EL DORADO COUNTY
BOARD OF SUPERVISORS
AGENDA TRANSMITTAL

AGENDA TITLE: Addendum to EIR - Union Mine Disposal Site (Districts II&III)

DEPARTMENT: Environmental Management	DATE: 5/4/94	CAO USE ONLY
CONTACT: Ron Duncan 24	PHONE: 5300	

DEPARTMENT SUMMARY AND REQUESTED BOARD ACTION:

Hearing to consider certification of the Addendum to the Environmental Impact Report for the Expansion/Closure of the Union Mine Disposal Site. The Addendum is based on the understanding that the identified changes to the size of the landfill expansion area, height of the final landfill, and the time in which the landfill will be operating results in no new environmental effects not previously identified by the Expansion/Closure of the Union Mine Disposal Site Final Environmental Impact Report. The site is located off Union Mine Road (Section 12, T9N, R10E), 3 miles south of the town of El Dorado, in the **Diamond Springs/El Dorado Area.**

RECOMMENDATION: Staff recommends the Board certify the Addendum to the EIR for the Expansion/Closure of the Union Mine Disposal Site, based on the findings listed on Attachment 1.

CAO RECOMMENDATION:

BUDGET SUMMARY:

Total Est. Cost $_____

Funding

Budgeted $_____
New Funding $_____
Savings* $_____
Other $_____
Total Funding Available $_____

Change in Net County Cost $_____

***Explain:**

Funding Source: ( ) Gen Fund ( ) Other

CAO Office Use Only:

4/5's Vote Req'd ( ) Yes ( ) No
Change In Policy ( ) Yes ( ) No
New Personnel ( ) Yes ( ) No

CONCURRENCES:

Risk Management _____
County Counsel _____
Other _____

BOARD ACTIONS: MAY 10 1994

Board certified the Addendum to the EIR for the Expansion/Closure of the Union Mine Disposal Site based on the three findings set forth in the Environmental Management Department's Agenda Transmittal regarding same dated 5/4/94.

Vote: Unanimous _____ or

Ayes: Supervisors Center, Bradley, Mutsong, Upton

Noes: none

Abstentions: none

Absent: Supervisor Nielsen

I hereby certify that this is a true and correct copy of an action taken and entered into the minutes of the Board of Supervisors.

Date: _____

Attest: DIXIE L. FOOTE, Board of Supervisors Clerk

By: _____

710-059 REV. 5/10/91

Findings

1. None of the conditions described in Section 15162 of the CEQA Guidelines calling for preparation of a subsequent EIR have occurred;

2. Only minor technical changes or additions are necessary to make the EIR adequate under CEQA; and

3. The changes to the EIR made by the Addendum do not raise important new issues about the significant effects on the environment.

Addendum to the Environmental Impact Report

for the

Expansion/Closure of the Union Mine Disposal Site

El Dorado County, California

Prepared for:

Environmental Management Division
County of El Dorado

Prepared by:

Planning Department
County of El Dorado

April 1994

The Environmental Impact Report Addendum is based on information contained in the Final Environmental Impact Report for the Expansion/Closure of the Union Mine Disposal Site and technical appendices dated January 1992, by ERC Environmental and Energy Services Co.

CONTENTS

1.0 INTRODUCTION

1.1 Purpose of the EIR Addendum

This Addendum is intended to provide additional environmental analysis of potential impacts associated with the expansion/closure of the Union Mine Disposal Site. Project changes have occurred because of more accurate engineering studies.

Section 1564 of the California Environmental Quality Act (CEQA) Guidelines states that an EIR Addendum may be used to analyze the potential environmental effects of a project under certain circumstances, as follows:

1. None of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred,.

2. Only minor technical changes or additions are necessary to make the EIR under consideration adequate under CEQA , and

3. The changes to the EIR made by the Addendum do not raise important new issues about the significant effects on the environment.

The County of El Dorado staff has determined that the preparation of an Addendum is the appropriate tool for assessing the potential environmental effects of the changes to the project description of the Union Landfill expansion and closure. It is important to note that the changes to the Union Mine Landfill result in no new significant environmental effects not previously identified and addressed in the EIR.

1.2 EIR Addendum Scope and Organization

The Addendum is based on the understanding that the identified changes to the size of the landfill expansion area, height of the final landfill, and the time in which the landfill will be operating results in no new environmental effects not previously identified in the Expansion/Closure of the Union Mine Disposal Site Final EIR, herein referred to as the EIR.

The Addendum provides an analysis of each impact that may be affected by the identified changes of the of the Union Mine Landfill expansion and closure. Each area of the potential changes will be evaluated (e.g. visual). These changes will be reviewed against the mitigation program that has been developed in the EIR to assure this effect is adequately reduced to a non-significant level. If additional mitigation is required, this will also be discussed and evaluated.

1.3 Definitions of Impact Levels

In each of the impact analysis cited in the Final EIR, a determination was made by the EIR author (and accepted in the EIR certification process) as to the significance of the identified potential impact and acceptability of various applied mitigation measures. The same approach will be used in this Addendum in the determination of the extent to which the changes have affected the environment.

In many instances, a potential impact can be quantified: for example, a noise level measured in decibels. In other instances, a potential impact can not be accurately quantified, resulting in an inability to assign a numerical value to a potential impact. It should be recognized that in either instance, the level of significance assigned to a potential impact is ultimately a value judgement on the part of the author.

The following terminology is used to characterize the significance of potential impacts identified in this Addendum.

-Less than significant

A less than significant impact is one which is deemed to have little or no adverse effect on the environment. Mitigation measures are, therefore, not necessary although they may be recommended to further reduce a minor impact.

