MEMORANDUM

Date: April 28, 2014

To: James Keene, City Manager

From: Mike Sartor, Public Works Director

Subject: Direct Staff to Pursue the Four-Component Organics Facilities Plan

Council Members:

This memo supplements Item #11 Staff Report: Directing Staff to Pursue the Four-Component Organics Facilities Plan (ID# 4550) on the April 29, 2014 Council Agenda. It provides Council with alternative recommendations should Council desire to direct a more immediate implementation of local aerobic composting of yard waste on the Measure E site. At this stage, Staff is not issuing a new Staff Report changing its recommendations, but these alternative recommendations have been vetted by staff and are acceptable from an operational standpoint, should Council decide to direct implementation.

The Original Energy/Compost Request for Proposals (E/C RFP) and Technology Issues

In light of the passage of Measure E, and the hope by many that a single emerging technology existed that would treat wastewater biosolids, food scraps and yard trimmings together, Council authorized a very broad RFP to seek out private sector proposals which would accomplish this goal. It was hoped that Palo Alto’s interest and a fast changing technological infrastructure would result in interesting new proposals and the RFP was structured more than anything else to test the market place and attempt to quantify pricing for such emerging technologies. However, the proposals received did not, for the most part, include new technologies. Instead, the proposals utilized wet anaerobic digestion (WAD) for biosolids, an old and well established technology utilized by most sewage treatment plants in the United States. At the same time, Palo Alto was using a consulting engineering firm (CH2M-Hill) to develop a Biosolids Facilities Plan to eliminate the Plant’s incinerators. The results reinforced the choice of WAD. CH2M-Hill recommended coupling WAD with Thermal Hydrolysis (TH) to release more energy from the biosolids, as did one of the responders to the RFP. Both on-site responders and CH2M-Hill recommended pre-processing food scraps so that they could be added to the WAD, and produce more methane. All responders and the research done by Staff concluded that aerobic composting was the best technology currently available for yard trimmings. Aerobic composting is the choice of most facilities, including the private sector facility near Gilroy that takes Palo Alto’s yard trimmings.

In short, we have learned that there is no single process, nor is there a feasible emerging new technology, which can accept all 3 waste streams. Rather, the best path forward is utilizing established technologies: TH and WAD for biosolids and food and aerobic composting for yard trimmings. Through the RFP, staff has also concluded that mixing food stock and/or bio solids with yard trimmings would
degrade the compost and limit its ability to be used for residential use and other crop and food use. Therefore Staff is recommending an Organics Facilities Plan (OFP) which combines what we have learned into this 4-component plan.

Public or Private Ownership and Operation
Because Staff is recommending, for the most part, well-established technologies (as described above), it no longer appears wise to have all components of the OFP owned and operated by the private sector, as envisioned in the original RFP. The original RFP (the E/C RFP) anticipated the use of emerging, more risky technologies. That risk could be avoided by the City through private sector ownership and operation albeit with a higher cost. However, with the choice of less risky technologies, and the advantages of public sector financing, Staff is now recommending City ownership and operation of the Dewatering and Truck Off-Haul facility and the WAD facility. Private sector ownership and operation of the Food Preprocessing and Yard Trimmings Composting bears further consideration as project development continues. Staff has received several comments on the Net Present Value Staff calculated for the cost of the OFP and agrees that the value is not correct and is in the process of modifying its estimate. The new estimate is likely to be approximately 10% higher and will not change the Staff Report conclusions.

Cancelling the Existing E/C RFP and Re-Issuing a More Narrowly Tailored RFP
Since Staff is now recommending an Organics Facilities Plan (OFP) which is much more focused on specific, well-established technologies, it is recommended that the existing E/C RFP be cancelled. The existing RFP is significantly different from the new recommended plan (the OFP) and could expose the City to bid challenges if Staff did not select the top ranked proposer or negotiated a contract with any of the current proposers that varied significantly from their original proposals.

