Napa Materials Diversion Facility
Description of Existing Operations

Introduction

The key operations of the Napa Materials Diversion Facility (Facility) are described in this document. The Facility is located at 920 Levitin Way, a private road on the south side of Tower Road in the southern, unincorporated portion of Napa County.

The site is comprised of six separate but contiguous parcels (APN 057-110-049, 052, 065, 066, 067, and 068), totaling approximately 19 acres.

The Facility primarily receives clean, source-separated materials. However, the Facility also receives and processes some loads of mixed C&D for the recovery of recyclable materials.

Key Areas of Operations

A site plan of the Facility showing the existing infrastructure and processing areas is shown schematically in Figure 1.

The following terms are used to refer to the primary processing areas/functions of the Facility:

- Clean MRF
- Composting Area
- C&D Processing:
  - Wood Processing
  - Source Separated C&D
  - Mixed C&D

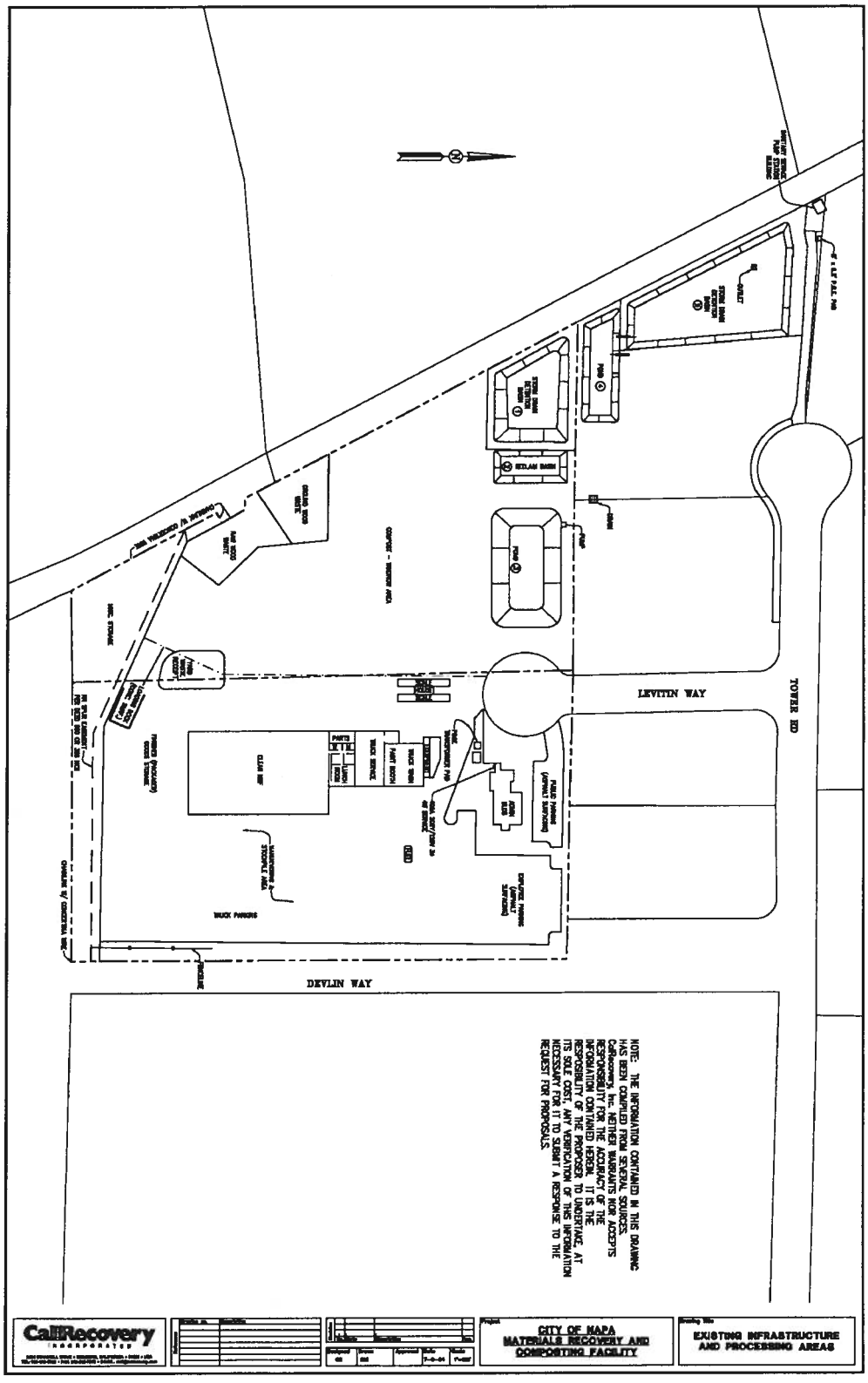


Figure 1. Site Plan of the Napa Materials Diversion Facility Showing Existing Infrastructure and Processing Areas

Gatehouse