-Potential significant

A potential significant impact is one which is expected to occur as a result of the project but cannot be accurately identified or quantified. This term is also used in cases where it is not possible to determine if the impact will occur. In both cases, CEQA views potential significant impacts as significant impacts requiring either mitigation or a statement of overriding considerations.

-Significant

A significant impact is one where the level of potential impact, and in most instances, is quantifiable. In such instances, mitigation measures are prepared.

-Significant and unavoidable

Significant and unavoidable impacts are adverse impacts which, even with the application of recommended mitigation measures, remain significant and unavoidable as a consequence of the project. This includes impacts for which no viable mitigation measure has been identified. If significant and unavoidable impacts are identified, an EIR must be prepared.

2.0 PROJECT INFORMATION

2.1 Project Summary

The project analyzed in the EIR Addendum is for the Expansion/Closure of the Union Mine Disposal Site (Final dated January 1992).

El Dorado County is in the process of expanding the Union Mine landfill. In pursuing this expansion, an Environmental Impact Report (EIR), "Final Environmental Impact Report for the Expansion/Closure of the Union Mine Disposal Site", dated January 1992, was prepared and approved under the California Environmental Quality Act (CEQA). The EIR identified a 14-acre expansion area directly adjacent to the existing 33-acre site which would be lined in accordance with new State and Federal requirements and would eventually form a total landfill area of 47 acres. The EIR also addressed the realignment of Union Mine Road adjacent to the existing and expansion areas and the diversion of a seasonal unnamed tributary to Martinez Creek. All engineering work related to the expansion area, road realignment and seasonal drainage diversion contained within the EIR was preliminary only. With the recent completed construction of the road realignment, drainage diversion and the final engineering design documents for expansion, three issues have been identified that differ from information contained with the EIR.

1. The expansion area is actuality 26.5 acres (21.7 lined) versus approximately 14 acres noted in the EIR. However, the expansion area and its contiguous boundary areas of Little Canyon Road, Union Mine Road and the future borrow area were identified in the EIR as the limits of the impact area. The revised acreage has been realized after the realignment of Union Mine Road, construction of the seasonal drainage diversion at the 1260 elevation (the same placement as identified in the EIR), extending the lined area further up the steep slopes of the existing area and identifying inert fill areas (clean fill) which are required to structurally support the final landfill topographical configuration.

2. The final closed height of the landfill has been calculated to be at 1500 feet MSL compared to 1460 feet MSL as identified in the EIR. The increase in the final capped elevation is due to the realignment of Union Mine Road and the future placement of inert fill at several points (refer to Figure B) along the landfill toe required to structurally support the final closed configuration of a 3:1 slope ratio.

3. The landfill life estimates noted in the EIR has changed because the tonnage figures utilized were estimates only. Scales were installed at Union Mine in September 1991, and several years of actual tonnage is now available. Table 3-1 now accurately reflects annual waste input. This new information affects the landfill life estimation. The remaining refuse capacity and landfill life noted in EIR, Table 2-3, were estimates from preliminary engineering and reflected the County's best estimate at the time of finalizing the EIR. With this new information, it is estimated that the landfill will reach capacity in the year 2032.

4. The Federal Government has recently promulgated Subtitle D regulations pursuant to the Hazardous and Solid Waste Amendments to the Resource Conservation and Recovery Act

which became effective on October 9, 1993. These new regulations set forth minimum federal criteria for location, facility design, operation, groundwater monitoring and closure and post-closure care.

In accordance with California regulations, the existing Union Mine landfill meets the minimum classification, sitting and construction criteria for a Class III waste management unit pursuant to Title 23 of the California Code of Regulations. A Class III category landfill is the least restrictive, and nonhazardous solid waste is acceptable for disposal. Because the proposed expansion area must comply with the new Subtitle D criteria, it will meet the State Class II waste management unit criteria. Therefore, the proposed lined expansion area will be a Class II waste management unit and nonhazardous solid and designated waste may be accepted for disposal.

2.2 Project Location

The site is located approximately 3 miles south of the town of El Dorado in El Dorado County, California. The access to the site is along Union Mine Road, a paved two-lane road maintained by the County (Refer to Figure A).

3.0 ANALYSIS OF POTENTIAL IMPACTS DUE TO PROJECT CHANGES AND FURTHER MITIGATION

3.1 Earth

The increase in the size of the expansion area will cause an increase in the amount of earth moved throughout the landfill site. These increases mainly occur because of borrow area excavation qualities. It was originally estimated that 200,000 cubic yards would be used in the life span of the landfill. This number has changed to 600,000 cubic yards. The additional 12.5 acres of expansion area impact will also increase the area of disturbance. However, the area of impact addressed in the EIR for both the existing landfill and the expansion area included the additional 12.5 acres.

The EIR concluded that "No significant long-term or cumulative impacts related to geotechnical issues would result from the proposed project provided that all of the mitigation measures identified in the EIR are properly implemented."

Project modification impact analysis:

Insignificant impact increase would occur due to the increase in the expansion area and increase in the amount of earthen cover material required for the landfill.

Mitigation:

1. Final project design must include measures for erosion control. Standard erosion control measures that could be implemented include defining maximum slope grades and/or use of stabilizing materials or buttresses.

2. During construction, standard erosion control measures, such as the use of sandbags, hay bails, berms and diversion ditches, must be used, when necessary, to prevent erosion.

3. All expansive soil base material will be over excavated and replaced with approved, properly compacted, non-expansive structural fill.

