

II. SUMMARY

A. HISTORICAL SUMMARY

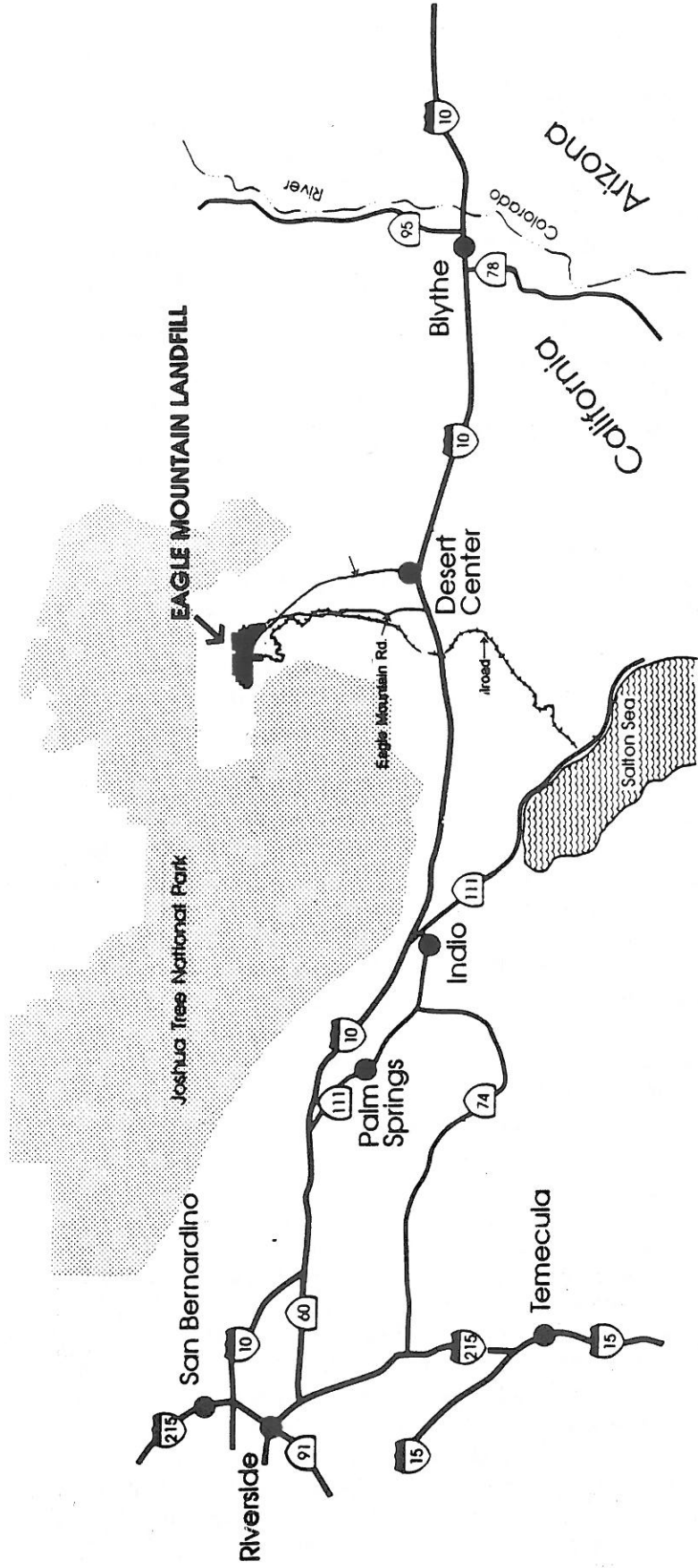
The proposed project is a Class III non-hazardous municipal solid waste landfill located on a portion of the Eagle Mountain open pit iron ore mine in eastern Riverside County, approximately 12 miles north of Desert Center, about 200 miles east of Los Angeles, and 50 miles west of the Arizona border (see Figure II-1, Regional Vicinity Map), to be developed by the project applicant, Mine Reclamation Corporation. The Eagle Mountain open-pit iron ore mine and concentrating facility was actively operated by Kaiser Steel Corporation, the earliest predecessor of Kaiser Ventures, Inc., from 1948 through 1983. During that time, Kaiser recovered over 940 million tons of materials from four pits, consisting of 228 million tons of crude ore and 712 million tons of waste rock at annual mining rates as high as 59 million tons of material. From that crude ore, 114 million tons of marketable concentrates were produced on site and shipped from the property for steel making and cement manufacturing; the waste rock remains on site in overburden (waste) piles or disposal areas adjacent to the pits. The 114 million tons of tailings remaining from the ore concentrating operations remain in the dried lagoons on site as "fine" tailings and in the large pile just north of the townsite as "coarse" tailings.

The disturbance in the general area due to Kaiser's mining operations totals over 5,500 acres. Although a reclamation plan covering the property has been approved by the County of Riverside, the disturbance predates the California Surface Mining and Reclamation Act, and only minor reclamation of the property is required. If the project receives all necessary land use approvals from the County, then the reclamation plan will be amended as well. As part of the transition from mining activities at Eagle Mountain, the concentrating facilities have been removed from the property as has most of the mining equipment.

As a result of the mining process which has taken place, four open pit areas have been created. These are known as the East Pit, Central Pit and the Black Eagle North and South Pits. Significant stockpiles of overburden and tailings from previous mining activity exist on the site and provides a ready source of construction materials that will be used for the liner system, daily cover, and final cap. The activity contemplated by this Specific Plan involves the disposal of nonhazardous solid waste (as defined by Section 1.1.14 of Development Agreement 64) in the East Pit area of the mine where mineral resources have been nearly exhausted (see Figure II-6). The remaining mineral deposits could be mined in the future only under substantially improved economic conditions. The Specific Plan does limit access to the most significant known placer deposit which is located at the far eastern end of the East Pit until the last phase of landfill operations (78+ years). Other areas of mineralization within the project area will be covered with refuse prior to that time thus limiting open pit access. Some of the existing deposits are not suitable for open pit mining because of high stripping ratios.

B. PROJECT SUMMARY

The project applicant proposes to operate a state of the art Class III nonhazardous solid waste landfill at the project site which occupies approximately 4,654 acres. The proposed design and construction of the landfill will meet or exceed applicable State and Federal standards for a Class III Landfill. As designed, the landfill will meet the more stringent State standards for a Class II Landfill even though the site will only accept Class III nonhazardous solid waste. The landfill itself will comprise 2,164 acres and will incorporate a composite liner system and a leachate collection and recovery system, gas recovery system, as well as other environmental controls. The remaining 2,490 acres will be used for open space and ancillary facilities. At full operation the landfill will accept an inflow of 20,000 tons of nonhazardous solid waste per day from throughout Southern California. Waste transported by rail will be shipped in containers along the Southern Pacific mainline to a rail junction at Ferrum, from which it will be transported along the private 52-mile Eagle Mountain rail line to the project site.



Eagle Mountain

L A N D F I L L
S P E C I F I C P L A N

NOT TO SCALE 

Regional Vicinity Map

Figure No. II-1

An estimated 2,000 tons per day will be delivered by truck. The project will be served by a network of rail and truck transfer stations to be located throughout Southern California. Three years after startup, truck deliveries of waste will be limited to the desert communities only.

The project site has been divided into six planning areas for detailed planning purposes. These Planning Areas are described below.

