

COLD CREEK COMPOST FACILITY USE PERMIT Draft Environmental Impact Report

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Prepared for:
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CHAPTER S

EXECUTIVE SUMMARY

PROJECT DESCRIPTION

The project is a Use Permit (#U 26-93) for a mixed solid waste composting facility proposed by Cold Creek Compost, Inc. (CCCI). The commercial facility would accept various source-separated organic materials. The proposed site is located on the Guntly Ranch, approximately 10 miles northeast of Ukiah in Mendocino County. Current operations at the site include composting operations of similar materials as those proposed in the Use Permit. The applicant has been composting on the project site since July 1995. The project will be referred in the Environmental Impact Report (EIR) as the Cold Creek Compost Facility project.

The applicant's purpose of this project is to provide CCCI a new production facility that:

- replaces its former production sites in Covelo and Hopland, California which do not meet all the Applicant's objectives for this compost facility;
- allows CCCI to consolidate its compost production facilities at one location;
- provides the additional capacity necessary to increase production to meet the needs of the expanding market for its compost products;
- is sited and permitted such that it can provide public jurisdictions within its market area a facility that is available to assist such jurisdictions in meeting the goals and objectives for waste diversion as set forth in AB 939; and
- possesses the necessary site characteristics to ensure the facility can meet the permitting requirements of the California Integrated Waste Management Board and other regulatory agencies while minimizing impacts to off-site receptors.

In February 1995, the Mendocino County Board of Supervisor upheld an appeal from the Planning Commission of a Negative Declaration and use permit (#U26-93) to compost the proposed range of feedstocks. This EIR is being prepared pursuant to Superior Court Order No. CV71886, Preserve County Neighborhoods v. County of Mendocino. The EIR will focus primarily upon the issues specified by the Court.

The Court summarized their concerns into the two issues shown directly below.

1. The effect of compost leachate on domestic water wells in the area, the Russian River and Lake Mendocino, and the effect of the construction of a roof (shed) over a 3.5-acre portion of the compost pad.
2. The public health impacts on ground and surface water, *Aspergillus fumigatus*, and impacts related to traffic noise, safety, and odors.

The project which is the subject of this EIR incorporates several changes to the original project approved and litigated as #U26-93. The Report of Composting Site Information, January 15, 1996, together with the September 27, 1996 Amendment and other information provided by the applicant, represents the revised project. Figure 2.3, the Site Facilities Plan and Figure 2.4, the Location Plan, include changes to the project. Noteworthy changes to the project include:

1. Street sweepings (primarily from autumn leaf collections) and sewage sludge biosolids are added as feedstocks.
2. Maximum percentages for additives and amendments, and estimated percentages for various feedstock types, are omitted in conformance with revised State regulations.
3. Maximum daily load capacity/design capacity is increased from 200 tons per day (250 days per year) to 400 tons per day. Average daily incoming feedstock and maximum annual processing volumes are unchanged at 200 tons per day and 50,000 tons per year, respectively.
4. Facility size is reduced from 12.5 to 10 acres (reflects elimination of leachate ponds), and the compost pad is increased from an estimated 5.5 to 6.0 acres. The facility haul road, scales, water storage tanks and auxiliary areas to store gypsum and lime are not included in this area, but are analyzed as part of the project in this EIR.
5. Leachate collection ditches, sedimentation ponds, and containment ponds are eliminated because they have been replaced by the roof structure.
6. Compost pad permeability, previously specified at 1×10^{-6} centimeters per second (cm/s), is specified to conform to requirements of the Regional Water Quality Control Board.
7. Addition of a 3.5-acre roof structure covering about 65% of the compost pad; a 1.14-acre roof has already been constructed. To eliminate leachate production, compost operations will be maintained under this structure during the rainy season, and any finished compost stored on the pad will be securely covered consistent with the facility Storm Water Pollution Prevention Plan. A 2.55-acre roof structure was administratively approved by the Planning Director on May 12, 1995. It should be noted that currently Condition 6 of the Solid Waste Facilities Permit allows for the storage of finished compost outside of the roof during winter operations (October 1 through May 15), but this condition does not mention additives or amendments.
8. Seasonal peak delivery truck traffic of limited duration is estimated at up to 40 truck round trips per day to accommodate 400 peak tons per day, compared with the previous estimated 12 round trips per day.

9. Potential water sources have been further identified as being:

Brewery process water: CCCI currently has a one year contract with Mendocino Brewing Company (MBC). MBC expects to begin producing process water on or about March 1, 1997. At initial MBC production levels, CCCI will receive approximately 3,000 gallons of process water per day, and with increased production up to 12,000 gallons per day.

Well water: CCCI has a water well with rated capacity of 15 gallons per minute. CCCI would drill additional wells should they be needed.

Cold Creek: The Guntly Ranch has riparian rights to water in Cold Creek that could be made available for CCCI use. These rights would provide an additional water source, if necessary.

East Fork Russian River: The Guntly Ranch has riparian rights to water in the East Fork Russian River.

Pond water: The landowner has agreed to allow CCCI to construct dams/ponds to capture winter runoff. CCCI would implement this alternative if necessary.

Reprocessed water: The facility has a floor drain system under the roof that captures stormwater that blows under the roof. The floor drain channels the stormwater (which is then compost leachate because it has contacted compost) to a 22,000 gallon tank. Following the first storm system of 1996-97, the system collected approximately 6,000 gallons of leachate in the tank.

10. Water storage tanks have been installed. As indicated on Figure 2.3, the facility has a total of 90,500 gallons of storage capacity:

2,500 gallon tank at the well head for storage of potable water;

44,000 gallons (two 22,000-gallon tanks) dedicated to brewery process water (these could also be used for well water storage);

22,000 gallons for potable well water (only);

22,000 gallon tank for leachate collection storage (can also be used for brewery process and well water storage).

11. Auxiliary Storage Areas have been added for the storage of amendments and additives. These areas have been added to allow the CCCI Facility to buy these materials in larger quantities when prices for the materials are low, storing them on the site to be used as needed. The project applicant is proposing to receive up to 10,000 cubic yards of amendments and additives at the facility annually. The applicant expects gypsum, lime and wood ash to account for the majority of the amendments and additives. During winter operations, the materials would be securely tarped if they are not under the roof. These materials would also be securely tarped during summer operations, if that is necessary to prevent visible dust or leachate. The applicant proposes to store these materials on the compost pad, or on flat areas near the three water storage tanks.

OVERVIEW OF IMPACTS AND MITIGATION MEASURES

The potentially significant adverse effects of the Cold Creek Compost Facility Project are listed in Sections 3.1 through 3.6. Mitigation measures have been identified that would reduce all of the significant impacts to a level of insignificance. Therefore, there are no unavoidable significant effects of the project that cannot be mitigated.

The EIR found the roof to be an environmental benefit to the project by allowing CCCI to better control leachate generation during the rainy season. Although there is still blow-in during rainstorms, a drainage and holding-tank system has been developed to contain the blow-in moisture, treating it as leachate that is not released off-site but reused as composting process water.

Other impacts of concern to nearby residences are the off-site dispersal of odors and the fungus *Aspergillus fumigatus*. The extensive buffer area (approximately 4,800 feet) between the composting pad and the off-site receptors is sufficient to reduce (dilute) odors and fungus to almost background levels at the property boundary. Should odors be offensive at the property boundary, the EIR has identified several additional mitigation measures that could be implemented to further control odors, and the dispersal of *Aspergillus fumigatus* spores.

ALTERNATIVES TO THE PROJECT

This EIR considers three feasible alternatives that provide a reasonable range to full build-out of the project.

- A. The **No Project Alternative** assumes that the CCCI would continue animal waste composting on its site as permitted under the existing land use zoning of the site, and would not expand the feedstocks to the extent proposed by Use Permit #U26-93.
- B. The **Off-Site Alternative** evaluates the composting facility project as proposed at an alternative off-site location near Covelo.
- C. The **Reduced Project / Mitigated Alternative (No Biosolids)** evaluates the compost facility at a reduced facility design capacity of 30,000 tons per year of incoming materials, and considers a number of design modifications that would further reduce any potential negative environmental impacts of the project. This alternative removes sewage sludge biosolids as a potential feedstock.

Each alternative includes a description, text analyses of environmental effects compared to the project and the status of the alternative, which will include whether the alternative has been accepted, rejected, or is under consideration by the applicant. Full discussion of the alternatives is provided in Chapter 5 of this report.

AREAS OF CONTROVERSY

The project site is currently zoned Rangeland under the County's zoning code, found at Mendocino County Code Section 20.060.005 et seq. Section 20.060.010 listing permitted uses in the Rangeland zone, which, under "Commercial Use Types," includes "Animal waste processing." Under the County Code, if an activity is listed as a permitted use, it is permitted as of right -- that is, no use permit needs to be secured for that activity. For this project, it is the County's determination that CCCI only needs a use permit because they intend to import vegetative matter (primarily grape pomace and yard wastes from local cities).

Particular public groups, including the Mendocino Environmental Center, have raised issues of disagreement with the County's determination that the importation and composing of manure is legally permitted at this facility by County Ordinance.

In this EIR, the analyses are simplified by analyzing the "entire project" against a baseline of no composting on the site. That is, the EIR analyzes all the impacts of the project in comparison to no composting on the proposed Guntly Ranch site. This is the most straightforward approach for this project, and also will most clearly identify the potential impacts of the proposed project in its entirety (see also the Level of Analysis discussion in Chapter 1). The EIR, therefore, does not rely on the County determination that large-scale composting of animal waste is a land use right on this site.

CHAPTER 1

INTRODUCTION

1.1 OVERVIEW OF THE PROJECT

The project is a Use Permit (#U26-93), proposed by Cold Creek Compost, Inc. (CCCI), for a commercial composting facility that accepts various source-separated organic materials. The proposed site is on Guntly Ranch, approximately 10 miles northeast of Ukiah in Mendocino County. Current operations at the site include composting operations of similar materials as those proposed in the Use Permit. The project will be referred in this Environmental Impact Report (EIR) as the Cold Creek Compost Facility project, or "project."

In February 1995, the Mendocino County Board of Supervisors upheld an appeal from the decision of the Planning Commission and approved a Negative Declaration and Use Permit (#U26-93) to compost the proposed range of feedstocks. This EIR is being prepared pursuant to Superior Court Order No. CV71886, *Preserve County Neighborhoods v. County of Mendocino*. The EIR will focus primarily upon the issues specified by the court.

1.2 PURPOSE OF THE EIR

An EIR is an informational document that in itself does not determine whether a project will be approved. The purpose of the EIR, as identified in Section 15121 of the CEQA *Guidelines*, is to identify all potentially significant impacts of a project on the physical environment, to determine the extent to which those effects could be reduced or avoided, and to identify and evaluate feasible alternatives to the project.

When an EIR determines that a project could cause significant impacts, those agencies with approval authority over the project are required to make one or more of the following determinations before the project can be approved (Section 15091, CEQA *Guidelines*):

- Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant impacts identified in the EIR.
- Such alternatives are within the responsibility and jurisdiction of another agency (which has adopted or should adopt the changes).
- Specific social, economic, or other concerns render the mitigation measures for, or alternatives to, the project infeasible.

According to the CEQA *Guidelines* (Section 15151), the EIR need not be exhaustive in its analysis of a project, but should analyze important issues to a sufficient degree that permitting and approving agencies can make informed decisions. Additional information specific to each approval would be provided by the applicant, as required.

1.3 USES OF THIS EIR BY OTHER AGENCIES

As the public agency principally responsible for approving the Cold Creek Compost Facility project, the County is considered the Lead Agency under CEQA and is responsible for reviewing and certifying the adequacy of this EIR. Those agencies that have discretionary authority over aspects of the Cold Creek Compost Facility project are considered to be Responsible Agencies under CEQA.

These Responsible Agencies will also consider this EIR as it relates to any actions in which they have discretionary approval power. In addition, a number of other agencies may have an interest in the Cold Creek Compost Facility. Agencies that may have responsibility or interest in the proposed project include:

RESPONSIBLE AGENCIES

- California Integrated Waste Management Board
- North Coast Regional Water Quality Control Board
- Mendocino County Air Quality Management District
- Mendocino County Division of Environmental Health
- Mendocino County Department of Public Works

INTERESTED AGENCIES

- U.S. Fish and Wildlife Service
- State Water Resources Control Board (SWRCB)
- California Department of Transportation (Caltrans)
- Air Resources Board (ARB)
- State Resources Agency
- State Department of Conservation
- Department of Forestry and Fire Protection
- Mendocino Solid Waste Management Authority

1.4 EIR ORGANIZATION

On March 8, 1996, a Notice of Preparation (NOP) was sent to agencies potentially interested in the project (see Appendix A). Responses from these agencies helped to determine relevant environmental issues associated with the project that are addressed and analyzed in the EIR.

On March 20, 1996, the County held a Public Scoping Session. The purpose of the hearing was to identify and consider the environmental issues and potential significant effects of the project.

Issues were raised concerning: depletion of surface or ground water resources; toxicity of certain feedstocks and additives; potential impacts of landspreading uncomposted materials on lands adjacent to the facility; visual impacts of the proposed expansion of the shed roof structure; and impacts on wildlife and biological resources.

On January 21, 1997, a revised NOP was sent to agencies potentially interested in the project and members of the public known to be interested in the project (see Appendix A). The revised NOP addressed changes to the project that had occurred since the issuance of the March 4, 1996, NOP. These changes include:

1. The project site also includes an area lying 1,800 +/- feet easterly of the 10-acre project site for three 22,000 gallon storage tanks on cement pads for process water and potable water, and one 2,500 gallon tank at the well head for potable water (Figure 2.3).
2. The project also includes a floor drain system under the roof that captures rain water that blows under the roof. The floor drain channels the rainwater to a 22,000 gallon tank.
3. The project site includes auxiliary areas near the compost pad for storing lime and gypsum. Additives and amendments may also be stored outside the roof structure on the compost pad.
4. Addition of biosolids as a feedstock. Biosolids are processed and regulated wastewater solids that originate as sewage sludge.
5. Process water may include brewery process water from an off-site source. Rainwater collected by the floor drain system will also be used as process water.
6. Maximum truck traffic generation is estimated at 40 round trips per day (80 one way trips).

The EIR for the Cold Creek Compost Facility project consists of the Draft EIR, which contains the environmental analysis of the proposed project, and the Final EIR, which will contain comments received during the public review period and the responses to those comments. This Draft EIR has been organized into the following sections:

Chapter S, Summary: Summarizes the changes as a result of the proposed project, the environmental impacts that would result from implementation of the project, the mitigation measures suggested to reduce or eliminate impacts, and alternatives to the project.

Chapter 1, Introduction: Provides an introduction and overview that describes the intended use of the EIR, summarizes the EIR review and certification process, and sets forth some of the assumptions critical to the environmental analysis.

Chapter 2, Project Description: Discusses the project objectives, provides background data on the Cold Creek Compost Facility project, and describes changes that would occur with implementation of the project.

Chapter 3, Environmental Setting, Impacts and Mitigation Measures: Describes the existing conditions, discusses the environmental impacts, and identifies the mitigation measures for the impacts identified in this EIR.

Chapter 4, Alternatives to the Proposed Project: Presents the alternatives to the project and provides a discussion of the environmental impacts associated with each alternative in comparison to the project.

Chapter 5, Impact Overview: Presents California Environmental Quality Act (CEQA) required discussions on growth inducement, cumulative impacts, significant irreversible environmental effects, and effects found not to be significant.

Chapter 6, Report Preparers, and Persons and Organizations Consulted: Lists report preparers and identifies where to find references to organizations and persons consulted.

Chapter 7, Glossary and Acronyms: Lists technical terms and abbreviations used in this EIR.

Appendices: Includes the Notices of Preparation for this EIR and background technical material.

1.5 APPROACH TO THE EIR

This section presents the methodological and analytical basis for the EIR preparation.

LEVEL OF ANALYSIS

The compost facility is currently operating at about 25% of the expected average of 200 tons per day or 50,000 tons per year. This EIR assumes that construction of additional improvements to the proposed compost facility would be completed and fully operational by 2000.

This project is more complicated than most to analyze because it is difficult to determine incremental effects of the project. The uncertainty is primarily in determining what will be the change to the environment if the project is approved. Most of the uncertainty is in determining the future environment if the project is not approved. The applicant has indicated that CCCI will continue to compost manures on the site, which the County has determined to be a land use permitted by right by this zoning, even if the Conditional Use Permit is denied. Moreover, under the State Composting Operations Regulatory Requirements (CCR Sec 17850 et seq), the applicant is permitted to compost an unlimited amount of manure upon notification of the local enforcement agency (LEA). This activity is exempt from CEQA. If, however, the facility accepts greenwaste or other materials as well as manure, and has more than 10,000 cubic yards of feedstock and active compost on-site at any one time, the facility must obtain a solid waste facility permit according to the California Integrated Waste Management Board's (CIWMB) tiered permitting system. Since this would be a discretionary process, it would require environmental review under CEQA. Therefore, at one level, the project can be viewed as only having the "differential impact" between what would happen if CCCI composted manures on the

site (a land use right) and what would happen if the applicant expanded the feedstocks as proposed by this project.

Regardless of the applicant's intentions, if this Use Permit is denied, a variety of factors could impede the development of a 50,000 tons-per-year manure-only compost facility. The EIR simplifies this uncertainty by analyzing the "entire project" against a baseline of no composting on the site. That is, the EIR analyzes all the impacts of the project, in comparison to having no development of composting on the proposed Guntly Ranch site. This is the most straightforward approach for this project, and also will most clearly identify the potential impacts of the proposed project in its entirety.

The analysis of Use Permit #U26-93 (the proposed project) in comparison to the manure-only composting site is provided in the No-Project Alternative, because the applicant has indicated that CCCI would develop the site with manure-only composting if CCCI does not get the Use Permit for mixed solid waste composting.

PERIOD OF ANALYSIS

The compost facility is currently operating at about 25% of the expected average of 200 tons per day. This EIR assumes that construction of additional improvements to the proposed compost facility would be completed and fully operational by 2000. There are no limits placed by the applicant on the life of the project.

DETERMINATION OF SIGNIFICANCE AND MITIGATION MONITORING

CEQA *Guidelines* Section 15382 defines a significant effect on the environment as "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project..." (emphasis added). This EIR, therefore, concentrates on identifying substantial physical effects of the proposed project, mitigation measures to avoid, reduce or otherwise alleviate those effects, and alternatives to avoid, reduce or otherwise alleviate them.

Within each impact section contained in Chapter 3 of this EIR, impacts are identified in bold type. Following the discussion of each stated impact, measures that could alleviate the impact, or lessen it to some degree, are set forth where warranted. Unless the impact is thereafter designated as an unavoidable significant impact, the preparers of this EIR have concluded that the impact can be mitigated to a less-than-significant level. Wherever the implementation of mitigation measures could generate significant impacts, this possibility is also noted and the significance of those potential impacts is evaluated.