4. Areas which have received final cover will be revegetated to prevent erosion. The vegetated cover will be maintained for 30 years.

5. Where reactive soils are present, non-steel or coated steel conduits, sulfate resistant cement or other protective building materials will be used.

6. All vegetated buffer will be maintained where possible and where feasible around the landfill to help reduce erosion.

Method of verification:

1. Site verification and monitoring reports submitted to County Environmental Management and the Local Enforcement Agency (LEA) by the Mitigation Compliance Coordinator (MCC).

3.2 Air

As identified in the EIR, the major air quality concern at the landfill during construction and operational phases is dust generation. Secondary potential atmospheric impacts could occur from litter and gaseous emissions from the organic matter decay processes. The proposed project changes would not cause an increase in the estimated day-by-day impacts associated with the operation of the landfill. However, because the landfill is estimated to remain in operation until the year 2032, an increase in the original estimate of 21 years, operational air quality impacts will extend further into the future. In order to offset this additional impact, mitigation activities and monitoring programs would have to be adjusted to this additional time period.

The EIR concluded, "Potential short-term and cumulative impacts to air quality would be generated by small increases in traffic levels. These potential impacts are not considered to be significant due to their incremental nature. Potential long-term air quality impacts may occur if the proposed project necessitates the development of a landfill gas extraction system. The potential impacts of a gas extraction system are not expected to be significant, if developed, due to their incremental nature."

Project modification impact analysis:

Air quality impacts associated with the operation of the landfill will be extended an additional 19 years further than addressed in the EIR. To offset this extension of time, all conditions and monitoring programs developed in the EIR shall be modified to account for the additional 19 years of operation.

Mitigation:

1. Internal roads should be covered with gravel.

2. The landfill access roads will be kept in good repair with adequate drainage to prevent the production of excess fugitive dust and to prevent soil from washing onto the road during storms.

3. A speed limit of 15 miles-per-hour will be imposed on the site at all times to limit fugitive dust.

4. To limit NOx or hydrocarbon emissions, all gasoline fueled landfill equipment will have catalytic converters, and all diesel equipment will use fuel injection and timing retarding devices.

Methods of verification:

1. Site verification and monitoring reports submitted to the Air Pollution Control District and the LEA by the MCC.

2. Site inspection by the MCC.

3.3 Water

Presently, a groundwater monitoring program is being conducted at the landfill site in accordance with the Regional Water Quality Control Monitoring and Reporting Program Number 88-149.

Surface Water

The increase in the expansion area will cause a change in the surface water conditions. Existing California state regulations concerning surface water drainage systems surrounding Class II landfills require that drainage systems be sized to prevent inundation or washout during a 100-year, 24-hour storm event (Title 23 CCR Chapter 15). The additional expansion area will be designed to adhere to Title 23 CCR Chapter 15.

Leachate Control

Additional ditching and piping will be required to collect leachate generated with the additional expansion area. A leachate treatment facility has been designed for the landfill. This design has taken into consideration the increased discharge of contact water generated by the expansion area and the increased longevity of the landfill.

The EIR concluded, "The proposed project would result in long-term and cumulative impacts to hydrologic resources due to the existing landfill activities, proposed landfill activities, presence of mine shafts, alteration of natural drainage patterns, erosion potential, and water

quality contamination. The effects can be reduced to below levels of significance through a number of proposed design, monitoring, control, and mitigation measures."

Project modification impact analysis:

The additional area to the expansion area would be subjected to the same conditions that were placed on the EIR identified expansion area of 14 acres. Provided this mitigation and monitoring program is followed, impacts would be kept at a level of less than significant.

Mitigation:

1. Design of the groundwater monitoring program will account for the anisotropic nature of the aquifer, the potential for vertical hydraulic gradient and the existing extent of groundwater degradation.

2. Prepare a contingency plan to be implemented if groundwater monitoring indicates that significant contaminant migration is occurring.

3. The groundwater/leachate collection trenches that will be installed to replace monitoring wells abandoned as part of the expansion activities will be monitored to allow an equivalent level of protection as provided by the original monitoring wells.

4. Surface water runoff from the up-slope drainage areas surrounding the landfill will be collected, routed around the landfill, and discharged to Martinez Creek.

5. All contact water must be diverted to the contact water holding lift station and either treated, used on site, or discharged to Martinez Creek depending on its composition.

6. All existing monitoring wells that are required to be abandoned as part of the expansion area construction must be replaced with new groundwater monitoring wells.

7. An intercepter ditch or pipe along the areas surrounding the landfill (including the buffer area) will be constructed to convey runoff to a bypass ditch or pipe along the southern perimeter of the expansion area.

8. Temporary ditches must be constructed around the active working face within the expansion area to collect and divert water coming in contact with the refuse.

Methods of verification:

1. The County shall submit reports/data/design information as specified by the Regional Water Quality Control Board (RWQCB).

2. All information in accordance with RCRA and Title 23, Subchapter 15, Article 5 shall be submitted to the RWQCB.

3. Site verification and monitoring reports submitted to County Environmental Management and the LEA by the MCC.

3.4 Biological Resources

In the impact evaluation of the Union Mine landfill expansion, an impact envelope (footprint) was used to address both direct and indirect impacts to biological resources within and adjacent to the project site. The western boundary of this envelope was the proposed realignment of Union Mine Road; the southern boundary was the south perimeter road and soil borrow areas; the northern boundary was the existing landfill site; and the eastern boundary was Church Mine Road. The additional 19 acres that is proposed for the expansion area is located within the area that was evaluated. Additional short-term impacts would occur to the recovery of the biological resources due to the additional 19 years that the landfill will be operating. To offset this additional impact, the County will prepare a systematic revegetation program that will initiate a revegetation program as portions of the landfill are abandoned and capped. This program shall use only native vegetation and focus on reestablishment of the oak chaparral habitat. This program shall also include a monitoring program.