<u>Planning Area</u>	<u>Use</u>	<u>Acreage</u>	<u>Percentage of Site</u>
1	Landfill Area	2,164	46.5
2	Container-Handling-Phase I	235	5.0
3	Container-Handling-Phase II	461	10.0
4	Recyclable Storage Area/Transportation Corridor	146	3.1
5	Coarse and Fine Tailing Storage and Process Area	516	11.1
6	Open Space (includes 5 subareas)	<u>1,132</u>	<u>24.3</u>
TOTAL		4,654	100.0

Land uses in the Eagle Mountain Specific Plan area will include the following major uses:

- Waste disposal operations. (Planning Area 1)
- Two container-handling areas, one located in Planning Area 2 to be used in conjunction with initial operations up to 10,000 tons per day by rail and truck. The other, located in Planning Area 3, will operate when waste inflow exceeds this level. Both container handling areas may operate concurrently during the life of the project at a maximum of 20,000 tons per day by rail and truck.
- Storage area for recyclable materials. (Planning Areas 2, 3, and 4)
- Office buildings for landfill administration (Planning Areas 2 and 3)
- A Local Waste Receiving Facility (LWRF) to screen and remove recyclables and hazardous materials from locally generated wastes and for the random inspection of refuse received at the site. (Planning Areas 2 and 3)
- Equipment/vehicle repair and maintenance facilities. (Planning Area 2 and 3)
- Off-site circulation improvements including a new truck road and rail spur.
- A series of internal haul roads (Planning Areas 1-6)
- Areas designated for use as open space. (Planning Area 6)
- A portable or stationary materials blender/pugmill for processing landfill liner material (Planning Area 1 and 5)
- A permanent or portable crusher and/or mechanical screening facilities for processing landfill cover material (Planning Area 1)
- Environmental monitoring equipment (Planning Areas 1, 2, 3, 4, 5 and 6)

The capacity of the landfill site is sufficiently large to serve an infill rate of 20,000 tons per day over a timeframe exceeding 100 years. Mine Reclamation Corporation has leased the project site from Kaiser Eagle Mountain (formerly Kaiser Steel Resources) for a period of 99 years. For planning purposes it is assumed that the lease will be extended to utilize the full life capacity of the landfill.

C. LANDFILL DESIGN SUMMARY

This section summarizes the major design components of the proposed Eagle Mountain Landfill. These components meet or exceed all applicable federal and state regulations for the design and operation of municipal solid waste landfills.

The primary components of the landfill are:

- Composite liner system
- Leachate collection and removal system
- Landfill gas extraction system
- Interim and final cover management systems
- Leachate management system
- Water quality monitoring system
- Surface-water management system
- Landfill gas management system
- Environmental site monitoring system

These systems work in combination to isolate the waste and to contain and remove any leachate (liquid which passes through, contacts, or is produced by the decomposition of solid waste) and landfill gas (primarily methane and carbon dioxide) that may be produced.

Composite Liner System

The liner system has been designed to contain leachate and landfill gas that might be generated by the Eagle Mountain Landfill, and to allow the leachate to drain quickly by gravity to leachate collection and removal system (LCRS) sumps where it can be removed from the landfill by pumping. The liner system has been designed to underlie the entire landfill footprint (i.e., base and side slope areas) where waste will be deposited. In all areas, the liner system will consist of a composite liner immediately overlain by a LCRS. In all areas of the landfill, a nonwoven geotextile cushion will be placed over the HDPE geomembrane component of the composite liner for protection. The geotextile cushion will protect the HDPE geomembrane from overlying coarse, granular materials that will be used to construct the LCRS. In the base of the system, an additional liner will underlie the primary liner.

Leachate Collection and Removal System

The Leachate Collection and Removal System (LCRS), which overlies the liner system in all areas of the landfill, is designed to rapidly convey any leachate that reaches the bottom of the Landfill to a series of collection sumps located at the low points of each phase. If any leachate is generated, it would be removed from the sumps by pumps located in riser pipes that tie into a main dual-containment collection pipe located outside of the limit of landfill containment. Leachate would then be conveyed to dual-containment mobile tanks for temporary storage prior to disposal. A second composite liner system located below the primary liner system (described above) will provide redundancy and additional protection below all sump areas.

Landfill Active Gas Extraction System

An active gas extraction system will be used to remove gas from the Landfill that is generated by the decomposition of waste. The active gas extraction system will ultimately comprise about 1,000 gas extraction wells and associated horizontal collector pipes placed within the waste mass. Construction of the active gas extraction system will occur as waste filling progresses. The active gas extraction system will be operated under a small vacuum (i.e., less than atmospheric pressure) that will promote gas flow from the waste mass towards the gas extraction wells. The drop in temperature associated with gas extraction from the Landfill produces condensate. Condensate traps will be installed to allow the capture and temporary storage of condensate. Following collection and temporary storage, the condensate will be disposed of, as described in greater detail below under *Landfill Gas Management System*.

Leachate Management System

The leachate management system will allow for the storage and disposal of leachate removed from the landfill LCRS. Liquid pumped out of the LCRS sumps will be discharged into a dual-containment gravity-fed leachate transmission pipeline. The leachate transmission pipeline will be used to convey leachate to above-ground storage tanks located onsite. Secondary containment will be provided for leachate conveyance and storage facilities outside of the landfill footprint.

When a sufficient quantity of leachate accumulates in a leachate storage tank, it will be transferred into a transport truck and delivered to an approved wastewater treatment facility. At this time, it is anticipated that the approved facility will be located offsite. The system is designed to allow monitoring of the quantity and quality of leachate removed from the LCRS sumps. Sampling points will be established at each LCRS sump location. Quarterly sampling, testing, and reporting of leachate characteristics, such as quantity and chemical composition, will be performed.

Surface-Water Management System

The surface-water management system for the landfill has been designed to: (1) convey surface water around and away from the active portion of the landfill during and after landfill operations; and (2) convey flows and control erosion on the landfill surface after intermediate or final cover has been placed.

There are two major types of surface-water flow at, and around, the landfill site: (1) noncontact water; and (2) contact water. Noncontact water is defined as surface-water runoff that does not contact either waste or daily cover within the active area of the Landfill. Noncontact water will be rerouted around the perimeter of the daily landfill cell and discharged into detention basins. Contact water is defined as surface-water run-on that comes into contact with waste or daily cover. Contact water will be routed and contained and then allowed to infiltrate into the waste mass and/or be directed to the LCRS and will be treated as leachate.

Components of the surface-water management system for the Eagle Mountain Landfill include:

- Interim drainage control and erosion and sediment control features within the landfill footprint (on-landfill) to collect and control flow during landfilling operations.
- Final on-landfill drainage, erosion and sediment control features to collect and convey flow across portions of the landfill where the final cover has been constructed.
- Final drainage control and erosion and sediment control features outside the landfill footprint (off-landfill) to collect and convey flows around the perimeter of the landfill for discharge to existing drainage courses.

Drainage structures will be sized to meet Chapter 15 and County design requirements for accommodating runoff from selected storms. Surface-water drainage features on the landfill final cover were designed for the 100-year, 1-hour rainfall. Off-landfill drainage structures, including detention basins, were designed to contain run-off from the most critical of the 100-year, 3-hour, 6-hour, and 24-hour rainfall. In addition, the off-landfill drainage structures were designed with sufficient freeboard to contain run-off from a 500-year, 3-hour rainfall. Surface-water flow diverted away from, or collected off of, the landfill footprint will be routed to interim detention basins or detention basins constructed along the north perimeter maintenance road.

Phase I Container Handling area drainage will be collected and routed through a detention/treatment facility before release to the channel along the north side of Kaiser Road. Runoff from the Phase II container handling yards will be collected and routed to a detention facility for testing and treatment.

Before reaching the detention facility flows will pass through an oil and grease separator which will remove floating grease, oil and solids from the runoff. For both phases, only nonpolluting drainage will be released into downstream drainage courses.

Landfill Gas Management System

The Eagle Mountain Landfill is designed to manage landfill gas (LFG) that could be generated as the MSW degrades. The rate at which MSW degrades depends upon the composition and the moisture content of the waste. The gas generated by this decomposition consists primarily of methane and carbon dioxide and will be collected by a series of horizontal pipes and vertical wells constructed into the waste as discussed above in *Leachate Collection and Removal System*.

The LFG management system will allow for transmitting, treating, and disposing of LFG extracted by the active gas extraction system, and for storing and disposing of LFG condensate. During the initial year of operation of the landfill, when the LFG production rate is low, LFG will be burned in a fully enclosed thermal combustor (i.e., flare). In the future, the development of an onsite energy recovery facility will be considered based on the results of a detailed study of the quality and quantity of LFG produced at the landfill and market conditions at that time.

Landfill gas monitoring will be implemented using a series of LFG monitoring probes placed around the perimeter of the landfill boundary. Monitoring probe spacing and depth have been selected to conform with SCAQMD and CIWMB guidelines. A total of 63 gas monitoring probe clusters will be installed at a spacing of approximately 1,000 feet.