Vehicles transporting inbound waste and outbound quantities of recovered materials are weighed at the gatehouse. The gatehouse area is equipped with two scales (one inbound and one outbound). The outbound scale was recently installed and is referred to here as the "new scale." The inbound scale was installed at the time that the Facility was first built and it is referred to as the "old scale."

A photo of the entrance road to the gatehouse area is shown in Figure 2. A photo of the old scale is shown in Figure 3, and of the new scale in Figure 4. The scale house that used to serve the old scale has been removed.

Figure 2. Entrance Road to Facility and Gatehouse

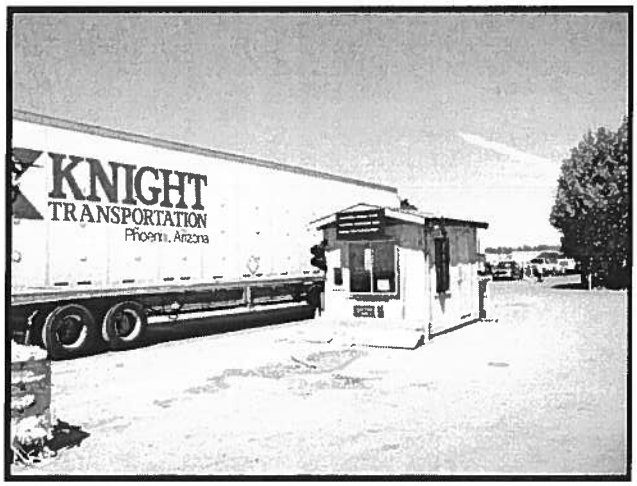


Figure 3. Old Scale

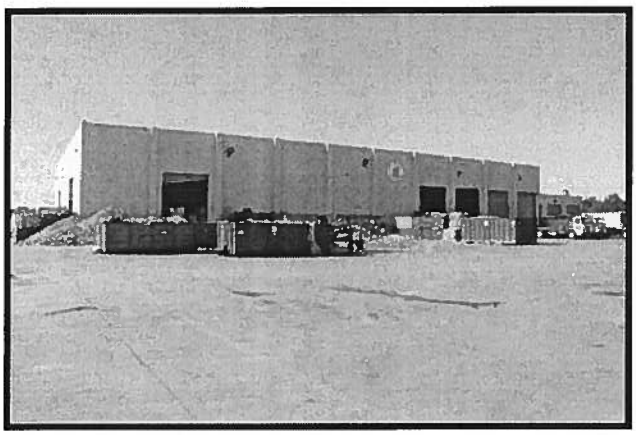
Figure 4. New Scale

Both of the scales are operated using a software program called PC Scale®. The program is supplied by PC Scale, Inc. of Oxford, Pennsylvania. According to the information provided by the company, the program is capable of providing standard reports and lists. The reports include carrier detail, cash, incoming commodities, and others. The types of lists include customer, products by category, route, destination, and others.