The EIR concluded, "The proposed project would result in the loss of 21.0 acres of native and non-native habitat. The impacts to sensitive habitat types will be mitigated through the designation of an off-site biological open space preserve."

Project modification impact analysis:

The increase associated with the expansion area will not cause an increase in the biological resource impacts addressed in the EIR related to construction activities. An increase in the impact adjacent to the landfill would occur due to the increase in longevity of the landfill. Mitigation has been added to offset this impact.

Mitigation:

1. Acquire 13.6 acres of oak woodland along Martinez Creek that will be set aside as a native habitat preserve and biological open space.

2. Acquire 4.0 acres of white alder riparian forest along Martinez Creek that will be set aside as a native habitat and biological open space.

3. The County shall retain a project biologist to oversee aspects of construction that pertain to biological recourse protection and to ensure compliance with the mitigation measures described below. The biologist will be responsible for the contractor educational program and will monitor all construction activities in areas supporting sensitive biological resources. The project biologist will act as a liaison between the County of El Dorado and the contractor(s) and will act in the County's interest in resolving conflicts between resource protection and project implementation.

4. Provisions will be made to inform the contractor(s) about the biological constraints of this project. All sensitive habitat areas to be avoided shall be clearly marked on project maps provided to the contractor. These areas will be designated as "No Construction" or "Limited Construction" zones. These areas will be flagged by the project biologist prior to the onset of construction activities. In some cases, resources may need to be fenced or otherwise protected from direct or indirect impacts.

5. A contractor education program will be implemented to ensure that the contractors and all construction personnel are fully informed of the biological resources associated with the project. This program will focus on: a) the purpose of the resource protection; b) contractors identification of sensitive resource areas in the field; c) sensitive construction practices; d) protocol to resolve conflicts that may arise during the construction process; and e) ramifications of noncompliance. This program will be conducted by a qualified biologist and will be a requirement for all construction personnel.

6. Employ standard erosion control procedures such as sandbagging, diversion ditches and stream bank stabilization procedures to prevent degradation of riparian/wetlands habitats.

7. Collect non-contact surface runoff in detention ponds prior to release into natural drainages to prevent sediment degradation of downstream riparian/wetland habitats.

8. Prohibition of fueling of vehicles or equipment within 50 feet of all drainages.

9. Use of standard air quality (dust) control measures, such as watering of exposed soils, to limit the affects of dust on oak trees and other vegetation.

10. Develop a systematic revegetation program that will initiate a revegetation program as portions of the landfill are abandoned and capped. Only native vegetation shall be used with the focus on the reestablishment of the oak chaparral habitat. This program shall also include a monitoring program that will be reviewed by the project biologist.

Methods of verification:

1. A deed restriction shall be placed on the dedicated open space set aside for the wildlife habitat area.

2. Reports of the meetings held between the contractor and MCC shall be submitted to the LEA and County Environmental Management.

3. Site verification and monitoring reports submitted to County Environmental Management and the LEA by the MCC.

3.5 Noise

As stated in the EIR, "The expansion of the landfill is not expected to increase the on-site activity or is it expected to increase the number of vehicle trips to the landfill site." However,

the amount of noise that is being generated by the landfill activity would be extended for another 19 years.

The EIR concluded "No significant short or long-term noise impacts are expected to result from the proposed project."

Project modification impact analysis:

No increase in noise impacts would be caused by the increased acreage of the expansion area or the increased longevity of the landfill. All noise mitigation impacts will be in affect through the total life of the landfill.

Mitigation:

1. All pumps and equipment used at the landfill will be designed, installed and operated to comply with the El Dorado County Irrigation District noise policy of 55 dBA at 50 feet for all periods of operation.

Method of verification:

1. Site verification and monitoring reports submitted to County Environmental Management and the LEA by the MCC.

3.6 Light and Glare

Project modification impact analysis:

No effect.

3.7 Land Use

Project modification impact analysis:

There will be no change to the existing land use.

3.8 Natural Resources

Project modification impact analysis:

No effect.

3.9 Risk of Upset

The Union Mine Landfill is a Class III sanitary landfill. This classification allows for the disposal of residential and commercial nonhazardous solid waste. The expansion area will be a Class II, Subtitle D sanitary landfill. All mitigation and monitoring requirements will be placed on the landfill expansion operation. As laws and regulations change, it is required that be placed on the landfill operation.

The EIR concluded "Hazardous material monitoring programs at the proposed landfill expansion would mitigate potential impacts to levels below significance. The acceptance of small amounts of asbestos and infectious waste is not considered significant. Cumulative impacts resulting from the disposal of hazardous materials/infectious wastes include impacts associated with past operations. The area planned for closure and expansion will be monitored to detect releases of contaminants to the air and ground/surface water. Implementing the monitoring program and taking corrective action when release is indicated would likely mitigate potential adverse effects associated with hazardous material/infectious waste."

Project modification impact analysis:

The proposed additional area for the landfill expansion area and the increased longevity will not cause an increase in impacts associated with the risk of upset provided all mitigation and monitoring conditions placed on the EIR are followed.

Mitigation:

1. Any vents that will allow landfill gas to reach the ambient air will be sited away from landfill traffic areas to minimize the potential for ignition.

