TO: HONORABLE CITY COUNCIL

FROM: CITY MANAGER

DEPARTMENT: PUBLIC WORKS

DATE: SEPTEMBER 12, 2005

CMR:363:05

SUBJECT: FIRST ANNUAL UPDATE OF THE PALO ALTO LANDFILL CAPACITY

This is an informational report and no Council action is required.

BACKGROUND

In the response to the City Auditor’s review of the Environmental Service Center (ESC) proposal (CMR:114:05, Attachment A) and Public Works Department response to Auditor Recommendation 2, staff agreed to provide City Council with annual reports on actual tonnages, remaining landfill capacity and general landfill closure updates as they developed. This is the first of those reports.

DISCUSSION

In order to determine the remaining landfill volume, a photogrammetric survey is performed in May of each year. Photogrammetry is the science of taking measurements from photographs. The photogrammetric survey involves an aerial photograph of the landfill to measure the remaining volume of air space. The latest aerial photo (Attachment B) volume calculation (May 2005) estimates that there is a total volume of 789,182 cubic yards (cy) remaining in the landfill. This figure is calculated by subtracting the landfill’s existing topography elevations from the elevations of the approved final grading plan, approved by the California Integrated Waste Management Board, Regional Water Quality Control Board, and the Santa Clara County Local Enforcement Agency. Staff projects that 278,467 cy of that remaining volume will be depleted by landfill final cover soil, leaving 510,715 cy of net landfill volume for filling refuse, asphalt-concrete waste, and cover soil. Soil is needed for daily and intermediate cover of waste. During the last three years, the aerial photo calculations indicated volume depletions of 94,925 cy; 129,625 cy; and 111,828 cy, respectively. To determine the estimated landfill closure date, the average volume depletion over the last three years is taken and projected into the future. That projection indicates the landfill will reach capacity (the net volume will be depleted) sometime in 2011 (Attachment C).

It is important to note that the landfill site life estimate is based on assumptions and current conditions. Some of those assumptions and conditions utilized for this site life estimate are: continued receipt of average amounts of incoming refuse, cover soil, and asphalt concrete waste, weight to volume density conversion ratios, estimates of on-site soil stockpiles, estimates of final cover soil volumes, plus an annual one percent tonnage increase due to population increase and economic activity. It is possible that some of these assumptions and current conditions will change with time. A change in any of these assumptions or conditions would likely produce a change in the landfill site life.
Staff will continue to provide Council with closure information on an annual basis and will return to Council sooner should conditions change.

**ATTACHMENTS**
Attachment A: CMR:114:05
Attachment B: Aerial Photo
Attachment C: Spreadsheet on Closure

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