D. WASTE TRANSPORT SUMMARY

Waste Origin and Composition

Waste disposed of at the Eagle Mountain Landfill is expected to originate from sources in Southern California including the counties of Riverside, San Bernardino, Orange, Los Angeles, Ventura, San Diego and Santa Barbara. A portion of the capacity will be reserved for waste originating in the County of Riverside. Waste will be accepted only from jurisdictions in compliance with the mandatory waste reduction and diversion requirements of AB 939 or subsequent regulations. No waste will be landfilled from out-of-state sources.

The project site will be designed to manage nonhazardous solid waste (as defined in Section 1.1.14 of Development Agreement 64) from residential and commercial sources including single and multiple family residential units, office buildings, retail stores, wholesale businesses, manufacturing, and construction activities. Typically, waste from these sources includes paper, plastic, food waste, metal, glass, fabric, and yard waste. It also includes non-water-soluble, non-decomposable inert solids such as concrete, rock and fill, and other construction and demolition materials. The applicant proposes to operate the landfill to accept all wastes eligible for disposal at Class III nonhazardous solid waste landfills. The landfill will not accept the following substances (see Section 1.1.14 of Development Agreement 64):

- Liquid wastes.
- Hazardous wastes.
- Sewage or water treatment sludge.
- Incineration ash.
- Radioactive wastes.
- Biological wastes.
- Medical wastes.
- Abandoned vehicles and parts thereof.
- Other special solid wastes.

Offsite Waste Processing

While not proposed as part of the Landfill project, Material Recovery Facilities (MRF's) and Transfer Stations (TS's), located throughout Southern California, will function as initial recycling, screening, and transfer facilities for nonlocal waste entering the landfill. Namely, incoming refuse on trains and transfer trucks will:

- Be screened for unacceptable wastes which will be removed as required by permits for these facilities.
- Be separated from recyclable materials.
- Be loaded into containers and loaded for transport to the project site as follows:
 - Onto rail cars for direct transport by rail.
 - Onto trucks for transport to a rail head and subsequent loading for transport by rail.
 - Onto trucks for direct transport by highway.
- Be loaded into conventional transfer trailers for direct transport by highway.

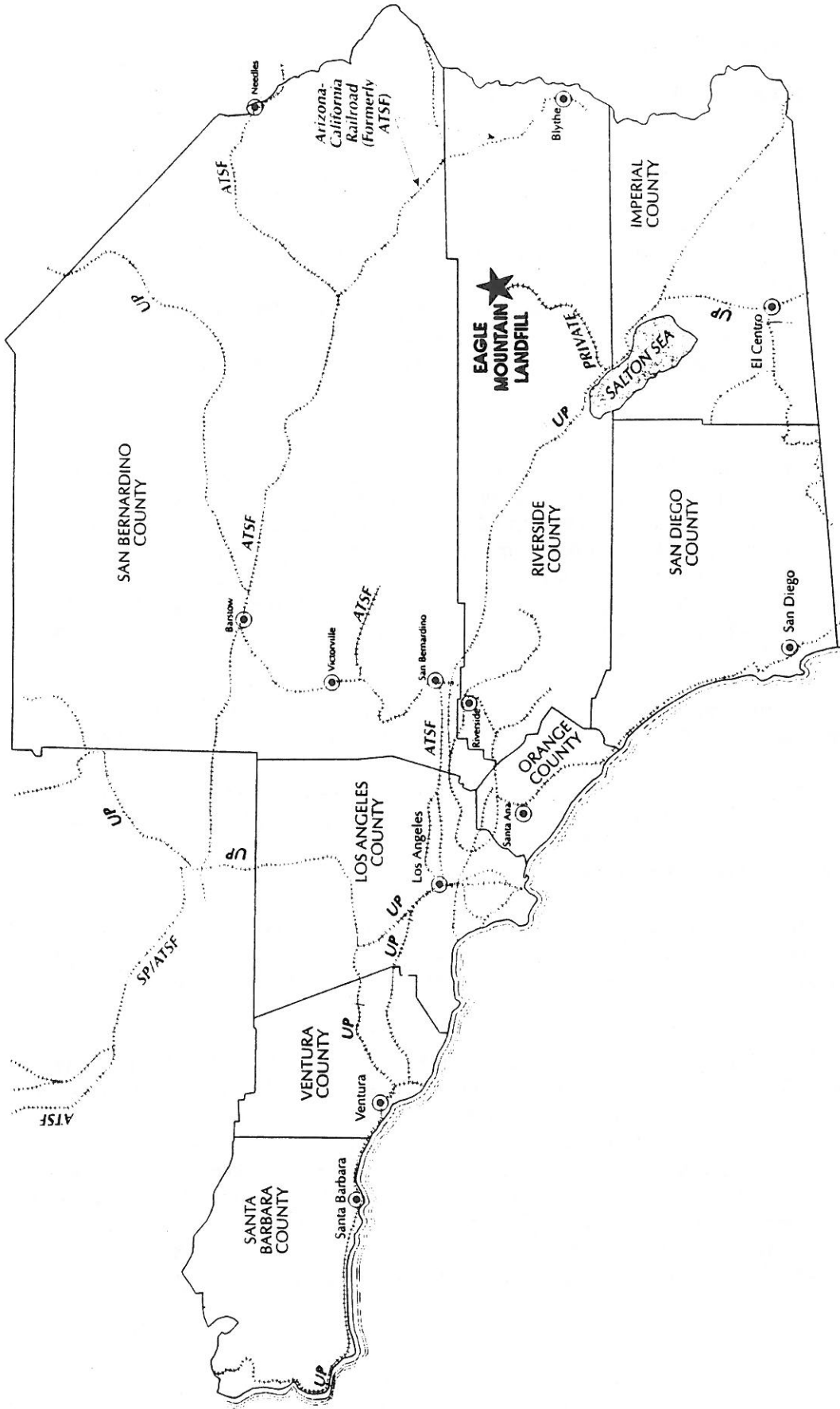
Waste Transport

The Eagle Mountain Landfill is primarily a waste-by-rail facility but waste will also be accepted at the site via transfer truck. In either case, long haul waste will be transported in sealed containers to control or reduce leaking liquids and blowing trash that might otherwise escape along the transport route. Waste arriving at the site by train will be transported in standard shipping containers while waste arriving by transfer truck will be transported in enclosed trailers. In addition to long haul transport of waste by rail and transfer truck, waste originating locally within the Chuckwalla Valley and the Blythe area could be transported to the landfill in commercial garbage trucks or private cars and trucks.

Certain thresholds have been established regarding waste volumes to be accepted at the landfill as well as the mode and timing of waste transport. Specifically, the following thresholds are noted:

- *Transportation Mode & Timing:* For the first three years of operation, waste will be accepted by both truck and train from the seven county Southern California region. After three years, truck traffic will be accepted only from the desert areas of Riverside County while waste from all other areas must be transported by rail.
- *Waste Volumes:* For the life of the project, truck round trips are limited to a maximum of 100 per day (which equates to approximately 2,000 tons per day of waste). At full operation, the landfill will accept a combined maximum of 20,000 tons of waste per day by both rail and truck.

Potential routes for rail haul of waste to the project site are shown in Figure II-2. Rail transport of containerized waste will be accomplished by unit trains (see Figure II-3 for illustration of typical rail car), which will be delivered to the switching yard at Ferrum Junction, California, over the existing Southern Pacific mainline. From the Ferrum Junction siding, unit trains will be moved to the landfill site over the existing private Eagle Mountain rail line as shown in Figure II-4. From Ferrum Junction to the site, unit trains will be powered by MRC, or other privately-owned, locomotives. Although an average of 4.5 shipments per day is projected to arrive at the project site, the rail yard(s) will ultimately be equipped to receive up to six trains per day. Empty unit trains returned from the landfill will be picked up from the Ferrum Junction siding for return to the rail transfer stations.



