

**APPENDIX 13A**

**WASTE RECYCLING CENTER OPERATIONS SUMMARY  
AREA A SITE**

**APPENDIX 13A**  
**WASTE RECYCLING CENTER OPERATIONS SUMMARY**  
**AREA A SITE**  
**FOR THE**  
**WEST CONTRA COSTA**  
**BULK MATERIALS PROCESSING CENTER**

April 2003

**INTRODUCTION**

This document was prepared to provide a summary of the current planning efforts for implementation of the Waste Recycling Center (WRC). This was written using the proposed facility location at the alternate site in the Area A portion of the WCCSL.

Following this Introduction, this summary describes the facility with respect to customers using the Waste Recycling Center and the load-out/haul-out methodology of the recyclables and residual materials. Next, the planned relationships of the Waste Recycling Center to the other Bulk Materials Processing Center operations are described. This is followed by a description of the infrastructure involving access roads and the apron surrounding the building, landfill gas control, drainage control, electricity supply, water supply, telephone, fire control, facility office, employee break room, equipment servicing area, and site security. A residuals management plan is also included.

**Waste Recycling Center Concept**

WCCSL, Inc. proposes to open the new Waste Recycling Center (WRC) to replace the existing landfill Waste Shuttle Facility. In addition to relocation of this operation, the main changes between the WRC and the Shuttle Facility are the volume of materials handled, the addition of an improved system to load non-recovered wastes into transfer vehicles, and conducting the operations within a large building.

The WRC must begin operation prior to the time the WCCSL is filled to capacity. The primary purpose of the WRC is to construct a permanent facility where WCCSL, Inc. can achieve greater recycling diversion and transfer of the self-haul mixed wastes, wastes from garbage trucks, and the commercial and industrial roll-off boxes that are not processed at the existing Integrated Resource Recovery Facility (IRRF) Central Processing Facility.

Any waste residues remaining after processing for recyclables will be disposed at the landfill working face, or hauled to Potrero Hills Landfill once the WCCSL has reached capacity and is no longer burying wastes for disposal.

The WRC has two parts in separate locations on the landfill: the Mixed Waste Processing Area and the Organic Materials Processing Area.

The BMPC WRC Mixed Waste Processing Area will consist of several main components – a) a receiving area, b) a sorting floor where wastes will be sorted into trash and recyclables, c) an elevated picking line where the recyclables will be sorted, and d) a transfer vehicle loadout area.

The WRC will also include the Organic Materials Processing Area. That area will consist of separate sub-areas for receipt of green waste, wood waste, food waste, agriculture wastes, biosolids, mixed waste paper, and soil.

### **Current Permit Capacity**

This is the use of an existing facility (the landfill and the closed soil remediation facility). WCCSL, Inc. has existing permits for many of the components of the WRC, including recovering recyclables from incoming waste, using mechanized processing equipment, and permits to move waste and processing residues from the processing area to the working face. Most of the mixed waste operations envisioned for the WRC are currently taking place at the landfill Waste Shuttle Facility. WCCSL, Inc. proposes that the existing land use permit for the Soil Remediation Facility be revised from a contaminated soil processing operation to a waste recycling and transfer facility.

The organics processing operation (receiving and grinding green material and wood wastes) now occurs at the existing Composting Facility and mulch/bio-fuel production area.

### **Proposed Permit Capacity**

The contaminated soil processing facility was approved to process up to 1200 tons per day of hydrocarbon-contaminated soil. The WRC is being designed to process an average of 1,000 tons per day of incoming solid wastes and recyclable materials delivered in a combination of private passenger vehicles, pickup trucks, garbage trucks and roll-off box trucks.

## **Proposed Facility Description Abstract**

The WRC will have two waste receiving and handling areas: the Mixed Waste Processing Area and the Organic Materials Processing Area.

The Mixed Waste Processing Area will consist of separate sub-areas for receipt of recyclables, trash, and mixed loads of recyclables and trash. There will be several areas for the processing and removal of recyclables. WCCSL personnel will direct traffic to the proper unloading spot, inspect the incoming materials, and remove obvious ineligible materials. Loads containing all trash and any trash residue remaining after processing will be loaded into transfer trailers to be hauled to the disposal site (either the working face at the WCCSL or Potrero Hills Landfill). Recyclables or recovered materials will be sorted and stored until shipped to markets or end users.