CEQA also requires that a Lead Agency establish a monitoring or reporting program at the time of project approval to ensure the implementation of "changes to the project" that are "adopted or

made a condition of project approval in order to mitigate or avoid significant effects on the environment." Accordingly, a mitigation monitoring and reporting program will be prepared after the EIR is certified, and will be considered by the County in conjunction with project review and included as a condition of project approval.

ALTERNATIVES

The discussion of project alternatives in Chapter 5 of this EIR addresses the No-Project Alternative (as required by Section 15126(a)(2) of the CEQA *Guidelines*) and other alternatives. The comparative analysis focuses on alternatives that may be capable of eliminating significant adverse environmental effects of the project, or reducing those effects to a less-than-significant level, even if the alternatives would impede the attainment of all project objectives or would be more costly. Effects of the alternatives are identified and compared to impacts of the project.

1.6 PUBLIC REVIEW

The Draft EIR will be available for public review for 45 days. During this period, comments on the accuracy and completeness of the EIR may be submitted by State and local agencies, public interest groups, and concerned individuals. Written comments should be submitted to Ms. Pamela Townsend, Mendocino County Planning and Building Services, 501 Low Gap Road, Room 1440, Ukiah, California, 95482. Oral comments can be made at public hearings on the project, to be scheduled and publicly noticed by the County. All environmentally relevant oral and written comments on the Draft EIR received during the public comment period will be addressed in the Final EIR.

CHAPTER 2

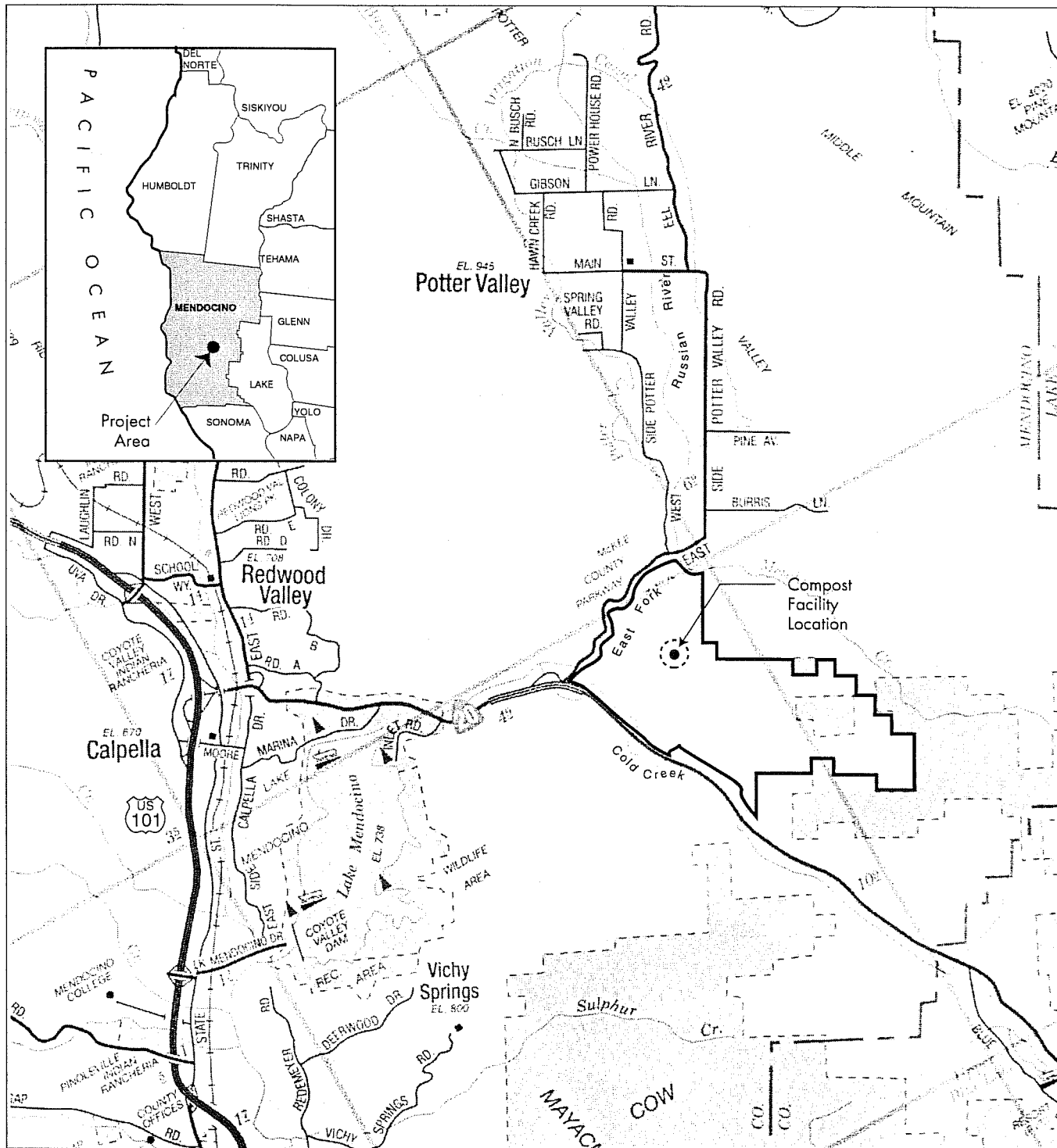
PROJECT DESCRIPTION

2.1 PROJECT BACKGROUND

The project is a Use Permit (#U 26-93) for a commercial composting facility that accepts various source-separated organic materials, proposed by Martin Mileck, Cold Creek Compost, Inc. (CCCI), on a portion of a ranch owned by Charles Guntly. Feedstock materials are proposed to include manure from chicken ranches and dairies, turkey farms and other agricultural facilities; other agricultural materials, including grape pomace, plant trimmings and culled fruit; green material; animal stall bedding; grocery store food waste; restaurant food waste; street sweepings (primarily from autumn leaf collections); fishery waste; and sewage sludge biosolids. The percentage of feedstock materials may vary considerably on a daily or weekly basis. Facility design capacity is a maximum 50,000 tons per year incoming material, an average of approximately 200 tons per day, with a maximum of 400 tons per day of incoming material. The service area for the project would include the surrounding regions, such as areas in Mendocino, Humboldt, Lake, Napa, Sonoma, and Yolo Counties (Cold Creek Compost, Inc., RCSI, 1996).

The site is at the Guntly Ranch, approximately 10 miles northeast of Ukiah in Mendocino County (see Figure 2.1). CCCI proposes to compost municipal organic materials and agricultural biomass materials on a portion of the Guntly Ranch. The site is located on portions of two legal parcels. Both parcels are within Township 16 North, Range 11 West (Mount Diablo Baseline and Meridian). The main composting operations are located within the Southeast quarter of Section 8 on a 40-acre parcel (Assessor's Parcel number 177-150-03; a small portion of the operations may be on the adjoining 120-acre Parcel, number 177-150-02). The water well, water storage tanks, and auxiliary storage area are located within the Northeast quarter of Section 17 on a 200-acre parcel (Assessor's Parcel number 177-260-11). The 3,700-acre Guntly Ranch is devoted to range land for cattle, crop production, and timber land. Elevations on the project site range from 1,500 feet to 1,550 feet above mean sea level (MSL) (CCCI, RCSI January, 1996). The operations area is located on top of a northwest trending ridge line about 600 feet higher than, and about 4,000 feet east of, the east fork of the Russian River. Cold Creek is located about 4,600 feet southwest of the operations area. The compost pad will encompass about six acres. The topography of the area surrounding the project site is shown in Figure 2.2.

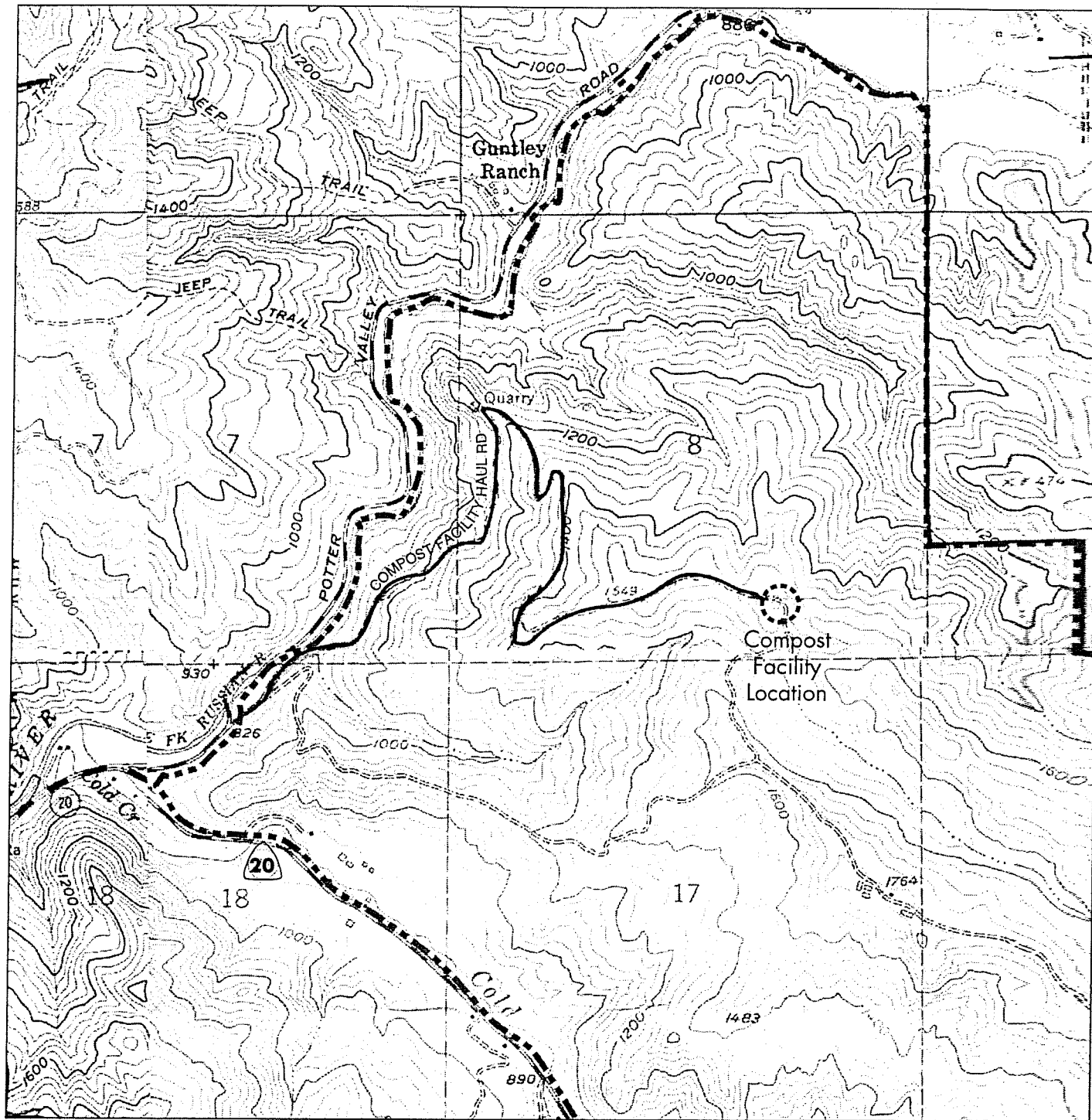
The applicant indicates that the facility will provide an important public benefit by providing local access to a municipal organic waste recycler, helping local communities comply with the



SOURCE: CSAA, Environmental Science Associates

Cold Creek Compost EIR / 960106 ■

Figure 2.1
Site Vicinity Map



--- Guntley Ranch
Property Boundary

0 2000
Feet

Cold Creek Compost EIR / 960106 ■

Figure 2.2
Project Area Topography

waste diversion requirements of the California Integrated Waste Management Act of 1989 (AB 939, PRC 40050 et seq.). Composting is a widely accepted process for converting and stabilizing a wide variety of organic materials into agriculturally or horticulturally useful soil amendments. Composting is encouraged by AB 939 because it processes organic wastes and produces a soil amendment product that can be sold. Composting occupies the same level as recycling in the integrated waste management hierarchy, and produces a value-added product that conserves natural resources. The organic wastes used in composting would probably otherwise be disposed of in a Class III landfill, incurring costs to the entity that disposes of the waste, or left to decompose in a destabilized, uncontrolled condition. In addition to having potential economic benefits, composting reduces the amount of waste going to landfills. Since Mendocino County has limited remaining permitted landfill capacity, the project has the regional benefit of helping to conserve the remaining permitted landfill capacity in the region.

This project would provide benefits to local agriculture. Agricultural waste by-products are often considered a liability, and commonly cause water quality problems during the wet weather season when not properly managed. This regulated facility would provide a service to several industries that normally do not have the resources to manage their compostable solid waste by-products in an environmentally sound way. The compost produced by this facility would also provide a necessary farm input to growers who are interested in what is commonly called sustainable agriculture, and who are trying to decrease their reliance on chemical fertilizers and pest and disease control methods.

Finally, this facility could reduce fossil fuel consumption and traffic in the region by providing a local facility for recycling wastes generated in Mendocino County.

The facility is permitted under the regulations of the California Integrated Waste Management Board as a mixed solid waste composting facility.

2.1.1 PROJECT GOALS AND OBJECTIVES

The purpose of this project is to provide CCCI a new production facility that:

- replaces its former production sites in Covelo and Hopland, California, which do not meet all of the Applicant's objectives for this compost facility;
- allows CCCI to consolidate its compost production facilities at one location;
- provides the additional capacity necessary to increase production to meet the needs of the expanding market for its compost products;
- is sited and permitted such that it can provide public jurisdictions within its market area a facility that is available to assist such jurisdictions in meeting the goals and objectives for waste diversion as set forth in AB 939; and

- possesses the necessary site characteristics to ensure the facility can meet the permitting requirements of the California Integrated Waste Management Board and other regulatory agencies, while minimizing impacts to off-site receptors.

2.1.2 EIR PREPARED PURSUANT TO COURT ORDER

In February 1995, the Mendocino County Board of Supervisors upheld, on appeal from the Planning Commission, a Negative Declaration and Use Permit (#U 26-93) to compost the range of feedstocks listed above (except street sweepings [primarily from autumn leaf collections] and sewage sludge biosolids). This Environmental Impact Report (EIR) is being prepared pursuant to Superior Court Order No. CV71886, Preserve County Neighborhoods v. County of Mendocino. The County intends that the scope of work will focus primarily upon the issues specified by the Court. The Court summarized their concerns into the two issues shown directly below.

1. The effect of compost leachate on domestic water wells in the area, the Russian River and Lake Mendocino, and the effect of the construction of a roof (shed) over a 3.5-acre portion of the compost pad.
2. The public health impacts on ground and surface water, *Aspergillus fumigatus*, and impacts related to traffic noise, safety, and odors.

2.1.3 CHANGES TO PREVIOUS PROJECT

The project which is the subject of this EIR incorporates several changes to the original project approved and litigated as #U 26-93. The Report of Composting Site Information, January 15, 1996, together with the September 27, 1996 Amendment and other information provided by the applicant, represents the revised project. Figure 2.3 and Figure 2.4 include changes to the project. Noteworthy changes to the project include:

1. Street sweepings (primarily from autumn leaf collections), and sewage sludge biosolids are added feedstocks.
2. Maximum percentages for additives and amendments, and estimated percentages for various feedstock types, are omitted in conformance with revised State regulations.
3. Maximum daily load capacity/design capacity is increased from 200 tons per day (250 days per year) to 400 tons per day. Average daily incoming feedstock and maximum annual processing volumes are unchanged at 200 tons per day and 50,000 tons per year, respectively.
4. Facility size is reduced from 12.5 to 10 acres (reflects elimination of leachate ponds), and the compost pad is increased from an estimated 5.5 to 6.0 acres. The facility haul road, scales, water storage tanks and auxiliary areas to store gypsum and lime are not included in this area, but are analyzed as part of the project in this EIR.

5. Leachate collection ditches, sedimentation ponds, and containment ponds are eliminated because they have been replaced by the roof structure.
6. Compost pad permeability, previously specified at 1×10^{-6} centimeters per second (cm/s), is specified to conform to requirements of the Regional Water Quality Control Board.
7. Addition of a 3.5-acre roof structure covering about 65% of the compost pad; a 1.14-acre roof has already been constructed. To eliminate leachate production, compost operations will be maintained under this structure during the rainy season, and any finished compost stored on the pad will be securely covered consistent with the facility Storm Water Pollution Prevention Plan. A 2.55-acre roof structure was administratively approved by the Planning Director on May 12, 1995. It should be noted that currently Condition 6 of the Solid Waste Facilities Permit allows for the storage of finished compost outside of the roof during winter operations (October 1 through May 15), but this condition does not mention additives or amendments.
8. Seasonal peak delivery truck traffic of limited duration is estimated at up to 40 truck round trips per day to accommodate 400 peak tons per day, compared with the previous estimated 12 round trips per day.
9. Potential water sources have been further identified as being:

Brewery process water: CCCI currently has a one year contract with Mendocino Brewing Company (MBC). MBC expects to begin producing process water on or about March 1, 1997. At initial MBC production levels, CCCI will receive approximately 3,000 gallons of process water per day, and with increased production up to 12,000 gallons per day.

Well water: CCCI has a water well with rated capacity of 15 gallons per minute. CCCI would drill additional wells should they be needed.

Cold Creek: The Guntly Ranch has riparian rights to water in Cold Creek that could be made available for CCCI use. These rights would provide an additional water source if necessary.

East Fork Russian River: The Guntly Ranch also has riparian rights to water in the East Fork Russian River.

Pond water: The landowner has agreed to allow CCCI to construct dams/ponds to capture winter runoff. CCCI would implement this alternative if necessary.

Reprocessed water: The facility has a floor drain system under the roof that captures stormwater that blows under the roof. The floor drain channels the stormwater (which is then compost leachate because it has contacted compost) to a 22,000-gallon tank. Following the first storm system of 1996-97, the system collected approximately 6,000 gallons of leachate in the tank.
10. Water storage tanks have been installed. As indicated on Figure 2.3, the facility has a total of 90,500 gallons of storage capacity:

2,500-gallon tank at the well head for storage of potable water;

44,000 gallons (two 22,000-gallon tanks) dedicated to brewery process water (these could also be used for well water storage);

22,000 gallons for potable well water (only);

22,000 gallons for leachate collection storage (can also be used for brewery process and well water storage).

11. Auxiliary Storage Areas have been identified for the storage of amendments and additives. These areas have been added to allow the CCCI Facility to buy these materials in larger quantities when prices for the materials are low, storing them on the site to be used as needed. The project applicant is proposing to receive up to 10,000 cubic yards of amendments and additives at the facility annually. The applicant expects gypsum, lime, and wood ash to account for the majority of the amendments and additives. During winter operations, the materials would be securely tarped if they are not under the roof. These materials would also be securely tarped during summer operations if that is necessary to prevent visible dust or leachate. The applicant proposes to store these materials on the compost pad, or on flat areas near the three water storage tanks.