Clean MRF

Source-separated recyclables collected from residential and commercial generators are processed using two processing lines (as shown in Figure 5) located in a 30,000 sq ft building. Views of the exterior of the building from different locations are shown in Figures 6, 7, 8, and 9.

Figure 5. Interior of Clean MRF (sorting line on right, baler line on left)



Collection Vehicle Access Doors on Left

Parking Lot Area

Figure 6. Views of Clean MRF (east side)

Figure 7. Clean MRF (south side)

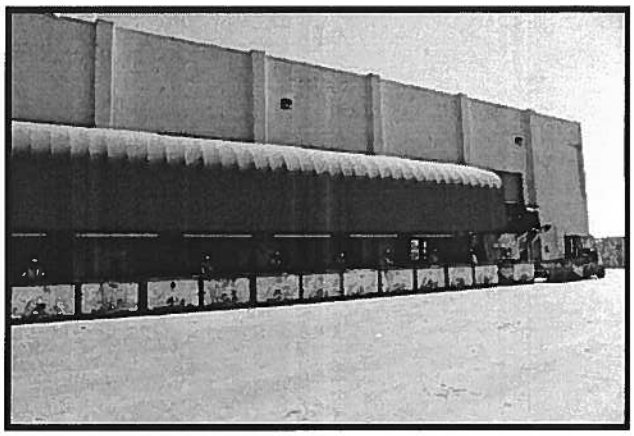


Figure 8. Clean MRF (west side), Container Sorting Line

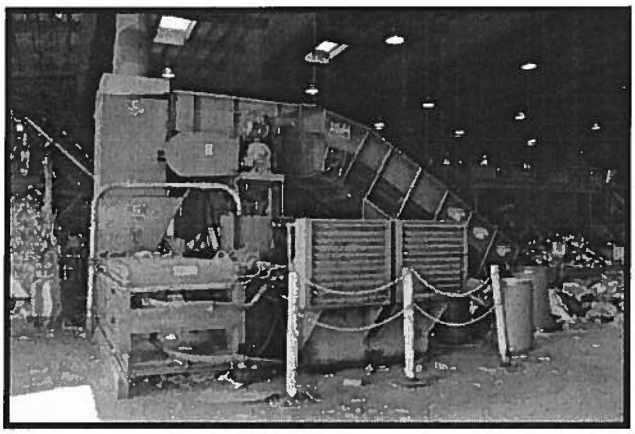
Figure 9. Source-Separated Container Storage Area

One processing line is composed primarily of conveyors and sorting stations and is used to separate recyclable grades of materials. This processing line consists of essentially two lines in series, an elevated sorting line for paper (as shown in Figure 10) and an outdoor sorting line used to recover containers (as shown in Figure 11).

Figure 10. Sorting Stations on Indoor Sorting Line

Figure 11. Outdoor Sorting Line for Containers

The other processing line is composed of a feed conveyor and a baler (see Figure 12) and is used to densify a variety of sorted materials for marketing.



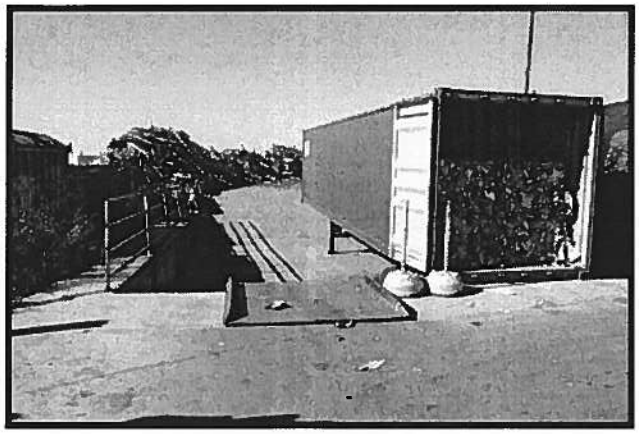
Infeed Conveyor on Right, Baler on Left

Baler Feed Conveyor

Figure 12. Baling Operation at the Clean MRF

A loading dock for the shipment of recovered materials is located near the southwest corner of the Clean MRF. A photograph of the loading dock area is shown in Figure 13.