Eagle Mountain

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Potential Rail Haul Routes

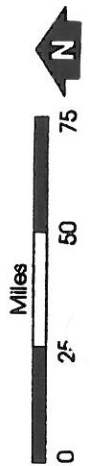
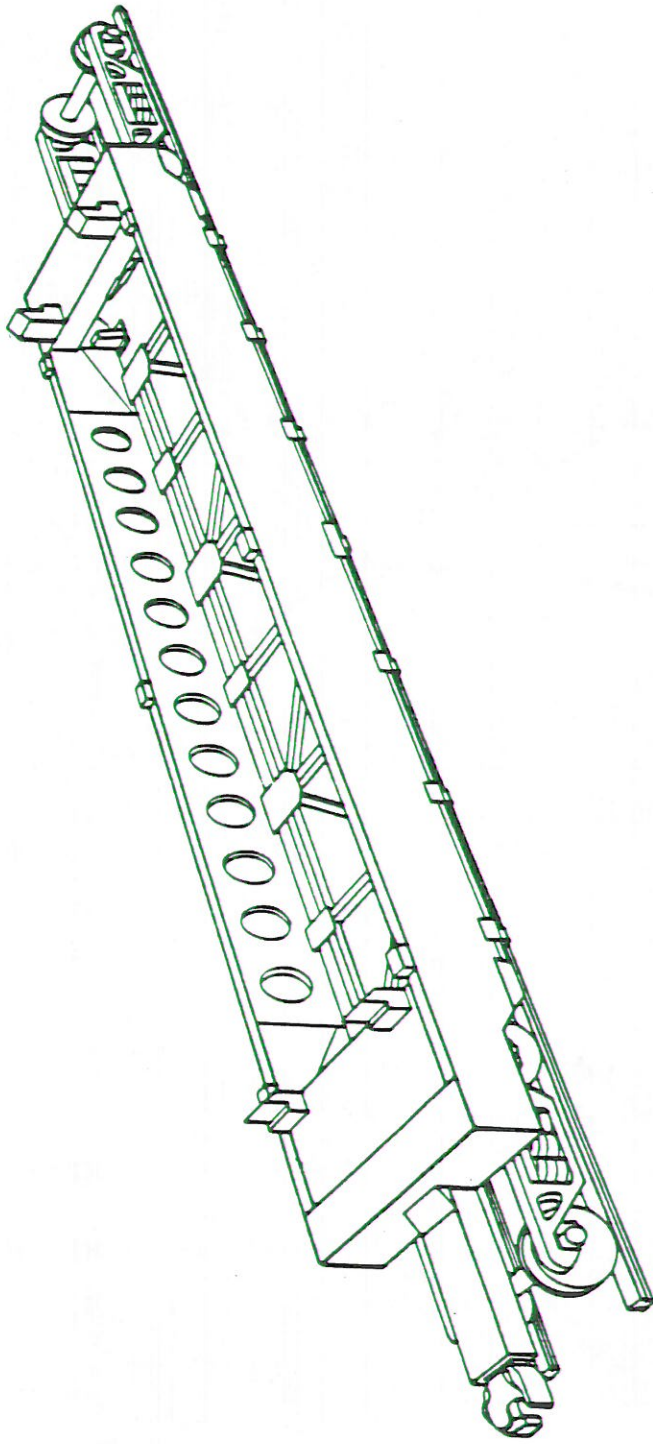


Figure No. II-2



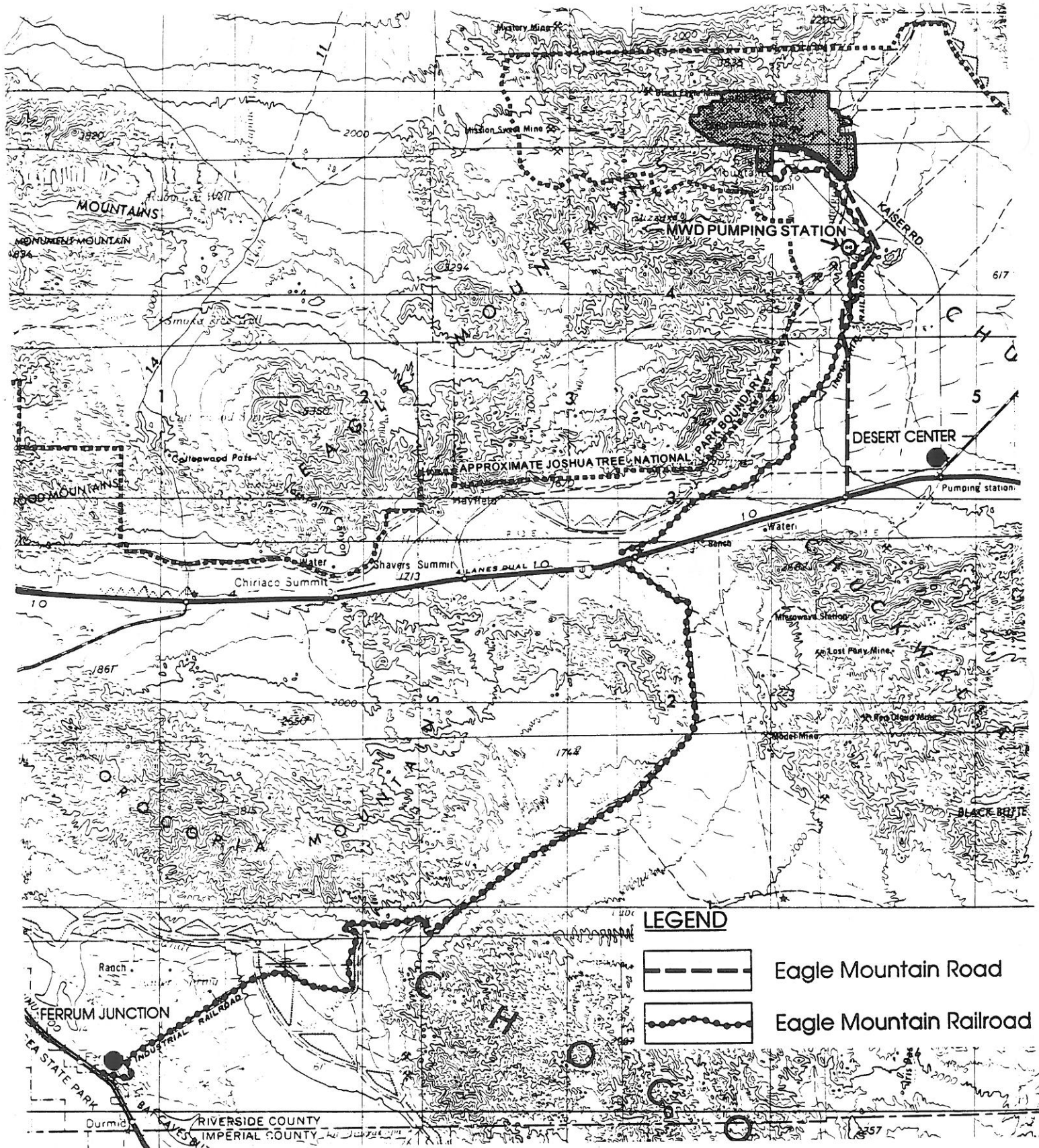
Average Length of 256 Feet



Eagle Mountain

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Double-Stacked Articulating Rail Car



Eagle Mountain

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Area Map



Figure No. II-4

Presently, the Eagle Mountain rail line connects Ferrum Junction with the Eagle Mountain mine. During initial operation of the landfill, this existing rail line will be used in its entirety to access the rail yard in Planning Area 2. When waste volumes warrant, a new 2 mile long rail spur will be constructed, departing from the Eagle Mountain rail line at a point southeast of the existing landing strip and terminating at the rail yard in Planning Area 3.

Highway access will be provided via Interstate Highway 10, Eagle Mountain Road, the proposed Eagle Mountain Road Extension and the two mile terminus of Kaiser Road north of the Eagle Mountain Townsite. Eagle Mountain Road runs north from its intersection with I-10 (approximately 3 miles west of Desert Center) to the Colorado River Aqueduct Eagle Mountain Pumping Plant and will serve as the primary route for transfer trucks. This existing road will be widened and improved to meet the design standards of the County of Riverside regarding drainage, culverts, paving material, thickness, etc. In addition, Eagle Mountain Road will be extended north from the pumping plant to Kaiser Road for initial operations and later constructed north from Kaiser Road into the Planning Area 3.