Incoming feedstock will be screened, ground, blended, and placed in windrows for two to three months until composting is complete. Windrows will be turned using a specialized windrow turner, and monitored for temperature and moisture content. Amendments will be mixed with composted material to meet customer specifications, followed by weighing and storage in bulk or bags for wholesale sales. Buildings will be constructed to house equipment maintenance, field office functions, and laboratory operations. Site development has included grading for the operations area, the compost pad, the roof structure, the water storage and auxiliary storage area, and the access roads to the site and to the water storage area. Future development would include installation of a septic system. Existing site access roads have been improved to an all-weather standard. During wet weather months, all facility operations will occur under the roof structure covering the compost pad. The roof structure will minimize storm water run-on to the pad. Storm water runoff from the roof will be carried beyond the pad perimeter and released to natural drainages. Grasses surrounding the pad perimeter will remove any incidental sediment load from the pad prior to contact with any receiving water. Monitoring and control of the moisture content of the windrows will minimize leachate generation. Materials in auxiliary storage areas will be covered as necessary to minimize generation of dust and/or leachate.

During the previous hearing leading to the approval on November 17, 1994, of the Use Permit #U 26-93, resolutions supporting the project were received from the Mendocino Solid Waste Authority and City Council of the City of Ukiah. Resolutions supporting the project met PRC 50000 requirements, and included the County of Mendocino and the cities of Ukiah, Willits, and Fort Bragg (Morley, 1997).

The site is currently operating while the EIR is being prepared. The facility is operating according to the parameters in the facility RCSI dated January 15, 1996, as amended on

September 17, 1996. Facility operations are governed by the facility's Conditional Use Permit, Storm Water Pollution Prevention Plan, and Mendocino Air Quality District Authority to Construct. The facility has been receiving a variety of feedstocks since it began operating as a mixed solid waste composting facility on July 1, 1995, following concurrence in the issuance of the Solid Waste Facility Permit by the California Integrated Waste Management Board on June 28, 1995. In 1996, the facility has had average incoming materials of approximately 54 tons per day. The site is inspected monthly by the Local Enforcement Agency (LEA), and when there are any complaints about the facility.

Implementation of the project is described in the RCSI as occurring in four general stages, which are summarized below:

- Stage 1: Procurement of applicable permits; construct access road and compost pad; begin Phase 1 roof construction (1.4 acres); and purchase some operations equipment.
- Stage 2: Place temporary office building on site; complete final facility design and engineering; complete construction permitting; install well and water facilities and domestic waste system; complete compost pad construction; and begin storing composting materials on site.
- Stage 3: Construct storage facilities, offices, and shop; complete Phase 1 roof construction; complete final road construction (approach construction and paving); hire and train facility personnel; and begin receiving feedstock.
- Stage 4: Complete Phase 2 roof construction; install water, septic system, and scales; and make final equipment purchases.

Stages 1 to 3 are completed excepting the domestic waste system (Stage 2); construction of offices and shop (Stage 3); and chip seal of the first 600 feet of the access road (Stage 3).

2.2 SITE DESCRIPTION

2.2.1 SITE TOPOGRAPHY

The proposed area for composting ranges from 1,500 to 1,550 feet MSL. The composting area is approximately 600 feet higher than the nearest point of the Russian River, and 600 feet higher than the nearest point of Cold Creek.

2.2.2 SIZE OF SITE AND SITE DESIGN

The project site is located on the 3,700-acre Guntly Ranch. Composting operations will be conducted on a compost pad that encompasses about six acres of the site. A site plan of the composting facility is shown in Figure 2.3.

2.2.3 TOTAL OPERATING CAPACITY

Based on capacity calculations by the windrow turner manufacturer, the operator's experience and best estimate of quantities of incoming feedstocks, and engineer's review, incoming material will be limited to an average of 200 tons per day (tpd). Using a reduction factor of 0.33 to account for evaporation, this will result in an output of approximately 133 tpd (CCCI, RCSI January, 1996).

2.2.4 AVERAGE AND MAXIMUM QUANTITIES OF MATERIALS RECEIVED DAILY

The average daily inbound feedstock volume will be 200 tpd, with a maximum daily load of 400 tpd. Minimal waste separation will be required, primarily for green wastes. As of December 10, 1996, no hazardous wastes had been identified in materials brought to the site. If hazardous materials are identified in the future, they will be returned to the generator, if practicable, or stored on site in appropriate containers prior to disposal.

2.2.5 EXPECTED FACILITY LIFE SPAN

The expected life span of the facility is unknown at this time. However, use permit conditions will require preparation of a final site closure plan at least 90 days prior to closure. The closure plan will include the restoration of the site to its natural state to the maximum extent reasonably feasible.

Title 14, Section 17870 requires notice (to the LEA) of intent to perform site restoration, at least 30 days prior to beginning site restoration. Site restoration must protect public health, safety, and the environment.

2.2.6 CURRENT LAND USE

Since July 1995, the project site has been operating as a commercial composting facility that accepts various source-separated organic materials, with operations similar to those described in the EIR. The facility is being monitored by the County Division of Environmental Health, the Local Enforcement Agency.

2.2.7 CURRENT ZONING

The project site is currently zoned as Rangelands (R-L) under the County's zoning code. The County has determined that animal waste composting currently being conducted on the project site is unconditionally permitted under this zoning. However, as stated above, the site is also composting other wastes under the Use Permit while the EIR is being prepared.

2.2.8 LAND USE WITHIN 1000 FEET OF SITE BOUNDARIES

The surrounding lands are primarily used for cattle, crop production, and timber land. The nearest residence to the project site is located approximately 4,800 feet west of the project site. The CIWMB EIR Checklist for composting facilities recommends identifying land uses within 1,000 feet of the site boundary.

2.2.9 VERIFICATION / CERTIFICATION OF NONHAZARDOUS WASTES TO BE RECEIVED

The facility operator intends to have most generators perform separation procedures prior to material delivery. No wastes proposed for acceptance require special handling beyond the normal inspection procedures to ensure hazardous materials are removed from the feedstock. Non-hazardous wastes, including process rejects, will be placed in a debris box for scheduled weekly or bi-weekly pickup. Identified hazardous materials will be rejected and returned to the generator, if practical, or stored on site in appropriate containers. Any unknown or unidentified material will be handled as if it were a hazardous material.

2.2.10 ULTIMATE LAND USE

A final site closure plan shall be prepared for acceptance by Planning and Building Services and Environmental Health at least 90 days prior to closure. The plan shall provide for the restoration of the site to its natural state, to the maximum extent reasonably feasible, including removal of all feedstock, additives, equipment, and nonpermanent structures, grading to natural/stable contours, and reseeded and replanting with native or native-like vegetation.

2.2.11 COMMERCIAL, PUBLIC AND/OR PRIVATE USE

The majority of the compost generated at the facility will be sold for agricultural uses. Some will be sold through retail landscape supply outlets.

2.2.12 PERMITS REQUIRED BY STATE AND LOCAL AGENCIES TO IMPLEMENT THE PROJECT

Permits required for the proposed project include:

- Use Permit, Building Permit, and Grading Permit administered by the County Planning and Building Services Department.
- Solid Waste Facilities Permit (SWFP) issued by the Local Enforcement Agency (LEA) and concurred by the California Integrated Waste Management Board. The SWFP is based on the Report of Composting Site Information (RCSI), reviewed and monitored through monthly inspections by the County Division of Environmental Health, the LEA. A five-year Periodic Site Review must be prepared by the County Division of Environmental Health for acceptance by the California Integrated Waste Management Board.

- Authority to Construct and Permit to Operate issued by the Mendocino County Air Quality Management District.
- Well and septic system permits issued by the County Division of Environmental Health.
- Encroachment permit issued by the County Department of Public Works.
- Storm Water Pollution Prevention Plan and Storm Water Monitoring Program approved by the North Coast Regional Water Quality Control Board.
- Final clearance and Approval for Occupancy issued by California Department of Forestry (CDF).

The relationship of State solid waste permits (State Composting Operations Regulatory Requirements [CCR Chapter 3.1]) to County zoning permits (Mendocino County Code Chapter 20.060) for this project follows:

Compost Material	Level of CEQA Review	
	Exempt from Review	Environmental Review
Animal manures	State-Notify local enforcement agency County-Allowed by right in RL zone	
Other agricultural wastes	State-Notify local enforcement agency	County Use Permit
Green waste		County Use Permit
<1,000 cy	State-Notify local enforcement agency	
1,000 -10,000 cy	State Registration Permit	
>10,000 cy		State Solid Waste Facilities Permit

2.3 OPERATIONS DESCRIPTION

2.3.1 REGULATORY COMPLIANCE

The facility requires a Use Permit from the County. The current operation is in accordance with such Use Permit (#U 26-93). The proposed operation evaluated in this EIR incorporates the changes summarized in Section 2.1.3.

The facility has filed its Notice of Intent to Comply with the Regional Water Quality Control Board, paid the required fee, is registered as a general permittee with the State Board of Water Resources, and has completed an approved Storm Water Pollution Prevention Program and Storm Water Monitoring Program.

The Mendocino County Air Quality Management District (MCAQMD) has reviewed the project and issued an Authority to Construct permit on April 26, 1995.

The project has been granted "Final Clearance" and "Approved for Occupancy" by the Department of Forestry and Fire Protection.

2.3.2 METHOD OF COMPOSTING

The facility will use windrow composting, and may implement other composting methods consistent with State regulations. Feedstock materials are proposed to include manure from chicken ranches and dairies, turkey farms, and other agricultural facilities; other agricultural materials, including grape pomace, plant trimmings, and culled fruit; green material; animal stall bedding; grocery store food waste; restaurant food waste; sewage sludge biosolids; street sweepings (primarily from autumn leaf collections); and fishery waste. Segregation will be performed based on type of material, gradation, and constituents. Additional processing will include grinding and screening, depending upon the type of material.

Windrows will be approximately 20 feet wide and eight feet high, with a maximum length of 450 feet. A minimum of six feet will be maintained between the rows, with eight feet between every other row. When the windrows are complete, process water will be added to maintain optimal moisture. Temperature and water conditions will be monitored daily to maintain conditions that will enhance microbial activity. Active compost will be maintained under aerobic conditions at a temperature of 55 degrees Celsius (131 degrees Fahrenheit) for a period of 15 days or longer. During this period the windrows will be turned a minimum of five times. Process water will be added to maintain a moisture content of 40% to 60%. The total compost processing time will range from a minimum of two months to a maximum of three months.

The finished product will be screened and processed to remove any objectionable materials, and mixed with other additives as required by specific customer orders. The finished product will be sampled for metal concentrations of arsenic, cadmium, chromium, copper, lead, mercury, molybdenum, nickel, selenium, and zinc. Sampling will be performed at a minimum of one composite sample for every 5,000 cubic yards of compost produced. Product meeting requirements will then be loaded in bulk for sale to wholesale customers or bagged as specified for wholesale suppliers of the retail market.

2.3.3 WATER SUPPLY

Water supply for the project will come from two sources. Potable water for the offices, sanitary facilities, and laboratory will be supplied by a conventional well and associated pumping, storage, and distribution facilities. It is estimated that domestic uses will require approximately 500 gallons per day. All potable water supplies will be clearly labeled as such.

Non-potable water will be used for compost moisture control, dust control, and fire protection. Maximum water demand will be approximately 21,000 gallons per day during full operation of the facility. This supply will be from the sources identified in Section 2.1.3 (above). The water system has a total storage capacity of 90,500 gallons. Process water will be applied from a stationary piping system attached to the underside of the roof structure. If composting occurs on the uncovered portion of the pad during the dry summer months, water will be delivered by truck (CCCI, 1996b).

2.3.4 ADDITIVES

Amendments and additives will be incorporated into the finished product according to customer specifications or market demand. Additives may include wood ash, lime, rock phosphate, gypsum, or other commercial fertilizers. During unloading, watering of additives will be conducted as necessary for dust suppression. According to the LEA, if additives and amendments are to be stored outside of the roof during winter operations as proposed (see Section 2.1.3), the SWFP will need to be revised.

The applicant proposes to store lime and gypsum for blending with compost for custom orders or for resale to agricultural customers. Wood ash would also be stored at the facility. Material will be stored in such a manner to prevent particulate emissions or contact with stormwater.

2.3.5 MONITORING

The facility is designed, and best management practices will be employed, to ensure that no leachate produced from feedstock, composting material, or finished compost is discharged off site that would negatively impact ground or surface water quality.

Composite grab samples of the sheet flow runoff from the pad will be tested twice per year (at two locations, one just off the pad and the other outside the grass buffer area) to ensure the facility meets all requirements of its storm water discharge permit. As identified in the Storm Water Pollution Prevention Plan, samples will be tested for biological oxygen demand, combined nutrient series, pH, and electrical conductivity.

Pursuant to the State compost facility regulations, active compost will be maintained at 55 degrees Celsius for a period of 15 days or longer for pathogen reduction. During each day of

the pathogen reduction period, at least one temperature reading will be taken for every 150 feet of windrow or fraction thereof, or for every 200 cubic yards of active compost or fraction thereof, at a depth of 12 to 24 inches below the pile surface. During the pathogen reduction period, windrows will be turned a minimum of five times.

As required by Title 14, Section 17868.2, compost samples will be taken to assure metal concentrations do not exceed the following:

Constituent	Concentration milligrams/kilogram (mg/kg) (dry weight basis)
Arsenic	41
Cadmium	39
Chromium	1,200
Copper	1,500
Lead	300
Mercury	17
Molybdenum	18
Nickel	420
Selenium	36
Zinc	2,800

A minimum of one composite sample will be taken for every 5,000 cubic yards of compost produced.

2.3.6 NUMBER OF EMPLOYEES

There will be one Facility Operator, one Facility Manager, two Office Manager/Weighmasters, two Operators, one Mechanic, and one Salesperson.

The Facility Operator will ensure that the facility is in compliance with all applicable rules and regulations regarding operation of the facility. The Facility Operator will also have primary responsibility for the marketing and sales operations, and for negotiating agreements with public and private feedstock suppliers. The Facility Operator will be on site regularly.

The Facility Manager will schedule weekly activities, assign and direct daily employee activities, review daily logs and data to ensure incoming and outgoing materials are properly recorded, perform or supervise all on-site testing and monitoring, order materials as needed, schedule all facility and equipment maintenance, act as the point of contact for all regulatory agencies, and perform some marketing activities. The Facility Manager will be on site 40 hours a week.

The Office Manager/Weighmasters will be responsible for checking in and recording all incoming and outgoing delivery activity, other daily record-keeping activities, general office duties, and serve as facility contact person when the Facility Manager is not on site. The two Office Manager/Weighmasters will each work a 30-hour shift per week.

The Operators will operate equipment and will be responsible for material handling activities. The two Operators will each work a 30-hour shift per week.

The Mechanic will be responsible for performing all primary facility and equipment maintenance tasks. The Mechanic will work 40 hours per week.

The Salesperson will be responsible for outside sales, and will share marketing responsibilities with the Facility Operator. The Salesperson will work 40 hours per week.

2.3.7 METHODS OF WASTE HANDLING, SEPARATION, AND CONTROL

Unloading operations of incoming feedstocks will be located at or near compost processing locations. Sorting and grinding operations will be limited to small quantities of green waste (most yard waste will be sorted and ground off site at the generator's location). While the high moisture content of incoming materials will minimize particulate and dust generation, water spray equipment will be available, if necessary, to dampen any dry materials on the site that cause visible dust. Equipment at the site will consist of two loaders, a water truck, a windrow turner, a grinder, and a trommel. No standby equipment will be kept on site. Replacement equipment is available within eight hours from M&M Feed and Supply, Inc., a local company owned and operated by the Facility Operator. If the windrow turner needed repair, the windrows would be turned with the on-site loader and/or additional loaders available from M&M Feed and Supply.

2.3.8 HOURS/DAYS OF OPERATION, DAYS/WEEKS OF OPERATION

The facility will be limited to operation from 7 a.m. to 6 p.m. Monday through Saturday. The facility will be closed on Sundays and holidays. It should be noted that during the period of the fall grape crush, the facility will receive nighttime truck deliveries. This is unavoidable due to the around-the-clock nature of the grape crush. It is expected that no more than one or two nighttime deliveries per hour will occur. In addition, some operational activities, such as taking temperature readings or turning windrows, may occasionally occur on Sundays in order to meet State regulatory requirements for composting.

2.3.9 FIRE CONTROL PROVISIONS

A passive perimeter fire break consisting of the removal of all brush and combustible fuels will be maintained in accordance with local regulations. Grasses planted around the perimeter of the

compost pad for sediment control will be mowed or grazed in the dry season to reduce fire hazard. Signage regarding standard fire safety information and emergency contact information will be provided at the truck scales, maintenance facilities, offices, and other locations as needed and/or mandated by the local agency. All equipment will be fitted with spark arresters as mandated by California Department of Forestry. All facility structures will have fire protection as mandated by local code. Permanent on-site mobile water equipment will be readily available for use at all times. Equipment used in normal daily operations will also be available for use in emergency situations. Any additional standby equipment required by the local agency during the fire season will be provided. Open burning at the facility will be expressly prohibited.

Potential for fire is a function of a number of variables, including feedstock used, moisture content of windrows, and proper management practices for stored feedstocks and active compost. Compost fires, which are possible though rare in well-managed facilities, are characterized by small, relatively low temperature flames, and tend to smolder rather than flare up. The CCCI facility is less likely to have fire problems due to the high moisture feedstocks processed. Mr. Mileck has never experienced a windrow fire in 15 years as a compost producer (CCCI, 1996b).

2.3.10 VECTOR CONTROL PROVISIONS

The maintenance of the compost at 130 to 165 degrees Fahrenheit will eventually reduce the capability of vectors to live and breed in the windrows. When mitigation measures are required, standard vector abatement procedures are employed. The facility operator currently employs biological methods to control fly populations. These include the release of parasitic wasps and the use of traps which use pheromone attractants. These methods were implemented during the spring and summer of 1996, and have reduced the fly populations at the site.

Presently, the operation conducts static pile composting on incoming material. The materials are composted this way from four to eight weeks, and then are broken into windrows. It has been noted by the LEA that flies may become a problem due to the static pile composting (Morley, 1997). Additional vector control measures are identified in this EIR.

2.3.11 LITTER CONTROL PROVISIONS

Debris receptacles will be provided at material sorting locations, and pick-up for off-site disposal will occur on a regular basis. Facility personnel will regularly patrol the site to control litter.

2.3.12 TRAFFIC

The access road to the facility is located approximately 1,000 feet northeast of the intersection of State Route 20 and Potter Valley Road. The access road is a private road, approximately two miles in length from Potter Valley Road to the facility. In compliance with requirements of local

regulatory agencies, the road has been covered with an all-weather material to minimize particulate generation. In accordance with a directive from MCAQMD, the first 600 feet of the road will be paved to further minimize particulate generation and to prevent dirt and debris trackout onto Potter Valley Road.