Right Center of Photo, Looking East



Looking West

Figure 13. Views of the Loading Dock Area

Composting Area

Yardwaste

Clean yardwaste is unloaded in a designated area, as shown in Figure 14. The material is size reduced using a grinder and is subsequently composted using turned windrows. Currently there are seven windrows. Two windrows are about 15 ft high, 21 ft wide and 110 ft long, and five windrows are approximately 15 ft high, 21 ft wide, and 180 ft long. The windrows are turned by means of a front-end loader. Water is added to the composting mass with a tanker truck as shown in Figure 15.

Figure 14. Yardwaste Unloading Area (west side of Clean MRF)

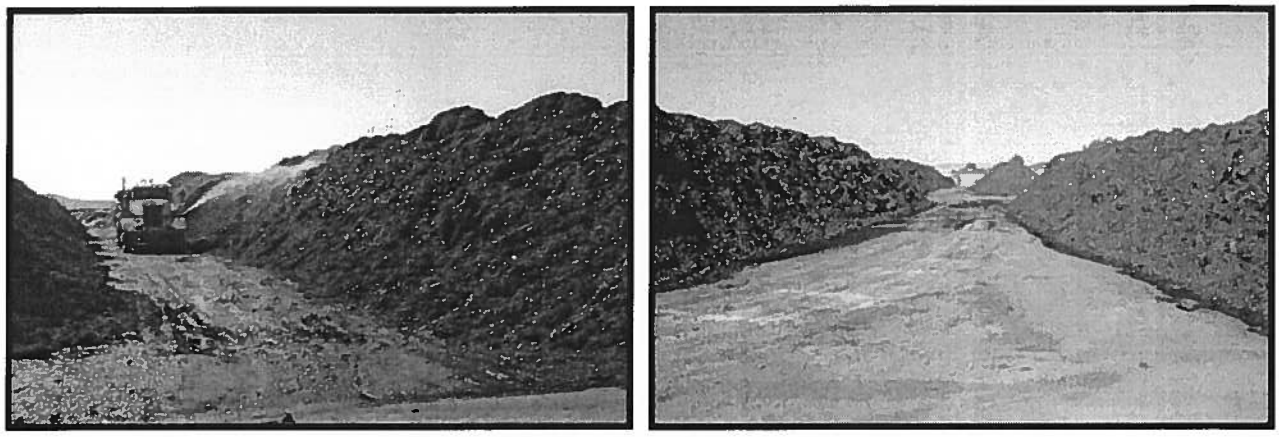


Figure 15. Turned Windrow Area

Compost produced during the turned windrow operation is stored and cured in a separate area of the Facility, as shown in Figure 16. The finished product is processed by means of a trommel screen depicted in Figure 17.

