

5 December 2018

Mr. John Arnau, CEQA Manager
OC Waste & Recycling
300 North Flower Street, Suite 400
Santa Ana, CA 92703

Email Submittal: John.Arnau@ocwr.ocgov.com

Subject: Summary of the SCS Engineers Quantitative Odor Analysis of the Frank R. Bowerman Landfill (SCS Project No. 01201114.07 Task 17)

Dear Mr. Arnau,

The purpose of this letter is to provide a concise summary of the findings presented in SCS's August 2017 draft report to Orange County Waste and Recycling (OCW&R) regarding quantitative odor analyses of (1) the existing Frank R. Bowerman (FRB) Landfill operations; and (2) a combined facility that includes the addition of composting. The composting operation that was assumed to be combined with the FRB Landfill consisted of Scenario #1 from the once proposed composting operation at the closed Santiago Canyon Landfill. This included static pile composting of green, wood and food wastes at a rate of about 500 tons per day.

It is important to recognize that the South Coast Air Quality Management District (SCAQMD) regulates odors through its nuisance regulation (Rule 402) which does not have a numeric odor concentration threshold. In order to evaluate odor impacts in this study, SCS referenced the Bay Area Air Quality Management District's (BAAQMD's) Regulation 7 as the odor nuisance standard in this analysis. The basis for this is the published fact that most populations do not consider odors at the nuisance level until objectionable odors reach a concentration level of seven (7) odor units and the BAAQMD regulation threshold is set at four (4) odor units – arguably the most stringent odor impact guideline in the country.

SCS Engineers applied five years of SCAQMD approved preprocessed hourly meteorological data from Mission Viejo to support a projection of worst-case impacts using the USEPA approved AERMOD dispersion model. The model was run using conservative default options recommended by the SCAQMD to analyze impacts of the existing FRB Landfill operations. Also, model runs were conducted after adding potential odor emissions from possible composting operations at the FRB landfill to gauge the potential impact of a combined operation. The accuracy of such modeling is documented in many publications, including the Federal Register.

Our analysis of the existing operations concluded that odor from the landfill was hardly detectable less than 1% of the time. The measured background odor at Portola Springs was shown to be on average 11 to 19 odor units whereas under worst-case conditions contributing odors from the FRB Landfill are slightly above one (1) odor unit at the same location. After adding the potential odor emission from possible composting operations at the FRB Landfill, the modeling showed impacts increasing less than



Mr. John Arnau, CEQA Manager

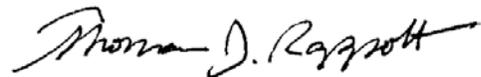
5 December 2018

Page 2

0.5 odor units. The combined operations would still be below two (2) odor units under worst-case conditions (occurring less than 1% of the time in a given year).

It is SCS Engineers' conclusion that the odor impacts of the existing FRB landfill operations on the immediate surrounding community are negligible. The addition of a composting operation at the FRB landfill would be insignificant regarding potential and actual ongoing odor impacts to the surrounding community.

Sincerely,

A handwritten signature in black ink that reads "Thomas J. Rappolt". The signature is written in a cursive, flowing style.

Thomas J. Rappolt
Vice President and Business Unit Director
SCS Engineers

CC: S. Siciliano (Geosyntec), P. Sullivan (SCS)

Encl.: Frank R. Bowerman Landfill Quantitative Odor Analysis, August 2017 – SCS Engineers