

Long Term Trend (OAS LT_trend.xls) Spreadsheet Instructions
Updated: October 7, 2003

Overview:

Surface water treatment plants are considered optimized when they can consistently meet the optimization performance goals. The Optimization Assessment Software (OAS) is designed to assist plant staff collect and use turbidity data to determine where they stand with respect to the optimization goals and identify possible factors that limit the performance of their plant. The OAS software (OAS-Turb-opt27.xls) only allows the analysis of one year of data at a time, however, the Long Term Trend (OAS LT_trend.xls) Spreadsheet uses the data in the OAS for analysis of three year’s worth of data at a time.

These instructions only explain the features of the spreadsheet and the elements of the reports. They do not provide information for interpreting possible performance limiting factors at specific plants.

Long Term Trends Worksheet

The OAS (OAS-Turb-opt27.xls) only allows the analysis of one year of data at a time. Optimization of a treatment plant, however, occurs over several years and looking at trends between the different years can be beneficial. There is a separate long term trends spreadsheet (OAS LT_trend.xls) that will allow development of the settled and filtered water optimization trend charts for a three year period. The last tab on the OAS is the “LT-Trend” worksheet which generates a table of data (shown in Figure 1.) that can be copied into the long-term trends spreadsheet. Figure 2. shows the output of the long term trends spreadsheet.

Figure 1. OAS-Turb-opt27.xls, “LT-Trend” tab

| Month/Yr | Settled Water | | | | Combined Filtered Water | | | |
|----------|---------------|-----------------------|-------|-------|-------------------------|-----------------------|---------|-------|
| | 95th % | % Values Meeting Goal | | | 95th % | % Values Meeting Goal | | |
| | Sed 1 | 3 NTU | 2 NTU | 1 NTU | 0.3 NTU | 0.2 NTU | 0.1 NTU | |
| Jan-02 | 2.45 | 100.0 | 83.9 | 61.3 | 0.13 | 100.0 | 100.0 | 77.4 |
| Feb-02 | 1.92 | 100.0 | 92.9 | 57.1 | 0.08 | 100.0 | 100.0 | 96.4 |
| Mar-02 | 1.60 | 100.0 | 100.0 | 61.3 | 0.13 | 100.0 | 100.0 | 74.2 |
| Apr-02 | 2.56 | 96.7 | 80.0 | 36.7 | 0.12 | 100.0 | 100.0 | 86.7 |
| May-02 | 1.65 | 100.0 | 96.8 | 45.2 | 0.17 | 100.0 | 100.0 | 77.4 |
| Jun-02 | 1.30 | 100.0 | 100.0 | 63.3 | 0.12 | 100.0 | 100.0 | 83.3 |
| Jul-02 | 1.40 | 100.0 | 100.0 | 71.0 | 0.15 | 100.0 | 96.8 | 80.6 |
| Aug-02 | 2.10 | 96.8 | 93.5 | 51.6 | 0.15 | 100.0 | 96.8 | 87.1 |
| Sep-02 | 2.06 | 100.0 | 93.3 | 26.7 | 0.09 | 100.0 | 100.0 | 96.7 |
| Oct-02 | 1.40 | 100.0 | 100.0 | 54.8 | 0.13 | 100.0 | 100.0 | 87.1 |
| Nov-02 | 0.94 | 100.0 | 100.0 | 100.0 | 0.11 | 100.0 | 100.0 | 93.3 |
| Dec-02 | 0.93 | 100.0 | 100.0 | 96.8 | 0.09 | 100.0 | 100.0 | 100.0 |

The area in blue can be copied to the long-term trend spreadsheet (LT_trend.xls) to develop up to three years of performance trends.

Figure 2. OAS LT_trend.xls spreadsheet

| | |
|------------|---------------------------|
| Plant Name | XYZ Water Treatment Plant |
| PWS # | |