2. The County's current load screening program at the Union Mine landfill will be modified to reduce the volume of household hazardous materials entering the landfill. Specific measures that will be added include:

   - Establish an information phone number where the public can obtain general information on hazardous wastes and where to dispose of such wastes.

   - Identify pick-up days for hazardous wastes and proper disposal of these wastes.

   - Establish designated drop-off centers for collection of hazardous wastes.

3. The adequacy of the current environmental monitoring system will be reevaluated as part of the final closure plan.

4. Environmental monitoring reevaluation will include monitoring of subsurface contaminant migration routes including abandoned mine shafts.

Methods of verification:

1. Site inspections and monitoring reports submitted to LEA by the MCC.

2. Load screening by the landfill operator.

3.10 Population

Project modification impact analysis:

No effect.

3.11 Housing

Project modification impact analysis:

No effect.

3.12 Transportation/Circulation

In evaluating the traffic impacts associated with the project change, the main focus on traffic impacts would be the increased life span of the landfill from the year 2013 to the year 2032, an increase of 19 years.

The EIR concluded, "The proposed project would contribute (although incrementally) to a significant long-term cumulative impact to LOS at several intersections in the project site region. These impacts could be mitigated to levels below significance through measures outlined in the EIR."

Project modification impact analysis:

It can be concluded that when the landfill is in operation, it is a traffic generator. This traffic can be divided in to two groups; the first would be the disposal collection trucks, and the second would be private citizens or "self-haulers." A number of mitigation measures were developed in the EIR that are designed to reduce traffic impacts of the landfill to less then significant. These impacts will also be included in the revised project description. To further offset traffic impacts, Western El Dorado Systems Recover, Inc., is in the process of obtaining permission to open and operation a Material Recycling Facility (MRF)/Transfer Station. Once this is on line, all traffic will be required to the use the MFR Transfer station or their outlets and will be restricted from using the Union Mine Landfill. The only remaining traffic utilizing the Union Mine Disposal Site will be septage vehicles (approximately 7 per day) and solid waste trucks (approximately 10 per day). This action would decrease traffic accessing the landfill.

Mitigation:

1. The County, as owners of the project, will contribute a proportionate share of the listed improvements based on the proportionate shares of traffic volumes using the improvements.

2. Add one exclusive right-turn lane for the eastbound approach to Pleasant Valley Road and State Route 49.

3. Signalize the Pleasant Valley and State Route 49 intersection.

Cumulative Conditions Mitigation: If Western El Dorado Systems Recover's project is not successful, the following conditions would come into effect.

4. Add an exclusive left-turn lane and one exclusive right-turn lane for the northbound approach to Pleasant Valley Road and State Route 49; add two exclusive left-turn lanes and one exclusive through lane for the westbound approach; and add two exclusive through lanes and one exclusive right-turn lane for the eastbound approach.

5. Widen both State Route 49 and Pleasant Valley Road to four lanes.

6. When routine maintenance is conducted, increase the roadway structural base of State Route 49 between China Hill and Union Valley Road to a TI rating of 8.5.

7. When route maintenance is conducted, increase the roadway structural base of State Route 49 between Pleasant Valley Road and Missouri Flat Road to TI rating of 9.5.

8. When routine maintenance is conducted, increase the roadway structural base of Union Mine Road to TI range of 8.0 north of the land fill entrance and 5.5 south of the landfill entrance.

3.13 Public Services

The EIR concluded "No significant short or long-term impacts to the area's public services are expected to result from the proposed project."

Project modification impact analysis:

The proposed additional area for the landfill expansion area and the increased longevity will not cause an increase in public service needs that were addressed in the EIR.

Mitigation:

1. The installation of the proposed fire hydrant which connects with the public water supply will be completed and operational.

Method of verification:

1. Site verification and report to the LEA by County Environmental Management.

3.14 Energy

Project modification impact analysis:

No effect.

3.15 Utilities

Project modification impact analysis:

No effect.

3.16 Human Health

Project modification impact analysis:

No effect.

3.17 Aesthetics

The EIR concluded "Potential long-term and cumulative impacts related to landform alteration/visual quality from the proposed project would result from the conversion of an undeveloped drainage to a municipal solid waste landfill and the extended duration of landfill activities at the site. The development of the proposed expansion would result in significant impacts to natural landforms and off-site views from the construction of the refuse fill. The level of these impacts would be somewhat reduced after final closure of the landfill and the subsequent implementation of a revegetation program. Residual impacts would still be considered significant and unmitigateable.

Project modification impact analysis:

The aesthetics impacted by the new project description is centered around one issue which is the extension of the operation of the landfill. To offset this impact, it would be conditioned that a systematic revegetation be initiated as portions of the landfill are abandoned and capped. Only native vegetation shall be used with the focus of the reestablishment of the oak chaparral habitat. This program would include a monitoring program that will be reviewed by the project biologist.

Mitigation:

1. The landfill must be revegetated after closure, pursuant to state regulations and County policy.

2. The revegetation plan must be prepared by a qualified biologist, horticulturist, or landscape architect with experience in landfill revegetation.

3. Develop a systematic revegetation program that will initiate a revegetation program as portions of the landfill are abandoned and capped. Only native vegetation shall be used with the focus of the reestablishment of the oak chaparral habitat. This program shall also include a monitoring program that will be reviewed by the project biologist.

Method of verification:

1. Site inspection and monitoring reports by County Environmental Management and/or LEA.

2. County Environmental Management will review the professional qualifications of the biologist prior to the preparation of the revegetation plan.

3.18 Recreation

Project modification impact analysis:

No effect.