During the 2002-2003 permitting process selecting the location of the Waste Recycling Center Mixed Waste Processing Area involved two candidate sites at the WCCSL. This description is based upon the alternate location in Area A previously used to stockpile landfill cover soil. The proposed location is at the closed Soil Remediation Facility.

If the Mixed Waste Processing Area is located at the Area A site a new building would be constructed (Figure 13A-1). The building would contain about 30,000 to 60,000 square feet of processing space. The design of the building would include all the necessary components of a waste recycling facility and transfer station.

WCCSL, Inc. proposes to obtain all land use approvals for the WRC Mixed Waste Processing Area temporarily operating on the asphalt Waste Shuttle Facility pad, and later within a permanent building at the Soil Facility or in Area A.

The Organic Materials Processing Area is the location where these materials are received, unloaded and initially processed to prepare them for subsequent recovery operations such as composting or biofuel and mulch screening.

The location of the Organic Materials Processing Area is on top of the landfill central plateau adjacent to the composting facility and soil reclamation operation.

The materials would be inspected to remove unwanted items such as plastic bags, metal pieces and concrete chunks. The removed materials would be placed in metal storage bins or placed in designated piles for periodic removal. The processing operations would include grinding and shredding, and mixing of materials such as shredded green materials and biosolids. The prepared materials would be moved by tractor or truck to the recovery operation such as the adjacent composting facility.