Consequently, transfer trucks will exit Interstate 10 and travel Eagle Mountain Road and the Eagle Mountain Road extension north to Kaiser Road at the project site. From the intersection of the Eagle Mountain Road Extension and Kaiser Road, two transfer truck routes will be used. Initially, Kaiser Road north of the Townsite will provide transfer trucks with access to the Truck Marshalling Yard in Planning Area 2. When the Eagle Mountain Road Extension is later constructed beyond Kaiser Road to provide transfer trucks with access to the truck marshalling yard in Planning Area 3 at the eastern edge of the landfill. The Eagle Mountain Road Extension will be constructed in accordance with County standards. The location of the new rail spur and truck road are shown in Figure II-5.

Local waste will enter the facility via Kaiser Road or Eagle Mountain Road at the southern part of Planning Area 2 or 3. Vehicles will be directed to the appropriate Local Waste Receiving Facility, where waste will be unloaded. The waste will then be sorted, inspected, and loaded into a transfer trailer for delivery to the landfill working face via the South Haul Road.

Unit Trains

Locomotive power from the loading stations to Ferrum Junction will be provided by Southern Pacific or other carrier. Diesel electric locomotives operated by Southern Pacific or under contract to MRC will be used to power the trains between Ferrum Junction and the proposed landfill site.

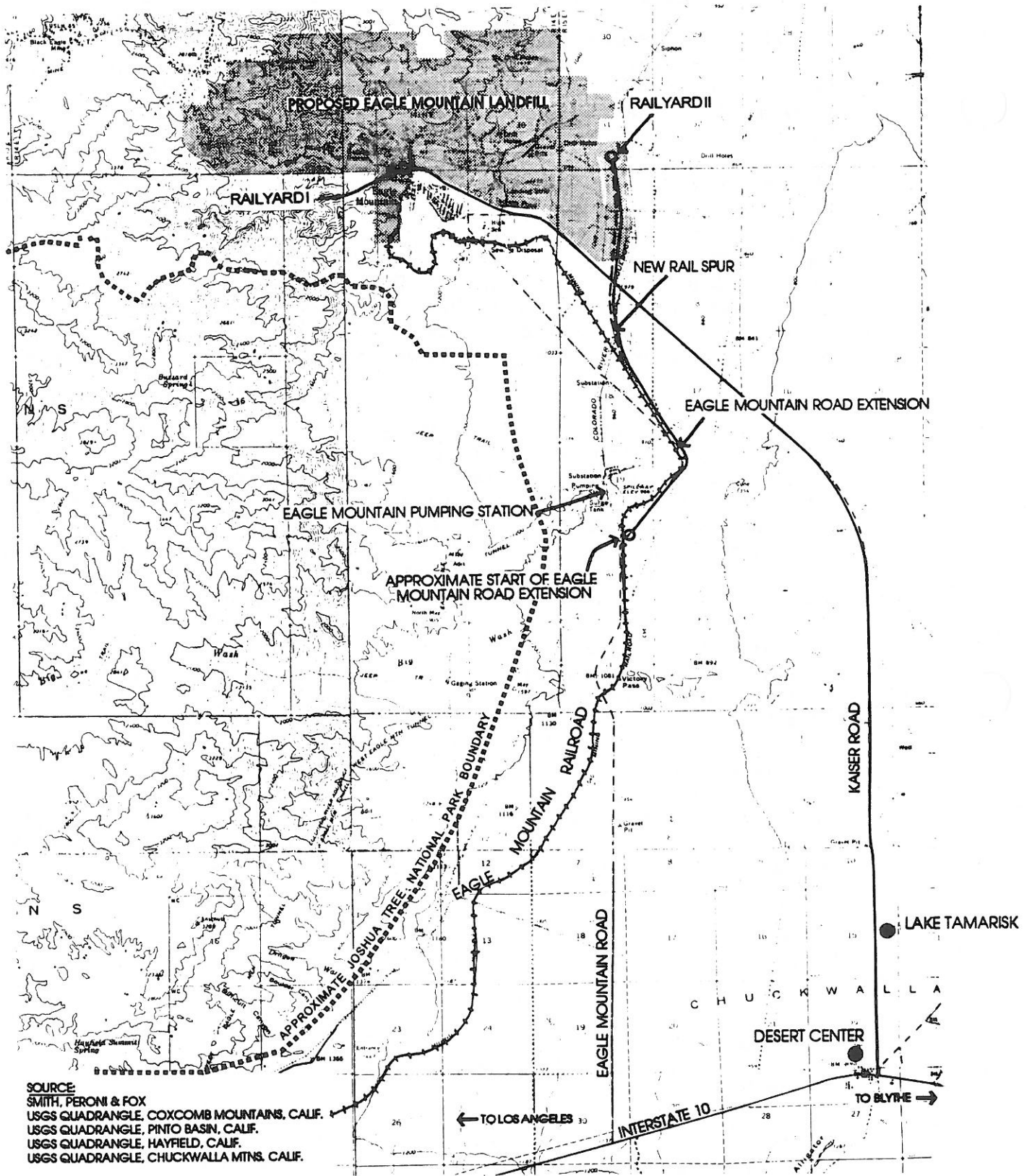
Trucks

A maximum of one hundred daily two-way truck trips will deliver a projected 2,000 tons per day of refuse by truck to the project site.

Waste Receiving Areas

Intermodal Rail Yards

All waste entering the landfill site by train will be received at one of two planned intermodal rail yards. The primary rail yard will be located in Planning Area 2 at the same location where iron ore was loaded for rail transport during the 36 years of full-time iron ore mining. After refurbishing the existing rail yard and adding additional track, this rail yard will handle approximately 8,000 tons per day (an average of 2.3 trains per day) of waste. Existing rail facilities in this rail yard consist of several rail spurs, a locomotive maintenance building, and fueling and sanding facilities. The proposed landfill encompasses the use of the three incoming tracks of the existing yard, the removal of the loadout facility, and a transition to an expanded upper yard consisting of five parallel tracks. These facilities will be refurbished or reconstructed to meet current design and regulatory standards.



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Site Access



Figure No. II-5

When incoming waste exceeds approximately 10,000 tons, a second rail yard will be constructed in Planning Area 3. The first and second phase rail yards may operate concurrently but would be limited to a maximum of 20,000 tons of waste per day (a maximum of six trains per day, averaging five trains per day over the life of the landfill) although it will be built in stages as waste flow increases. Overhead intermodal cranes or mobile equipment will be used to unload full containers and reload empty ones. Two cranes will be used at commencement of operations and the number of cranes will increase proportionately with the increase in waste by rail. Container handling vehicles (semi-tractor with chassis) will be stationed on roadways adjacent to the railcars. Containers will be placed directly on the empty chassis for transport to the Landfill working face. If a container handling vehicle is unavailable, the container will be placed next to the roadway for staging. Empty containers will be reloaded onto railcars for transport back to the MRF or transfer station.

Truck Marshaling Yard

Of the 20,000 ton per day maximum, about 2,000 tons per day could be delivered to the site by way of truck haul. The waste will come by Eagle Mountain Road via Interstate 10 into Planning Area 2. A gate house and a set of scales will be constructed at the main entrance. All transfer trucks will be directed to the truck marshaling yard. This yard will consist of approximately 15 acres of crushed rock surfaced with calcium lignosulfonate or similar sealant to control dust. Trucks delivering waste will drop off full containers and pick up empty ones for transport back to the Material Recovery Facility or Transfer Station. All containers delivered to the truck marshaling yard will be inspected and questionable containers separated for return to their point of origin. Container handling vehicles will then haul the chassis with the loaded container to the Landfill working face for removal and disposal of the waste. The truck marshaling yard will be equipped with minor maintenance facilities to permit drivers to perform repairs and general maintenance. A secondary truck yard similar to that in Planning Area 2 may be opened in Planning Area 3.

Local Waste Receiving Facility

Vehicles carrying local waste originating from Blythe or the Chuckawalla Valley will be directed to the Local Waste Receiving Facility (LWRF). Initially this facility will be sited in Planning Area 2, but as the other site operations expand into Planning Area 3, this facility may be expanded and/or relocated. Local-area or Blythe-area vehicles will be directed to the LWRF by the gate house employee. Here the vehicles will be unloaded onto a concrete pad surrounded by a retaining wall and litter control fence. Materials will be dumped on the concrete floor where they will be inspected for hazardous waste and the removal of recyclable materials. Designated recyclables will be unloaded here, also for temporary storage. After inspection, the waste will be loaded into a covered transfer trailer which will be transported to the Landfill where the waste will be disposed. Recyclable materials will be stored in designated containers at the LWRF until shipment to a larger recycling storage facility or market.

