TO: HONORABLE CITY COUNCIL

FROM: CITY MANAGER DEPARTMENT: PUBLIC WORKS

DATE: DECEMBER 13, 2010

REPORT TYPE: INFORMATIONAL

SUBJECT: Update on Analysis of Organics Residuals Management for Palo Alto

EXECUTIVE SUMMARY
Staff and its consultant, Alternative Resources Incorporated (ARI), are analyzing options for managing organic residuals and will return to Council with key information in late January or early February 2011. This is a brief informational report to Council about that analysis and information. No action by Council is required.

DISCUSSION
ARI, the City’s Consultant, is analyzing anaerobic digestion options adjacent to the Palo Alto Regional Water Quality Control Plant (the “Plant”) as part of a broader look at emerging technologies that could be employed to extract energy and other resources from organic residuals. Yard trimmings, food scraps, and sewage solids (“biosolids”) are the three types of organic residuals which the City is studying.

The ARI analysis will be quantitative and produce planning-level cost estimates, greenhouse gas estimates and other data for anaerobic digestion of the three types of organic residuals. A second consultant, Carollo Engineers, is analyzing wet anaerobic digestion of the biosolids alone, and this analysis is being incorporated into the ARI analysis. This work will be forwarded to Council via staff report in late January or early February.

In the same staff report, staff will update Council on other technologies which could be employed and staff’s discussions with potential regional partners. The other technologies include gasification and pyrolysis. Like anaerobic digestion, these technologies produce energy from the organic residuals. Depending on the process design parameters, biochar (a product which can sequester carbon) could also be a byproduct. Staff will explain the “pros” and “cons” of these technologies and the degree to which they have been demonstrated at full scale. Several organics management projects focusing on energy recovery are being planned in San Jose and staff will be providing available details on these projects. A full scale dry anaerobic digestion project and a pilot scale gasification project are being developed in San Jose.

The upcoming staff report is the “Preliminary Analysis” requested by Council as part of a more complete Feasibility Study to be submitted to Council in September 2011. While the quantitative...
part of the Feasibility Study is limited to anaerobic digestion, staff will analyze and report on the other technologies as well.

On a longer time frame, staff is studying other alternatives for managing the biosolids as part of the Plant’s Long Range Facilities Planning Process which began in the fall of 2010. As directed by Council, staff will be focusing on energy recover technologies in this process and finishing this work in 2012.

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