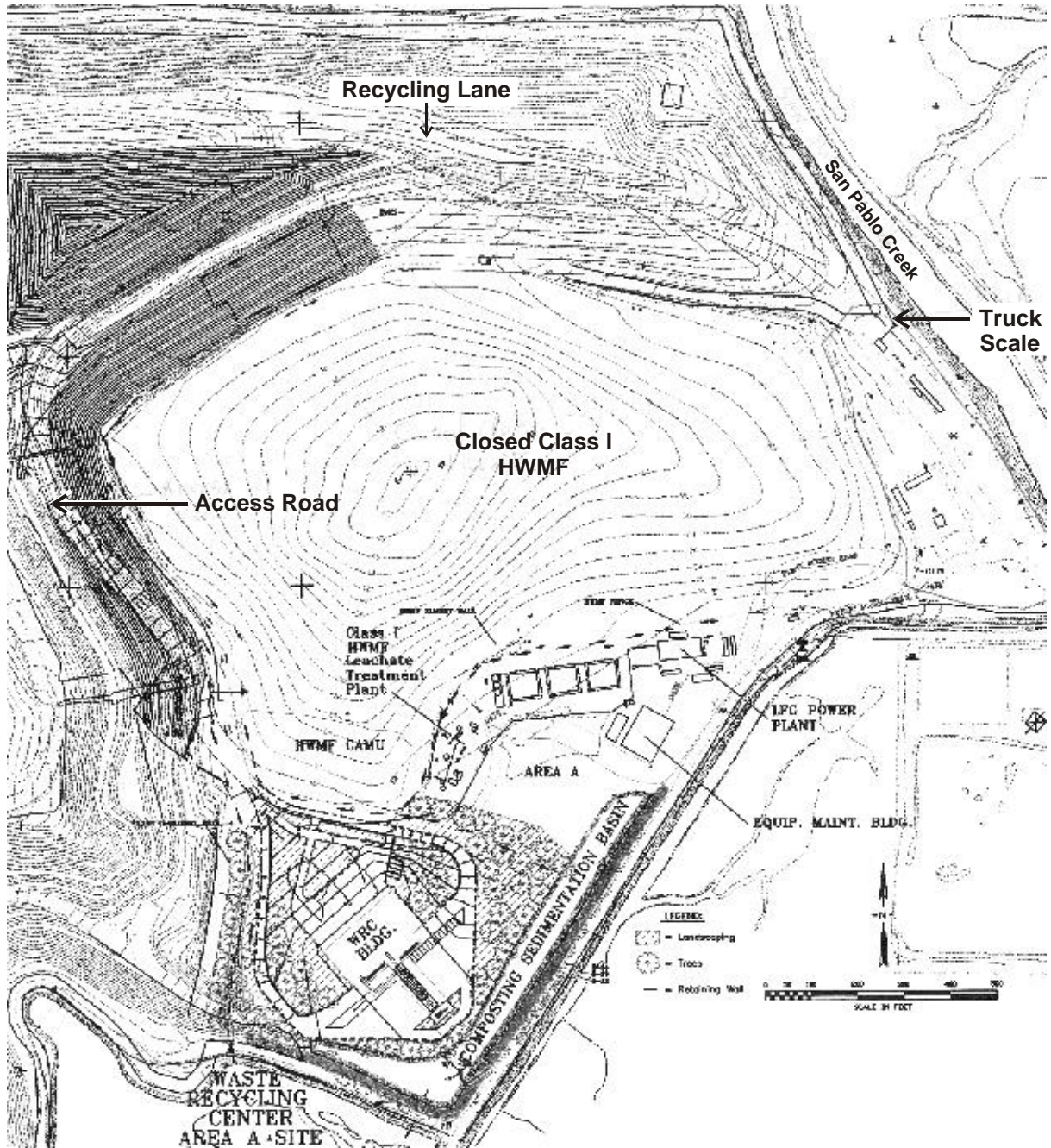


Figure 13A-1 Grading Plan and Surface Drainage Plan Area A Site

## **1. DESCRIPTION OF FACILITY OPERATIONS**

The waste delivery vehicles will proceed to the scale attendant's building for collection of the fees and initial screening of the waste loads. Initially the existing scalehouse and scales will be used. In the future, it may be desirable to have the scale facility closer to the Waste Recycling Center and Composting facility.

After payment of the fee and/or weigh in, the vehicles with mixed wastes will proceed to the front of the Waste Recycling Center Mixed Waste Processing Area. A building will house the waste processing operation. The initial facility operation may be conducted on a paved area of the Waste Shuttle Facility, enclosed with litter control fencing. This area will be large enough to handle all traffic, including busy weekend use, but involving some customer wait time during peak periods. After the building is constructed and is in use, during weekdays the volume of traffic will be low enough that all wastes can be unloaded inside.

### **Location**

For the Mixed Waste Processing Area located at the Area A portion of the WCCSL, as the traffic arrives at the intersection where the Organic Materials Processing Area, Composting and Concrete Processing Facility road continues westward, the Waste Recycling Center Mixed Waste Processing Area traffic would proceed to the left and travel southward. At the building the residential and commercial waste collection vehicles would back into the western end. Upon leaving they would return to the main access road. The self-haul traffic would follow the same route as the collection vehicles but enter the building at the east edge. This traffic flow pattern would also allow those loads discovered to primarily have green materials to be directed to the Organics Materials Processing Area.

The transfer trucks will pass southward along the west side of the building, turn at the southwest corner end and enter the loading stall in the eastern direction. Removal of the recyclable materials will follow the same path as the transfer trucks. A lane is planned on the south side of the transfer trailer loadout area to allow employee traffic to circle the building in a counterclockwise direction.

The residential and commercial waste collection trucks would be given preferred entrance and use the west portion of the building. Self-haul vehicles would enter at the northeast corner and use the eastern portion. As the self-haul site use continued during the day it may be necessary to unload wastes outside the building. This especially will be the case on nice weekends when everyone wants to come out and unload their discarded goods. During weekday overflow times, preference will still be given to the commercial trucks to unload inside the building, due to the larger volume carried by these trucks. These vehicles may also be delivering materials of higher potential salvage value.

The traffic flow pattern into and out of the facility will be designed for safe operations. It is usually preferable for the self-haul drivers to back up looking over their left shoulder for best visibility. This will involve a clockwise flow into and out of the unloading area. The commercial trucks will follow the same route.

### **Mixed Waste Processing Area Facility Operations Concept**

As the wastes are unloaded, the skip loader operator will make the decision whether to push the individual piles to the sorting area or to the transfer loadout area.

Recyclables will be removed as now practiced at the Waste Shuttle Facility through “floor sorting” (picking through the materials while they temporarily lie on the unloading area). Selected materials will be processed by sorting the materials passing down a conveyor belt picking line or sorting station. The picking line to be operated in the Waste Recycling Center will be a unit approximately 10 feet wide and 60 feet long. The rubber-tired bucket loader tractor operator will place those wastes containing salvageable materials into the hopper leading to the conveyor. The salvaging crew will be stationed along the belt with each person picking a designated material (e.g. wood or cardboard) from the conveyor and placing the salvaged item into a metal storage bin parked under the conveyor. All recyclable materials are to be placed in roll-off boxes or designated areas.