Internal Access

Both permanent and temporary haul roads will be constructed for internal use within the project. All entrance roads into the Landfill site will be paved with asphalt. The South Haul Road, which runs along the entire southern edge of the landfill, will serve as the primary permanent access road to the refuse fill area from the truck marshaling and rail yards. This road will consist of crushed rock treated with calcium lignosulfonate or similar dust suppressant. From the South Haul Road, temporary haul roads will provide connection to the working face of the landfill and other operating areas. All temporary roads will consist of graded and compacted onsite soil. Dust will be controlled by the application of calcium lignosulfonate or by periodic watering.

E. LANDFILL OPERATIONS SUMMARY**General Landfill Operations****Hours of Operation**

Landfill waste filling operations at the working face may be conducted from 7:00AM to 10:00PM, six days per week. Actual working hours will vary on a seasonal basis. The container handling yard and site equipment maintenance activities will also operate from 7:00AM to 10:00PM. Containment system construction may be performed using daytime or nighttime operations. Also, construction of landfill liner systems may be done 24 hours per day to help control dust, minimize use of water, and enhance liner construction.

Security

Access will be controlled by the use of gate(s) at the entrance(s) to the site and the existing fence which separates the town of Eagle Mountain from the mine. Because the terrain is extremely rugged and vehicular access is limited (except at controlled access points), landfill perimeter lighting and fencing are not proposed.

Dust Control

Water from existing Kaiser water wells will be used, as needed, to control dust on the haul roads and within the operating areas (e.g., borrow areas) of the landfill. The utilization of dust suppressants such as calcium lignosulfonate is intended on unpaved roads and within operating areas of the landfill. Aqueous solutions of dust suppressants will be used on permanent, unpaved roadways.

Container Handling Operations

Incoming trains will be routed to one of the sidings in the intermodal rail yard. Locomotives will uncouple from the train and move to another siding to pick up a train loaded with empty containers. The additional sidings in the terminal will provide additional flexibility for the storage and marshalling of empty trains prior to transport back to Ferrum Junction.

After unit trains are positioned in the container handling yard, the containers with waste will be removed from the unit trains by large rubber tired mobile loaders or overhead cranes and placed on a container handling vehicle chassis. The chassis will be weighed before transport to the working face of the landfill for emptying. After emptying containers will be returned to the container handling yard for reloading onto the unit trains. A container can be loaded or unloaded from a container handling vehicle within 2 minutes (cycle time), using either of the handling methods described above. Similarly, the truck marshaling yard will provide an area to load/unload containers from trucks. Loading and unloading of these containers will follow the same general procedures used for containers arriving by unit train.

Landfill Working Face Operations

Operations at the working face of the landfill will include dumping refuse, inspection of waste from containers with broken inspection seals or containing questionable waste material, bulldozing refuse at the working face, spreading and compacting the refuse, and application of daily cover at the end of each working day.

Refuse Dumping

Conventional transfer trailers delivering waste to the facility will self-unload at the working face of the landfill. Refuse will be removed from shipping containers using self-dumping container handling vehicles. These vehicles will enter the working face where they will be directed to a hydraulic tipper. The container handling vehicle will back the chassis or trailer onto the tipper platform, disconnect, and pull forward. The inspection seal on the containers will be broken and information such as container number, date and time logged by an inspector. The cover will be removed and/or the door(s) will be opened on the trailer or container. The tipper operator will then raise the tipper and empty the waste from the container or trailer onto the working face. The tipper will then be lowered, after which the hostling vehicle will back onto the platform and reconnect to the trailer or chassis for transport back to the rail yard or truck marshaling yard.

Refuse Spreading, and Compacting

Containers will be emptied and a crawler tractor will push and compact the trash along and onto the working face to an average depth of 2 feet.

After the crawler tractors have spread the refuse, the refuse will be compacted by diesel-powered landfill compactors. As final cell elevations are reached, crawler tractors will track-roll and level the refuse to minimize the requirements for daily cover.

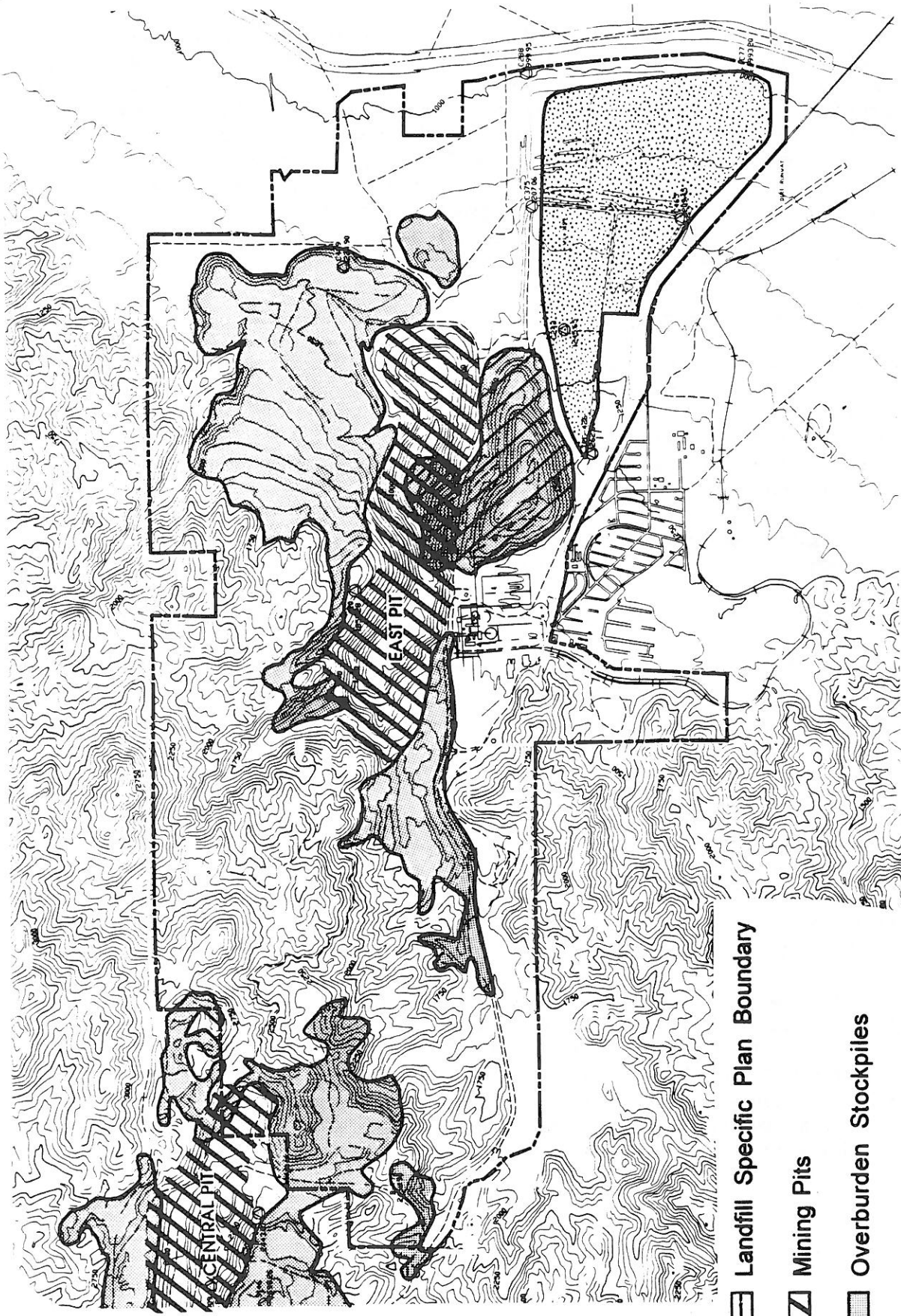
Each landfill compactor for this operation will compact a minimum 2,000 tons of refuse per 10-hour day. Up to ten compactors may be in operation when the landfill is operating at maximum inflow.