2.3.13 SCALES

A 70-foot truck scale will be installed near the entrance of the facility as indicated on the site plan (see Figure 2.4). An extensive log of all incoming and outgoing material will be kept, including the date of arrival or departure, the type of material, the generator (if inbound), the destination and recipient (if outbound), and the weight.

2.3.14 ODOR CONTROL PROVISIONS

Compost facilities of this size will have odors on the site, especially during processes such as receiving new loads, grinding, turning the windrows, and screening. While some materials may generate strong odors at the time of delivery, proper processing and aeration will reduce objectionable odors. If objectionable odors become noticeable, the composting materials will be turned more frequently and mixed with other material to achieve optimal Carbon:Nitrogen ratio and aerobic conditions, to reduce odors. The remote location of the site will minimize odor impacts to off-site receptors.

2.3.15 DUST CONTROL PROVISIONS

Several provisions have been incorporated into the facility design to minimize dust emissions from the facility. These provisions are discussed in detail elsewhere in this document. The compost pad will be rock surfaced to minimize dust entrainment. The first 600 feet of the access road will be paved, and the remainder will be covered with an all-weather surface. A water truck will be available at all times for dust suppression.

2.3.16 RECORD KEEPING

All records on incoming and outgoing materials will be recorded by weight in units of pounds or tons. For each load, the following will be recorded: date of the arrival or departure, whether inbound or outbound, type of material, generator (if inbound), destination and recipient (if outbound), weight, and time of weighing.

Records will be available for inspection by the appropriate regulatory authorities at the facility offices located near the weighing facility, and will be available for review between the hours of 8:00 a.m. and 5:00 p.m., Monday through Friday. Prior to access, inspectors will be required to sign in on a permanent log showing time and date of inspection, inspector name, and agency represented.

2.3.17 COMPOST RUNOFF CONTAINMENT

Since all composting operations will be conducted under the roof during the rainy season, contact of uncomposted material with storm water will be minimized, and will occur only when rain is blown in under the roof. The uncovered portions of the pad will be contoured to slope at approximately two percent from the center outward in all directions. Natural grasses will be planted and/or maintained around the perimeter of the pad to provide slope stability, and to trap and retain sediment from the pad.

2.3.18 EROSION CONTROLS

Minimal sedimentation loading may occur from the uncovered portion of the composting pad, from the roof drain system, and from access road drainage. Natural grasses around the perimeter of the pad will trap sediment and provide slope stability. Measures have been taken to minimize erosion from concentrated runoff from the roof drains and from the access road. Additional measures are proposed as mitigations in this EIR.

2.3.19 LEACHATE CONTROLS

The applicant plans to operate the facility so that leachate generation is minimized and controlled. Monitoring of the moisture content of the windrows will ensure that no significant quantities of leachate will be generated by windrow activities. Management and engineering controls will ensure that there is minimal contact between stormwater and raw material, composting material, or finished compost. Storm water runoff from the pad will be monitored pursuant to the monitoring and reporting program approved by the RWQCB.

To control rain water blow-in under the roof, a floor drainage system has been installed under the roof structure. The collected leachate drains 275 feet downslope to a 22,000-gallon storage tank (see Figure 2.3). Collected leachate will be applied by truck to the compost windrows as necessary.

2.3.20 LEACHATE MONITORING SYSTEM

No leachate monitoring is proposed. Storm water runoff from the pad will be monitored pursuant to the monitoring and reporting program approved by the RWQCB.

2.3.21 PROVISIONS FOR HANDLING UNACCEPTABLE COMPOSTING MATERIALS

Incoming materials to be composted will be visually screened upon arrival. Incoming trucks containing materials deemed unacceptable for composting will not be allowed to unload. Non-hazardous materials (unsuitable for composting) will be placed in a debris box for regularly scheduled pick-up. Hazardous materials will be returned to the generator, if possible, or stored .

on-site in appropriate containers for removal to an approved disposal site. Employees will be trained to recognize potentially hazardous materials. Unknown or unidentified materials will be treated as hazardous materials.

2.3.22 FENCING AND PROVISIONS FOR SITE SECURITY

The main entrance to the facility is fenced and gated. The remote location of the facility and natural topographic barriers provide sufficient security. All facility buildings, on-site vehicles, utility panels, and other equipment will be secured with locks. Additional keys and combination locks will be centrally located and identified to emergency services so access can be obtained, if necessary.

2.3.23 POLICE PROTECTION

Police protection for the facility will be provided by the Mendocino County Sheriff's Department.

2.3.24 DRAINAGE / SURFACE WATER ROUTING

Topography of the site and the compost pad ensures there will be no storm water run-on onto the pad. Minimal sedimentation loading of storm water may occur from the uncovered portions of the pad. Grasses surrounding the pad perimeter should remove any incidental sediment load from the pad prior to contact with any receiving water.

2.3.25 FLOOD PROTECTION

Because the site is located on a ridgeline, no additional flood control measures are necessary.

2.3.26 SITE IMPROVEMENTS

An equipment, laboratory, and office building will be constructed near the entrance to the facility. Permanent sanitary facilities will be located in the offices, and will consist of a unisex restroom facility and a unisex shower. Domestic wastes will be processed by a septic system located in the vicinity of the operations structures. Leased portable toilets will be provided near work areas as needed.

Well and water facilities are described previously in this document.

The facility will be equipped with mobile cellular phone service and is wired for conventional land-line telephone services.

Power service will be supplied by a photo voltaic system or by a local provider (PG&E). A fuel-powered portable generator will be maintained on site to ensure operation of the water supply system in case of power failure. No critical operations will be affected by power outages.

2.4 MARKETING

2.4.1 TARGET MARKET FOR DISTRIBUTION / APPLICATION

The majority of the finished material will be sold in bulk form on a truckload basis through an existing marketing network that has been in place for several years from M&M Feed's existing composting operation. The end users consist mainly of agricultural concerns, retail and commercial nurseries, and landscaping contractors. Finished compost will be bagged to supply the retail market, but this will be limited to wholesale supply to retailers only. All material will be delivered off site using either facility staff and equipment or private haulers having agreements with the facility. There will be no self-hauling of material off site by the general public.

2.5 SAFETY AND HEALTH

2.5.1 EMPLOYEE TRAINING

The Facility Manager or Operator will provide new employees with copies of the Report of Composting Site Information, the Storm Water Pollution Prevention Plan, and the facility use permit. This will familiarize new employees with the requirements of regulatory agencies, including but not limited to the RWQCB, MCAQMD, and the Local Enforcement Agency (LEA). All employees will be familiarized with facility operations, which will facilitate higher levels of control with respect to efficiency of operations, regulatory compliance, identifying problems, and responding to emergency situations.

All employees will be familiarized with the contents of the CIWMB LEA Advisory No. 6, regarding *Aspergillus fumigatus* and composting operations. The facility will comply with all Cal-OSHA health and safety regulations and any other applicable worker health and safety regulations. The Facility Manager will schedule regular monthly health and safety meetings to ensure regulatory compliance and update facility personnel regarding any changes or new information pertaining to worker health and safety.

All personnel will be familiarized with facility good housekeeping practices and appropriate responses in emergency situations. All workers will be encouraged to propose methods to improve operational efficiency, provide for worker health and safety, and ensure compliance with environmental regulations.

REFERENCES - Project Description

Cold Creek Compost, Inc., Report of Composting Site Information (RCSI), January 15, 1996, as amended September 27, 1996 (a).

Cold Creek Compost, Inc., Data Request Responses sent to Environmental Science Associates, December 10, 1996 (b)

Morley, John, LEA, County of Mendocino, Public Health Department, Division of Environmental Health, Letter to Pam Townsend, January 6, 1997.

CHAPTER 3

ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

Knowledge of the environmental setting (existing conditions) is critical to the assessment of environmental impacts. CEQA *Guidelines* Section 15125 requires "a description of the environment in the vicinity of the project, as it exists before the commencement of the project, from both a local and regional perspective." In order to create a point of reference for assessing the environmental impacts of the proposed project, this EIR describes the local and regional setting, including the manner in which the project site is currently being used.

In this section, the environmental impacts of the proposed project are identified and classified as Significant, or Less Than Significant. According to CEQA *Guidelines* Section 15382, a significant impact is "... a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project. . ." For each category of physical conditions evaluated in this EIR, criteria for significance have been developed using the CEQA *Guidelines*, Mendocino County standards and policies, or the "significance thresholds" of federal, State, regional, or local agencies. Impacts classified as Significant meet the criteria for significance developed (and presented in this section) for each category of the physical conditions. Impacts classified as Less Than Significant are discussed to clarify the reasoning and in many cases the analyses that led to this classification.

CEQA *Guidelines* Section 15126(c) states that an EIR "... shall identify mitigation measures for each significant environmental effect. . ." Mitigation measures are not required for environmental impacts that are Less Than Significant. In this EIR, mitigation measures are identified (where feasible) for all of the impacts labeled Significant; for some of the impacts labeled Less Than Significant, mitigation measures are also recommended to create a project that further minimizes project environmental impacts. The project would not be required by CEQA to implement mitigations for Less-Than-Significant impacts, although such mitigations could be required by the County as Conditions of Approval for the project.

Each impact identified is numbered; mitigation measures identified for that impact are assigned the same number. Each mitigation measure is identified as Proposed as Part of the Project, or Identified in this EIR.

3.1 VISUAL

SETTING

VISUAL CHARACTER OF THE PROJECT SITE AND SURROUNDING AREA

The project site lies in the foothills surrounding the Ukiah Valley. The visual character of the site is typical of the foothills in Mendocino County. The project site and surrounding area are characterized by rolling topography. The hills contain a mixture of dense woodlands and open grasslands, punctuated by scattered rock outcrops.

The project site is currently developed with a composting facility. This includes about a one-acre roof that covers a portion of the compost pad. The surrounding area generally is undeveloped rangelands.

Topographically, the project site is located along a ridgeline at an elevation of about 1,500 feet above sea level, approximately 600 feet above and 4,000 feet east of the East Fork Russian River. Surrounding areas and features that could be sensitive to visual changes include the Town of Potter Valley to the north, the East Fork Russian River, McKee County Parkway and Potter Valley Road to the west, State Route 20 to the south, and various ranches in the project vicinity.

PLANS AND POLICIES

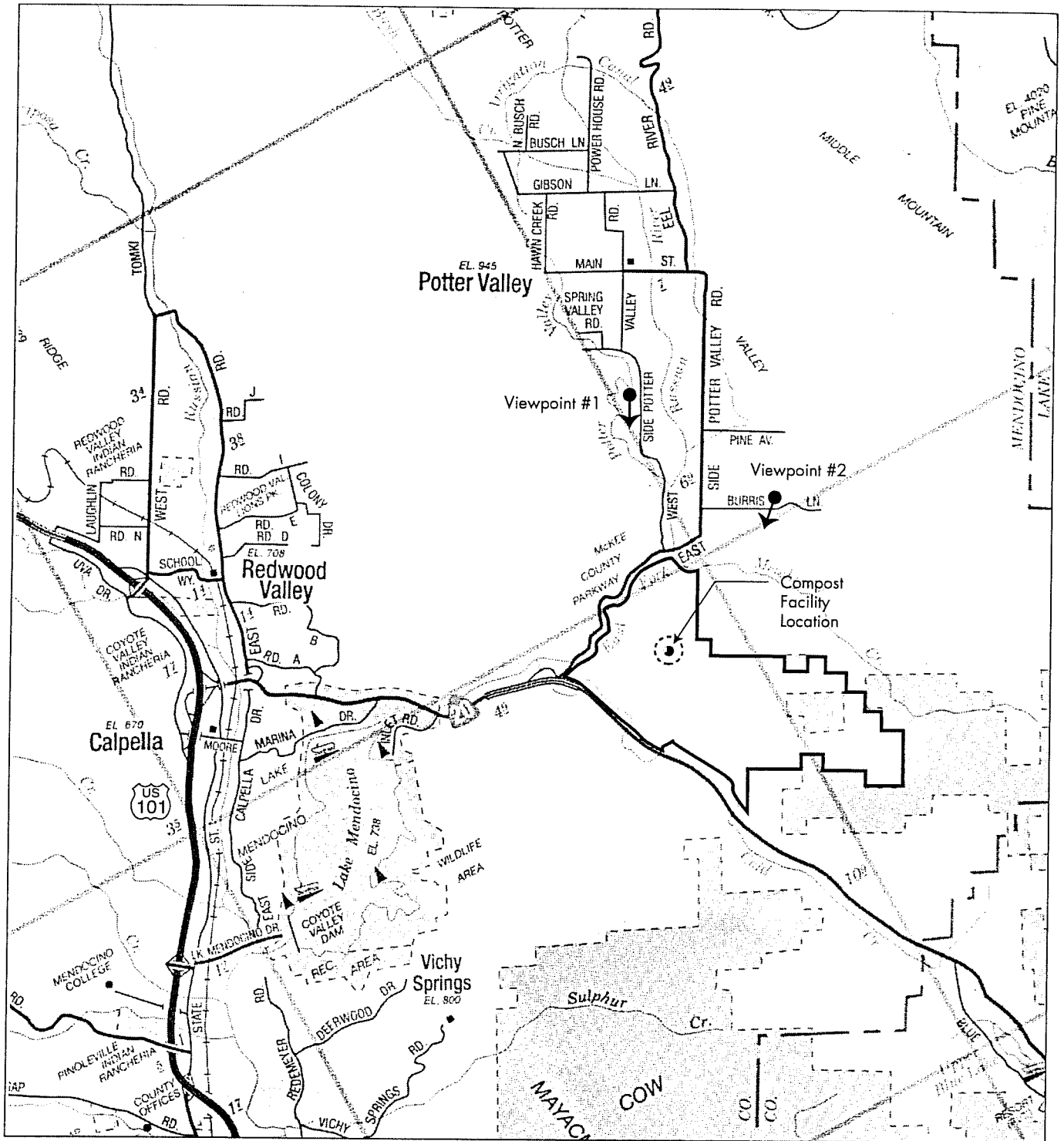
Applicable Scenic Resources goals and policies of the Land Use Element of the *Mendocino County General Plan* (Mendocino County, 1993) include:

Goal: The County shall protect and enhance its rural character and natural and man-made scenic resources.

Policy Ic. All discretionary development proposals, rezonings and use permits should reflect the need to protect the visual character of scenic areas. Any new uses permitted in a designated scenic area shall be designed and located to minimize visual impact and blend with the natural environment.

The *Mendocino County General Plan* Scenic Highways Element does not identify any scenic highways in the project area. There are no identified scenic viewpoints near the project site.

The roof covering the compost pad will be the most visible feature of the project. Because of the topography of the project site, the roof is only visible from limited locations in Potter Valley, mostly from locations approximately three miles north of the site. The roof will be less visible from locations at the lower elevations closer to the site. Photographs showing the project site were taken from two viewpoints along public roadways in Potter Valley (see Figure 3.1.1). These photographs are shown in Figure 3.1.2.

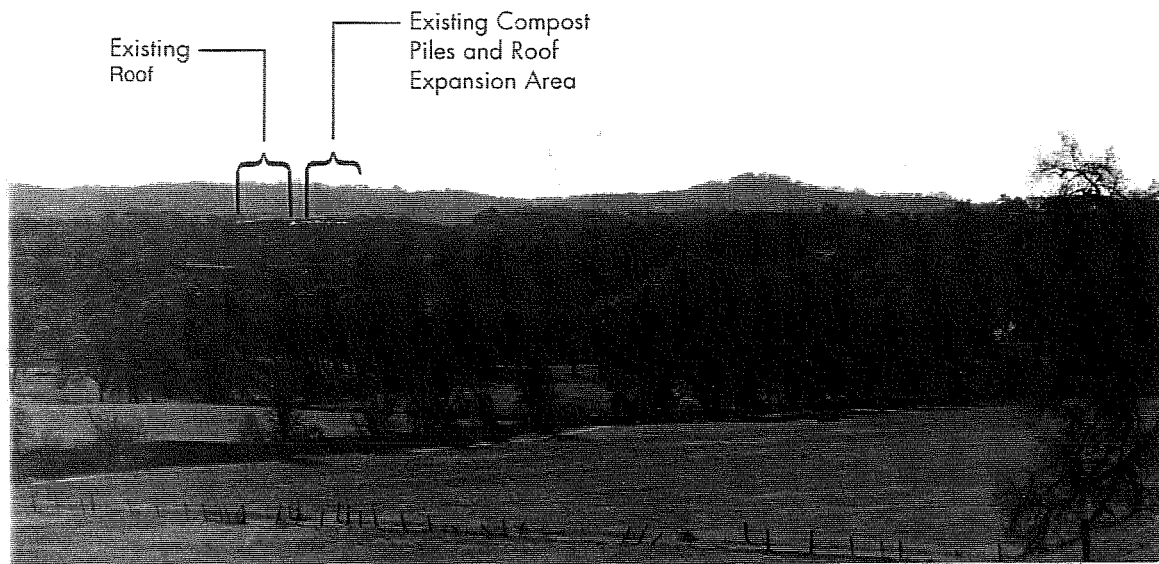


— Guntly Ranch
Property Boundary

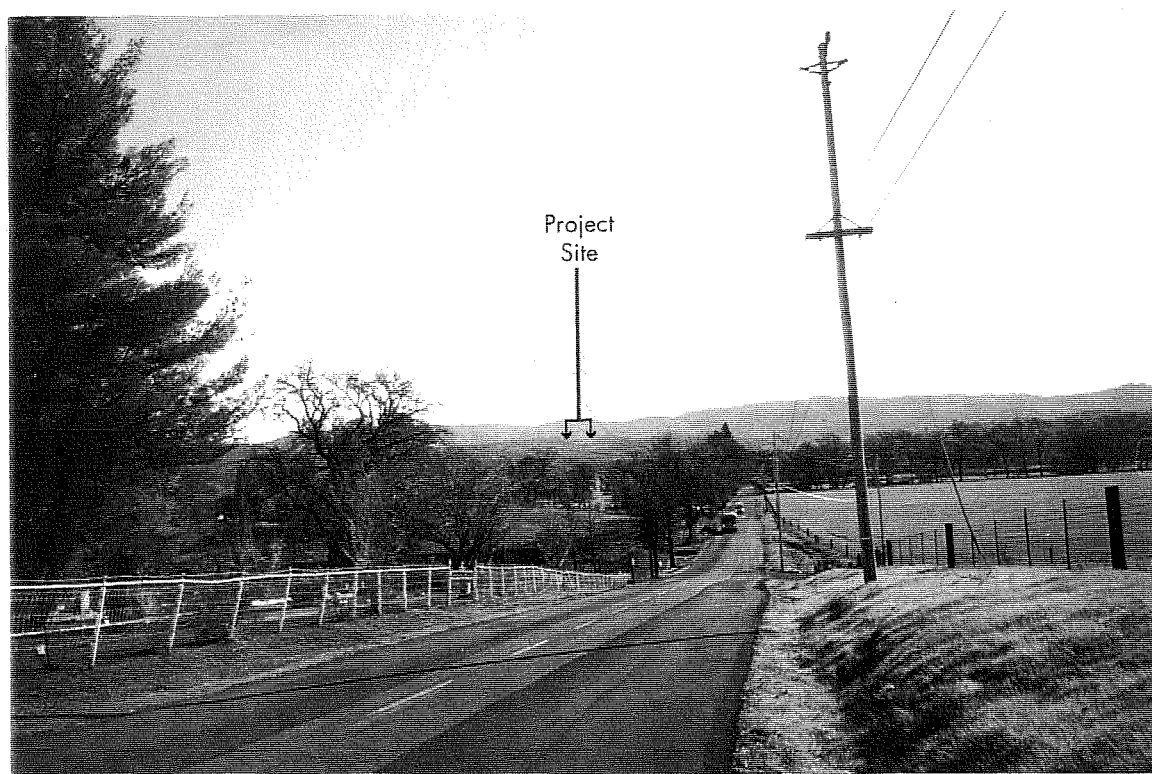
SOURCE: CSAA, Environmental Science Associates

Cold Creek Compost EIR / 960106 ■

Figure 3.1.1
View Point Location Map



View of project site from Burriss Lane in Potter Valley.