The tractor maintaining the facility floor area will push the remaining non-recovered materials to an accumulation area and place them into a temporary pile, or they will be loaded directly into the top of the transfer trailer. While doing this, bulky materials may be crushed by running over them or by using the tractor bucket. A bucket loader tractor will be used to load the materials into the trailer. Several push walls will be installed to make it easier for wastes and recyclables to be moved by the bucket loaders. These walls will be constructed of sturdy steel plates and beams.

A roll-off truck will deliver the boxes of salvaged materials to the appropriate on-site or off-site facilities. For example, boxes that contain green waste, concrete, or ADC will be moved to the appropriate processing area on the WCCSL whenever the boxes are full. Cardboard, metals and other recyclables will be moved off site as needed. The boxes will be allowed to remain at the shuttle area within the building for overnight storage. No wastes are to be left lying on the floor area after the end of the operating day, with the exception of inert materials (e.g. concrete, asphalt, soil, metals). Periodically the floor will be swept or cleaned with a motorized vacuum sweeper.

In the future the volume of materials salvaged such as cardboard may justify the installation of a baler. This unit would be placed in an enclosure located on the south side of the main processing building where sufficient area will exist.

Dust control will be provided by spraying the area with a water truck and use of hoses. Litter control will be provided by a mobile sweeper, and regular removal of materials accumulated against the litter fences. Collected materials may be suitable for delivery to the West County IRRF for sorting and recycling.

Rainfall drainage water from the front apron will be considered to potentially be contaminated from oil dripping off vehicles and when waste unloading overflows out onto the front apron area. Hence, the drainage will be specifically directed to the oil/water separators similar to those at the soil remediation facility area. The collected water may require subsequent treatment prior to either being handled as landfill leachate, or being directed to the Area A runoff pond.

## **2. RELATIONSHIP OF THE WASTE RECYCLING CENTER TO THE OTHER BULK MATERIALS PROCESSING CENTER OPERATIONS**

The Waste Recycling Center is part of the Bulk Materials Processing Center operations to be included within the County and City of Richmond Use Permits.

The Waste Recycling Center Organic Materials Processing Area location on the central mound of the closed landfill would be adjacent to the Concrete Processing and the Composting and Wood Processing Facilities. The concrete processing is envisioned to be operated by other parties as tenants on the West County Landfill property.



The Composting Facility, Wood Processing Facility and the Waste Recycling Center will be operated by WCCSL, Inc. as joint operations with shared management, personnel and equipment.

The waste screening, weighing, and disposal fee collection will be conducted by WCCSL, Inc. at a central scale facility either located at the current location or nearer to the Waste Recycling Center area.

### **3. SITE INFRASTRUCTURE**

This section describes the Waste Recycling Center site infrastructure.

#### **Access Roads**

The Waste Recycling Center is reached via the WCCSL main access road across the San Pablo Creek Bridge (Recycling Lane). This road passes through the entrance area, swings west and crosses the south flank of the Class II landfill (eastern leg), and passes along the north side of the location of the old soil remediation facility. An intersection is planned where the road swings to the south as it climbs up onto the central plateau area. The south leg of this intersection is the access road for the vehicles using the Mixed Waste Processing Facility.

On top of the plateau the road turns west and enters the intersection with the Organic Materials Processing Area and the Composting/Wood Waste Processing Facility entrance road. The west end of the road leads to the Concrete Processing Facility.

The main access road (Recycling Lane) ultimately will be paved and substantially meet the specification for a commercial/industrial development road. Initially, to allow more settlement of the road to occur, and defer site development costs, the roadway surface will be graveled. Operation of the site with the graveled road will entail maintenance grading to assure that the appropriate surface drainage is maintained.

The roadway used by the mixed waste hauling vehicles and the transfer vehicles will enter and exit on the main access road.

### **Apron Surrounding the Building**

The aprons surrounding the building will be paved with asphalt. No wastes underlie the Area A site. The engineered fill to be placed for the facility should not experience differential settlement and future maintenance repaving should be minimal. The areas where wastes or recycled materials will be stored will be graded to direct the drainage to oil/water separators.