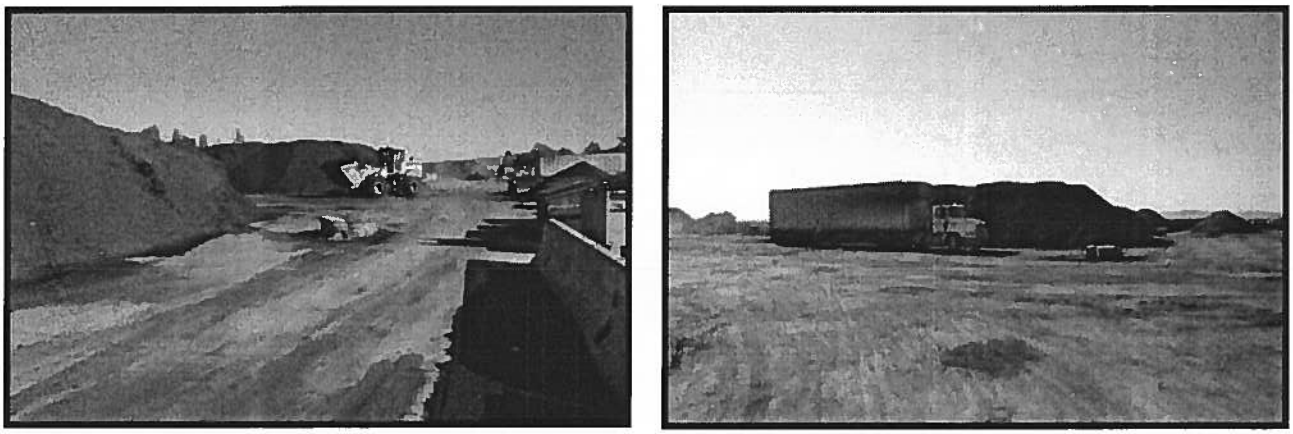


Figure 16. Compost Curing and Loadout Area

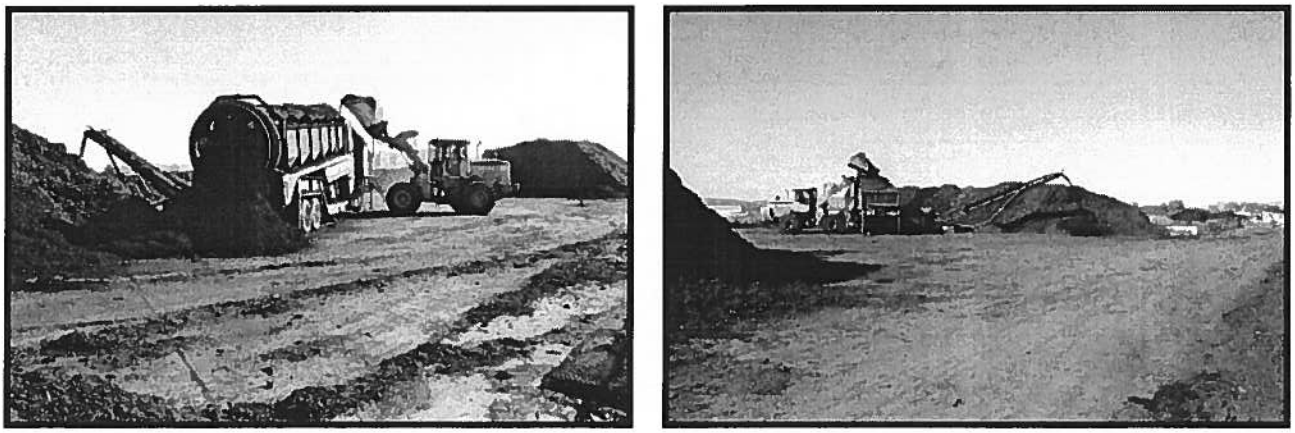


Figure 17. Screening Operation of Finished Product

Food Waste

The Facility accepts small quantities of uncooked vegetative material from grocery stores as part of a pilot program.

Wood Waste Processing

Clean wood waste is size reduced and screened for recovery of wood fuel. A photo of the grinding operation is shown in Figure 18.

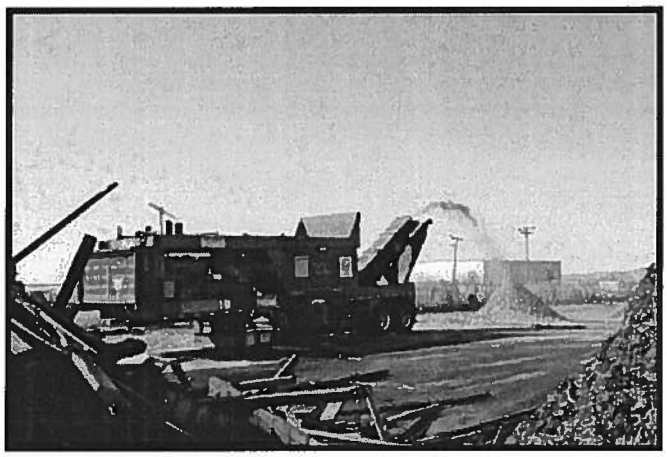


Figure 18. Wood Waste Grinding Operation

Source Separated Construction & Demolition Debris

Source separated construction and demolition debris received at the Facility is stored in a designated area, as shown in Figure 19. Materials segregated from the Mixed C&D processing are transferred to this area. The materials are processed using rented equipment.

