

DRAFT

**PALOS VERDES LANDFILL
CITIZENS ADVISORY COMMITTEE MEETING MINUTES
Thursday, October 15, 2020 via Zoom**

MEMBERS PRESENT: Pat Furey, David Wahba, Kurt Swanson, Kathleen McGowan, Doug Henry, Jim Greene, Tim Scott

MEMBERS ABSENT: Linda Cessna

STAFF PRESENT: Kristen Ruffell, Ethan Laden, Wendy Wert, Rita Chang

The meeting was called to order at 6:03 p.m. and the roll was called. Vice-Chairperson Mr. Furey called for the appointment of committee members in accordance with the committee by-laws. Ms. McGowan was nominated and reappointed to be a member of the committee. No further nominations were received; therefore, the remaining vacant position will be filled at a later time. Mr. Furey then called for nominations for Chairperson and Vice-Chairperson. Mr. Furey and Mr. Scott were nominated and elected to be the Chairperson and Vice-Chairperson of the committee.

Ms. Ruffell began the report from the Sanitation Districts with announcements. Ms. Ruffell announced that the Palos Verdes Landfill has been proposed as a site for a stormwater project and anticipates that more information will become available in the coming quarters.

Ms. Ruffell continued with the Environmental Report update from the Second and Third Quarter of 2020. During the Second and Third Quarter of 2020, there were no gas collection wells where temperature measurements exceeded 170 degrees Fahrenheit, and routine surface gas monitoring did not identify any areas of the Site where action levels were exceeded. During routine boundary probe monitoring on April 7, 2020, methane was detected at concentrations above the action level in two adjacent boundary probes (22.5% in MN40 and 35% in MN39) at the Main Site along the first bench of the northeast boundary. In response to the presence of methane at MN39 and MN40, the Sanitation Districts increased flow to the nearby gas collector and the probe detections were cleared on April 15, 2020. Subsequent boundary probe readings during the Second and Third Quarter of 2020 did not show any additional probes where action levels were exceeded.

Ms. Ruffell then reported on extraction well E19 that was constructed in the northeast corner of the South Coast Botanic Garden (Botanic Garden) in the vicinity of E16. Ms. Ruffell began this discussion by introducing two monitoring wells, M39A and M70B, near Crenshaw Boulevard. Beginning in 1998-1999, the on-site monitoring well M39A showed marked increases in organics and metals. Because M39A is located upgradient of the groundwater extraction system that was installed for the purpose of containing affected groundwater and off-site downgradient monitoring well M70B was not displaying impacts at the time, additional extraction wells were not immediately needed. The Sanitation Districts, however, continued to closely monitor the results from wells M39A and M70B. In 2017, the Sanitation Districts noticed an increase in 1,4-dioxane at well M70B. Although the 1,4-dioxane concentration was significantly lower than well M39A and much lower than other wells affected by the landfill, the values approximately doubled between April 2017 and July 2018. To ensure control along this pathway, the Sanitation Districts installed extraction well E19, which became fully operational in

DRAFT

February 2020. The Sanitation Districts believe that the series of unexplained increases in wells M39A and M70B are related to the recently discovered long-term potable water line leak at the South Coast Botanic Garden, which was mobilizing parameters within the landfill.

On January 17, 2020, the Sanitation Districts were informed by the Botanic Garden's staff that there was a seep in the South Coast Botanic Garden. The Sanitation Districts' staff began to assist the Botanic Garden's staff to look for leaks in their irrigation line, which included installing meters on the irrigation main lines and new valves to isolate a portion of their system, but no significant leaks were identified. The Botanic Garden's staff requested a leak survey after their irrigation system was ruled out as the source of the seep. After investigating several potential sources, a leak was discovered on the California Water Service's drinking water distribution line. A portion of that distribution line was constructed within the waste footprint (a condition that is no longer permitted), had reached the end of its useful life, and was in the process of being replaced when the leak was discovered. Based on the amount of water that arrived at the seep location, it is believed that the leak may have been ongoing for years.

The Sanitation Districts' staff inspected the seep and found that it did not have any odor or other obvious signs of contact with waste. Nevertheless, the Sanitation Districts collected a sample and analyzed it for 65 volatile organic compounds (VOCs) and 105 semi-volatile organic compounds (SVOCs) that are potentially associated with the landfill. No SVOCs were detected and low levels of two VOCs were detected in the analytical results that became available on January 24, 2020. As a result, the Sanitation Districts immediately dispatched staff to stop the seep water from entering the storm drain. By the same night, all the flow in the earthen channel was diverted to an existing industrial wastewater discharge point. Three days later, the Sanitation Districts began to install a 500-foot-long, 4-foot-deep French Drain along the east side of the earthen channel to collect the seepage. When the French Drain was installed and the surface flow was stopped, the Sanitation Districts made attempts to dewater the low spot of the earthen channel, which was met with subsurface recharge. Consequently, the Sanitation Districts installed an additional extraction well E20 in the low spot of the earthen channel and converted an on-site monitoring well M38A into an extraction well.

