Exhibit F

Evaluation

Evaluation of Huntsville effluent data and ADEQ ambient water quality monitoring data from WHI0070 (Holman Creek downstream of the Huntsville discharge) for chloride, sulfate, and TDS.

August 31, 2017

Data from ADEQ's ambient monitoring site on Holman Creek (which is located less than one mile downstream from the City of Huntsville's discharge) and effluent data from the Huntsville Waste Water Treatment Plant were obtained for the 2011 – 2017 period to reflect water quality conditions present during the aquatic life study, which was conducted from July 2011 – June 2012, through present (July 2017). These data were examined to determine if the constituents of concern; chloride, sulfate, and TDS, had increased, decreased, or remained the same over time.

The data were plotted against time and trends analyzed. Trends were analyzed using excel to fit a linear trend line, then the data were subjected to regression analysis at the 95^{th} percent confidence level. P-values were used to determine statistical significance of the trend line slope. The results of the regression analysis are included as Appendix A. The ADEQ data are collected monthly whereas the City effluent data are typically collected weekly. (Huntsville's NPDES permit requires monitoring for TDS; the City is analyzing sulfate and chloride for study purposes only). Therefore, there was substantially more effluent data to analyze compared with the instream ambient data (e.g., there were 78 instream data points for TDS compared with 318 effluent data points for TDS).

Figure 1 presents chloride data from WHI0070 for the 2011 – 2017 period. The figure shows the linear trend along with the calculated R^2 value. The low R^2 value indicates an inability to predict the independent variable (chloride concentration) based upon the dependent variable (time).

Although the slope of the trend line is slightly down, the regression analysis at the 95^{th} percent confidence level shows that the trend is not statistically significant (P-value = 0.291). A P-value of < 0.05 would indicate statistical significance of a trend. Therefore, there is no trend for this data set, i.e., the trend over time is neither increasing or decreasing in a statistically significant fashion.

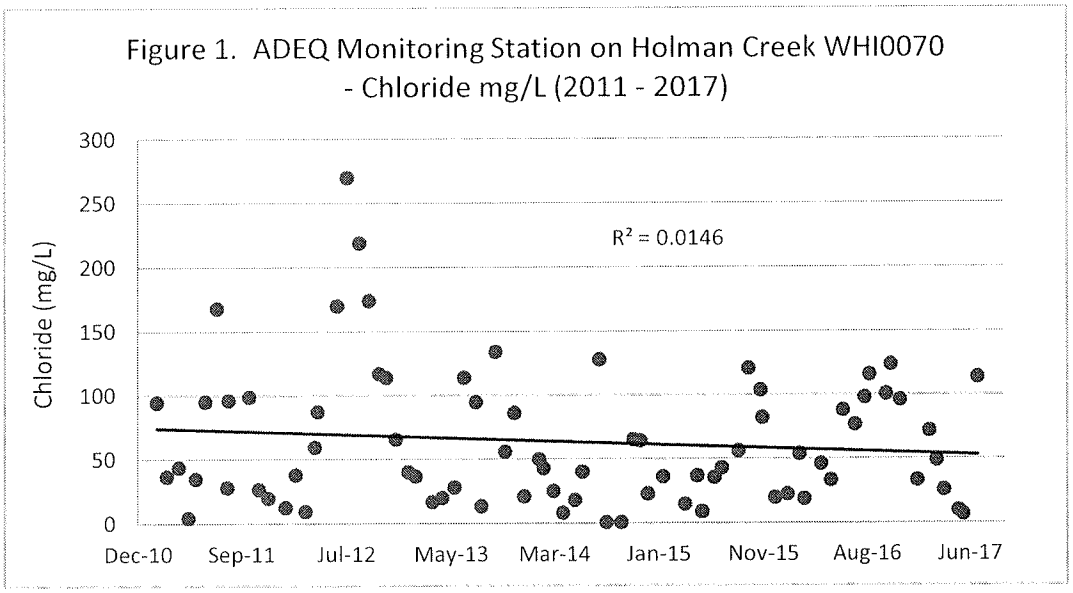


Figure 2 is sulfate data from WHI0070 for the 2011 – 2017 period. The figure shows the linear trend along with the calculated R^2 value. The P-value from regression analysis was 0.688 which means that there is no statistically significant trend for this data set.

