ENV 4417: WATER QUALITY & TREATMENT

Department of Civil & Environmental Engineering University of South Florida

Semester Project Stage 4 Prof J A Cunningham Fall 2015

The next stage of the group project is to prepare an *outline* of your paper.

Due date: Tuesday, October 20, at the beginning of class.

We can push it back to Thursday, October 22, but we will *not* push back the due dates for the rough draft, peer review, or final paper. Therefore you will do yourself a favor if you submit the rough draft by October 20.

In your paper, the key questions that you want to answer are:

- What *processes* does our treatment plant employ?
- How do those processes allow the plant to meet their *treatment objectives*?
- How does the selection and operation of those processes depend upon the *quality or* attributes of the influent water and upon the required quality of the final product? (e.g., why did your plant select those particular processes, not some other processes?)

To answer those questions, your paper probably wants to include the following elements, perhaps (though not necessarily) in this order:

- a general introduction to your treatment plant (where is it located, when was it built, how many people does it serve, how much water or wastewater does it treat per day, etc.);
- a consideration of the source water quality and/or the requirements for the final water quality produced by the plant;
- a description of the overall treatment train employed by the treatment plant;
- a description of any "unique" or special processes employed by the plant;
- a description of what specific conditions or requirements have led the plant to employ a specific process or set of processes; and
- an analysis of how the treatment train employed enables the plant to meet its treatment objectives.

That could be a pretty good start to your outline (though you should feel free to alter it if you have your own ideas – that is fine). Then, you can start filling in details. The more detailed your outline is, the easier it will be for you to write your rough draft. The outline is the stage where you organize your train of thought, organize your content, and decide how to present the content in a manner that will be effective to your reader. *This is the stage where you should do most of your thinking*. If you do a good job on the outline, the "writing" part is pretty easy – it is just taking the ideas and putting them in complete sentences with transitions and connectors.