Triennial Review 2019
Initial Comments from Pinellas County

Specific suggestions:

1) Add definition of Estuary Nutrient Region (ENR).
2) Add Estuary Segment Codes to Table in 62-302.532(1).
3) Add definition of Causative Pollutant.
4) Add TPTV to definitions, or spell it out each time it is used.

General suggestions/concerns:

1) What is needed to get ENR criteria for Cross Bayou and for Riviera Bay in Pinellas County? Right now, only the narrative criteria apply, but there is a lot of data in these areas that could be used to develop appropriate nutrient criteria.

2) FDEP should consider a "secondary body contact" bacteria criterion. Many Pinellas waterbodies will never have swimmers or even boaters, so it would be useful to have criteria that are appropriate to the conditions.

3) Please clarify the minimum sample size for bacteria assessment in the rule, especially for data providers who are not collecting multiple samples per month. It is currently very confusing and the lack of a minimum number of samples for assessment seems erroneous.

4) The biological criteria should be adjusted to be more specific to different regions of the state. Pinellas County wants to continue monitoring the biology of streams, and it is useful to look at the streams relative to each other within the County, but we need a more reasonable scale to assess condition on a peninsula in a very urbanized setting. All of the Pinellas County streams are either first or second order streams whose invertebrate community cannot be expected to compare with that of larger streams (see River Continuum Concept). Pinellas County is isolated from other streams on three sides by salt water, and all of the streams flow into salt water eventually. These are physical factors that reduce the recruitment potential that exists in larger streams on "the mainland."

   In addition to different region-specific SCI thresholds, perhaps there should be consideration of surrounding landuse, especially population density. Pinellas County would be interested in the development of an Urban Stream Condition Index for biology. We want to see our streams being the best that they can be, but most will never attain the reference conditions that were used to set the existing criteria.

5) Site specific alternative criteria: Is the $15,000 fee required for each petition? Pinellas County is looking at submitting a petition for reclassification of some of the severely altered/channelized streams. Does this require the fee? What would it take to get this fee waived?

6) Is there an opportunity to reassess the classification process to address man-made or significantly altered channels? These are not Class III waters and the process for SSACs or Class III limited is not an effective use of resources at the local or state level.

7) The following comments pertain to the document "Implementation of Florida's Numeric Nutrient Standards":
    a. It is confusing that in this document NNC is being used for "Narrative Nutrient Criteria" (page 1). In most other documents and references, NNC refers to "Numeric Nutrient Criteria." At the end of the document, it seems that NNC is referring to Numeric Nutrient Criteria (pages 33 and 34), but maybe not. Please determine a better way to distinguish these two terms (NaNC and NuNC?) and perhaps change this document to align with NNC usage in other FDEP docs and webpages.

    b. Page 5, "Using Measures of Flora and Fauna and Regional Nutrient Thresholds in Streams," last sentence of paragraph 1 states that FDEP will provide info about the appropriate TN and TP levels when floral and faunal measures are met. Is this still the plan? If so, will these values be SSAC?

    c. The decision matrix for assessing nutrient impairments based on floral measures, numeric nutrient values, and SCIs, as summarized in Table 5, should be revisited. The floral assessment is weighted more heavily than the other metrics, including the nutrient criteria which the floral assessments are supposed to validate. The floral assessments are the only components of the biological assessment that result in immediate placement on the verified list if a stream does not attain <u>one</u> measure. Table 5 "Decision Matrix…" on page 23 indicates that if "Any One Floral Measure [is] Not Attained," the stream is placed on in Cat 5 on the Verified List, even if the TN and TP nutrient thresholds are attaining, the SCIs are passing, and the other floral metrics pass. As discussed in points d. and e. below, there is not a direct causative link between nutrients and nuisance plants, and the method for obtaining this assessment data has some issues, so giving the floral metrics this unbalanced weight seems erroneous.

    d. In Table 5, the middle box on the far left side "Floral Measures Inconclusive (<2 Sampling Events)" needs to be changed. An inconclusive result can be based on 2 sampling events if the events result in conflicting scores, i.e., one passes and one fails.

    e. The relationship between nutrients and algae is well known. If excess nutrients are present in a stream, excess algal growth would be expected. However, the presence of nuisance exotic plants is not a direct result of high nutrients, although nutrients may accelerate the growth of exotic macrophytes. Exotic plants need to be <u>introduced</u> to a water body through disturbance and/or deliberate behaviors, and they tend to persist and thrive in a system once present simply by their very "invasive" characteristics, regardless of nutrient concentrations. Streams with excess exotic plants should be

investigated as to the source of their introduction; it should not be assumed they are there because of nutrients, whether or not the nutrients are below the criteria.

Here is an example of the results of the application of the existing implementation document: Seven streams in Pinellas are listed as impaired for nutrients (macrophytes). None of them have an abundance of algae, so the reason for the listing is the presence of exotic/nuisance plants as measured by the LVS. Three of these creeks meet all numeric nutrient criteria (TP, TN, chl-a), but the abundance of exotic macrophytes causes them to be placed on the impaired waters list for nutrients. It seems reasonable that these streams should be placed on the study list to investigate the probable stressors causing LVS failure, rather than being placed immediately on the verified impaired list. The LVS metrics should not be given such weight over the other parameters.

f. Of all the biological indicators, the assessment of floral measures has the least amount of training and no QA/QC from DEP. DEP needs to see that the methods are properly understood and executed by all data providers. For example, questions that need to be investigated/clarified include: 1) Are samplers counting streamside plants or just those that are truly aquatic? 2) Are samplers counting plants that are not rooted and are hung up on snags, clearly having floated in from upstream? 3) Should floating plants be counted, or just rooted plants that are growing in the water?

g. The LVS parameters COC and % FLEPPC are conversely and closely correlated. If there is an abundance of exotics, both measures will fail and vice versa. Why are both of these measures necessary?

h. With regard to the threshold values by which streams are graded for the floral measures, as described on page 13, the metrics are overly strict, with passing scores achievable only if streams rank within the top percentiles of reference streams. The passing COC score of greater than 2.5 represents the **10th percentile** of reference stream distribution. Reference streams in FL had approximately 40% FLEPPC exotics in the total plant occurrences. The threshold for FLEPPC attainment for all streams is set at <25% (80th percentile of reference). In many parts of Florida, especially urban areas, it is unreasonable to expect that streams will achieve an even more stringent level of acceptable exotic percentages than the average reference streams. And then, there is immediate placement on the 303(d) list if a **single** floral assessment does not attain a score that places it within the top of the reference stream distribution. Failure should result in placement on the study list, not the impaired list, unless there is concurrence with other factors (nutrients and/or SCI), and even with concurrence, other factors may be the primary cause of nonattainment over nutrients. This should be revised to make all the facets of the biological assessment more equitable and make the threshold values more reasonable.

8) Questions/concerns about statements at the kickoff meeting:
    a. It was stated that a requirement will be added to perform the LVS and RPS in two hydrologic seasons, with the assumption being in the wet and dry seasons. However, in the wet season, it would be impossible to reach the vegetation and substrates in most streams/rivers and therefore sample adequately (water too deep and in some cases too swift to be safe). Pinellas County has always sampled the florals and the SCI in the fall, after the daily summer rains when the streams are more wadeable and flow has stabilized. It is not technically the wet season, but it is sampling after the effects of the wet season (scouring in particular). Then the dry season sampling occurs in February through the end of May. Clarification will be needed as to the hydrologic seasons.