TO: HONORABLE CITY COUNCIL
FROM: CITY MANAGER
DEPARTMENT: PUBLIC WORKS
DATE: SEPTEMBER 25, 2006
CMR:377:06
SUBJECT: SECOND 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), 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 second annual report.

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 A) volume calculation completed in May 2006 estimates that there is a total volume of 613,179 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 192,000 cy of that remaining volume will be depleted by landfill final cover soil, leaving 421,179 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 four years, the aerial photo calculations indicated volume depletions of 94,925 cy; 129,625 cy; 111,828 cy, and 109,002 cy, respectively. To determine the estimated landfill closure date, the average volume depletion over the last four years is taken and projected into the future. Last year the projection indicated the landfill would reach capacity sometime in 2011. This year, the projection indicates the landfill will reach capacity (the net volume will be depleted) sometime late in 2010 (Attachment B), five to six months earlier than projected last year.

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: Aerial Photo
Attachment B: Spreadsheet on Closure

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