View of project site from West Side Potter Valley Road in Potter Valley

Viewpoint #1 (in Figure 3.1.1) is along West Side Potter Valley Road, approximately three and a half miles north of the project site. The roof is visible from this location, as would be the proposed expansion of the roof. The water tanks are not visible from this location.

Viewpoint #2 (in Figure 3.1.1) is along Burris Lane, approximately two miles northeast of the site. This photograph was taken using a zoom lens, because with a normal lens the roof is difficult to identify. The existing roof and compost piles are visible from this location. The proposed expansion of the roof would also be visible from this location. The water tanks are not visible from this location.

IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

According to the CEQA *Guidelines* (Appendix G), a project that would have a substantial, demonstrable negative aesthetic effect is considered to have a significant adverse impact on the environment.

Impact 3.1.1: Construction of the roof could degrade the views from surrounding areas. (LESS THAN SIGNIFICANT)

The primary visual impact from implementation of the project would involve the expansion of the roof covering the composting pad. The roof is currently 1.14 acres in size, and it is proposed to increase the size to approximately 3.4 acres. The Mendocino County Department of Planning and Building Services has determined that the roof is a minor modification pursuant to best management practices, and would not require a use permit modification (Mendocino County, 1995). The County determined that the gray metal roof is consistent with the term "natural tone," and will not cause glare to visible locations. In addition, nighttime operations will not be conducted at the facility, so no lighting will be used which could cause glare.

A roof structure to cover cut crops, supplies, or equipment is permitted subject to a building permit, regardless of the composting facility. The visual impacts are not increased by the introduction of feedstocks other than manures (the No-Project Alternative).

The project site is only visible from two major public roadways within Potter Valley. While the site may be visible from individual residences in Potter Valley or other residences in the area, the distance between the site and the residences (at least 4,800 feet), along with the topography of the site and surrounding areas, reduces the visual impact of the project. While light reflecting off the roof may be visible periodically, these reflections will not interfere with sight nor attract attention to a greater degree than would a roof of an agricultural building at a closer distance. The project will not result in a significant, demonstrable negative aesthetic effect, and will therefore have a less-than-significant impact.

Mitigation Measure 3.1.1:

Although the impact is less than significant, these features of the proposed project are presented to demonstrate the methods the facility would employ to prevent degradation of views from surrounding areas:

Proposed as Part of the Project

- a. The slope of the roof will not exceed one foot vertical to 12 feet horizontal, which will minimize the surface area visible off site.
- b. The roof ridge will be oriented northwest-southeast, which will limit the visibility from the north and northwest.
- c. The compost pad is approximately 4,800 feet from the nearest off-site residence.

REFERENCES - Visual Quality

Mendocino County Department of Planning and Building Services, letter to Martin Mileck, June 2, 1995.

Mendocino County, Mendocino County General Plan, 1993.

3.2 HYDROLOGY AND WATER QUALITY

METHODS FOR COMPLETION OF THE ANALYSIS

The analysis for this section is based on a review of existing reports, including geological, geotechnical, and hydrologic site reports; well reports; United States Geological Survey topographical maps; the facility's existing Stormwater Pollution Prevention Plan; and lab analysis of samples of runoff from the site. Furthermore, ESA staff performed a site visit on December 12, 1996, just after a storm event, and observations were discussed with the applicant and with representatives of the relevant government regulatory agencies.

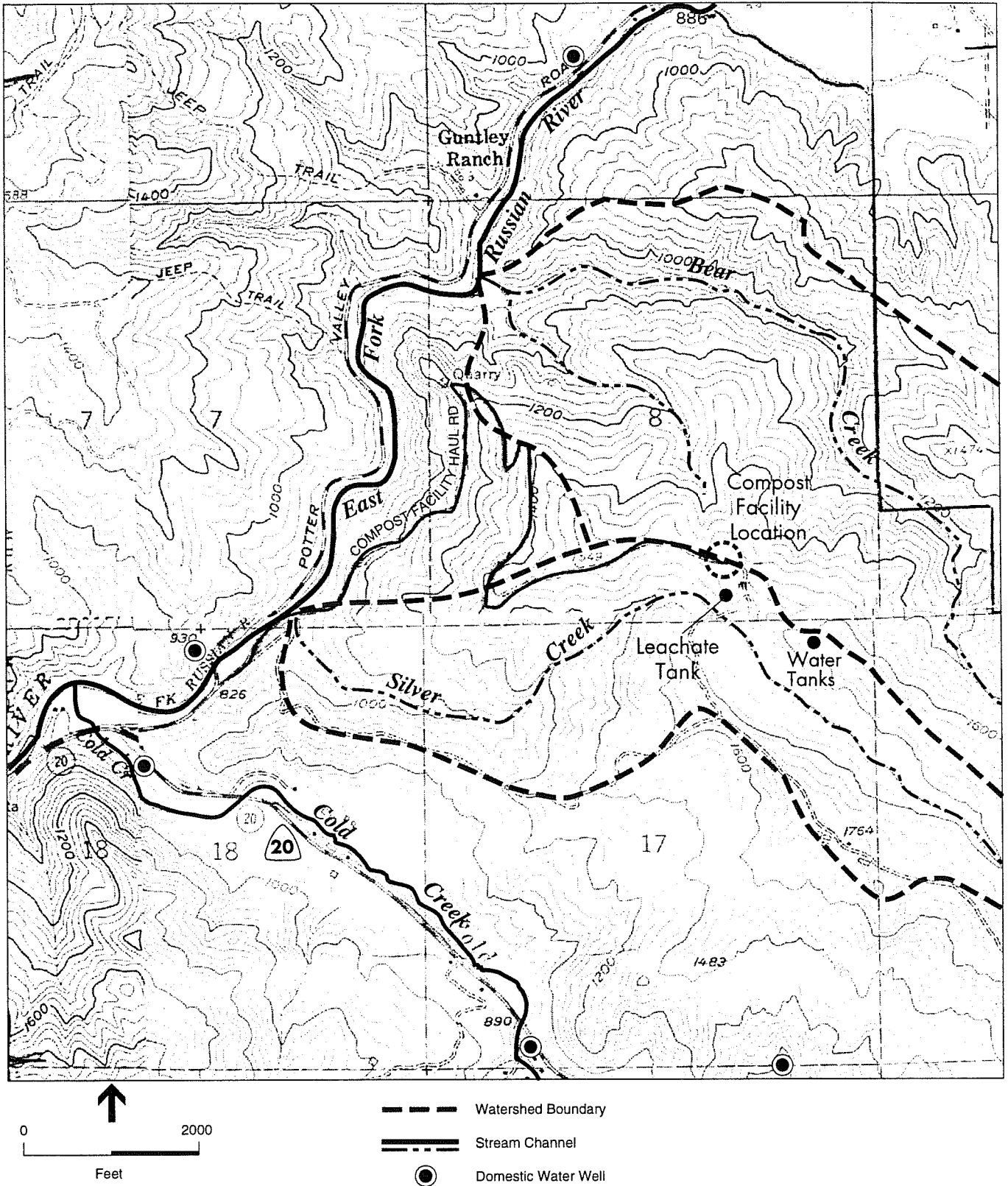
REGIONAL HYDROLOGIC SETTING

The project site is located on top of a northwest trending ridge, approximately 600 feet elevation above the East Fork Russian River, and approximately 4,000 linear feet from the river. All drainage from the site is into the East Fork Russian River (See Figure 3.2.1). The graded composting pad is roughly rectangular in form, and is aligned along an axis running approximately northwest-southeast (see figure 2.4).

The southeast and southwest edges of the compost pad drain into an ephemeral stream channel that the applicant has identified as Silver Creek. Silver Creek, which flows roughly from east to west, has its origin about 1.2 miles to the southeast of the site. It flows through a broad, gently sloped valley past the project site. Downstream of the project site the gradient steepens, then enters the East Fork Russian River close to the junction of the facility's haul road and Potter Valley Road. The project site is approximately 200 yards from the stream channel, and approximately 1.25 miles from the mouth of the creek.

The northwest and northeast edges of the compost pad drain into another ephemeral stream channel that is tributary to a stream that the applicant has identified as Bear Creek. Bear Creek is also an ephemeral stream channel. The northwest edge of the compost pad slopes away gently into a swale, and there is no discernible channel. The northeast edge of the pad, however, drains into a distinct channel with a step-pool morphology. This stream flows northwest through an oak forest approximately one mile to its confluence with Bear Creek. The confluence is just above the mouth of Bear Creek, which is about 1.25 miles upstream of the Potter Valley Road bridge.

The water storage tanks are located on a high point on the ridge approximately 1,800 feet southeast of the compost pad. The drainage from this site is into Silver Creek to the southwest, and into Bear Creek to the northeast. The project applicant has proposed storing amendments and additives in this area.



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Figure 3.2.1
Hydrographic Features

The haul road to the facility begins near the Potter Valley Road bridge over the East Fork Russian River, crosses Silver Creek and winds up the hill to the project site, crossing several unnamed ephemeral stream channels. According to the applicant, a spring was opened near the project site during construction of the haul road.

The East Fork Russian River is a controlled stream. It has its origin at Cape Horn Reservoir, below Lake Pillsbury, where water from the Eel River is diverted through the Penstock Tunnel and into the Powerhouse Canal. The canal connects with the East Fork itself. The East Fork Russian River flows through Potter Valley, along Potter Valley Road and State Highway 20, then empties into Lake Mendocino, about one mile below the mouth of Silver Creek. Lake Mendocino is an artificial lake created by Coyote Dam. Lake Mendocino is used for recreation and as a reservoir supplying water for domestic, industrial, and agricultural use in Mendocino and Sonoma Counties (Gergus, 1996). The spillway of the Dam empties into a brief continuation of the East Fork, just above its confluence with the mainstem Russian River near The Forks, about two miles north of Ukiah.

Cold Creek, a tributary to the East Fork Russian River, drains the southern portion of the Guntly Ranch. The project site is not, however, within the Cold Creek watershed.

The project site is underlain by interbedded bedrock units comprised of graywacke sandstone, shale and serpentine, with shale underlying the majority of the site. Depth to groundwater is unknown, but test pits dug at the site before it was graded encountered no groundwater at depths ranging from three to nine feet (Conway, 1994). According to the project applicant, during construction of the roof structure in August through October 1995, 24 holes were drilled to a depth of 10 feet in the compost pad for foundation piers. No water was encountered at that depth. A well dug some 1,800 feet from the compost site has a static water level of 50 to 60 feet (Mileck, 1996).

WATER QUALITY AND WATER SUPPLY STANDARDS, PLANS, AND POLICIES

The North Coast Regional Water Quality Control Board (NCRWQCB) is the government agency primarily responsible for establishing and enforcing water quality standards for Mendocino County. The NCRWQCB must identify and protect beneficial uses for the various streams and other water bodies in Mendocino County. The NCRWQCB has the authority to regulate and permit waste discharges to land and water. At its discretion, the NCRWQCB can either write waste discharge requirements (WDRs) and issue a waste discharge permit, and/or require preparation of a Storm Water Pollution Prevention Plan (SWPPP) and issue a General Industrial Storm Water Permit under the authority of the National Pollutant Discharge Elimination Permit. In the case of Cold Creek Compost, Inc., the NCRWQCB elected not to write WDRs, but to

require preparation of a SWPPP. The SWPPP details the "best management practices" that the facility must adhere to in order to protect water quality.

The Mendocino County Water Agency is the County agency primarily responsible for monitoring and evaluating problems and potential impacts on water quality and water supply within the County. At its discretion, the County has the ability to adopt water quality standards that are more stringent than those established by the NCRWQCB.

The Mendocino County Division of Environmental Health permits and inspects wells dug for domestic, industrial, and agricultural supplies. The State Department of Water Resources (DWR) keeps records of all permitted wells and conducts studies of groundwater resources.

The CIWMB has promulgated regulations for the design and operation of compost facilities. No specific requirements pertain to the protection of ground or surface water quality or water supply, but the regulations do require that the "engineering design of a composting facility shall be in accordance with the principles and disciplines in the State of California generally accepted for design of this type of facility" (Title 14 CCR, Section 17866 (b)(1)). The CIWMB certifies a "local enforcement agency," in this case the Mendocino County Division of Environmental Health, that has the authority to issue permits for operation of compost facilities and that monitors compliance with the regulations and with the terms of the permit.

SITE CONDITIONS

Evaluation of site conditions as part of this EIR indicates that the applicant has taken considerable effort to design and operate the facility in a manner that protects water quality and minimizes impacts on water supply. This section describes existing conditions at the project site as of December 1996, and indicates how and where impacts to water quality and water supply may occur.

The principal hydrologic and water quality concerns in the evaluation of the project are the potential for compost leachate or other contaminated water to run off the site and enter a channel that drains into the East Fork Russian River, or to percolate through the soil and reach groundwater; for sediment from the site to reach a channel that drains into the East Fork Russian River; or for demand for process water for the facility to deplete local surface or groundwater supplies.

WATER QUALITY

Compost leachate is a highly variable substance that may contain a range of organic and inorganic pollutants, including pathogens. Leachate may be produced at the site if stockpiled feedstock or additives, active compost, or finished product come into contact with rainwater or process water in sufficient quantity to saturate the material and produce free liquid. Pollutants

that are likely to occur in any leachate produced at the site include nutrients, especially nitrogen and phosphorous, bacteria, viruses and parasites, and oxygen demanding substances (Cold Creek Compost, Inc., 1995; Gergus, 1996). Leachate derived from manure or manure compost can be expected to have higher levels of these pollutants than leachate derived from raw or composted greenwaste or other feedstocks (Gergus, 1996). Leachate derived from sewage sludge biosolids that have not yet been subjected to the high temperatures found in properly managed compost piles may contain human pathogens. Adhering to the regulatory requirements for pile management, however, ensures destruction of human and other pathogens.

The project applicant plans to stockpile compost amendments and additives, including lime, gypsum, and wood ash, on site. Lime and wood ash are of particular concern because of their extremely high pH¹. If stormwater were to contact lime or ash, or if stockpiled materials were otherwise saturated, they would have the potential to contaminate run off from the site. The run off would have a high pH, which would be hazardous to humans, wildlife, and aquatic organisms.

Sediment refers to any solid material that is transported by water into and through stream channels. Sediment from the site could derive from dust from processing operations that is subsequently washed into natural drainages by rainwater, from runoff transporting material off site, or from sheet, rill, or gully erosion from rainwater flowing over the composting pad or from water concentrating in drains, ditches, and culverts.

As noted above, the project site is located on the top of a ridge. The site is therefore not subject to stormwater run-on or flooding.

The facility's Stormwater Pollution Prevention Plan (SWPPP) indicates that the exposed portion of the compost pad is graded at a two percent slope away from the center of the pad in all directions. The pad is constructed of compacted soil and is paved with crushed rock. According to engineers at the Regional Water Quality Control Board, this design, if intact, should be sufficient to prevent percolation of any leachate produced on the site through the pad (Gergus, 1996; Tancreto, 1996). The water table is thought to be quite deep at the site, and the site is underlain by shale and other bedrock materials that appear to be more intact and more massively jointed, and therefore more impervious, with depth (Conway, 1994). It is therefore likely that, in the event that the integrity of the pad is compromised, any leachate that did penetrate the pad would migrate laterally along an impervious bedrock layer, and would emerge locally through a spring or into a stream channel, and would not reach any groundwater reservoir. In the unlikely event that any leachate did reach groundwater, it would have to flow approximately one mile underground before it reached the nearest domestic water well. While

¹ Wetted wood ash may have a pH as high as 12. Campbell, Alton G., et al, "Wood ash as an amendment in municipal sludge and yard waste composting processes." *Compost Science and Utilization*, Vol. 5, No. 1, 1997. pp. 62-73.

the geology of the site has not been well studied, it is likely that bedrock in the area slopes toward the East Fork Russian River. It is furthermore likely that the river dominates the groundwater hydrology in the bottom of its valley, seasonally contributing to, or drawing from the water table depending on the season. Therefore, even if contaminated groundwater did flow down gradient toward the river, it is unlikely that it would have a discernible impact on groundwater drawn through wells dug on the other side of the river, or on the river itself.

The Mendocino County Environmental Health Division and the State Department of Water Resources, both of whom maintain records of wells, have identified six domestic water wells close to the site:

1. approximately one mile due west of the project site, at 6350 Potter Valley Road;
2. approximately one mile due west of the project site, on a property west of Potter Valley Road (may be the same as the previous well);
3. near mile marker 2.40, Potter Valley Road, apparently at the County park (description is sketchy);
4. South of Highway 20, near the intersection with Potter Valley Road, at 4501 Highway 20;
5. North of Highway 20, 1.25 miles east of the intersection with Potter Valley Road; and
6. South of Highway 20, one mile east of the intersection with Potter Valley Road.

All of these wells are located at least one mile from the project site. If leachate were to percolate through the compost pad and contaminate groundwater, it would have to travel this distance before having any possibility of contaminating a domestic water well. At least four of the six wells are located on the opposite side of either the East Fork Russian River or Cold Creek. Number 5 is located North of Cold Creek, on the same side of the creek as the facility. The description of Number 3 is not clear enough to ascertain which side of the East Fork Russian River it is located on, but it is assumed to be on the opposite side of the River, between the River and Potter Valley Road. Cold Creek and East Fork Russian River likely receive groundwater from the surrounding hillsides, making it very unlikely that contaminated groundwater would reach those wells located on the opposite side. Number 5 is located approximately one and one quarter miles south of the project site. There is no surface drainage from the project site in this direction, and there is a ridge between the project site and the well site. It is therefore unlikely, but not impossible, that groundwater drains in that direction. Number 3 is approximately one mile north of the project site, with no surface drainage in that direction.