3.19 Cultural Resources

The EIR concluded "No prehistoric cultural resources were discovered on the project property, and no impacts to prehistoric resources are expected if identified mitigation measures are followed. Impacts resulting from the expansion activities to historic resources are considered to have been mitigated through field verification and documentation as described in the Cultural Resources Technical Report."

Project modification impact analysis:

The area of additional expansion of the landfill was included in the review conducted for the Cultural Resources Technical Report prepared for the EIR.

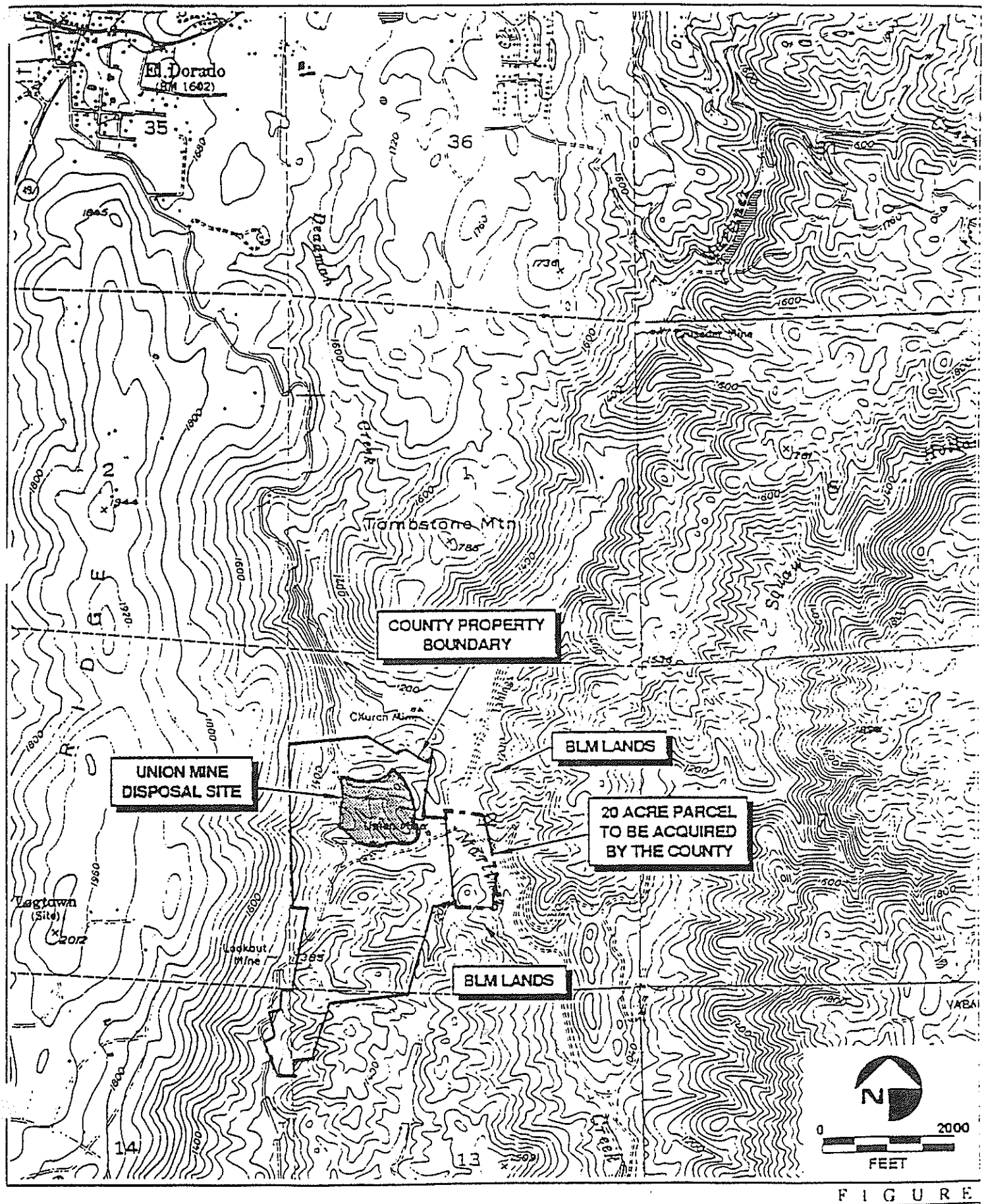
Mitigation:

1. The portals of the Big Cut Stope, Springfield Shaft, and the Golden Gate, Minerva, Pendar and Unnamed adits must be sealed.

2. If prehistoric or historic resources are encountered during construction, a qualified cultural resources specialist will evaluate the significance of material found.

Method of verification:

