CalRecycle

DEPARTMENT OF RESOURCES RECYCLING AND RECOVERY

1001 I STREET, SACRAMENTO, CALIFORNIA 95814 • WWW.CALRECYCLE.CA.GOV • (916) 322-4027
P.O. BOX 4025, SACRAMENTO, CALIFORNIA 95812

January 9, 2013

Ms. Dana Allen
City of Sacramento Community Development Department
Environmental Planning Services
300 Richards Boulevard, Third Floor
Sacramento, California 95811

SUBJECT: MCKINLEY VILLAGE PROJECT (P08-806)
DRAFT ENVIRONMENTAL IMPACT REPORT - SCH 2008082049

Dear Ms. Allen:

The California Department of Resources Recycling and Recovery (CalRecycle) has received the Draft Environmental Impact Report (DEIR) for the McKinley Village Project (Project). The DEIR evaluates the environmental impacts of the proposed Project which includes a 328-unit residential development along with parks and a neighborhood recreation center on an approximately 48.75-acre site.

CalRecycle is an agency, along with the State and Regional Water Quality Control Boards (RWQCB), responsible for the regulation and oversight of solid waste handling and disposal by implementing both State and Federal standards, including Subtitle D of the Resource Conservation and Recovery Act (RCRA). CalRecycle concentrates its expertise on the non-water quality issues with landfills including landfill gas. CalRecycle has expertise relative to solid waste and environmental, public health, and safety issues associated with land uses on or near solid waste facilities including landfills. CalRecycle works with and through local agencies that act as the Solid Waste Local Enforcement Agency (LEA).

The Project is located within the City of Sacramento limits northeast of downtown Sacramento along Interstate 80 and north of the Union Pacific Railroad lines, east of Alhambra Boulevard, and west of Lanatt Street. The American River is located approximately 0.25 mile north and east of the Project site. Furthermore, the Project is located within 250 feet of the closed City of Sacramento 28th Street Landfill, a landfill (disposal site) operated and maintained by the City of Sacramento and regulated under the authority of Title 27 of the California Code of Regulations (27 CCR).

CalRecycle staff has focused our review of the DEIR on Chapter 4.4 (Hazards and Public Safety) and provides the following general and specific comments.

General Comments

Development Criteria: As reported in the DEIR, landfill gas has previously been detected from monitoring wells located at the landfill boundary. Pursuant to 27 CCR, the concentration of landfill gas at the compliance wells is required to be kept under the regulatory threshold of 5% methane by volume (27 CCR 20921[a][2]). State standards also required that the concentration of methane shall be less than 1.25% by volume in on-site structures (27 CCR 20921[a][1]).

Current CalRecycle regulations prescribe standards for construction of structures on closed landfill sites that are within 1,000 feet of a disposal area (27 CCR 21190[g]). These standards do not apply to structures on adjacent parcels. The regulation does not prohibit construction of structures but does contain standards that are designed to protect the public health and safety from landfill gas.

While the disposal site operator is required to control landfill gas from migrating off site at concentrations that are dangerous to public health and safety, landfill gas control measures are not always 100% effective. Landfill gas control facilities can be idled periodically for routine maintenance and infrequently for major (and/or minor) repairs. Furthermore, the control facilities can become inoperable as a result of causal events. Additionally, gas migration can occur even during normal, non-upset gas control operations. CalRecycle has seen situations where onsite monitoring and controls have not been fully effective in detecting and/or controlling landfill gas migration. Some examples where landfill gas has migrated off site toward adjacent residential development even though a gas control system was functioning include: Canyon Park Landfill and Mission Canyon Landfill, Los Angeles County; Pleasanton Landfill, Alameda County; and Sparks-Rains Landfill and Newport Dump No. 1, Orange County.

Therefore, in general, regardless of the current effectiveness of any landfill gas control and/or monitoring system, CalRecycle staff usually recommends that the property boundary of any landfill include a 1,000-foot buffer zone around the disposal area. However, we realize that because of development potential, especially in urban areas, this is not often a likely scenario.

The DEIR indicates that project consultants have stated that the landfill methane does not represent a limitation to residential development as long as the landfill is maintained by the City in accordance with requirements to control methane (DEIR pp. 4.4-12, 4.4-15, 4.4-21 and 4.4-40). These statements imply that methane gas migration can occur (and be considered a hazard) if not adequately controlled. As stated above, gas migration can occur regardless of the current effectiveness of the landfill gas monitoring and control system.

