

1. Introduction

The Mojave Mountain and Desert Recycling Authority, a Joint Powers Authority (the JPA), financed construction of the Victor Valley Materials Recovery Facility (MRF) in 1995. The MRF serves eight JPA member municipalities, including Adelanto, Apple Valley, Barstow, Big Bear Lake, Needles, Twentynine Palms, Victorville, and Yucca Valley, and the unincorporated portions of San Bernardino County. The MRF is located at 17000 Abbey Lane in Victorville, on industrial land adjacent to a rail spur. At the time of its construction, the process system had a stated capacity of 12.5 tons per hour (tph) and permit capacity of 200 tons per day (tpd); processing a mixture of source separated but combined (single stream) beverage containers, metal and grades of paper. The MRF also processed recyclable rich loads of commercial waste.

In 2005, the MRF was expanded to increase its capacity to 20 tph through an automated system of screens and separators. Since 2007, all member municipalities except Twentynine Palms and Yucca Valley deliver eligible materials to the MRF on a five-day per week schedule. The MRF also has a buy-back operation on site, along with drop-off containers for electronic waste and other recyclable materials.

Burrtec Waste Industries, Inc. (Burrtec), a private contractor, operates the MRF under contract with the JPA. Burrtec managed the original construction and equipment installation under a design/build contract, and also managed construction of the upgrade. The JPA was responsible for public contracting compliance for part of the work.

The City of Victorville and Town of Apple Valley each own an undivided 50 percent interest in the MRF. They are responsible for making payments on long-term debt incurred to construct the facility, the 1995 system revenue bonds issued by the JPA, and on the upgrade financing provided by Burrtec. Debt was incurred for the MRF in 1995 in excess of \$10 million and, as of January, 2009, remaining principal value on the debt was \$4.34 million, incurring interest payments at an average cost of 4.68 percent per annum. Bonded debt incurred will be paid off June 1, 2020. Victorville and Apple Valley also deliver greater quantities to the MRF than other participating communities, and have experienced significant growth in recent years.

1.1 Overview of Project

The Town of Apple Valley and the City of Victorville each have mature residential curbside collection programs that include separate wheeled containers for waste and for recyclables. For the fiscal year ending June 30, 2008, recovery through recycling amounted to approximately 12 percent for each of Apple Valley and Victorville, of municipal waste quantities collected from residential and non-residential sources located within their municipal boundaries¹.

The JPA desires maximum feasible recycling and composting for materials generated in Apple Valley and Victorville, providing enhanced recovery for recycling opportunities

¹ Recovery through recycling is a ratio of materials recovered through the JPA system to total waste collected (recycling plus landfill quantities), again limited to quantities entering the JPA and County landfill system. Waste or recovered materials outside of this system are not included in the recycling rate.

for other JPA members as well. The JPA plans to move toward a materials management system based on reduction, reuse, composting and energy recovery instead of landfilling. California's greenhouse gas reduction initiatives provide additional incentive for the JPA's efforts. Enhanced MRF processing and marketing are key elements of the emerging system. In September 2008, the JPA contracted with Gershman, Brickner & Bratton, Inc. (GBB), in association with RRT Design & Construction, Inc. (RRT), to identify opportunities to increase the performance of the recycling system as the JPA moves towards realizing its overall goal.

Recognizing that performance improvements in any recycling program require coordinated efforts among various elements of the recycling system, the JPA identified several tasks for this planning project, the output of which is this Victor Valley Materials and Resource Management Strategy, referred to as the Plan. Eight discrete tasks were identified for the Plan:

- Generators - Identify existing recycling collection system performance and approaches to improve the residential and non-residential generators' separation habits.
- Source Reduction – Identify strategies and their projected results to reduce waste generation among residential and commercial waste generators.
- Collection - Identify strategies to improve collection practices, to include but not be limited to wet/dry and full organics (food and landscape materials).
- Pre-Processing Mixed Waste Loads - Identify pre-processing systems that can be used to process loads of mixed waste delivered to the Victor Valley MRF for the purpose of separating recyclable and compostable materials and preparing them for market.
- Waste Characterization - Characterize waste being landfilled with a primary objective of identifying types and quantities of recyclable and compostable materials being landfilled.
- MRF Assessment – Assess the efficiency, effectiveness and adequacy of five aspects of the MRF, including the MRF physical plant, MRF operations, operating contract with the private operator, product marketing, and alternative operating contract provisions to encourage additional recycling.
- Energy Recovery – Characterize pre-processing and processing residuals for potential energy recovery.
- Residue Handling (Landfilling) - Estimate requirements for landfill disposal of post-recycling residuals for the next 25 years.

1.2 Plan Document Organization

Subsequent sections of this report present summary results from field investigations, analysis, and conclusions and recommendations developed. Each of the following chapters, two through eight, presents one of the above tasks, in the order listed above. Conclusions and recommendations, when presented within discussion subsections, are summarized at the end of the section or subsection. Certain subsections are primarily conclusions and recommendations and these are presented without restatement.