**Questions for Kelly and Carol**

**Re: Industrial Stormwater Monitoring Data (SWdataOldPermits.xlsx and newSWdata.xlsx)**

**Highest Priority Questions (in email body)**

1. I found the general permit from 2011-2016. Do you have a copy of the permit prior to 2011?
   1. Did any benchmarks change from the “old” to the “new” permit?
2. Could you provide a list of SIC codes that we could use to group the SWdataOldPermits data in a similar way as was done for the newSWdata? The newSWdata has tabs for General, Asphalt, Mines, Refuse, etc. etc. We’d like to group the old data in a similar fashion since we think it makes most sense to analyze data within industry sectors.
3. As we do our initial analysis of the data:
   1. Are there any industry sector (or SIC code) you care about more than others? Should we focus on one group first?
   2. Are there any industry sectors that you know are excellent performers vs. those who might be worse performers?
   3. Are there any receiving bodies that are particularly important? E.g., should we focus on water quality entering certain waters over others?
   4. Would you expect one town to have higher quality industrial SW discharges than another?
   5. Do you expect a particular parameter to be improving or time? Do you want us to focus on a particular parameter (or parameters) first?

**Other High Priority Questions**

1. In the general permit for 2011-2016, I saw language about why permitees might stop monitoring. For example, if after 2 years of reporting, if the average of the 4 doesn’t exceed the benchmark, then monitoring requirements for that parameter have been fulfilled “for the permit term”. Does “for the permit term” mean until 2016, in this case?
   1. Have any permitees stopped monitoring? If so, it would seem we might need to group permittees with limited monitoring versus the rest of the field as a check. Is it a reasonable hypothesis to suggest that permitees with limited monitoring would have better SW quality than those who have years of data?
2. Is there a rule for collecting stormwater samples such as within 72 hours of storm event? We noticed in the SW data files that sample date varies quite a bit in relation to days since most recent storm.
   1. Should we expect a difference in water quality from samples taken >72 hours after the most recent storm?
3. If we are to use only one outfall for a permitee that reports monitoring data for more than one outfall, should we average the values for each parameter and create a new average line or choose the worst water quality or do something else?
   1. It is reasonable for the same storm, to have water quality from one outfall be way worse than the water quality from other outfalls?
4. Are any permittees in violation? It would be useful to control for violators and pull those permitees out of the analysis or analyze them differently.
   1. From the current general permit, just exceeding a benchmark isn’t itself a violation. What constitutes a violation?
   2. Has CTDEEP been in communication with violators and is this documented anywhere? (we might expect water quality to improve)
5. Have all permittees submitted SWPPP as required by the permit?
   1. Is there variation in the quality of SWPPP that might correlate to a permittee’s handling of SW runoff?
6. Are there site inspections for some permittees but not others?
   1. Are those site visits documented somewhere? (we might expect better water quality)
7. Is there information about site acreage or impervious cover for each permittee?
8. Do permitees with more than one outfall generally have larger properties than those with just a single outfall?
9. Different sites discharge to different water bodies (wetlands, harbors, river, shoreline). Do permits consider different limits depending on where the SW discharges to?
10. In the new data file, some receiving water bodies are impaired and some are not. Do permitees discharging to IMPAIRED waters have stringent requirements aiming to prevent further impairment?
11. I assume we should see better water quality from samples taken from catch basins than from other locations? Is it worth trying to assess water quality by grouping by sample location?

Specific Questions about SWdataOldPermit.xlsx file

1. For column B, receiving water, what do numbers (e.g., 2000, 3805, etc.) and blanks mean? Should we assume that whatever blanks mean in the SWdataOldPermit is the same as in the newSWdata file?
2. For column H, sample location, do you have a list of abbreviations used?

Specific Questions about newSWdata.xlsx file

1. For columns O-Y, what do the red numbers mean?
2. Occasionally there is a big red block where there is missing data. For the SIC (column H) it is pretty consistent, but for column L, previous storm date, it is less so. Is this missing data available? Why are these flagged in particular?