### **Processing Building**

A processing building will enclose the Mixed Waste Processing Facility operation. The design review is focusing on a metal clad steel frame structure on a spread footing foundation. The floor of the building will be concrete.

The size of the building is yet to be finalized. The current sizing is 250 feet long and 150 feet deep. In this description, the building is presumed to be sited in the center of the Area A portion of the WCCSL.

Bollards will protect the entrance doors since site users must back into the building doorways. The doorways for the commercial truck unloading must be high enough to allow a truck to move forward with the dump body elevated without striking the top of the doorframe.

Initially, the building is being conceived as walled on 3 sides with the doorways left open. Ultimately, roll-up doors could be added to the building.

The loadout area will also be housed inside a building which is attached to the south side of the processing building. The transfer trailer would be positioned inside of this side structure which would be high enough to allow a tamping crane to reposition wastes inside the trailer if necessary.

The trailers will be top loaded by pushing the wastes horizontally to pass them through the openings in the floor, into the top of the trailers. Two loading stalls will be provided.

### **Transfer Trailer Weighing Equipment**

The concept of weighing the load in the transfer trailer as the wastes are being added remains to be confirmed. The trailer could have an on-board scale system or it could sit on load cells under each axle, or a 70-foot platform scale could be positioned under each truck/trailer.

### **Landfill Gas Control**

Landfill gas control at the Mixed Waste Processing Center will not be necessary due to the facility being a sufficient distance from the landfill edge.

Landfill gas control at the Organic Materials Processing Facility will be provided by the landfill final cap and the landfill gas recovery system.

### **Drainage Control**

The apron drainage will be sloped away from the Mixed Waste Processing Center building. That portion of the drainage that may contact wastes or the recycled material storage areas will need to be intercepted to route it to the oil/water separators.

The roof drainage of the building will be directed to downspouts with the discharges directed to the storm drainage system.

At the Organic Materials Processing Facility the area drainage will be maintained by WCCSL, Inc. to conform with the landfill closure and postclosure plans. Ponded water will be avoided due to the slope of the finished landfill surface and periodic regrading. Some of the reclaimed soil and concrete rubble may be used for the grading adjustment.

### **Litter Control Facilities**

The Waste Recycling Center location in Area A places it somewhat out of the wind due to the wind shadow of the landfill central mound. The building layout with the open doorways on the north should provide wind shielding during almost 90 percent of the year. The north winds of January/February will blow directly into the building causing

some swirling of the wastes. It may be necessary to wet down the lighter wastes with a fire hose to prevent blowing paper and plastic during the windiest days.

Litter fences will need to be constructed as wings along the ends of the building. The accumulated litter can be vacuumed up using a portable unit. Since during heaviest site use times when wastes may be unloaded on the front apron, it may be necessary to string horizontal netting along the tops of the side fences to prevent airborne plastics from escaping from the site and to provide bird control. Loads of residential and commercial garbage will be unloaded only inside the building.

### **Electricity Supply**

The Waste Recycling Center location will be served with electricity by extending the power line from the Leachate Treatment Plant located about 400-feet to the north.

The electrical supply will be from the on-site electrical network which delivers power from the WCCSL landfill gas-fired generating station located in Area A. The electricity powerline from the Leachate Treatment Plant will be constructed southward across Area A to reach the Mixed Waste Processing Center. An existing powerline continues westward up the slope of the central mound and serves power to the Organic Materials Processing Area, and the Composting Facility and the future Concrete Processing Facility locations.

The future power demands of the Waste Recycling Center are being determined by use such as in the processing facility, office, equipment service area, breakroom, and ancillary equipment (e.g. surface drainage pumps).

### **Water Supply**

Water will be necessary for Waste Recycling Center fire control, dust control and processing area washdown. Drinking water will be supplied via bottled water, although EBMUD water service will be available. Toilet flushing water supply will be from a fresh water supply.

It is envisioned that the Concrete Processing and Composting Facilities will be served reclaimed water from the adjacent West County Wastewater District treatment plant. This will be via a pipeline that extends westward from the HWMF leachate treatment plant location and climbs up the east side of the landfill central mound.

The water used in the Mixed Waste Processing Center will not be reclaimed water. The fire sprinkler water system is planned to be supplied from an extension of the fine water service pipeline installed to the power plant area in 2003.