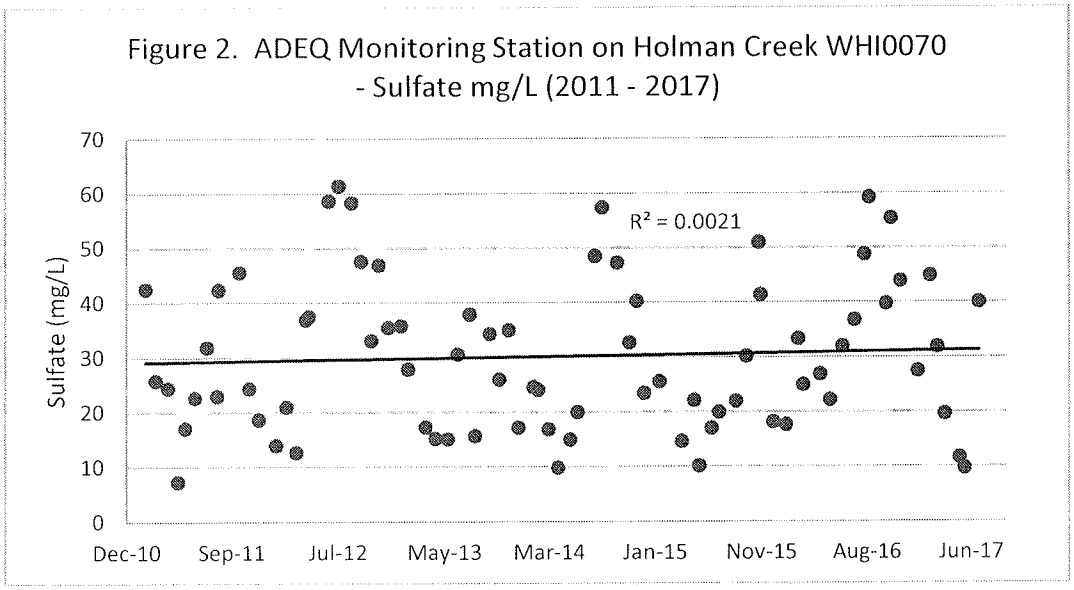


Figure 3 provides TDS data from WHI0070 for the 2011 – 2017 period. The figure shows the linear trend along with the calculated R^2 value. The P-value from regression analysis was 0.977 which means that there is no statistically significant trend for this data set.