Staff anticipates that a new, narrowly tailored RFP that incorporated the current OFP (with key modifications discussed below) could be prepared in short order. The existing proposers could modify their proposals to match the OFP and resubmit in response to a new RFP in a short period of time. The new RFP would specify the facilities which are to be City owned and operated. Staff has reached out to the existing proposers and at least two of them have expressed an interest in re-submitting a proposal. In addition, now that the technology has been identified, staff believes there will be additional proposers and that a more competitive price can be achieved. Finally, as the RFP will involve a more traditional technology, staff anticipates that some of the proposal terms and conditions and risk allocations can be relaxed further increasing the likelihood of reduced pricing.

Alternative Recommendations to the Staff Report Recommendations
In order to address some of the concerns regarding a quicker implementation of dry aerobic composting of yard trimmings, Staff is providing Council with Alternative Recommendations. These Alternative Recommendations add two key provisions to the Staff Report Recommendations. First, they specify that a new RFP will be immediately issued to replace the existing one. The new RFP would specify which facilities are to be City owned and operated. The current proposers could modify their proposals to match the OFP and resubmit in response to the new RFP in a short period of time. Adding this provision addresses the concern that it will consume too much time to issue multiple RFPs as envisioned by the OFP.

The second and more controversial added provision is that the new RFP would express a preference that the relatively flat (3.8 acre) portion of the Measure E Site be used for yard trimmings processing. The community’s comments continue to be split over this issue, with some of the community opposed, and
some in favor of use of this land for a compost facility for yard trimmings. Because CEQA compliance has not yet been achieved for a facility on the Measure E site, Council cannot make a final decision with respect to this use. Council can, however, issue an RFP that states its preference to explore aerobic composting of yard trimmings on the 3.8 acre flat portion of the Measure E site and that this RFP be issued immediately.

The Alternative Recommendations are shown below.

1a. Cancel the “Energy/Compost Facility or Export Option for Food Scraps, Yard Trimmings, and Biosolids” Request for Proposals (E/CF RFP).

1b. Immediately reissue a substitute RFP for implementation of Components #2-4 (Anaerobic Digesters; Food Preprocessing; Yard Trimmings Composting) of the Organics Facilities Plan (OFP, Attachment A). The RFP shall express a preference that the relatively flat portion (3.8 acres or less) of the Measure E Site shall be used for Aerobic Composting of Yard trimmings (Component #4). No later than December 2014, Staff shall return to Council with recommendations to commence CEQA work and negotiate a contract(s) with the top-rated proposer(s).

2. Begin to pursue the Organics Facilities Plan (OFP, Attachment A) by hiring a Program Management firm. Should there be any differences between the OFP and the Recommendations adopted by Council, the Recommendations shall govern.

3. Apply for a State Water Resources Control Board State Revolving Fund (SRF) loan for Component One of the Organics Facilities Plan (OFP).

4. Initiate design of Component One of the OFP, Biosolids Dewatering and Truck Haul-Out Facility, including direction to prepare related modifications to the Regional Water Quality Control Plant (RWQCP) partner agency agreements.

5. Initiate the answering of predesign questions associated with Component Two, Development of a Thermal Hydrolysis Process Wet Anaerobic Digestion (THP AD) facility, at the RWQCP; Component Three, Food Scrap Preprocessing; and Component Four, Yard Trimmings Processing of the OFP, including the following:
   a. Determine the price of electricity that the RWQCP will receive for power generated by the facility;
   b. Establish the optimum size of the THP AD facility built to accommodate biosolids for a 30-year planning horizon as well as capacity for food scraps, which Palo Alto and any other jurisdiction would commit to bring to the facility;
   c. Establish a list of contributing partner agencies who commit to bring food scraps to the facility;
   d. Initiate a financing plan for Component Two of the OFP;
   e. Determine the appropriate purchasing and project delivery mechanisms that should be utilized to develop the OFP; and
   f. Determine the required CEQA documentation for the Components of the OFP.

6. Update the existing timeline and schedule in December, 2014 for all Components of the OFP.