Given the distance of the nearest domestic water wells from the project site, and their location across topographic or hydrologic boundaries, it is highly unlikely that contaminated groundwater from the site would contaminate domestic water wells.

The SWPPP requires that, "... prior to the first runoff event of the rainy season, the uncovered portions of the pad will be cleared of all material except finished product which will be secured from contact with storm water ..." by being securely tarped. During a site visit after a heavy rainfall in December 1996, ESA staff observed that, while there were securely tarped piles of

finished material on the uncovered portion of the pad, rainwater was ponding between the piles. Some of the pooled water was discolored, indicating that it was contaminated with leachate. This leachate may derive from one or more of three sources: 1) rainwater flowing beneath the tarped piles and contacting compost; 2) rainwater coming into contact with compost that has been used to weight tires that hold down the tarps; or 3) incidental compost or feedstock left on the pad or on top of the tarps. In addition, in the area around the roof structure, particularly in the area in front (to the northwest) of the roof structure, ESA observed ruts apparently caused by movement of vehicles and heavy equipment across the pad. Regional Water Quality Control Board engineers have indicated that rutting may compromise the integrity of the pad, allowing liquid to percolate through the pad (Gergus, 1996; Tancreto, 1996). ESA observed that some of the ruts were filled with water and saturated manure or compost. In places, this material was four to six inches deep, and had a strong odor. While ESA observed no leachate flowing off of the pad, ESA did observe that in some places on the pad, flowing water has formed channels that run to the edge of the pad, indicating the likelihood that some leachate was running off the pad and into the natural drainage system.

The SWPPP requires maintenance or establishment of a grass strip around the perimeter of the pad to trap any sediment transported off the edge of the pad. During the site visit, ESA staff observed that sediment is transported to the edge of the pad, where most of it appears to be trapped either by rocks at the edge of the compost pad, within the grass buffer, or in depressions downslope. In one location on the northeast edge of the pad, there is evidence that water has formed a channel and is transporting relatively large quantities of sediment off the edge of the pad. In this location, most or all of the sediment is trapped in the rocks, in the grass buffer, or behind some large woody debris downslope of the pad. However, the ephemeral stream channel that flows into Bear Creek begins just below this point, and some sediment may be carried down this channel.

The roofed portion of the pad is graded to prevent stormwater entering the structure. Outfall from roof drains are into natural drainages to the southeast and southwest of the pad. According to field observations in December 1996, these drainages are rock lined and currently show little sign of erosion or sediment transport.

The applicant has recently installed floor drains within the roof structure to collect leachate from the active windrows and stockpiled raw materials. There are eight floor drains. The space between the windrows has been graded or ditched to allow surface flow of leachate into the floor drains. Leachate that enters the floor drains flows 275 feet through an underground pipe into a 22,000-gallon leachate collection tank located to the southwest of the compost pad, between the compost pad and Silver Creek. The tank is bolted with four one-inch bolts to a 12-inch concrete pad with 12-inch footings. The applicant reported that during the first major storm event of the 1996-1997 season, approximately 6,000 gallons of leachate flowed into the tank. During at least

one storm event later in the season, the tank filled and overflowed (Mileck, 1997). The applicant has since installed a level indicator to facilitate tank monitoring to help prevent future spills. The applicant intends to empty the storage tank into a tank truck, then reapply the liquid to the windrows. There is no secondary containment around the tank.

The water and brewery process water storage tanks on the ridge above the compost pad are secured to a 12-inch thick concrete pad with 12-inch footings. Water is piped out of these tanks and gravity flows to the roof structure, then to a series of spray nozzles hung above the windrows. The tanks are attached to the pads in a manner identical to the leachate tank: with four one-inch bolts set in the concrete and, according to the applicant, tied to the pad's reinforcing bar. There is no secondary containment around the tanks.

According to the project applicant, the brewery process water is expected to contain approximately 0.5% solids (Mileck, 1996). While this material can be expected to have very low or no toxicity, the organic constituents of the solids would have a biological oxygen demand (BOD), and would therefore be considered a pollutant if the process water were to enter surface drainages or groundwater (Gergus, 1996, Tancreto, 1996).

Liquid from the brewery process water storage tanks or from the leachate collection tank would not enter natural drainages or contact soil under normal operating conditions. There are, however, three circumstances under which a spill might occur:

1. A tank or pipe coupling could leak, resulting in a scenario in which up to 22,000 gallons of liquid could spill onto the ground. In the case of the leachate collection tank, which is located about 100 yards from Silver Creek, this liquid could be expected to enter the stream channel.
2. The leachate tank could fill completely during a storm event when a large amount of rain blows in under the roof. Additional leachate would either spill out of the tank or back up into the roof structure, where it could run out from under the roof and off of the pad.
3. A tank could topple during an earthquake.

The facility is located within a region that is subject to a high level of seismic activity, and is located approximately nine miles from the Maacama Fault and 38 miles from the San Andreas Fault. According to a geologic evaluation of the site, "... it must be assumed that the proposed facility will be subjected to severe ground shaking during its design life." (Conway, 1994) If a tank were to topple, there is the possibility that it would leak or burst, causing a sudden spill of up to 22,000 gallons of process water or leachate. In the event that both of the brewery process water tanks toppled, up to 44,000 gallons of liquid could spill.

Roads are potential sources of sediment. Unpaved road surfaces, road cuts, and sidecast excavated material are subject to sheet and rill erosion and to landslides. Culverted stream

crossings, ditches, and ditch relief culverts concentrate flow and can cause incision of the channel downstream. The access road to the project site has been improved and upgraded to serve as an all-season road. The road is rock surfaced. The majority of the road has an inboard slope (sloped to the inside or hill side of the road) and an inboard ditch. Inboard ditches concentrate runoff and are often the source of chronic input of fine sediments into drainage channels. Ditch relief culverts on the haul road are placed frequently, and for the most part are placed to direct flow into natural drainage channels. Rock surfacing and frequent and well-placed culverts will help minimize sediment production to stream channels from the road. During the site visit of December 12, 1996, however, ESA observed that the outfall from some of the ditch relief culverts is higher than necessary and that the channel into which they empty is unprotected. There appears to be some erosion and sediment transport associated with these culverts.

WATER SUPPLY

The applicant has indicated that the maximum possible demand for process water at the site, if it is operating at full capacity, is 21,000 gallons per day. Based on "reasonable assumptions" and the operator's own processing experience, the average daily expected demand for process water at buildout is 15,000 gallons per day in the summer, and 12,000 gallons per day in the winter (Anderson, 1996).

The applicant has recently indicated that the Guntly Ranch does hold riparian rights to the East Fork Russian River, and that the river is being considered as a source of water for the facility. The Guntly Ranch also holds riparian rights to Cold Creek, and this, too, is considered a potential source of water, if necessary. Normally, the applicant expects to use three sources of water for the facility: 1) brewery process water; 2) well water; and 3) recirculated leachate. Beginning in March 1997, Cold Creek Composting is contracted to receive a minimum of 750,000 gallons of brewery process water over the course of one year from the Mendocino Brewing Company. The applicant has indicated that they expect to receive 3,000 gallons per day, five days per week initially. The facility could eventually receive as much as 12,000 gallons per day of brewery process water (Anderson, 1996).

The applicant has recently dug a well on land close to the compost pad. The well is rated at 15 gallons per minute (Anderson, 1996). At this rate, the well could produce 21,600 gallons in 24 hours. The extent of the aquifer from which this water is drawn is not known. Since it is an upland groundwater source, it can be assumed that this is a limited resource, and that continued drawing of the well at a high rate will eventually deplete it. It is, however, unlikely that depletion of the groundwater at this site will significantly affect groundwater resources elsewhere in the area.

The leachate collection system has the ability to contribute a significant amount of supply water during the rainy season. During the first storm event of 1996, the system collected approximately 6,000 gallons of leachate. The operator does not, however, have enough data at this time to estimate the volume of water available from this source (Anderson, 1996).

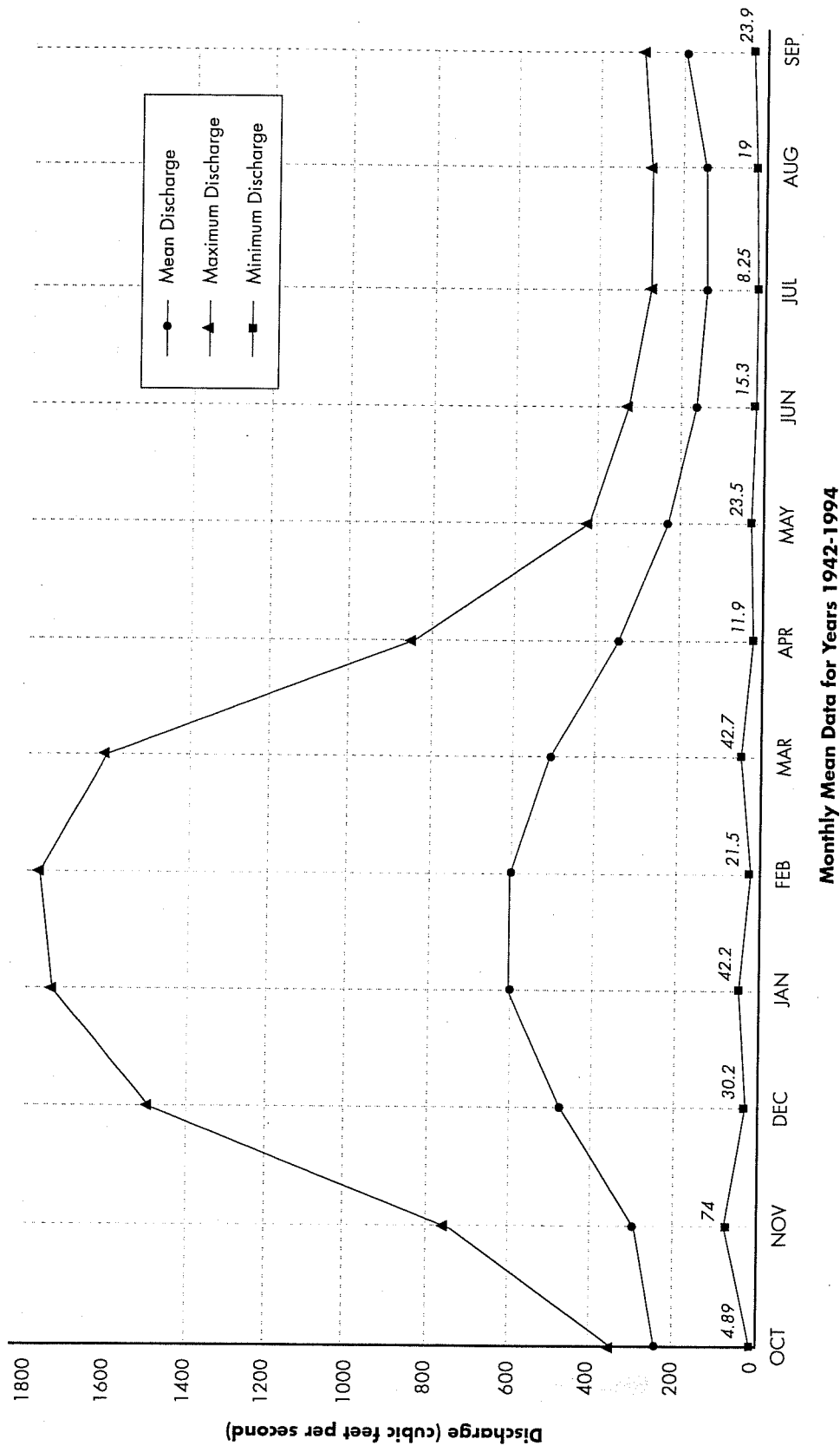
The operator has indicated that the landowner of the site will allow the operator to construct ponds to collect winter runoff (Anderson, 1996). If water is diverted into ponds from discernible channels, this will require the property owner to file an Application to Appropriate Unappropriated Water with the State Water Resources Control Board. The applicant will pursue this course if they find it necessary to develop additional supplies of water.

It appears that the combination of brewery process water, recirculated leachate, and well water will be sufficient to supply the facility's needs. In the event that these sources are insufficient, the applicant has indicated that they have permission from the Guntly family to draw water out of springs feeding Cold Creek, or out of the East Fork Russian River. The Guntly family has riparian rights to both water courses.

If the applicant were to pump out of either stream, they would fill a tank truck and transport water to the project site. The applicant has stated that it takes approximately 20 minutes to fill their 4,000 gallon tank truck (Mileck, 1997), so the rate of pumping is approximately 200 gallons per minute. This translates to 26.7 cubic feet per minute and 0.4 cubic feet per second (cfs).

The facility is expected to use a maximum of 21,000 gallons of water per day, though this would occur only under unusual circumstances and would likely be only a one-day event. The expected average daily summertime water demand is 15,000 gallons per day. As stated above, most of the facility's water requirements will be fulfilled by using brewery process water and well water. In the unlikely event that neither of these sources is available, the facility operator would require just over five tank truck loads of water per day, or a maximum of six loads per day, to fulfill the highest projected water demand of 21,000 gallon per day. This would amount to a total pumping time of 120 minutes, or two hours. The more likely normal summertime water demand of 15,000 gallons per day would require almost four tank truck loads per day to supply the entire water demand, for a total pumping time of one hour and 20 minutes.

The United States Geological Survey (USGS) gages the flow of the East Fork Russian River at Calpella, just above Lake Mendocino and just below the confluence with Cold Creek. The monthly mean flow of the East Fork at this point for water years 1942-1994 ranges from 140 cfs in July, to 609 cfs in January (see figure 3.2.2) (USGS, 1995). However, much lower flows have been recorded during periods of drought. The lowest daily mean flow on record is 1.7 cfs, on July 23, 1990. The lowest seven-day mean flow on record is 3.2 cfs, during the week of July 11, 1977. Between 1942 and 1993, there were 174 days when the mean daily flow was below 10 cfs. According to the USGS, the flow of the East Fork is "... greatly affected by



SOURCE: Environmental Science Associates

Cold Creek Compost EIR / 960106

Figure 3.2.2

Flow Data for the East Fork Russian River
Near Calpella, California (USGS Station #11461500)

diversion from Eel River through Potter Valley." The USGS also notes that there is water diversion upstream from the gage for irrigation of about 8,000 acres (ibid).

The projected rate of pumping into the tank truck would have little discernible effect on normal flows in the East Fork Russian River. However, during periods of severe drought, pumping out of the East Fork could have a significant deleterious effect. Furthermore, if diversions out of the Eel River are curtailed, the effect of pumping could be significant even during normal low flows.

Compared to historical flows, the 0.4 cfs pumping rate of the tank truck amounts to 23.5% of the lowest daily mean flow on record of 1.7 cfs; 12.5% of the lowest seven-day mean flow on record of 3.2 cfs; and 0.3% of the monthly mean flow for July (1942-1994) of 140 cfs. Stream flows typically vary throughout the day and are usually lowest from late morning to mid-afternoon.

No flow studies of Cold Creek have been conducted. According to the project applicant, during the summer Cold Creek is dry above the Guntly Ranch. There are several springs on the Ranch that feed the creek. The Guntlies have installed a 250-gallon-per-minute pump in a catch basin which is fed by one of these springs. The water is used for irrigation. The Guntlies estimate that even during the most extreme drought conditions they could easily develop additional pumping capacity of at least 750 gpm from other springs on the ranch (Anderson, 1997; Mileck, 1997).

Pumping out of springs that feed Cold Creek may have a deleterious effect on other beneficial uses of the stream. Since the creek goes dry above the Guntly Ranch, it can be assumed that the majority of the perennial flow at and below the ranch is attributable to these springs, though there are also two unnamed, ephemeral tributaries indicated on the USGS map that enter Cold Creek from the Guntly Ranch. Whatever the effects of increased pumping from the existing developed spring or from other springs that may be developed in the future, they will be most acutely felt during the dry season, particularly from June through September, and more so during drought years. During these times, it is possible that drawing water out of these sources will have a negative impact on other beneficial uses for Cold Creek.

IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

The CEQA *Guidelines* (Appendix G) note several instances of significant impacts on water quality and water supply. The *Guidelines* state that a "project will normally have a significant effect on the environment if it will:

- (f) Substantially degrade water quality;
- (g) Contaminate a public water supply;
- (h) Substantially degrade or deplete groundwater resources; or
- (q) Cause substantial flooding, erosion, or siltation."

To determine what would be considered "significant" or "substantial," existing State and local regulations and policies regarding water quality and water supply were reviewed and discussed with representatives of relevant government agencies.

The principal source for determining a "substantial" level for water quality impacts for Cold Creek Composting is the North Coast Regional Water Quality Control Board's Water Quality Control Plan for the North Coast Region (RWQCB, 1994). This plan includes a complete prohibition of waste discharge to any branch of the Russian River. Therefore, any leachate, wastewater, or sediment from the project that enters the East Fork Russian River should be considered a significant impact. Discharges into, or substantial reduction in summer flows in other blue-line streams, such as Cold Creek, should also be considered significant impacts. Less-than-significant impacts would include discharges that affect only the ephemeral drainages, and not the East Fork Russian River or other blue line streams.

To the extent that groundwater can be considered a public water supply, any contamination of groundwater that impacts wells used for domestic water supply can be considered significant. If an impact has a very low probability of impacting domestic wells in the vicinity of the project, but still has the possibility of contaminating groundwater, it should be considered less than significant. According to Dennis Slota of the Mendocino County Water Agency, the County would be concerned if overdrafting of groundwater depletes groundwater resources off site. A reasonable standard of significance for depletion of groundwater supply would therefore be if drawing of water from the on-site well depletes the availability of groundwater for others off site. A less-than-significant impact would be if the project were to deplete only the groundwater resources on site.

The remainder of this section describes the project's potential impacts on water quality and water supply. Each potential impact is stated, then mitigations, if any, are given for the impact. Mitigations may be already incorporated into the facility's design or operating procedures, or may be suggested in this EIR.

Impact 3.2.1: Stormwater runoff may carry leachate or contaminants into natural drainages that flow into the East Fork Russian River, compromising the water quality of the East Fork Russian River and Lake Mendocino. (SIGNIFICANT)

The facility's SWPPP details how the applicant will prevent compost, compost feedstock, and additives from coming into contact with stormwater. The most important mitigation is to conduct active composting and storage of feedstock under the roof structure during the rainy season. The roof structure's leachate collection and storage system should prevent any leachate from flowing through or out of the structure. Eventually, all composting operations will be moved underneath the expanded roof structure. The best management practices in the SWPPP should be sufficient to prevent leachate from forming on the unroofed section of the compost pad

and from flowing off-site. However, observation of conditions at the site following a storm event indicate that the applicant should focus efforts on several aspects of the SWPPP.

Leachate produced as a normal consequence of the composting process or through contact with rain water or stormwater runoff has the potential to run off the site, enter one or both of the ephemeral channels that drain the site, and eventually enter the East Fork Russian River.