1. Site verification and monitoring reports submitted to County Environmental Management and the LEA by the MCC.



FIGURE

A

General Project Location

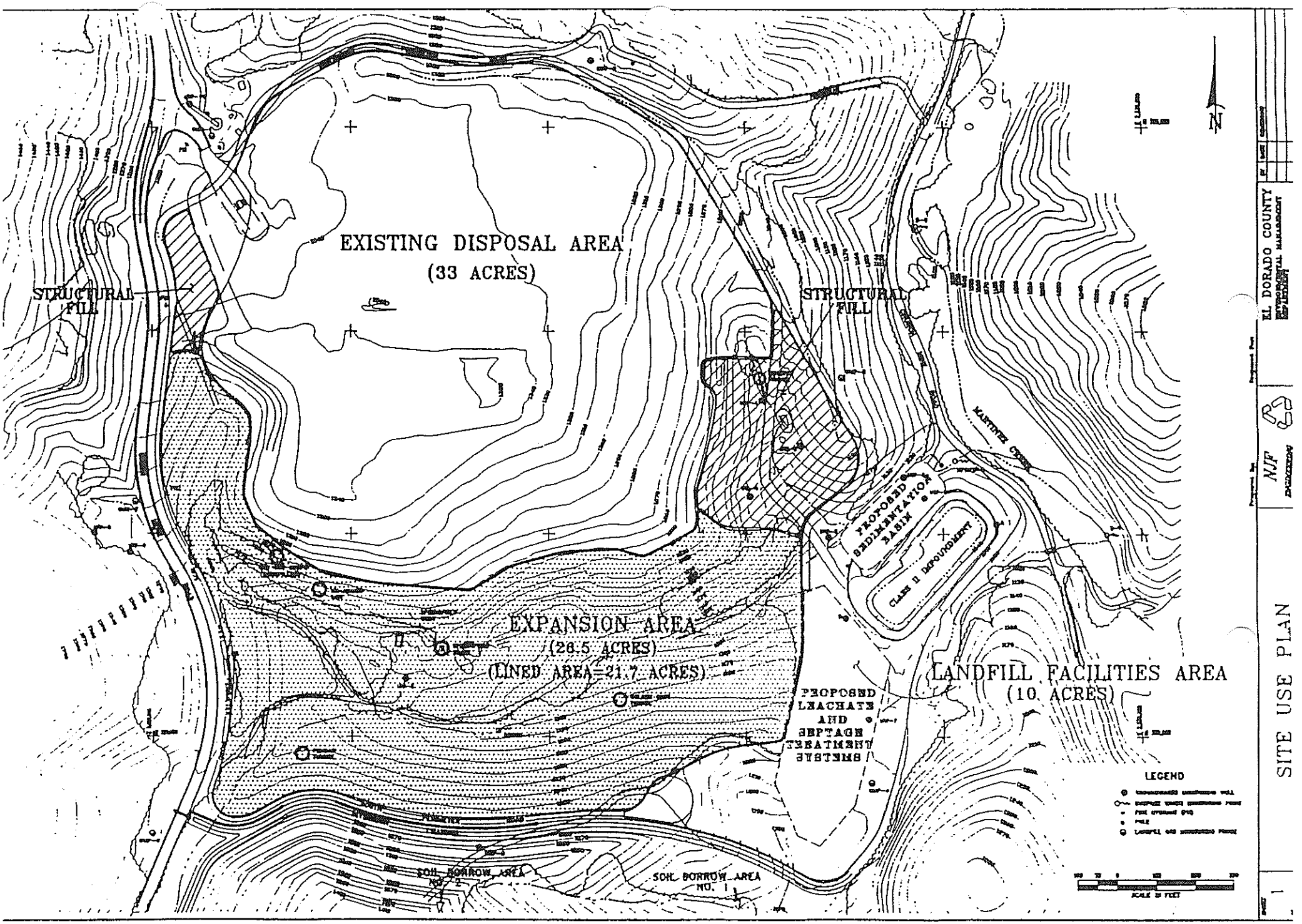

EXISTING DISPOSAL AREA
(33 ACRES)
STRUCTURAL FILL
STRUCTURAL FILL
EXPANSION AREA
(26.5 ACRES)
(LINED AREA=21.7 ACRES)
PROPOSED SEDIMENTATION BASIN
CLASS II IMPOUNDMENT
MARTINEZ CREEK
LANDFILL FACILITIES AREA
(10 ACRES)
PROPOSED LEACHATE AND SEPTAGE TREATMENT SYSTEMS
SOIL BORROW AREA NO. 2
SOIL BORROW AREA NO. 1
LEGEND
EL DORADO COUNTY
NJF
SITE USE PLAN