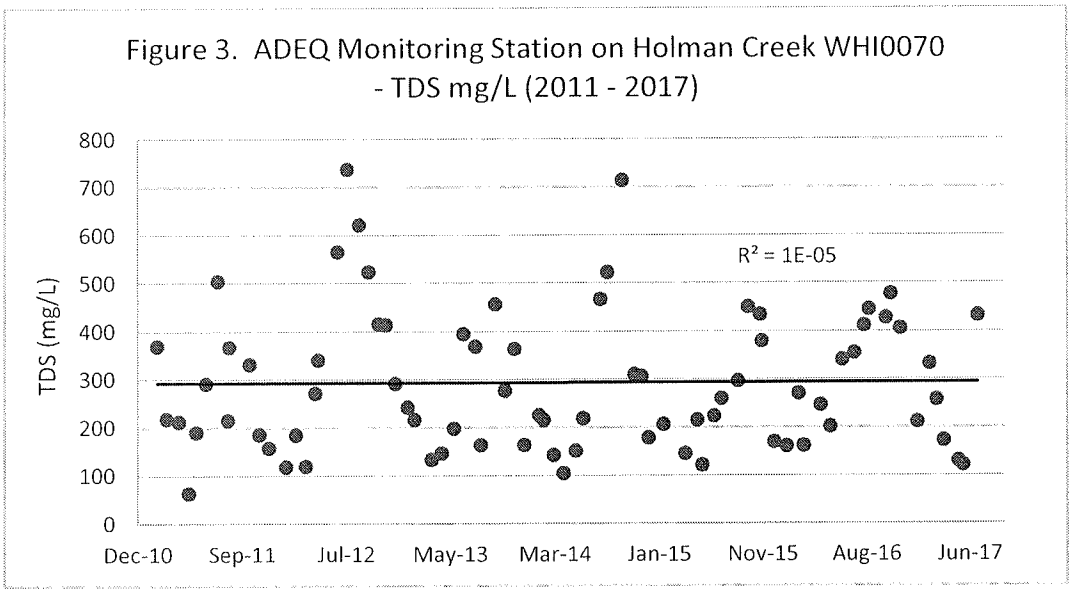


Figure 4 shows effluent concentration data for chloride for the City of Huntsville discharge to Town Branch Creek (July 2011 – July 2017). Note that there is a break in the data during the fall of 2014 for chloride, and for sulfate also (Figure 5). This is because chloride and sulfate were being analyzed only for study purposes and the City ended the sampling two years after the study was concluded. Huntsville reinitiated the sampling when it became apparent that the rulemaking was not going to be completed in a timely manner.

Regression analysis completed for this data set indicates that a decrease in chloride concentration over time was statistically significant with a P-value of 0.0027.

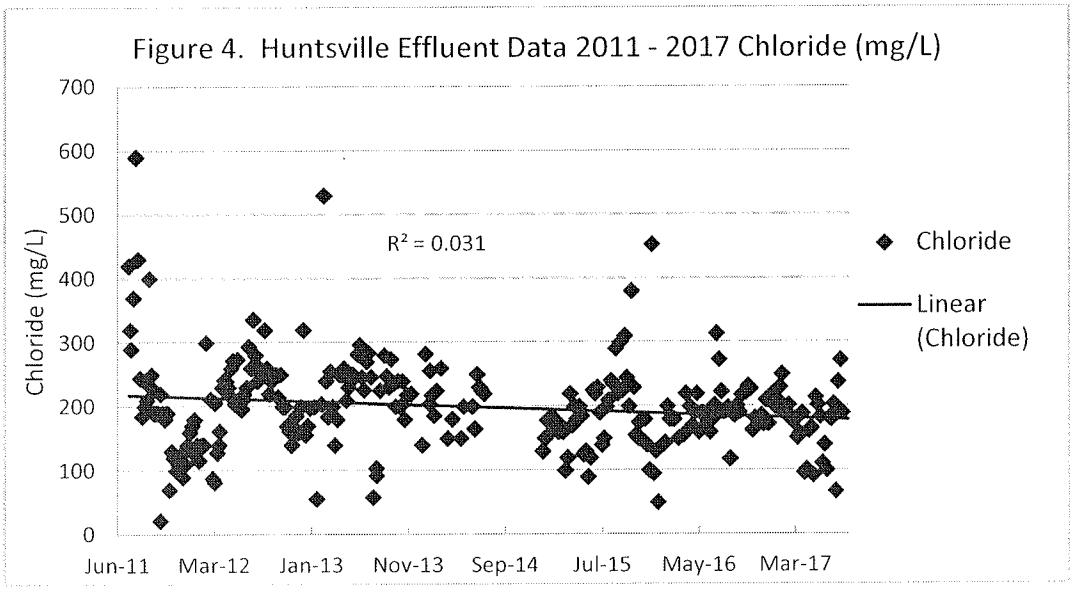


Figure 5 shows sulfate effluent concentration data for the City of Huntsville discharge to Town Branch Creek (July 2011 – July 2017).

Regression analysis completed for sulfate concentration over time was not statistically significant, as the P-value was 0.083. The concentration of sulfate discharged by Huntsville has not changed significantly over time since the aquatic life study was conducted.

