Environmental Report Palos Verdes Landfill – Fourth Quarter 2020

At the January 23, 2012 meeting of the Palos Verdes Landfill Citizens' Advisory Committee (CAC), the Committee decided that regularly-scheduled quarterly meetings were no longer necessary. Instead, the Committee decided to meet on an "as-needed" schedule. The Committee requested the Sanitation Districts' staff prepare a quarterly Environmental Report that updates the Committee on the results of routine temperature and landfill gas monitoring. This report covers the Fourth Quarter of 2020 (October 1 through December 31, 2020).

Landfill Gas Well Temperature Monitoring

As discussed at the May 3, 2010 CAC meeting, household refuse includes organic matter that can generate heat as it decomposes (similar to the heat generated in an active backyard compost pile). The composting process and the temperature of the waste can be controlled by limiting the amount of air available within the landfill. The Sanitation Districts control the air available in the Palos Verdes Landfill by monitoring the integrity of the soil cap and by controlling the draw rate at individual gas collection wells (i.e., preventing conditions that could draw excess air into the waste mass). The Sanitation Districts monitor the temperature of the landfill gas collection wells to determine if adjustments are needed. These procedures have been shown to effectively control the temperature of the waste.

At the CAC's request, the Sanitation Districts share the results of temperature monitoring with the CAC. Specifically, the Sanitation Districts have been asked to include a discussion in the environmental report whenever the temperature in any well exceeds 170 degrees Fahrenheit. In that case, the Sanitation Districts would also discuss the follow-up actions that were taken to control composting at that location.

During the Third and Fourth Quarters of 2020, there were some staffing shortages at the site. In order to complete the monitoring required by the South Coast Air Quality Management District (SCAQMD) and the Department of Toxic Substances Control, site staff temporarily suspended temperature measurements because they are not part of the core regulatory requirements. Due to a miscommunication between field and reporting staff, the Sanitation Districts reported during the Third Quarter CAC meeting that monitoring was conducted and that no wells exceeded the 170 degrees Fahrenheit threshold. The Sanitation Districts should have reported that only a partial dataset was available.

During the Fourth Quarter of 2020, no temperature monitoring was conducted and there were no other indications of rapid composting such as unanticipated ground settlement, steam, or odors. In addition, other routine monitoring data taken during this time were within normal ranges.

In January 2021, staffing shortages were resolved and field staff have been retrained to ensure that temperature monitoring is not suspended without prior discussion with management and the reporting staff (who would subsequently notify the CAC).

For more information about landfill gas temperature control, please see Appendix I of the First Five-Year Review for the Palos Verdes Landfill.

Surface Gas Monitoring

As discussed at the April 25, 2011 CAC meeting, the surface of the landfill is monitored for evidence of landfill gas emissions on a quarterly basis. Monitoring is conducted by continuously recording the methane content of the air immediately above the cover surface while traversing the landfill area in a systematic grid pattern. If methane readings are above prescribed action levels, the Sanitation Districts are required to make gas system adjustments or soil cover repair within the time limits specified in the SCAQMD Rule 1150.1 Compliance Plan.

At the CAC's request, the Sanitation Districts provide a summary of action level exceedances and the Sanitation Districts' response. Routine surface gas monitoring conducted by site staff in the Fourth Quarter of 2020 did not show any areas of the site where action levels were exceeded.

For more information about surface monitoring of landfill gas, please see Appendix B of the First Five-Year Review for the Palos Verdes Landfill.

Perimeter Probe Monitoring

As discussed at the October 25, 2010 CAC meeting, the subsurface zone around the perimeter of the landfill is monitored for evidence of landfill gas migration on a monthly basis. If methane is detected at greater than five percent by volume in any boundary probe, the Sanitation Districts are required to adjust the gas system to clear the probe within the time limits specified in the SCAQMD Rule 1150.1 Compliance Plan.

At the CAC's request, the Sanitation Districts provide a summary of action level exceedances in boundary probes and the Sanitation Districts' response to clear the probe. Routine boundary probe monitoring in the Fourth Quarter of 2020 did not show any probes where action levels were exceeded.

For more information about boundary probe monitoring, please see Appendix C of the First Five-Year Review for the Palos Verdes Landfill.

Other Issues of Interest to the CAC

During the Fourth Quarter of 2020, the Sanitation Districts installed a new storm drain from the dry lake bed to the earthen channel as an extension to the drainage work that was completed on the 30-inch storm drain pipe at the South Coast Botanic Garden to ensure that the dry lake bed drains promptly after storms.

As was discussed in previous Environmental Reports, California Water Service (CWS) has been using space on the landfill for its construction office trailers and construction yard in support of the potable water pipelines that will supply the Palos Verdes Peninsula (www.pvpwaterproject.com). This project has been completed, and the construction area was restored to its previous condition.

The site was also used for a community event during the Fourth Quarter of 2020. The City of Rolling Hills Estates held their annual Palos Verdes Peninsula Parade of Lights at Ernie Howlett Park on December 5, 2020.