

**LAS VEGAS STREET WWTP
ODOR EVALUATION
COLORADO SPRINGS, CO**

**FINAL PROJECT
SCORECARD**

- Emissions inventory completed**
- Owner selected odor control equipment**
- Follow-up testing conducted by WEA**

A detailed five (5) day sampling and testing program was conducted at the LVSWWTP in conjunction with Carollo Engineers, Inc. All potential odor sources (20 locations) were sampled on three (3) occasions and analyzed for odors, H₂S, and reduced sulfur compounds (RSC). Emission rates for each RSC were made and sources which required odor control were identified. Over 95% of the H₂S and odor emission from the plant were from five (5) sources, which were the primary effluent flume, head-works scrubber, primary clarifier surface and primary effluent channel. Liquid samples were taken for sulfides analyses and community odor surveys were conducted. A final report of findings was prepared and Colorado Spring Utilities (CSU) personnel performed air dispersion modeling based on the results of the testing program. After odor control improvements were implemented, follow-up testing was conducted to determine odor, H₂S and RSC removal efficiencies of the selected equipment by WEA.

Odor and H₂S Emission Ranking			
Odor Panel Emissions		H₂S Emissions	
Source	Percent of Total	Source	Percent of Total
Scrubber outlet	26.8	Sky flume	46.9
Sky flume	21.6	Scrubber outlet	39.8
AWT aeration zone	16.4	Primary – grease spraying	4.4
Primary – grease spraying	16.3	Primary effluent channel clarifier	4.3
Primary - quiescent	3.2	Primary clarifier	2.6
DAF building	3.2	Plant inlet wet well	1.2
Septic unloading	2.6	Septic unloading	0.6
Total	90.1%	Total	99.8%