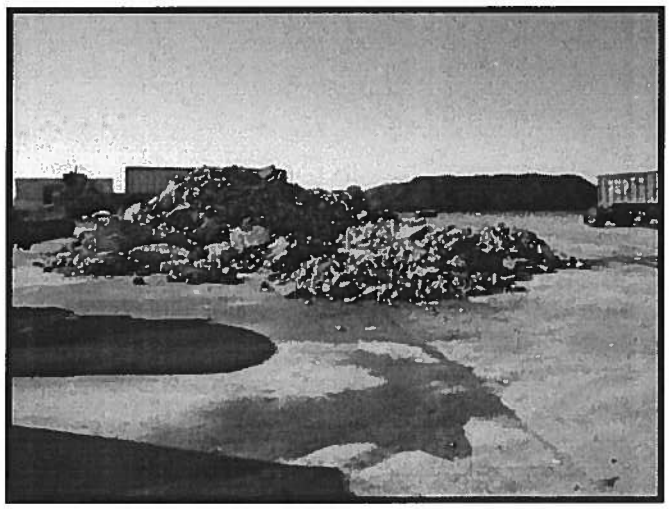
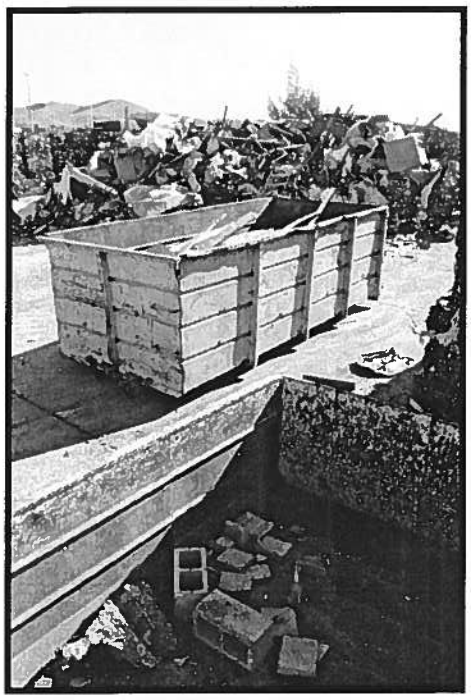


Figure 19. C&D Feedstock Storage Area

Mixed C&D

Some debris box loads of mixed C&D are targeted for recovery of recyclable materials. The loads are discharged in a designated area, as shown in Figure 20. Manual separation is primarily used to recover recyclable materials.



Recovered Wood Waste and Concrete Block

Typical Load to be Processed

Figure 20. Mixed C&D Processing

Electronics Recycling

Some electronic components such as PCs, computer monitors and television sets are received at the Facility. The components are separated by general type, loaded into shipping containers and sent to other facilities for recycling.

Storm Water and Leachate Management

The water management system is composed of the concrete pad of the facility and a series of collection and treatment ponds. The series of ponds accepts storm water runoff and leachate from the composting areas. Some of the ponds are shown in Figures 21 to 24. A schematic diagram showing the types and arrangement of the ponds is presented in Figure 25. The treated water from the biofiltration pond shown in Figure 25 is discharged into a drainage area at the northeast corner of the facility.