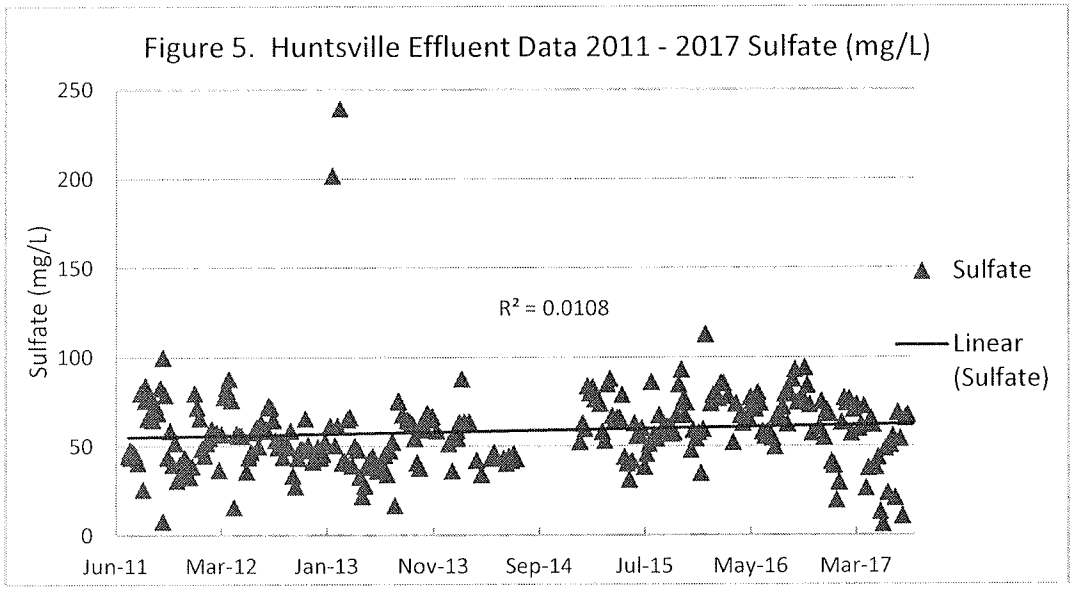
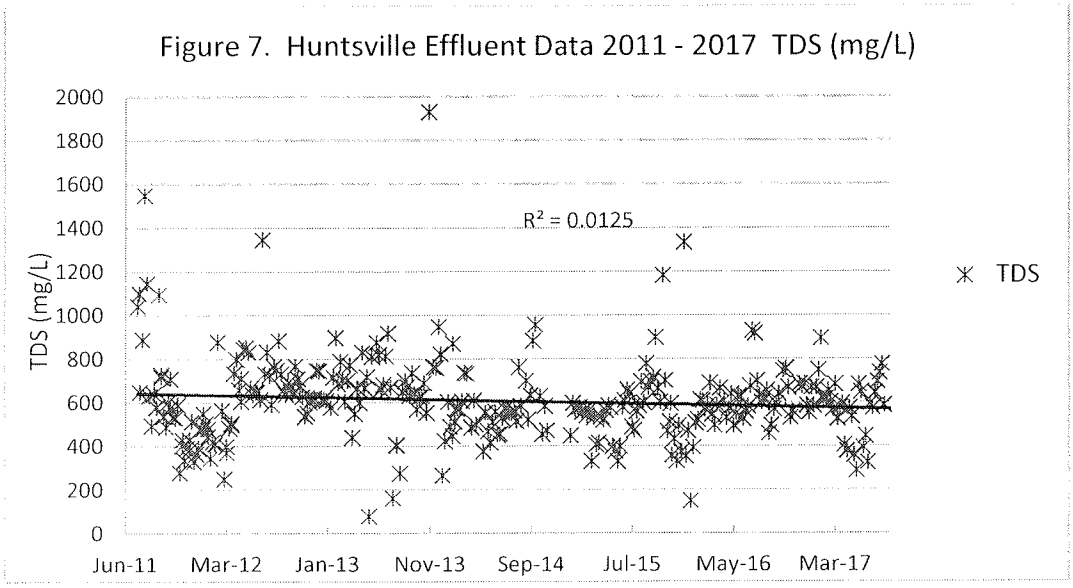


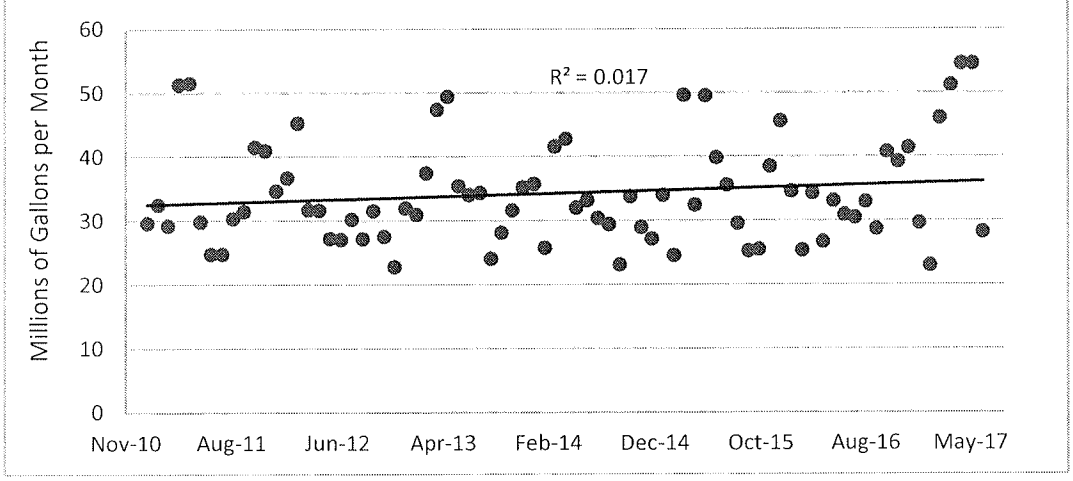
Figure 7 shows TDS effluent concentration data for the City of Huntsville discharge to Town Branch Creek (July 2011 – July 2017).