Leachate can potentially contain nutrients, inorganic pollutants, bacteria, viruses, and parasites (including human pathogens if the leachate is derived from sewage sludge biosolids), and can have a high biological oxygen demand. Leachate from finished compost is of less concern, as it should contain no or only insignificant levels of pathogens. Leachate from finished compost is, however, still a concern if it reaches streams or groundwater (Gergus, 1997; Evans, 1997). If leachate were to reach the East Fork Russian River, these pollutants would degrade water quality and negatively impact beneficial uses of the river and of Lake Mendocino. This would be a significant impact.

Mitigation Measure 3.2.1:

Proposed as Part of the Project

- a. The project applicant shall conduct active composting and storage of feedstock under the roof structure during the rainy season. Finished compost, compost additives, and compost amendments including lime, wood ash, and gypsum, that have the potential of causing contaminated storm water runoff, should be either stored under the roof structure or, if appropriately tarped during the rainy months, outside on the compost pad or elsewhere at the project site. Storm water monitoring will be performed at the site to determine if tarping prevents production of leachate and contaminated storm water runoff. Additionally, additives and amendments that would normally be stored on the pad outside of the roofed area should not be accepted during the winter months in a saturated condition. Saturated materials will dewater on site and create leachate even if adequately tarped or placed under a roof. The project applicant shall specify in contracts or arrangements with the supplier of these materials that they will be delivered in a dry condition.
- b. The project applicant shall maintain the specified grade to avoid ponding of stormwater.
- c. The project applicant shall clean the pad of any compost and feedstock before the first storm event of the year.
- d. During the rainy season, the project applicant shall keep the ends of the windrows in and away from the edge of the roof structure to reduce production of leachate.

Identified in this EIR

- e. The project applicant shall take steps to prevent or repair rutting caused by heavy equipment.

- f. In accordance with the terms of the SWPPP, which prohibits contact of "... composted or uncomposted material with stormwater," the project applicant shall cease use of compost for filling tires used to weight tarps placed over finished compost piles.
- g. The area around the perimeter of the roof structure is likely the greatest current source of uncontrolled leachate. This area receives the heaviest traffic and is the most difficult to keep clean of compost and feedstock. The project applicant shall take steps to prevent rutting and ponding of the pad surface. This could be accomplished by paving the area, or by other means agreed to by the NCRWQB.
- h. The facility shall receive only sewage sludge biosolids that meet federal EPA Part 503 Class B standards for pathogen reduction, that have met one of the Part 503 options for vector attraction reduction, and that meet Part 503 pollutant limits for "exceptional quality" biosolids (see discussion in Public Health and Safety section on federal EPA Part 503 Biosolids Rules). In addition, only biosolids with no free liquids should be accepted. When biosolids are received, they should be tipped onto a surface that is thoroughly protected from stormwater contact, and that is completely cleanable, such as a concrete pad. Tipping materials onto an absorbent material, such as wood chips, would aid in complete cleaning. Wastewater from cleaning of equipment and surfaces used to handle biosolids should be collected and treated, or applied to fresh composting material as process water. Biosolids shall not be stored or stockpiled; they should be processed and placed in windrows the same day they are received. To reduce the likelihood of production of uncontrolled leachate or biosolids-contaminated wastewater, biosolids shall not be received during wet weather. Any leachate collected in the leachate collection system while uncomposted biosolids are on the site shall either be tested for pathogens or treated with the assumption that it contains pathogens. Use of biosolids leachate shall be restricted to application to fresh piles of compost that have not yet undergone thermophilic decomposition. The leachate tank shall be maintained to ensure that human pathogens do not continually recontaminate leachate entering the tank, for example by completely emptying and/or disinfecting the tank after it has received biosolids leachate.

Level of Significance After Mitigation

Application of the above measures 3.2.1(a), (b), and (c), proposed as part of the project, and measure (h), reduce the impact to less than significant. Measures 3.2.1(d), (e), and (f) could further reduce the potential for stormwater to be contaminated with leachate. Measure 3.2.1(g) could be required if the other measures, for whatever reason, are not effective.

Impact 3.2.2: Stormwater may carry sediments into natural drainages that flow into the East Fork Russian River. (SIGNIFICANT)

Stormwater runoff from the site could carry sediment off site and into the ephemeral channels that drain the site. Concentrated runoff from the roof and from road surfaces, ditches, and culverts could cause erosion and sedimentation of streams. Sediment from these sources could eventually reach the East Fork Russian River. This would be a significant impact.

Mitigation Measure 3.2.2:***Proposed as Part of the Project***

- a. The facility's SWPPP includes measures for dust control and protection of materials from contact with rainwater and stormwater runoff that could lead to transport of sediment off site. The most important of these measures are storage and processing of materials under the roof during the rainy season, tarping of finished product stored on the unroofed portion of the pad during the rainy season, maintenance of a grade from the center of the pad outward in all directions, and maintenance of a grass buffer around the perimeter of the pad.
- b. The applicant plans to expand the existing roof structure to three times its current size, and to perform all operations and storage under the roof year-round. This will further reduce contact of materials by rainwater and stormwater runoff.
- c. The haul road to the facility is rock surfaced, ditched, and culverted.
- d. Energy dissipaters are used at the outfall of the roof drains, and the channels into which these empty are rock-lined.

Identified in this EIR

- e. Energy dissipaters shall be used on the culverts on the haul road.
- f. In areas where sediment is accumulating on the edge of the pad and threatening to enter ephemeral stream channels, such as on the north edge of the pad, the project applicant shall construct a silt fence consisting of strawbales and filter fabric, or other appropriate filter materials.

Level of Significance After Mitigation

Application of the above measures will render Impact 3.2.2 less than significant.

Impact 3.2.3: Leachate may percolate through the compost pad and contaminate groundwater. (LESS THAN SIGNIFICANT)

Leachate from active compost, finished product, or feedstock could percolate through the compost pad and eventually enter the groundwater. This is an unlikely occurrence. Even more unlikely is the possibility of contaminated groundwater reaching any domestic wells off site.

Mitigation Measure 3.2.3:***Proposed as Part of the Project***

- a. The compost pad is compacted, graded, and rock surfaced. If properly maintained, this should prevent percolation of leachate through the pad.

- b. The roof structure is fitted with a leachate collection and storage system. This should prevent pooling of leachate beneath the roof structure and reduce the possibility of leachate percolating through the soil.

Identified in this EIR

- c. Remedial measures shall be taken to ensure that the integrity of the compost pad is not compromised by placement or movement of heavy equipment or vehicles. (See Mitigation 3.2.1g).

Level of Significance After Mitigation

Application of the above measures, and mitigation measures for Impact 3.2.1, would further reduce this impact.

Impact 3.2.4: Storage tanks for leachate and brewery process water could leak, overflow, or topple in an earthquake, causing a spill. (SIGNIFICANT)

Up to 44,000 gallons of brewery process water, and up to 22,000 gallons of leachate may be stored on the site at any one time. The storage tanks have no secondary containment, and there is no back-up storage for leachate if the storage tank fills during a storm. A leak or a catastrophic failure of the tanks could result in a spill of a large volume of water into the ephemeral channels that drain into the East Fork Russian River. This would be a significant impact.

Mitigation Measure 3.2.4:

Proposed as Part of the Project

- a. Storage tanks are placed on top of concrete pads, and are attached to the pads with steel bolts.

Identified in this EIR

- b. A qualified engineer shall inspect the tank attachment system and make recommendations on any necessary improvements to ensure that the tanks would be stable during an earthquake.
- c. Secondary containment structures shall be constructed around the tanks. The structures shall have the capacity to hold all of the liquid held in the tanks in case of catastrophic failure. Earthen berms would be sufficient to prevent a catastrophic spill.
- d. The applicant shall prepare an amendment to the SWPPP, describing procedures for monitoring the level of leachate collected in the leachate storage tank during storms. Care must be taken to ensure that the tank does not overflow during a storm event. In case the tank reaches capacity during a storm event, the applicant shall drain the tank and transport the collected leachate to another storage container.

- e. Because of the highly corrosive nature of compost leachate, the leachate storage tank should be inspected annually by a qualified engineer to certify its integrity.

Level of Significance After Mitigation

Application of the above measures would reduce Impact 3.2.4 to less than significant levels.

Impact 3.2.5: Water drawn from the East Fork Russian River or from springs feeding Cold Creek during drought conditions for use as process water or road quench water could reduce flows in either of these streams and impact other beneficial uses of the streams. (SIGNIFICANT)

The facility's demand for process water will be met primarily from well water, brewery process water, and recirculated leachate. In addition, winter runoff diversion ponds may be developed to increase summer water supplies. However, if the applicant finds it necessary to draw water out of the East Fork Russian River or from springs feeding Cold Creek during periods of unusually low flows, such as during drought years, this diversion may impact other beneficial uses of these streams by temporarily reducing or stopping their flow. This would be a significant impact.

Mitigation Measure 3.2.5:

Proposed as Part of the Project

- a. If other existing sources of water are insufficient, the applicant will develop winter runoff collection ponds in accordance with guidelines from the State Water Resources Control Board to mitigate potential environmental impacts of ponds.

Identified in this EIR

- b. The applicant could limit diversions from the East Fork Russian River, and from springs feeding Cold Creek to times of normal flows, and avoid diverting water during unusually low flows associated with severe drought.

Level of Significance After Mitigation

Application of Mitigation Measure 3.2.5(b) by itself would render Impact 3.2.5 less than significant. It is unlikely that other water sources would be needed in addition to those already identified (even with implementation of 3.2.5(b)). Mitigation Measure 3.2.5(a) is one additional water source that could be used if needed; there may also be other optional water sources.

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3.3 AIR QUALITY

SETTING

CLIMATE AND METEOROLOGY

The primary factors determining air quality are the locations of air pollutant sources and the amounts of pollutants emitted. Meteorological and topographical conditions, however, are also important. Atmospheric conditions, such as wind speed, wind direction, and air temperature gradients, interact with the physical features of the landscape to determine the movement and dispersal of air pollutants.

The project area is characterized by warm, dry summers and cool, wet winters. Summer high temperatures average in the 90s, and on very warm days exceed 100 degrees. Summer low temperatures range between 50 and 60 degrees. Winter high temperatures often range from 50 to 60 degrees, with evening lows dropping to 10 degrees. The average annual temperature is 58 degrees, and annual rainfall averages 35 inches.

Prevailing summer winds come from the northwest. Winds can also come from the south and east under certain temporary conditions. When a storm approaches Northern California from the northwest, winds near the surface blow toward the storm front (an area of low pressure). These southerly winds usually last no more than a day, and when the storm passes, winds once again come from the northwest. Very hot weather in the upper Sacramento Valley can also cause cooler marine air to flow up the Russian River, causing weak to moderate south winds along the Valley floor.

LAWS AND REGULATIONS

CRITERIA AIR POLLUTANTS

The 1977 Federal Clean Air Act required the U.S. Environmental Protection Agency (EPA) to identify National Ambient Air Quality Standards (NAAQS) to protect public health and welfare. NAAQS have been established for the following pollutants: ozone (O₃), carbon monoxide (CO), nitrogen dioxide (NO_x), sulfur dioxide (SO₂), suspended particulate matter (PM₁₀), and lead (Pb). These pollutants are called "criteria" pollutants because these standards satisfy criteria specified under the Federal Clean Air Act.

Pursuant to the 1990 Federal CAA Amendments (CAAA), the EPA has classified Air Basins, or portions thereof, as either "attainment" or "nonattainment" for each criteria air pollutant, based on whether or not the NAAQS have been achieved. The project site lies within the North Coast Air Basin (NCAB), which is in attainment with all Federal NAAQS (California Air Resources Board, 1996).

The California Air Resources Board (ARB) manages air quality, regulates mobile emissions sources, and oversees the activities of county Air Pollution Control Districts (APCDs) and regional Air Quality Management Districts (AQMDs). The ARB regulates local air quality indirectly by establishing State ambient air quality standards and vehicle emissions standards, by conducting research activities, and through its planning and coordinating activities.

California has adopted some ambient standards that are more stringent than the federal standards for the criteria air pollutants. Under the California Clean Air Act (CCAA), patterned after the Federal CAA, areas have been designated as attainment or non-attainment with respect to the state ambient air quality standards. The NCAB is a non-attainment area for PM10 with respect to the State standards (California Air Resources Board, 1996).

On the regional level, the Mendocino County Air Quality Management District (MCAQMD) is the agency empowered to regulate air pollutant emissions in the North Coast Air Basin. The MCAQMD regulates air quality through its permit authority over most types of stationary emissions sources and through its planning and review activities.

MCAQMD Regulation 1, Rule 200 requires an Authority to Construct to be issued by the District prior to the construction, modification, or operation of any stationary source which may cause the emission of air contaminants. An Authority to Construct shall remain in effect for one year or until a Permit to Operate is issued or denied. The project is a source of potential air emissions and is thus subject to this Rule.

MCAQMD Regulation 1, Rule 230 states that the Air Pollution Control Officer (APCO) shall grant an Authority To Construct after determination has been made that the project will not prevent the attainment, interfere with the maintenance, or cause a violation of any State or national ambient air quality standard. Emissions levels used to determine the significance of a project are defined in MCAQMD Regulation 1, Rule 130. Since the project requires an Authority to Construct to be granted, it is subject to the provisions of this Rule.

MCAQMD Regulation 1, Rule 240 requires the issuance of a Permit to Operate prior to the operation of any stationary source which may cause the emission of air contaminants. The Permit to Operate shall be issued when the APCO determines that construction and modifications were conducted in compliance with the Authority to Construct. The project requires the District to issue a Permit to Operate, so it is subject to the provisions of this Rule.

ODORS

MCAQMD does not have specific odor regulations which apply to composting operations (Towle, 1996). Odor is covered by MCAQMD Regulation 1, Rule 200, which states that no person shall discharge air contaminants or other materials which may cause injury or nuisance of

other persons. The Rule does not specify how specific odor complaints are to be validated. The project will be subject to the provisions of this Rule.

With the passage of Assembly Bill 59, which became law October 16, 1995, California Health and Safety Code (HSC) Section 41705 required that for a period of two years, all Air Districts are to refer any complaints pertaining to an odor emanating from a compost operation or facility to the Local Enforcement Agency (LEA). This procedure will expire October 16, 1997, unless it is extended.

SETBACK REQUIREMENTS

Currently there are no required setbacks for composting facilities in California. Federal and State regulations have been enacted to reduce the occupational and community health risks at composting facilities. In 1993, the draft California compost regulations required a setback of at least 300 feet of the facility's active compost materials area from any residence, school, or hospital, but this requirement was deleted when the revised California compost facility regulations were adopted in July 1995.

SENSITIVE LAND USES

Land uses such as schools, hospitals, and convalescent homes are considered to be relatively sensitive to poor air quality because infants, the elderly, and people with health afflictions, especially respiratory ailments, are more susceptible to respiratory infections and other air quality-related health problems than the general public. The closest school, hospital, or convalescent home is Potter Valley High School, approximately four miles north of the project site.

Because people in residential areas are often in home for extended periods of time, the exposure times to air pollutants are relatively long. The residential areas closest to the site are located on the west side of Potter Valley Road, approximately 4,800 feet from the project site.

IMPACTS AND MITIGATION MEASURES

INTRODUCTION

The proposed project could result in three types of air quality impacts that have been identified in the scoping sessions for this project and other similar projects: emissions of criteria air pollutants from increased use of on-site equipment and increased truck trips; odor impacts at nearby sensitive receptors from increased composting operations; and increased *Aspergillus fumigatus* concentrations at the locations of sensitive receptors.

APPROACH TO ANALYSIS

To the degree possible, project operation emissions have been quantified and compared to the appropriate threshold of impact significance as described below.

Significance Criteria

According to Appendix G of the CEQA *Guidelines*, a project would be considered to have a significant adverse impact on the environment if it would "violate any ambient air quality standard, contribute substantially to an existing or projected air quality violation, or expose sensitive receptors to substantial pollutant concentrations." (Governor's Office of Planning and Research, 1994) A project would also have a significant impact to air quality if it would conflict with any established plans, policies, or regulations regarding air quality.

The primary criteria pollutant emissions of concern from this project would be particulate matter (PM₁₀) and nitrogen oxides (NO_x). For this report, the following quantitative criteria will be used to assess the significance of the project. A project would have a significant effect if it would exceed the following emission limits in MCAPCD Regulation 1, Rule 130:

- a net increase in total particulate emissions of 135 pounds per day, or PM₁₀ emissions of 80 pounds per day; or
- a net increase in NO_x of 220 pounds per day.

For the purpose of this EIR, an *Aspergillus* impact will be considered significant if operation of the facility is predicted to substantially increase concentrations of *Aspergillus* spores at off-site receptors.

For the purpose of this EIR, odor would be considered significant if project operations results in substantial off-site odor complaints which cannot be mitigated by project operations.

Impact 3.3.1: Emissions of criteria air pollutants generated by operation of the proposed project would increase total air pollutant emissions in the region. (LESS THAN SIGNIFICANT)

The project would result in criteria pollutant emissions from composting equipment operated on site, feedstock truck trips, water truck trips, and employee trips to and from the site. Table 3.3.1 summarizes emissions of criteria air pollutants for the project and compares them with the significance threshold emissions listed in Rule 130 of the Mendocino County Air Quality Management District *Air Quality Control Rules*. The assumptions used to prepare the emissions estimates are contained in the footnotes to the table.

As can be seen from the table, emissions of all criteria pollutants are below Mendocino County Air Pollution Control District thresholds of significance.

**TABLE 3.3.1
ESTIMATED DAILY EMISSIONS FOR THE PROPOSED PROJECT**

Source	Project Emissions (pounds per day)				
	NOx	CO	SOx	HC	PM10 ^e
Feedstock Trucks ^a	62.33	29.43	1.76	7.53	22.29
Water Trucks ^b	2.81	1.32	0.08	0.34	1.01
Employee Trips ^c	0.47	1.87	0.10	0.19	0.64
On-Site Equipment ^d	151.1	32.8	10.1	13.3	48.8
Totals:	216.71	65.42	12.04	21.36	72.74
Significance Criteria:	220	550	220	220	80

^a Assumes 40 round trips per day, with an average trip length of 25 miles one-way.

^b Assumes three round trips per day, with an average trip length of 15 miles one-way.

^c Assumes eight round trips per day, with an average trip length of 20 miles one-way.

^d Emissions based on calculations by the Mendocino County Air Quality Management District (Mendocino County Air Quality Management District, 1995).

^e Includes exhaust particulate as well as entrained road dust and tire wear.

Mitigation Measure 3.3.1:

None required.

Impact 3.3.2: Increased composting operations and increased diversity of feedstocks could increase the concentration of odors at the locations of downwind receptors. (LESS THAN SIGNIFICANT)

Most odors at composting operations result from the incomplete breakdown of organic materials. Under anaerobic (oxygen-poor) conditions, organic materials, notably carbohydrates and proteins, decompose and produce odorous compounds such as sulfur-containing compounds and ammonia. While the facility is located approximately 4,800 feet downwind of the nearest residences, occasional inversions occur which may increase the likelihood of significant quantities of odorous compounds at these residences. However, these inversions rarely occur during summer months, when the facility is likely to produce its worst odors.