Figure 21. View of Inlets into Pond 1

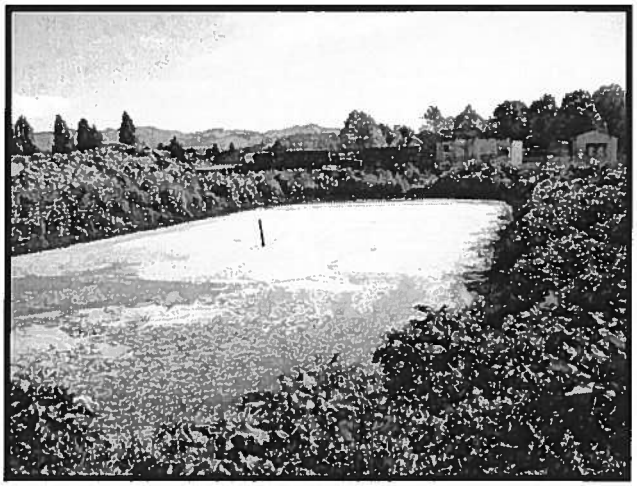


Figure 22. Partial View of Pond 2

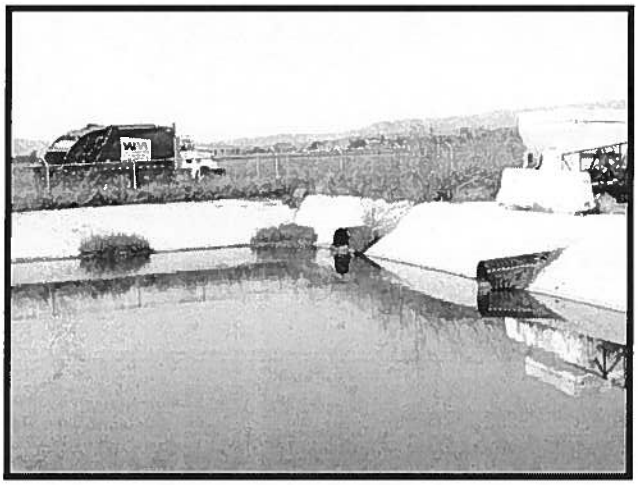


Figure 23. Portion of Pond 3 Showing Inlet and Outlet Lines

Figure 24. Partial View of Biofiltration Pond

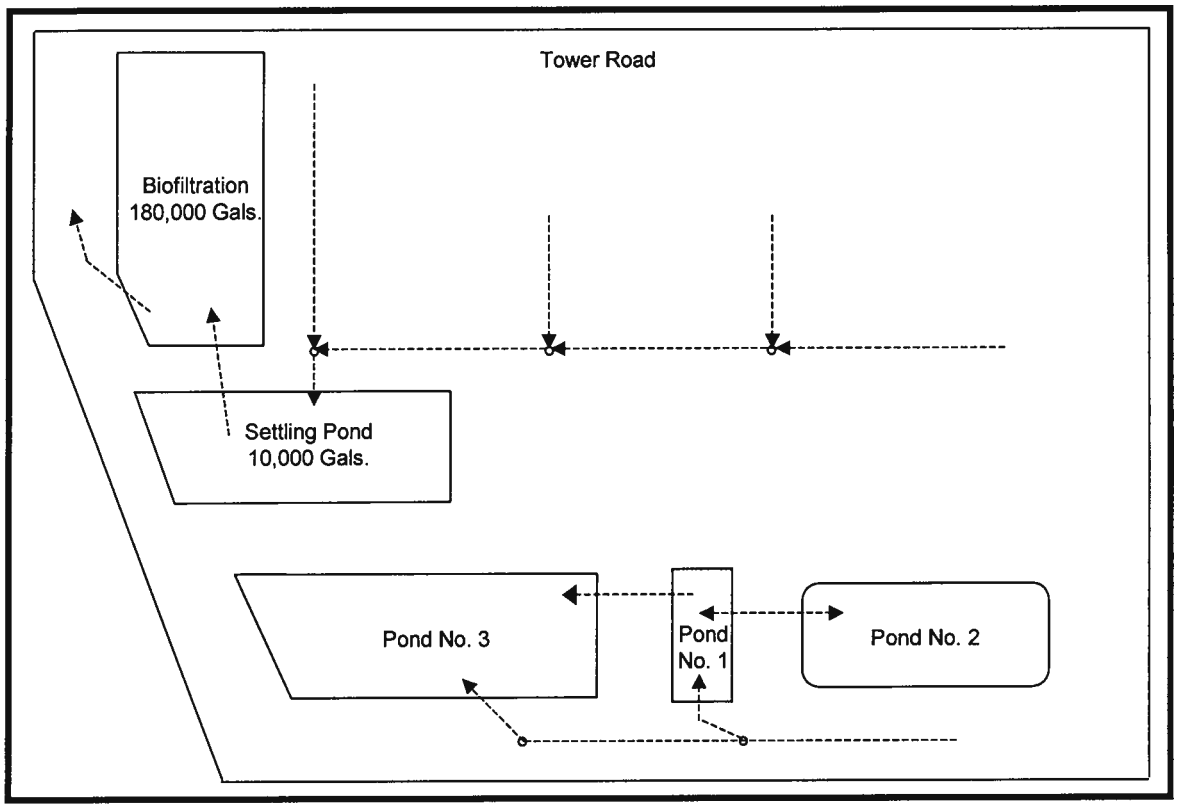


Figure 25. General Location of Ponds and Flow Patterns of Drainage System

Truck Wash Station