During the investigation and response to the leak, the Sanitation Districts discovered a 30-inch storm drain that was not identified on the plans for the Botanic Garden. This 30-inch storm drain transmits stormwater and dry weather urban runoff from the community south of the Botanic Garden to a 90-inch storm drain that connects to the offsite storm drain system. Although the storm drain was on the opposite bank of the earthen channel and could not have been the source of the seep, the Sanitation Districts were concerned that it could be contributing water to the landfill. A camera inspection was performed that noted extreme corrosion and standing water. As a result, samples were collected and analyzed for the same VOCs and SVOCs. No SVOCs were detected and one VOC was detected at a low level. Nevertheless, the Sanitation Districts set up containment to collect and dispose of this flow. Since the 30-inch storm drain could not be repaired, the Sanitation Districts proceeded to replace the drain to prevent exfiltration into the waste.

Due to the condition of the 30-inch storm drain and the high-water level within the landfill, the Sanitation Districts performed a camera inspection of the 90-inch storm drain. The camera inspection noted a small amount of seep entering the drain through corrosion at the invert of the pipe. Consequently, samples were collected and analyzed for the same VOCs and SVOCs.

DRAFT

1,4-dioxane and chlorobenzene was detected in the analytical results. Due to the steep grade and depth at the outlet, the Sanitation Districts hired a specialty contractor to place containment structures to collect and dispose of this flow. The Sanitation Districts proceeded to repair the 90-inch storm drain by sliplining with a 54-inch fiber-reinforced pipe. A hydrologic analysis was completed by the Sanitation Districts' Sewer Design Section to ensure that the sliplined pipe was adequately sized to handle the design flow.

Between early February and early October 2020, the Sanitation Districts have removed approximately 7.7 million gallons of liquid from the landfill. Since May 2020, E20 has removed about 2.27 million gallons and the well continues to extract water. Many of the other extraction efforts at higher elevations have gone dry, specifically, the French Drain and the low point of the earthen channel. While E19 has not dried out, the extracted volumes are much lower than when it was first placed into service. All extracted water is directed to the sanitary wastewater sewer in accordance with the Site's industrial wastewater discharge permits.

The following questions were asked during the Q&A portion of Ms. Ruffell's presentation. Responses are included in parentheses following the question.

- (1) Has any of the leakage been noted in wells outside of the landfill? (Most of the water has been contained by the extraction system; however, a small amount may have passed the extraction system. The Sanitation Districts continue to closely monitor for changes in groundwater quality and are not seeing increasing trends in those areas. If changes are observed, the Sanitation Districts will respond to those changes. The installation of extraction well E19 at the Botanic Garden is an example of how the Sanitation Districts are proactive when changes are observed.)
- (2) When do you expect to see the water dry out? (Extraction well E20 continues to pump every day and has experienced a drawdown to about 30 feet. At the same time the extraction well was installed, a piezometer was also installed to determine how far the water was drawn down. Initially the piezometer was showing 2 feet of drawdown but is now showing 7 feet of drawdown. It is anticipated that the extraction wells will continue to operate and remove the water for much longer, but it is believed that the water is being captured at the boundaries.)
- (3) Are there any issues with land settlement and air quality? (No; however, the Sanitation Districts anticipate that the methane production in the Botanic Garden portion of the landfill will increase as result of the dewatering efforts. With the drawdown at E20, the Sanitation Districts are starting to see a bit of surface gas in this area. To get ahead of the issue, the landfill gas collection system has been extended from the garden perimeter to the earthen channel area. The methane that is collected from the Botanic Garden is transferred to the Main Site to be flared.)
- (4) How much landfill gas is being flared? (4,800 scfm at about 8% methane.)
- (5) What is the status of the California Water Service line that leaked? Has it been decommissioned? (The line was taken out of service and two new pipes are now in service to replace the old line.)

DRAFT

- (6) Does the 30-inch storm drain line have an access manhole? (Yes, an access manhole was placed downhill from where the lake is.)
- (7) Does the 90-inch storm drain take water solely from 30-inch storm drain? (The 90-inch storm drain takes flow from the 30-inch storm drain and the earthen channel.)

There were no written and oral communications presented. The meeting was adjourned at 6:58 p.m. The next CAC meeting will be determined by the committee as needed.