

## ***Interactive comment on “Physical and biogeochemical controls on light attenuation in a eutrophic, back-barrier estuary” by N. K. Ganju et al.***

**Anonymous Referee #1**

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**General Comments** This paper combines the use of an optical model and field observations to look at the potential impact of boat wakes on the optical properties of the water column near seagrass beds. The optical measurements and modeling are fairly routine, but the combination with wave height data to examine the impact of boat wakes is unique and important. The paper is easy to read.

**Specific Comments** The calculation of the areal coverage of seagrass at the end of section 2.1 is unnecessary and should be considered for removing. In section 2.2. Because of the similarities in spectral shape of many of the model components it appears like you are pushing all the error into the CDOM component. Nothing necessary to change, but something to stay aware of. Section 4.1. It would be nice to add a dis-

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cussion on why the model flattens out and observations don't in Figure 8. Section 4.1 Keep in mind that the shape of the scattering function is dependent on both the index of refraction and the size of the particles. This makes the general statement about the scattering by organic and inorganic particles on page 12195 a little weak.

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