A truck wash station is located on the north side of the Clean MRF as shown in Figure 26. Wash water is collected in two drains.

Figure 26. Truck Washing Station

Maintenance Shop and Spray Painting Facility

An enclosed maintenance shop (as shown in Figure 27), with an adjacent and enclosed spray painting facility (refer to Figure 28), is located next to the Clean MRF.

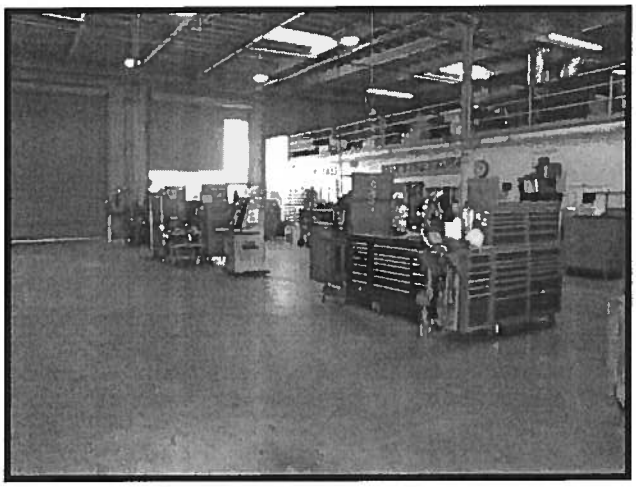


Figure 27. Maintenance Shop

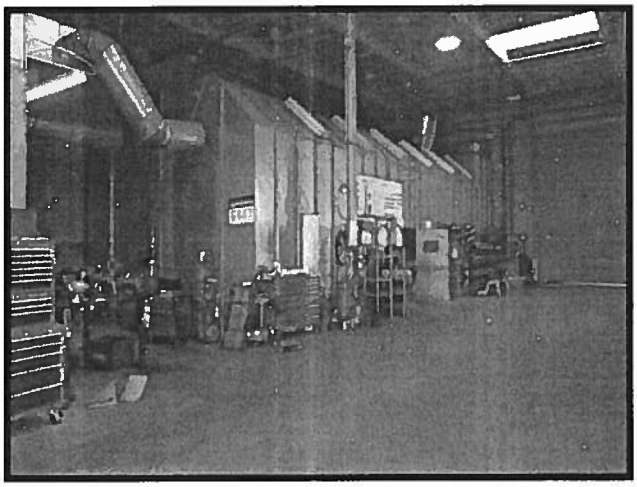


Figure 28. Vehicle Spray Painting Enclosure