Because landfill gas generated within the landfill has had and will continue to have the opportunity to migrate into other properties, landfill gas has the potential to cause harm by creating hazardous and explosive environments. Therefore, as an additional backup safety measure, CalRecycle recommends that, as a condition of development approval, any enclosed structure (i.e., residence or other public use structure) within 1,000 feet of the landfill footprint be required to comply with the standards similar to those contained in 27 CCR 21190(g) (e.g., barrier layer, venting, in-structure alarms, etc.). A copy of 27 CCR 21190(g) is attached to this letter for your reference.

Methane Standard: The regulatory standard for methane concentration at a landfill boundary is the lower explosive limit (LEL) of 5% by volume in air. However, the regulatory standard (both State and Federal) for on-site structures is 1.25% by volume in air. Since methane is an explosive hazard at 5%, the lower 1.25% level should be used to determine potential impacts to future residents especially since methane can accumulate and reach higher concentrations.

Project Impacts on the Landfill: Because of the proposed residential development, it is possible that the landfill will need to increase monitoring frequency and/or install additional monitoring wells as a protection measure. Furthermore, although the prescriptive methane compliance standard at the landfill property boundary is 5% by volume in air, because of the proposed residential development and the lower structure standard for methane, the landfill may have to implement corrective actions at lower monitoring readings than 5% at the property boundary

should the levels pose a significant threat to nearby development. The project also includes improvements to A Street which passes through the landfill. Any improvements to the road should not impede the City's maintenance of the landfill.

These improvements may require revisions to the landfill closure and postclosure maintenance plans and approvals from CalRecycle, LEA, and RWQCB. The project proponent and the City should consult with the LEA regarding these activities.

Specific Comments

1. *Section 4.4.4 Project-Specific Impacts and Mitigation Measures 4.4-2 (Page 4.4-39)*: The DEIR states that the replacement gas monitoring wells on the project property (Lennane wells) will be constructed in accordance with the DTSC Advisory on Active Soil Gas Investigations. The DTSC Advisory focus is not for long-term monitoring of potential off-site gas migration. Since the gas monitoring wells are considered part of the landfill gas monitoring program, the wells need to be constructed pursuant to standards contained in 27 CCR 20923 *et seq*. The proposed location and design needs to be submitted to the LEA for approval with concurrence by CalRecycle.

2. *Section 4.4.5 Sources Cited (Page 4.4-50)*: The following two documents are attributed to CalRecycle:

    a. CalRecycle, 2013a. Closed Disposal Site Inspection Report (188) for the Sacramento City Landfill located at 28th and A Streets, Sacramento, 95816, July 11, 2013.

    b. CalRecycle, 2013b. Closed Disposal Site Inspection Report (188) for the Sacramento City Landfill located at 28th and A Streets, Sacramento, 95816, July 26, 2013.

    Please note that both documents are inspection reports that were prepared by the County of Sacramento, Department of Environmental Management, acting as the LEA, utilizing a form developed by CalRecycle. These two documents are the product of Sacramento County and should be attributed as such.

Thank you for the opportunity to review the DEIR. Should you have any questions or comments concerning the above matter, please contact Mr. Michael Wochnick or me at (916) 341-6289 or (916) 341-6320, respectively. Alternatively, CalRecycle staff may be reached by email at michael.wochnick@calrecycle.ca.gov or wes.mindermann@calrecycle.ca.gov.

Sincerely,

Wes Mindermann,P.E.
Supervising Waste Management Engineer
Engineering Support Branch

Attachment

cc: John Lewis, Sacramento County Environmental Management Department
John Moody, Central Valley Regional Water Quality Control Board, Sacramento
Steve Harriman, City of Sacramento Department of General Services

ATTACHMENT

27 CCR 21190. CIWMB - Postclosure Land Use

(g) All on site construction (*sic* structures) within 1,000 feet of the boundary of any disposal area shall be designed and constructed in accordance with the following, or in accordance with an equivalent design which will prevent gas migration into the building, unless an exemption has been issued:

(1) a geomembrane or equivalent system with low permeability to landfill gas shall be installed between the concrete floor slab of the building and subgrade;

(2) a permeable layer of open graded material of clean aggregate with a minimum thickness of 12 inches shall be installed between the geomembrane and the subgrade or slab;

(3) a geotextile filter shall be utilized to prevent the introduction of fines into the permeable layer;

(4) perforated venting pipes shall be installed within the permeable layer, and shall be designed to operate without clogging;

(5) the venting pipe shall be constructed with the ability to be connected to an induced draft exhaust system;

(6) automatic methane gas sensors shall be installed within the permeable gas layer, and inside the building to trigger an audible alarm when methane gas concentrations are detected; and

(7) periodic methane gas monitoring shall be conducted inside all buildings and underground utilities in accordance with Article 6, of Subchapter 4 of this chapter (section 20920 et seq.).