### **Telephone**

A telephone cable will be laid adjacent to the water pipelines.

A pay telephone will be available in a central area near the processing building. A second payphone will be available outside the employee break room.

### **Fire Control**

It is anticipated that the processing building and the trailer loadout areas will be equipped with a fire sprinkler system. The fire water system is envisioned to include both ceiling sprinklers and hose and nozzles stationed at key locations in the building. As many as 6 stations will be needed.

A dedicated 10-inch water line connected to the EBMUD system will supply the sprinkler and fire hose bib system.

### **Office**

The current WCCSL office is located in the entrance area.

For the Waste Recycling Center management personnel, it is envisioned that a separate office building will be provided within the Waste Recycling Center Mixed Waste Processing Facility. The office will house the facility manager, bookkeeper, load check personnel, and an office for the site environmental & engineering inspection personnel. The office will also serve the Composting Facility. A conference room would be included. The minimum area required is presumed in this description as 20 feet x 50 feet, with the office located on the second floor.

### **Employee Break Room**

The employee locker area and break room is planned as a portion of the office building, located on the first floor.

The breakroom will serve the Waste Recycling Center and the Composting Facility. The Concrete Processing and Soil Remediation Facilities will have their own employee facilities.

### **Equipment Servicing Area**

Currently, the landfill equipment is maintained at the equipment service center located at the extreme northeast corner of the Class II landfill site. That facility will be moved to the Area A portion of the WCL in 2004.

The equipment used in the Waste Recycling Center (except perhaps the transfer trucks and trailers) and in the Composting Facility will be maintained at the relocated equipment service center. This is a pre-engineered metal building about 60 feet x 60 feet with two cargo containers placed along the sides for a equipment service person's office and supplies storage.

The fueling of the equipment will be via a service truck, which will be filled at the RSS Corporation Yard. Later, an above ground diesel fuel storage tank may be installed. However, the service truck will be necessary to fuel and service the Composting equipment such as the screens and Scarab windrow-turning tractor.

The transfer trucks and trailers may be serviced and maintained off site, or they may be serviced at the Area A maintenance facility.

### **Dust Control**

The graveled access road will be the major dust control maintenance activity. This will be a shared responsibility between Waste Recycling Center, the composting, and concrete processing operations. Two or three water trucks will be available from the adjacent composting and concrete processing operations.

The Waste Recycling Center Mixed Waste Processing Area will be paved and incoming loads will be prescreened to avoid dusty materials. However, dust will occur from the trash materials. Periodic washdown of the apron and processing area will be needed. The water truck from the composting operation can provide that dust control. It will be necessary to sweep (vacuum) the litter on the unloading apron.

At the Organic Materials Processing Area the water trucks will periodically spray the receiving and unloading area for dust control. Water sprays will be used on the grinding/shredding equipment as necessary. The raw materials feedstock will be sprayed with water prior to grinding to also control fugitive dust.

### **Site Security**

The primary security will be the fences and gates located at the end of Parr Blvd. As the landfill is closed, it may be desirable to have more full-time access to the BMPC facilities. Then gates would be installed on the main access road.

The fencing needed for security at the Waste Recycling Center will be a function of access to the WCCSL. For example, for the Public Access Trail, fencing will be needed along the eastern side of Area A on the north side of the Compost Processing Facility and Acme Hill, and on the western end of the Concrete Processing Facility.

## **4. RESIDUALS MANAGEMENT**

The Bulk Material Processing Center personnel are responsible for control of drainage water. They also must control dust from the shredding operations, and equipment maintenance materials.

The residuals from the shredded wood materials and compost processing are described in the information provided elsewhere.

Certain dirt and rock debris may be generated during the processing operations (dirt, litter). The non-dirt materials will be salvaged and recycled by delivering them to the appropriate processing facility. The dirt material, if clean, may be processed in the soil reclamation program or used as cover on the landfill area.

## **5. CONTINGENCIES**

The Bulk Material Processing Center operator will have established response programs for the cases of accidents, fires, and equipment malfunction. The Bulk Material Processing Center WCCSL personnel will be equipped with a radio to maintain contact with the WCCSL office. The Bulk Material Processing Center Management will maintain a list of emergency contact numbers and have a Fire Control Plan and a Hazardous Materials Management Plan.