Application of Daily and Intermediate Cover

Previous mining activities have generated large amounts of overburden rock or waste material (coarse plant tailings) which will be used for daily and intermediate cover. This material is presently stored in several on-site areas located near and within the East Pit. Additional spoil areas are located within and near the area proposed for landfill operations. The locations of spoil storage areas are shown in Figure II-6.



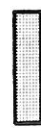


The daily refuse cell will be prepared for placement of daily cover by leveling the surface (eliminating the high points and filling depressions) using crawler tractors. Following the leveling operation, crawler tractors will track-walk the refuse surface. A minimum of 6 inches of daily cover will be placed over the refuse. The daily cover material will be transported to the landfill working face by dump trucks. Additional crawler tractors will be required and may also be used to doze cover material from stockpiles located near the uncovered refuse.

Daily and intermediate cover requirements will average approximately 2,000 cubic yards per operating day at full capacity. Other activities such as construction of temporary internal haul roads may increase the requirements for cover material to approximately 4,000 cubic yards per operating day. Initially, cover material will be obtained from the spoil areas located in Phase I. This storage area is estimated to contain more than 20,000,000 cubic yards. After the material in this location is exhausted, additional cover material will be obtained from other on-site overburden piles. Suitable interim and final cover material, approximately 152,000,000 cubic yards, is available on site for the projected life of the project.



Eagle Mountain

L A N D F I L L
S P E C I F I C P L A N

-  Landfill Specific Plan Boundary
-  Mining Pits
-  Overburden Stockpiles
-  Fine Tailing Basins
-  Coarse Tailing Stockpile

Spoils Area Locations

Not to scale 

Closure and Post Closure Operations

Closure

As each sub-phase of the Landfill reaches final grade, closure will begin. The closure system, or final cap, constructed on top of the waste is designed to serve a variety of purposes. First, the cap will significantly reduce any liquids infiltrating the waste. Second, the cap will control odor, vectors and litter. Third, the cap is designed to prevent erosion and divert water from rainfall events towards the on-site drainage ways. Fourth, the cap is designed to control and maintain landfill gases.

The final cap consists of the following elements (listed from bottom to top):

1. A foundation layer composed of 2 feet of compacted soil.
2. A low-permeability barrier layer of very-low density polyethylene (VLDPE).
3. A one-foot thick layer of protective granular soil on top of a geotextile cushion.
4. A two-foot thick erosion layer constructed with cobbles and boulders.

The final layer of this cap is designed to blend in, to the extent possible, with the existing desert landscape and perform the four functions previously mentioned.

Closure and closure planning will be completed in compliance with the requirements of the Local Enforcement Agency (County of Riverside Health Department), the RWQCB, and the CIWMB. The closure plan prepared for the site will include provisions for continuing ground water monitoring, leachate collection and removal control, gas collection and removal, site maintenance, landscaping, and grading.

Post-Closure

After closure, each phase of the Landfill will be monitored for at least 30 years to protect against the migration of liquids or gas from the Landfill. Monitoring will occur by the monitoring systems discussed previously.

With a potential site life of over 100 years, post-closure use of the site has not been planned at the current time. Settlement and the presence of gas collection facilities serve to limit the types of uses that can be developed after closure. Post-closure use of the landfill will be compatible with adjoining uses.

IV. SPECIFIC PLAN

A. INTRODUCTION AND BACKGROUND

Mine Reclamation Corporation (MRC) is applying for the following land use entitlements to be issued by the County of Riverside for the Eagle Mountain Landfill (Landfill): Landfill Specific Plan No. 305, General Plan Amendment No. 402, Change of Zone No. 6249, Development Agreement No. 64, and Amendment to Reclamation Plan 107.

The Eagle Mountain Landfill Specific Plan proposes to amend the County of Riverside General Plan and Zoning Map to facilitate a landfill operation at the Eagle Mountain iron ore mine site. Current land use designations found on the Open Space and Conservation Map of the County of Riverside General Plan which affect the project site include: Mineral Resources, Desert areas, Mountainous areas, and Areas Not Designated as Open Space (see Section V, General Plan Consistency Analysis, for further elaboration). Those categories will be replaced by a Specific Plan designation supported by the Specific Plan exhibits and text as described herein. Current zoning of the site includes the following zones: Mineral Resources and Related Manufacturing (M-R-A), Controlled Development Area (W-2), Natural Assets (N-A), and Manufacturing-Heavy (M-H). These individual zones will be replaced by a Specific Plan zone designation supported by an ordinance text as described herein. The Specific Plan zone is being created to support the addition of landfill and associated land uses on the project site.

The project would result in the construction of a Class III nonhazardous solid waste landfill in the area within and surrounding the East Pit of the Eagle Mountain Mine. The landfill footprint would encompass an area of approximately 2,164 acres. At full operation, a maximum of 20,000 tons per day of solid waste would be transported to the site by rail and truck with the limitation that transfer truck deliveries could not exceed 100 trips per day and that, after three years, transfer trucks would be limited to those originating in the desert area of Riverside County. Given this maximum daily tonnage, the landfill would have sufficient capacity to operate for over 100 years.

The primary watershed for the project includes Los Angeles, San Bernardino, Orange, Riverside, Santa Barbara, Ventura, and San Diego Counties. Primary access will be provided by rail on the Union Pacific main line. An average of 4.5 trains per day, could deliver compacted waste, placed in intermodal transport containers, to Ferrum Junction near the northeast shore of the Salton Sea. From there, trains would use the 52-mile private Eagle Mountain rail line to reach the project site, approximately 10 miles north of Desert Center. Truck deliveries from areas not served by rail could reach a maximum of 100 two-way truck trips per day. Truck use would be limited to Interstate 10, the Eagle Mountain Road, the proposed Eagle Mountain Road Extension, and the two mile northern terminus of Kaiser Road, to reach the site. At the project site, containers would be placed on container handling vehicles to carry them to the working face of the landfill, where they would be emptied. The refuse would be spread, inspected, compacted, and covered daily, at the working face of the landfill. The Specific Plan (Section IV B. and IV C.) describes the location of these various activities on the project site. The project would also provide for the transport, receipt, and temporary storage of recyclable materials collected at materials recovery facilities and/or transfer stations, within intermodal containers until market conditions improve.

The landfill will be a state-of-the-art facility designed, constructed, and operated in accordance with all applicable Federal, State, regional, and local laws and permit requirements. These include requirements for lining the bottom and underlying side slopes of the landfill before placing refuse; the installation of systems for collection and treatment of landfill gas and any liquid leachate that may be produced in the landfill; the installation of environmental monitoring systems and the construction of drainage improvements to convey offsite storm runoff around the landfill. Mitigating measures for dust control and a number of other planning and monitoring requirements would also be included in the project. The Specific Plan (Section IV D. Regulatory and Environmental Performance Standards) lists regulatory standards which apply to the project.

Concurrently and through a separate series of land use entitlement requests, Kaiser is seeking approval of a Specific Plan for the Eagle Mountain Townsite which is situated adjacent to the proposed Landfill, that recognizes existing residential, commercial, and industrial land uses and urbanized improvements within the Townsite.

Kaiser is applying for the following land use entitlements to be issued by the County of Riverside for the Townsite: Townsite Specific Plan No. 306, General Plan Amendment No. 402, Change of Zone No. 6253, and Tentative Tract Map No. 28217.

The Townsite and Landfill land use approvals will be processed concurrently, and the potential environmental impacts associated with each have been evaluated in a single Environmental Impact Report in compliance with the requirements of the California Environmental Quality Act (CEQA), with the County as lead agency under CEQA.

B. PROJECT-WIDE DEVELOPMENT STANDARDS

1. COMPREHENSIVE LAND USE PLAN

a. Land Use Plan Description

When completed, the Eagle Mountain Landfill Specific Plan will consist of a Class III nonhazardous solid waste landfill and a series of related uses, all of which support landfill operations. Support uses include container-handling areas, a recyclable materials storage area, repair and maintenance facilities, a local waste receiving facility, open space, and the processing of rock products from onsite stockpiles.

The Specific Land Use Plan for the project (Figure IV-1) divides the site into six Planning Areas in which landfill related activities are grouped:

Planning Area 1 - This area covers the footprint of the Landfill and includes 2,164 acres. This footprint area will be developed in five distinct phases which are further described in Section IV.B.5.

