

FW: Turbidity document comments.

Joyner, Daryll <Daryll.Joyner@dep.state.fl.us>

Thu 11/19/2020 2:19 PM

To: Sutton, Kaitlyn <Kaitlyn.Sutton@dep.state.fl.us>

Cc: Whiting, David D. <David.D.Whiting@dep.state.fl.us>

More comments on the turbidity document.

Daryll

From: Shatters, Alycia <Alycia.Shatters@dep.state.fl.us>

Sent: Thursday, November 19, 2020 1:50 PM

To: Joyner, Daryll <Daryll.Joyner@dep.state.fl.us>

Subject: Fw: Turbidity document comments.

Good afternoon Daryll,

I am forwarding the email below from Jack Stamates, one of the SEFCRI TAC members. He has some comments on the Draft Coral Turbidity Criterion Implementation Document.

Thanks,

Allie



Alycia Shatters

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From: Jack Stamates <stamatesjack@gmail.com>

Sent: Thursday, November 19, 2020 1:34 PM

To: Shatters, Alycia <Alycia.Shatters@dep.state.fl.us>

Subject: Turbidity document comments.

Hello Alycia.

Here are a few comments on the turbidity criteria document.

Thanks very much . Jack.

Comments for draft implementation of turbidity criteria. Jack Stamates. 11/2020

Thanks for giving me the opportunity to comment. I'm confident that this will be much more protective than what we have currently.

The variability of the turbidity climate and the idiosyncrasies of measuring turbidity in NTU make this a difficult problem.

Section 2.2 and table A1.

The tabulated interquartile values are for measured turbidity in table appendix 1, table A-1 are often quite small. This is true for the coral ECA (Except 8102)

Section 2.2 states that applicants that choose to use existing data will be held to more conservative limits than those who collect "fresh" baseline data.

These factors may discourage permit applicants from choosing the tabulated data option.

The small values of the interquartile range for data in the Coral ECA implies that the natural variability in the ECA is small under typical conditions.

Equation 2 is given in linear and logarithmic forms. The distribution of turbidity values measured in NTU may depend on sediment type. Laboratory studies using representative sediment types are needed.

The data outlier exclusion criteria might be too lenient. This again suggests that laboratory studies using representative sediments and data from the field should be used to assess the distribution of data.

This may be unnecessary but when directing that bottom samples should be taken 0.5-1 m from the bottom, the operator might be cautioned to take care not to contact the bottom as that might increase turbidity.

Changes in the phytoplankton community can alter the turbidity levels.

I observed a phytoplankton bloom in Biscayne Bay elevate the turbidity by several NTU for a period of days.

During a construction operation the sediment type and particle size distribution may change. Understanding the response of sediment measurement instruments to a change in particle size may be important when comparing data from different phases of a large project.

There can be vertical stratification of the currents. Currents at the bottom may have significantly different magnitude and direction than those at the surface. If this is apparent to the measurement personnel, it should be noted.

Sent from my iPad