FIGURE B

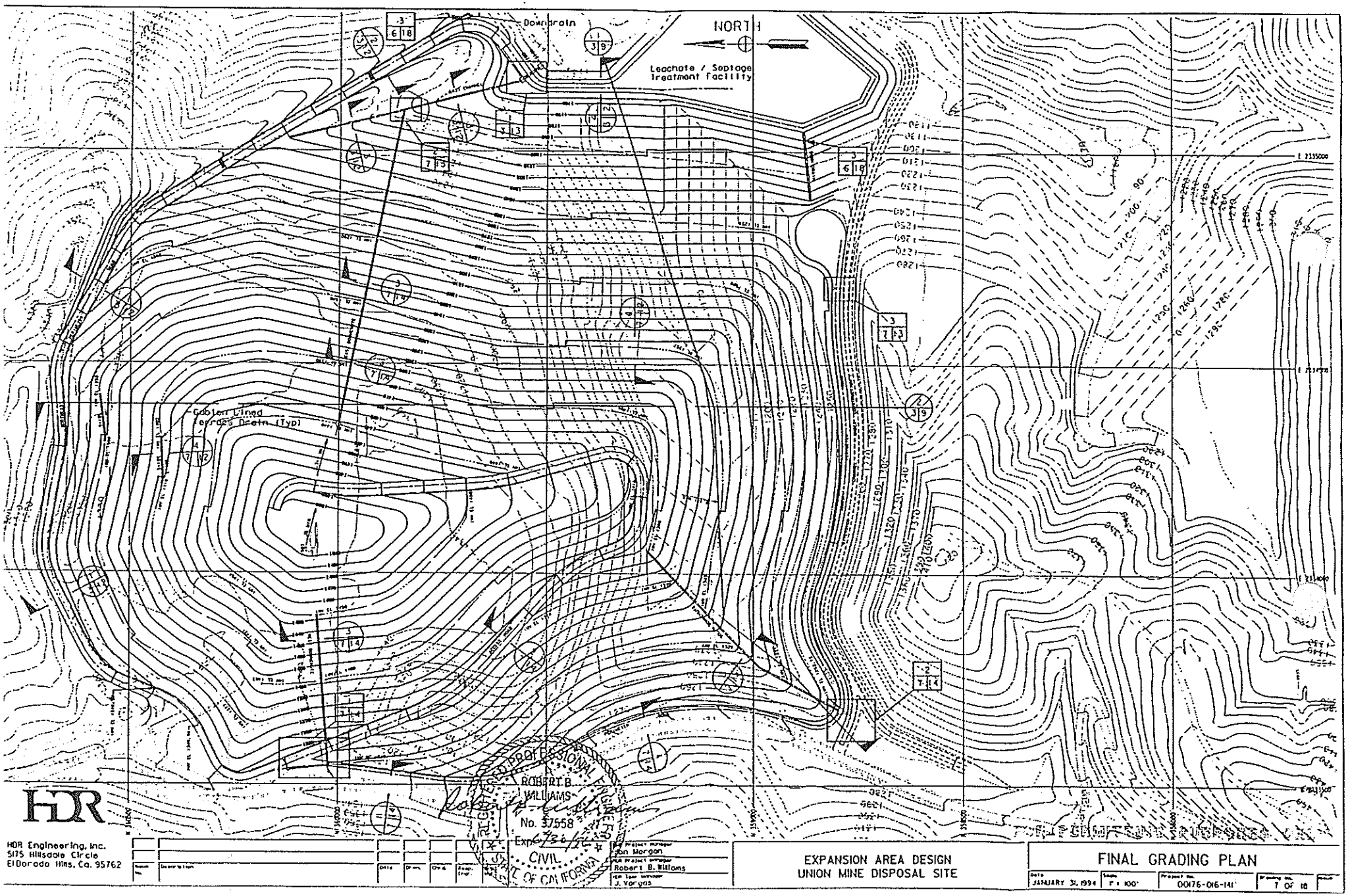

NORTH
Downdrain
Leachate / Septage Treatment Facility
Gabion Lined Terrace Drain (Typ)
HDR
HDR Engineering, Inc.
5175 Hillsdale Circle
ElDorado Hills, Ca. 95762
REGISTERED PROFESSIONAL ENGINEER
ROBERT B. WILLIAMS
No. 37558
Exp 6/30/95
CIVIL
STATE OF CALIFORNIA
Jon Morgan
Robert B. Williams
J. Vargas
EXPANSION AREA DESIGN
UNION MINE DISPOSAL SITE
FINAL GRADING PLAN
JANUARY 31, 1994
1" = 100'
00476-016-141
7 OF 18

FIGURE C

Table 3-1
Landfill Life Calculations and Assumptions
Union Mine Disposal Site

Year	Population (1)	Waste Stream (2) (tons)	Density (3) (cu yd)	Remaining Refuse Capacity (4) (cu yd)
1993	107,950	72,327	115,722	5,162,337
1994	111,887	74,964	119,943	5,042,394
1995	115,967	58,273	93,237	4,949,157
1996	120,196	60,398	96,638	4,852,520
1997	124,579	62,601	100,162	4,752,358
1998	129,122	64,884	103,814	4,648,544
1999	133,831	67,250	107,600	4,540,944
2000	138,711	46,468	74,349	4,466,594
2001	143,770	48,163	77,061	4,389,533
2002	149,013	49,919	79,871	4,309,663
2003	154,447	51,740	82,784	4,226,879
2004	160,079	53,627	85,803	4,141,077
2005	165,917	55,582	88,932	4,052,145
2006	171,968	57,609	92,175	3,959,970
2007	178,239	59,710	95,536	3,864,434
2008	184,739	61,887	99,020	3,765,414
2009	191,476	64,144	102,631	3,662,784
2010	198,458	66,484	106,374	3,556,410
2011	205,696	68,908	110,253	3,446,157
2012	213,197	71,421	114,273	3,331,884
2013	220,972	74,025	118,441	3,213,443
2014	229,030	76,725	122,760	3,090,683
2015	237,382	79,523	127,237	2,963,446
2016	246,039	82,423	131,877	2,831,569
2017	255,011	85,429	136,686	2,694,883
2018	264,311	88,544	141,671	2,553,213
2019	273,949	91,773	146,837	2,406,376
2020	283,940	95,120	152,192	2,254,184
2021	294,294	98,589	157,742	2,096,443
2022	305,026	102,184	163,494	1,932,948
2023	316,150	105,910	169,456	1,763,492
2024	327,679	109,773	175,636	1,587,856
2025	339,629	113,776	182,041	1,405,815
2026	352,014	117,925	188,680	1,217,135
2027	364,851	122,225	195,560	1,021,575
2028	378,156	126,682	202,692	818,883
2029	391,947	131,302	210,084	608,800
2030	406,240	136,090	217,745	391,055
2031	421,055	141,053	225,685	165,370
2032	436,410	146,197	233,916	(68,546)

1. Population projections based on census data from January 1992 - 1993, with percentage change.
2. Waste stream based on 1992 actual gate receipts and tonnages. This data is used to compute total waste in tons/year/capita, incorporating AB939 requirements of 25% reduction from 1995 -1999 and 50% reduction by 2000.
3. In-place density of refuse 1,250 lbs/cu yd.
4. Refuse capacity based on assumptions presented in the notes of Table 7-2.