Regression analysis completed for this data set showed that the decrease in TDS concentration over time was statistically significant, with a P-value of 0.0461.



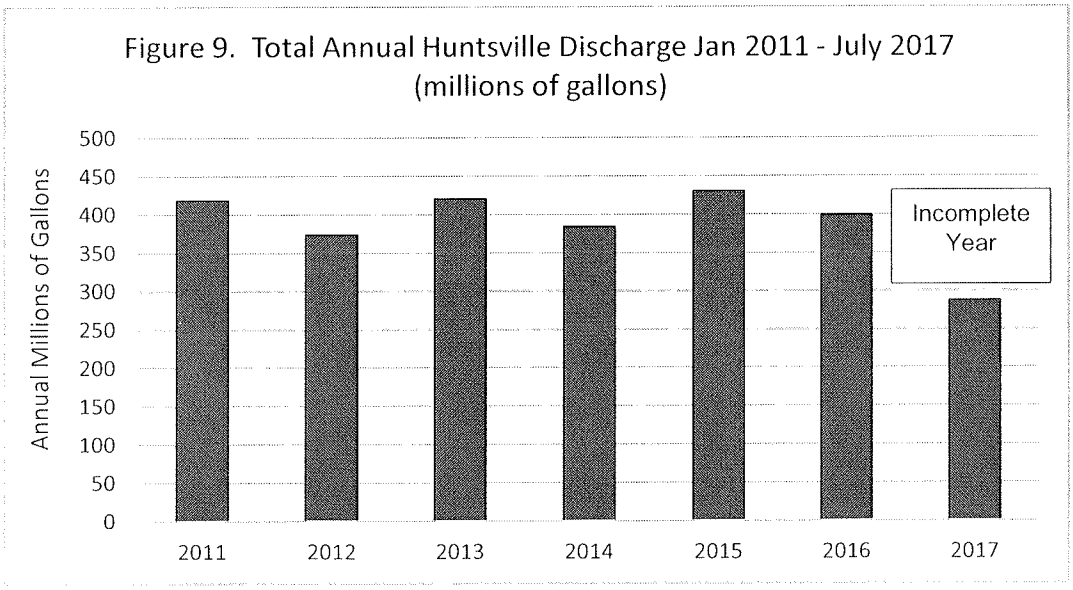
Volume of effluent discharged over time was also evaluated. Figure 8 shows total monthly flow in millions of gallons for January 2011 – July 2017. The slope of the trend line suggests that flow is increasing slightly over time. However, the slope is highly influenced by the months of April, May, and June of 2017 when rainfall increased discharge from the waste water treatment plant through infiltration. Regression analysis was completed for volume of flow over time and was not statistically significant (P-value = 0.252), Therefore the volume discharged by Huntsville has not significantly changed over time.

Figure 8. Total Huntsville Monthly Discharge Jan 2011 - July 2017 (millions of gallons)



Flow is also depicted on a total annual basis in Figure 9.

Figure 9. Total Annual Huntsville Discharge Jan 2011 - July 2017 (millions of gallons)



Evaluation of these data sets reveals that concentrations of chloride, sulfate, and TDS from ADEQ's Holman Creek monitoring station, located less than one mile downstream from the Huntsville discharge, have statistically significant change over time since the period of the aquatic life study.

Concentrations of chloride, sulfate, and TDS discharged by the City of Huntsville have either remained similar or declined slightly since the study period. The volume of effluent discharged has not changed significantly since the study period.