The tags deployed will not be able to be recovered as the species are wide ranging and the likelihood of recapture is very low. The communications facilities requested are required for the project as the data collected by the tags will be transmitted via ARGOS satellite.