

**MEMORANDUM
WESTERN PLACER WASTE MANAGEMENT AUTHORITY**

TO: WPWMA BOARD OF DIRECTORS

DATE: JULY 9, 2015

FROM: KEN GREHM / ERIC ODDO 

SUBJECT: POTENTIAL FUTURE USE OF WPWMA PROPERTY

RECOMMENDED ACTION:

Provide direction to staff regarding potential future uses of the WPWMA's property and authorize staff to proceed with the associated planning and applicable permitting efforts of the identified uses.

BACKGROUND:

Over the past year staff has worked to identify the future needs of the WPWMA in terms of addressing anticipated regional growth, changes in applicable regulations, increasing material diversion rates, increasing operational efficiencies and improving compatibility between its operations and current and future neighbors. Based on these efforts, staff has identified a series of potential facility modifications and enhancements which it believes appropriately address the aforementioned issues.

The attached Exhibit A presents an aerial view of the WPWMA's property that includes possible future operations and their associated locations. Generally the identified areas do not represent true estimates of the required operational footprints, instead they represent conceptual "operational zones" that may be necessary to facilitate the identified improvements. The attached Exhibit B provides a brief summary of each of the identified improvements cross-referenced to the number designation shown on Exhibit A. For the purposes of clarity, relatively smaller potential projects (e.g.: modifications to the interior of the MRF, administrative office expansion, changes in landscaping and other water conservation methods, etc.) are not identified on Exhibits A and B but will be included in subsequent planning and permitting efforts.

Given the recent resurgence in development in the region and Placer County's current effort to update the Sunset Industrial Area Plan¹, staff believes it is the appropriate time to begin the planning and permitting efforts associated with these potential facility modifications.

If your Board directs staff to proceed with these efforts, staff will initiate the process of hiring an engineering firm to prepare the necessary technical studies and an environmental firm to prepare the appropriate California Environmental Quality Act (CEQA) documents.

ENVIRONMENTAL CLEARANCE:

Providing direction to staff on the future potential uses of the WPWMA's property and authorizing staff to proceed with efforts associated with the planning, environmental

¹ As reported to your Board at the December 11, 2014 meeting by Mr. Michael Johnson, Placer County Community Resource Development Agency Director.

review and permitting of various projects is not considered a “project” under the CEQA guidelines.

FISCAL IMPACT:

There is no direct fiscal impact associated with the recommended action.

Staff estimates that the costs associated with the planning and permitting efforts could exceed \$1 million. While these costs were not included in the FY 2015/16 Preliminary Budget approved by your Board on April 9, 2015, they will be included as part of the FY 2015/16 Final Budget and Financial Forecast scheduled for presentation to your Board later this year.

Specific costs associated with hiring the necessary consulting firms will be presented to your Board at the time staff requests approval of the subject agreements.

ATTACHMENTS: EXHIBIT A – AERIAL MAP OF WPWMA'S PROPERTY WITH POTENTIAL PROJECT LOCATIONS
EXHIBIT B – SUMMARY OF POTENTIAL PROJECTS

KG:EO

PROPOSED LAND USE APPLICATIONS ASSOCIATED WITH POTENTIAL FUTURE USE OF WPWMA PROPERTY



NARRATIVE OF PROPOSED LAND USE APPLICATIONS ASSOCIATED WITH POTENTIAL FUTURE USE OF WPWMA PROPERTY

Overview of Current Facility Operations

The WPWMA's current facility encompasses approximately 320 acres and includes a materials recovery facility (MRF), composting facility and the Western Regional Sanitary Landfill (WRSL). The WPWMA owns approximately 480 acres to west of Fiddymont Road that has been designated as a future landfilling site. (The WPWMA has a Conditional Use Permit for the site but lacks the Solid Waste Facility Permit required for active operations.) The WPWMA also owns approximately 160 acres to the east of the landfill; this area is currently designated as buffer space.

The MRF is currently permitted to accept up to 1,750 tons per day of material; the WRSL is permitted to accept up to 1,900 tons per day. Current daily tonnages are presently below these limits (the current average daily tonnages accepted at the MRF and WRSL are 1,140 tons and 940 tons, respectively.) At present waste generation and recycling rates, the WRSL is expected to have sufficient capacity until 2058.

Growth Projections

WPWMA staff project that the population in its service area (and therefore waste tonnages) will increase by approximately 40 to 45% over the next 20 years. This estimate is greater than the population estimates prepared by SACOG (~30% population growth over the next 20 years). However, based on known and planned regional development projects, staff believes the larger growth estimate is more appropriate for planning purposes.

Based on current observations, staff believes the physical size of the WPWMA's facility is insufficient to safely and efficiently accommodate the anticipated growth in the number of users of the facility. Furthermore, based on recent regulatory, environmental and industry trends, it is likely that additional pressures will put on the WPWMA in the future to increase recovery rates; further reduce off-site environmental impacts to land, air and water; and produce and market alternative forms of energy.

In consideration of these apparent trends, WPWMA staff has begun identifying future uses for its western and eastern properties as well as other possible modifications to its existing facility layout. The following outlines some of these potential concepts.

Potential Opportunities to Modify the WPWMA's Facility to Respond to Future Needs

1. New composting area

A new composting facility could be established to accommodate future growth for the composting of greenwaste as well as other organic materials such as foodwaste and possibly biosolids.

This new area could include an enclosed area for the receipt and initial processing and composting of materials. Enclosing these operations would help to mitigate the odor potential associated with these materials and operations.

The initial phase of composting operations could be performed utilizing aerated static pile technologies wherein air is continuously introduced into the composting product. This would serve to accelerate the composting process, reduce regulated air emissions and further reduce the potential for odors.