In addition to landfilling, this area will contain permanent or temporary haul roads, groundwater monitoring wells, and the gas flaring equipment and environmental monitoring systems. Rock crushing and screening, cover and liner material processing, waste inspection and general equipment servicing and fueling will also take place in this area.

Planning Area 2 - This area covers 235 acres and will contain the Phase I rail and truck marshaling yards. The existing warehouse and maintenance buildings will be renovated for use as the Landfill administration area and maintenance of Landfill rail, truck and other heavy equipment. Site facilities also include the site entrance, vehicular weigh station, local waste receiving center, temporary storage of recyclables and hazardous waste, vehicular and train fueling, drainage structures, gas flare equipment and environmental monitoring systems. Many of the existing roads will be improved and new roads will be constructed in this planning area. This area also includes the groundwater monitoring system wells.

Planning Area 3 - This area is 461 acres and will contain the Phase II facilities for unloading trains when the incoming waste exceeds approximately 10,000 tons. A secondary truck yard is identified for construction if needed. When this phase is constructed, site facilities will include the site entrance, vehicular weigh station, local waste receiving center, temporary storage of recyclables and hazardous waste, gas flares, groundwater monitoring wells, drainage structures and environmental monitoring systems. Roads will be built in this planning area to handle the anticipated traffic circulation.

Leachate Management System

The leachate management system will allow for the storage and disposal of leachate removed from the landfill LCRS. Liquid pumped out of the LCRS sumps will be discharged into a dual-containment gravity-fed leachate transmission pipeline. The leachate transmission pipeline will be used to convey leachate to above-ground storage tanks located onsite. Secondary containment will be provided for leachate conveyance and storage facilities outside of the landfill footprint.

When a sufficient quantity of leachate accumulates in a leachate storage tank, it will be transferred into a transport truck and delivered to an approved wastewater treatment facility. At this time, it is anticipated that the approved facility will be located offsite. The system is designed to allow monitoring of the quantity and quality of leachate removed from the LCRS sumps. Sampling points will be established at each LCRS sump location. Quarterly sampling, testing, and reporting of leachate characteristics, such as quantity and chemical composition, will be performed.

Surface-Water Management System

The surface-water management system for the landfill has been designed to: (1) convey surface water around and away from the active portion of the landfill during and after landfill operations; and (2) convey flows and control erosion on the landfill surface after intermediate or final cover has been placed.

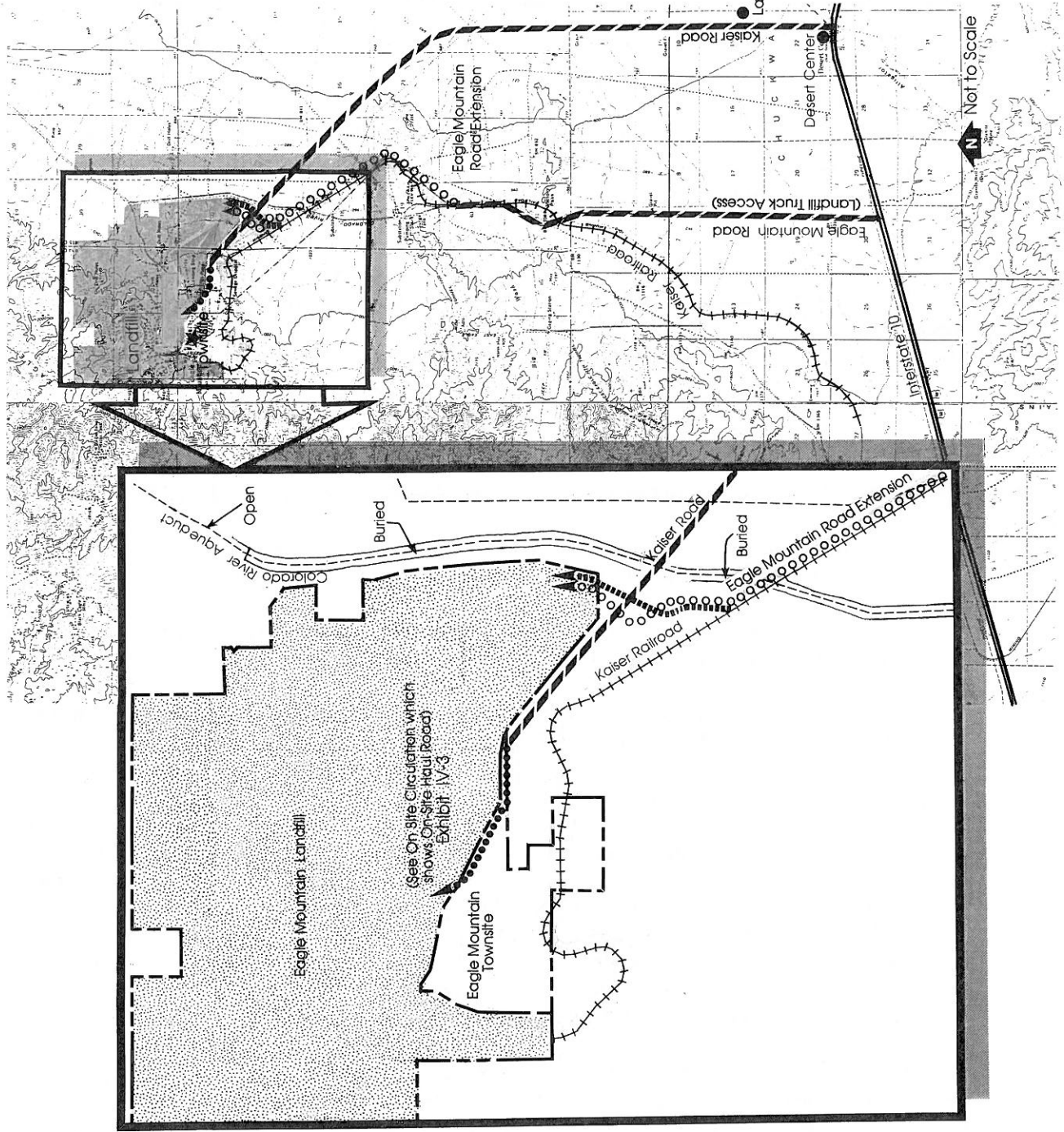
There are two major types of surface-water flow at, and around, the landfill site: (1) noncontact water; and (2) contact water. Noncontact water is defined as surface-water runoff that does not contact either waste or daily cover within the active area of the Landfill. Noncontact water will be rerouted around the perimeter of the daily landfill cell and discharged into detention basins. Contact water is defined as surface-water run-on that comes into contact with waste or daily cover. Contact water will be routed and contained and then allowed to infiltrate into the waste mass and/or be directed to the LCRS and will be treated as leachate.

Components of the surface-water management system for the Eagle Mountain Landfill include:

- Interim drainage control and erosion and sediment control features within the landfill footprint (on-landfill) to collect and control flow during landfilling operations.
- Final on-landfill drainage, erosion and sediment control features to collect and convey flow across portions of the landfill where the final cover has been constructed.
- Final drainage control and erosion and sediment control features outside the landfill footprint (off-landfill) to collect and convey flows around the perimeter of the landfill for discharge to existing drainage courses.

Drainage structures will be sized to meet Chapter 15 and County design requirements for accommodating runoff from selected storms. Surface-water drainage features on the landfill final cover were designed for the 100-year, 1-hour rainfall. Off-landfill drainage structures, including detention basins, were designed to contain run-off from the most critical of the 100-year, 3-hour, 6-hour, and 24-hour rainfall. In addition, the off-landfill drainage structures were designed with sufficient freeboard to contain run-off from a 500-year, 3-hour rainfall. Surface-water flow diverted away from, or collected off of, the landfill footprint will be routed to interim detention basins or detention basins constructed along the north perimeter maintenance road.

Phase I Container Handling area drainage will be collected and routed through a detention/treatment facility before release to the channel along the north side of Kaiser Road. Runoff from the Phase II container handling yards will be collected and routed to a detention facility for testing and treatment.



Off-Site Circulation Plan

- Existing Private Road
- +++++ Existing Private Rail Line
- ==== Existing Public Road
- Proposed Private Road
- ||||| Proposed Private Rail Spur

Figure No. IV-2