2. New public unloading area with Buyback Center and HHW Facility

The existing public area could be decommissioned and a new, full-service area established to accommodate use of the facility by self-haul customers.

As shown, the new area would have a separate entrance from the original facility with a separate scalehouse complex. Access would likely be at the intersection of Athens and Fiddymment.

This would result in a complete separation between the public and commercial customers (i.e. haulers) thereby improving customer safety and efficiency.

Removing the self-haul traffic from the remainder of the facility would effectively increase the customer loading capacity of the original facility thereby deferring the need for expansion of the original scalehouse complex, entranceway and unloading areas.

3. Non-public access tunnel or overpass between properties

To better facilitate the flow of vehicles and materials between the main WPWMA property and the western expansion area, a multilane tunnel or overpass could be constructed connecting the two properties and limiting the need for operational vehicles to transport materials over public roadways.

Restricting access to the haulers and MRF and landfill operators would help to reduce additional traffic on public roadways and allow for the continued use of the commercial scalehouse operations. Public users would access the site via a separate entrance (see #2).

4. Relocated LFG blower/flare station with CNG fueling station

The landfill gas blower/flare station could be relocated (or a secondary facility constructed) to be closer to the current landfill modules. In addition, an LFG to CNG conversion facility, fast-fill, slow-fill and hauler corporation yard could be located in this area.

This would enable haulers to park vehicles overnight (for slow-fill operations) and/or refuel during the day (via fast-fill operations). Fast-fill operations could also be made accessible to other publically or privately owned natural gas powered vehicles (e.g. city or County-owned vehicles, WPWMA contract operator vehicles, etc.).

It is assumed that future waste vehicle traffic will access the site via the Placer Parkway/Fiddymment exit. This should also serve to reduce WPWMA-bound traffic from the areas around the casino and other future business areas in the Sunset Industrial Area.

5. New landfill modules

Developing new landfill modules on the eastern property presents unique opportunities compared to development of landfill on the western property. Namely, additional capacity could be achieved per acre of land developed as a result of tying into and overlaying existing landfill modules. This would not be possible on the western property unless Fiddymont Road were realigned to the west.

Assuming no increase in overall landfill height and no additional fill over the original, unlined modules (i.e. Modules 1, 2, 10 and 11), the WPWMA may realize a net increase of approximately 50 million cubic yards (MCY) of airspace for a total site capacity of 86 MCY. Based on current growth estimates, this equates to approximately 44 additional years of filling and has an estimated present airspace value of \$300 million.

6. Unlined module relocation

Since Modules 1, 2, 10 and 11 were constructed prior to enactment of Federal Subtitle D regulations they did not include a geomembrane liner system. As such, there exists the potential for long-term impacts to subsurface soils and groundwater beneath and adjacent to these modules. Furthermore, no additional fill can be placed directly over these modules, thereby limiting capacity within the currently permitted landfill boundary.

Landfill expansion to the east could provide a potential opportunity to excavate and relocate the materials from these modules to a new, fully lined landfill module at the southern edge of the eastern property.

Relocation of this waste offers several benefits, including:

- Elimination of long-term environmental risks associated with wastes in the unlined areas.
- The current area taken up by these modules could be reclaimed for other operations in the near term and developed into fully lined landfill modules in the future. By matching the excavation and final fill grades of the unlined portion of the landfill to the lined portion, the WPWMA may realize a net increase of 22 MCY of airspace for a total site capacity of ~108 MCY. This equates to approximately 24 additional years of filling and has an estimated present airspace value of \$132 million. The estimates of additional site life and airspace value are in addition to the estimates cited under item #5.
- The waste could be relocated to the southeastern-most edge of the WPWMA's property. This filling operation could happen relatively rapidly and allow for the WPWMA to completely close and cap its southernmost boundary so as to minimize the potential impacts associated with landfilling operations to current and future receptors to the south and southeast.

7. Alternative technologies pilot project area

This area could be located near the MRF on the site of the original composting pad. Due to new, more stringent composting regulations, the original compost pond is insufficiently sized for the existing compost area. Additionally, an insufficient area is available to enlarge the pond to the required size. As it may make sense to completely relocate the composting operation in the future (see #1), this area could support one or more pilot-scale facilities (e.g.: AD, pyrolysis, gasification, etc.) that are designed to process materials currently not recovered from the MRF to produce energy and/or fuels, or to further refine other products to make them more marketable in the future.

Establishing an area for pilot studies would allow the WPWMA to evaluate the feasibility of an alternative technology before deciding whether to commit a significant portion of the facility to a full scale, long-term operation.

8. Solar array and/or other alternative energy projects or complimentary manufacturing operations

These areas could be developed to accommodate a solar array or other alternative energy project(s) or operational uses prior to being developed for landfilling.

Alternatively the area could be used to site manufacturing facilities that utilize materials from the MRF (e.g. paper and other fibers, plastics, etc.) as the feedstock for their products or processes. This would help improve the economics of recovering certain materials (and thereby increase diversion rates) as well as provide additional local jobs.

9. Research and Development Center

With plans for multiple universities to be sited in or near the Sunset Industrial Area, there is an opportunity for the WPWMA to partner with one or more of these institutions to establish an R&D type facility focused on solid waste-related issues or waste-to-energy type operations.

10. Other commercial/industrial uses or buffer space

The area to the south and west of the high voltage power lines could be utilized for non-solid waste related operations and support other commercial uses, remain as an area to apply reclaimed water from the Lincoln Waste Water Treatment Plant or serve as a buffer between the WPWMA's operations and other users.