Composting odor can be controlled at the source by implementing best management practices and good processing control. These include prompt and thorough processing of incoming feedstocks, adequate blending of materials and turning of the windrows, and maintaining appropriate moisture in the windrows. The mitigation measures described below would ensure the minimization of odors at the site. These mitigation measures would help reduce the generation of odors. Proper management of feedstock piles and processed green material would reduce nuisance odors generated from raw materials. Frequent windrow turning and the application of process water would maximize aerobic decomposition and reduce anaerobic conditions which foster the production of odorous compounds. Mitigations in the Public Health and Safety section require rapid incorporation of sewage sludge biosolids into the windrows.

With concern for this impact, ESA's project manager attended an Organic Material Recycling Odor Control Workshop in Sunnyvale, California, on November 21, 1996. That workshop was sponsored by the California Integrated Waste Management Board and the California Conference of Directors of Environmental Health. The workshop participants indicated that while odor impacts from composting facilities can occur up to three miles downwind of a facility, a buffer of 4,800 feet to the nearest off-site receptor should insure that odor impacts can be minimized through good management of the compost process.

Phillip Towle, Air Quality Specialist with the Mendocino County Air Quality Management District, visited two similar operating facilities and a grape pomace storage facility, and was convinced that from what he observed that:

"At the facilities mentioned above it was not possible to smell the compost beyond 50' to 75' on a no-wind day. From these observations we have concluded that if properly managed, odors can be controlled, if not nearly eliminated. As an additional consideration, the fact that this site is located on a 3,700 acre ranch (zoned as rangeland, as are all adjoining parcels), and it is 4000' to the nearest property line where off site receptors are likely to be impacted (temporarily since these points are on Highway 20 and East Side Potter Valley Road), make this site, from an air quality stand point, about as ideal as can be imagined.

"Other factors that tend to argue on behalf of this project location are its elevation (above the most severe temperature inversions that occur in the valleys trapping pollutants below the inversion in a thin mixing layer), distance from the nearest residences (one mile or more), and propitious winds taking any odor that may extend beyond the property line away from the bulk of nearby receptors.

"Because of the elevated terrain upon which the site is located, ventilation of the site will be almost constant. Under normal conditions these ventilating winds will both aid greatly in the dispersal of and carry most emissions above nearby receptors.

"One potential downside effect the proposed location is that evening downslope winds could carry emissions (odors) into low lying areas. If this occurs the most likely path that these downslope currents will follow will be along the course of the steep ravine starting just to the SW of the compost site and emptying into the area along Highway 20 just east of its intersection with the Potter Valley Road. However, given the distance that these downslope winds would have to travel before reaching Highway 20 (approximately 1 mile) it is doubtful that their effect could be great if they were to have any at all." (Towle, 1995)

Mitigation Measure 3.3.2:

Proposed as Part of the Project

- a. All incoming feedstocks shall be managed to minimize odors.
- b. Active windrows shall be turned frequently enough to maintain aerobic conditions within the windrows.
- c. Process water shall be added as necessary to keep windrows at a moisture content of 40% to 60%.

Identified in this EIR

- d. The project sponsor, together with either the LEA or MCAQMD (whichever agency is responsible for odors, per AB 59 or any revisions), shall formulate a progressive odor management protocol. This protocol will allow the project sponsor to respond to odor complaints and revise operations as necessary. The LEA and/or the MCAQMD shall notify the project sponsor of all odor complaints received for the composting facility. The protocol shall include progressive measures to be made in the event of repeated verified complaints. When the LEA or MCAQMD verify strong compost odors at off-site residences, the sponsor shall make changes in site operations to reduce the potential for odors. Odor may be reduced by limiting incoming throughput, limiting incoming materials to certain types of feedstocks, installing odor control equipment, removal and disposal of the odiferous compounds, or other activities.
- e. If required by the LEA or MCAQMD, neutralizers, deodorizers or other management practices shall be employed to reduce odors.

Impact 3.3.3: Increased composting operations could increase *Aspergillus fumigatus* concentrations at nearby sensitive receptors. (LESS THAN SIGNIFICANT)

Aspergillus fumigatus is a fungus which is a normal and necessary part of the composting process. *Aspergillus* aids in the composting process by breaking down organic material into finished compost. In response to recent health concerns raised over *Aspergillus*, the California

Integrated Waste Management Board has published LEA Advisory No. 6, titled *Aspergillus*, *Aspergillosis*, and Composting Operations in California (California Integrated Waste Management Board, 1996). The authors of the advisory conducted a thorough review of available literature on *Aspergillus* health risks and the concentrations of *Aspergillus fumigatus* in ambient air and at composting operations. The following summarizes the findings of the LEA Advisory No. 6.

Aspergillus is ubiquitous in the everyday environment, and is especially common in agricultural settings. Activities providing exposure to the fungus include lawn mowing, gardening, potting of household plants, and raking leaves. Spores, one of the stages in the fungus' life cycle, is the form responsible for dispersal in the environment. The spores are light in weight and can be easily spread by air currents. The size of the spores average 2.0 to 3.5 micrometers in diameter, which allows the spores to penetrate the deep lung. During composting operations, the greatest release of *Aspergillus* spores occurs during turning of the compost rows.

While almost everyone is exposed to *Aspergillus* on a regular basis, only a small segment of the population is susceptible to Aspergillosis, the disease caused by *Aspergillus*. These include asthmatics, immunocompromised individuals, and individuals with existing serious illnesses such as leukemia, tuberculosis, or lymphoma. There are three basic mechanisms for illness by *Aspergillus* exposure: immune system hypersensitivity due to antigens present in the fungus or its spores (hypersensitivity pneumonitis); colonization of the air spaces in the sinuses, bronchi, or lungs (allergic bronchopulmonary aspergillosis); or invasion of the tissues by the fungus (invasive aspergillosis). Of the literature reviewed by the LEA, there were only two cases of Aspergillosis related to commercial composting facilities: one of allergic bronchopulmonary aspergillosis in an asthmatic individual, and one of hypersensitivity pneumonitis in a compost worker in Belgium.

In the ambient environment and at composting operations, *Aspergillus* spore concentrations vary widely. In urban environments, spore concentrations typically range from 0 to 50 colony forming units (CFU, same as spores) per cubic meter (CFU/m³). In agricultural areas such as the project area, concentrations range from 0 to 740,000 CFU/m³. For four enclosed commercial composting plants in Sweden, *Aspergillus* concentrations ranged from 100 to 6,000,000 CFU/m³, with a median concentration generally less than 126,000 CFU/m³. Another study of 10 commercial composting operations in the United States found *Aspergillus* concentrations at the active site of operations to be, on average, 10 times higher than background levels, but the concentrations dropped sharply within 500 feet from the site.

In another study, *Aspergillus* spore concentrations were measured at locations on site, upwind and downwind of four large-scale commercial composting facilities in North America. The results of the study are listed in Table 3.3.2.

TABLE 3.3.2
ASPERGILLUS CONCENTRATIONS AT LARGE-SCALE COMPOSTING FACILITIES

Site Type	Spore Concentration, CFU/m ³	
	Geometric Mean	Maximum
Sewage Sludge; Closed Facility		
On-Site	250	3,611
Upwind 2,000 feet	3.1	34
Downwind 1,000-8,600 feet	4.0	30
Sewage Sludge; Open Facility		
On-Site	9	133
Upwind 1 mile	2.7	15
Downwind 1 mile	2.5	37
Sewage Sludge; Open Facility		
On-Site	127	555
Upwind	16	100
Downwind 1 mile	23	228
Yard Waste; Open Facility		
On-Site, Mon-Sat (operations)	865	32,743
On-Site, Sun (no operations)	354	4,473
Upwind 2,000 feet	3.1	34
Downwind 1,000-8,600 feet	4.0	30

SOURCE: California Integrated Waste Management Board, *LEA Advisory 6: Aspergillus, Aspergillosis, and Composting Operations in California*, December, 1993.

As can be seen from the above table, the maximum concentration of *Aspergillus* spores at locations downwind of the composting operations was 228 CFU/m³, and the mean at that location was 23 CFU/m³. For the other three locations, *Aspergillus* concentrations were approximately an order of magnitude lower. These concentrations are well within background levels in an agricultural setting.

As part of its review of the applicant's Authority to Construct Application, the Mendocino County Air Quality District conducted an air model study to determine the concentration of *Aspergillus fumigatus* at nearby receptors (MCAQMD, 1995). To conduct the air model study, MCAQMD used SCREEN, an EPA-produced air pollutant dispersion model. SCREEN uses conservative (health-protective) assumptions to generate a worst-case scenario for dispersion. Using these conservative assumptions, MCAQMD determined that the dilution of *Aspergillus* from the source to the nearest receptor would be approximately 100,000 to one. This means that

an initial concentration of 100,000 CFU/m³ at the project site would be reduced to a level of one CFU/m³ at the closest receptor under worst-case meteorological conditions.

To further reduce the concentration of *Aspergillus* spores at nearby receptors, the following mitigation measure shall be implemented as part of the project:

Mitigation Measure 3.3.3:

Identified in this EIR

- a. The project sponsor shall install a windsock or other wind direction monitoring device at the facility. To the extent possible, windrows will not be turned on days when the wind is blowing directly to the west, toward the residences along Potter Valley Road.

Aspergillus concentrations will be highest at locations downwind of the facility. When the wind is blowing to the north (usually during the winter months), the residences on the north side of Potter Valley Road will be most affected. Minimal windrow turning on these days will help reduce the *Aspergillus* concentration at these receptors.

This mitigation measure, in combination with the implementation of Best Management Practices at the facility, will insure that the impact of *Aspergillus fumigatus* will remain at a less-than-significant level. This impact would also reduce the potential of odors to be transported to these off-site receptors.

REFERENCES - Air Quality

California Air Resources Board, *Proposed Amendments to the Area Designations for State Ambient Air Quality Standards*, November 1996.

California Integrated Waste Management Board, *LEA Advisory 6: Aspergillus, Aspergillosis, and Composting Operations in California*, December, 1993.

Governor's Office of Planning and Research, *California Environmental Quality Act: Statutes and Guidelines*, 1994.

Mendocino County Air Quality Management District, *Evaluation of Authority to Construct Application 94-33, Martin Mileck-M&M Feed*, January, 1995.

Towle, Philip, Air Quality Specialist, Mendocino County Air Quality Management District, Memo - Evaluation of Authority to Construct Application 94-33, Martin Mileck - M&M Feed, January 3, 1995.

Towle, Philip, Air Quality Specialist, Mendocino County Air Quality Management District, telephone conversation, December 6, 1996.

3.4 NOISE

SETTING

INTRODUCTION TO NOISE PRINCIPLES AND DESCRIPTORS

Environmental noise is usually measured in A-weighted decibels (dBA).¹ Some representative noise sources and their corresponding noise levels in dBA are shown in Figure 3.4.1.

Environmental noise typically fluctuates over time, and different types of noise descriptors are used to account for this variability. Typical noise descriptors include the energy-equivalent noise level (L_{eq}),² the day-night average noise level (L_{dn}), and the Community Noise Equivalent Level (CNEL). The L_{dn} and CNEL are commonly used in establishing noise exposure guidelines for specific land uses. In general, a change of three dBA is a noticeable change and a change of 10 dBA is perceived as a doubling of noise.

The noise experienced at a receptor depends on the distance between the source and the receptor, the presence or absence of noise barriers and other shielding features, and the amount of noise attenuation (lessening) provided by the intervening terrain. For line sources, such as motor or vehicular traffic, noise decreases by about 3.0 to 4.5 dBA for every doubling of the distance from the roadway. For point or stationary sources, such as electric motors, a noise reduction of 6.0 to 7.5 dBA is experienced for each doubling of the distance from the source. Sensitivity to noise also varies according to the individual, the time of day (noise at night is weighted to reflect greater sensitivity), and type of noise (the backfire from an engine [a loud, short duration noise] is often more intrusive than the constant low hum of an engine).

NOISE REGULATIONS, PLANS, AND POLICIES

Noise is regulated in the project area through implementation of the Noise Element of the *Mendocino County General Plan*. The Noise Element identifies compatible noise environments for different types of land uses in the County (Mendocino County, 1993). Table 3.4.1 contains the noise/land use compatibility guidelines identified in the Noise Element for the land uses in

¹ A decibel (dB) is a logarithmic unit of sound energy intensity. Sound waves exert a sound pressure (commonly called "sound level"), measured in decibels. An A-weighted decibel (dBA) is a decibel corrected for the variation in frequency response of the typical human ear at commonly-encountered noise levels. The highest dBA recorded in a given period of time is known as the maximum noise level (L_{max}). All of the noise levels reported herein are "A-weighted" unless stated otherwise.

² L_{eq} , the energy equivalent noise level (or "average" noise level), is the equivalent steady-state continuous noise level which, in a stated period of time, contains the same acoustical energy as the time-varying sound level actually measured during the same period. L_{dn} , the day-night average noise level, is a weighted 24-hour average noise level. With the L_{dn} descriptor, noise levels between 10:00 p.m. and 7:00 a.m. are adjusted upward by ten dBA to take into account the greater annoyance of nighttime noise as compared to daytime noise. The CNEL is calculated in a similar way, but an additional 5 dBA are added to the noise levels in the evening hours between 7:00 p.m. and 10:00 p.m.

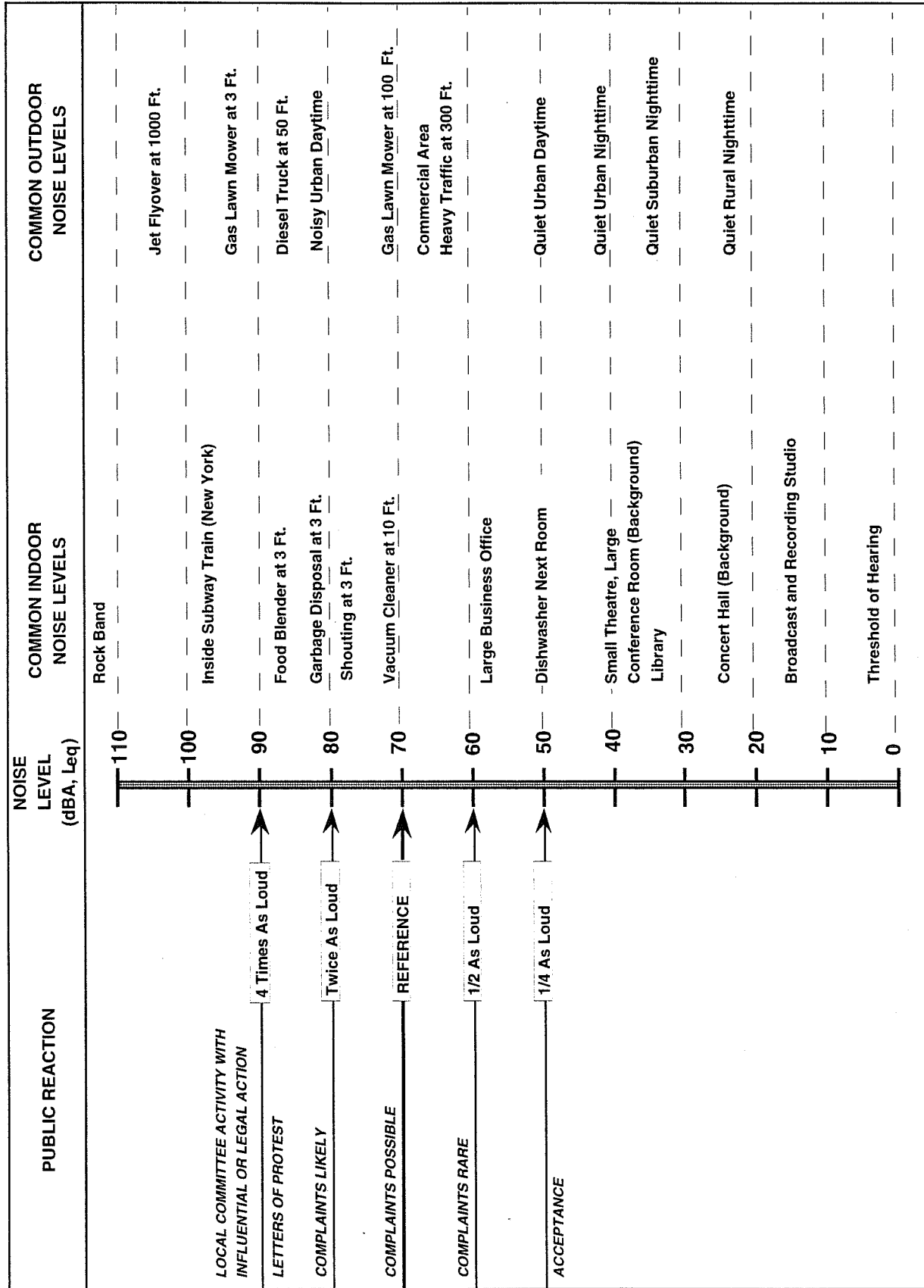


**TABLE 3.4.1
LAND USE COMPATIBILITY STANDARDS FOR
COMMUNITY EXTERIOR NOISE ENVIRONMENTS**

Land Use Category	Community Noise Exposure, L _{dn}			
	Normally Acceptable ^a	Conditionally Acceptable ^b	Normally Unacceptable ^c	Clearly Unacceptable ^d
Residential-Low Density	up to 60	55 to 70	70 to 75	above 75
Schools, Libraries, Churches, Hospitals	up to 70	60 to 70	70 to 80	above 80
Playgrounds, Neighborhood Parks	up to 70	67 to 75	above 72	N/A
Industrial, Agriculture	up to 75	70 to 80	above 75	N/A

- ^a Normally Acceptable: Specified land use is satisfactory, based on the assumption the any buildings involved are of normal conventional construction, without any special noise insulation requirements.
- ^b Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.
- ^c Normally Unacceptable: New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.
- ^d Clearly Unacceptable: New construction or development should generally not be undertaken.

SOURCE: County of Mendocino, Noise Element of the *County General Plan*, 1993.

the project vicinity. For residential land uses, the normally acceptable noise level is in the range of 50 to 60 dBA, L_{dn}, and the conditionally acceptable range is 55 to 70 dBA. The project site is in an agricultural zone. In areas (such as surrounding the project area) with low ambient noise levels, noise levels may be noticeable but not damaging to health.

In addition to the noise levels specified in the Noise Element, the Conditions of Approval for the project as approved in 1995 state that "Noise levels resulting from site operations (including ingress and egress to site) shall not exceed 55 dBA/L_{dn} at off-site residences."

SENSITIVE RECEPTORS

Some land uses are considered more sensitive to ambient noise levels than others, due to the amount of noise exposure (in terms of both duration and insulation from noise), and the types of activities involved. Residences, motels and hotels, schools, libraries, churches, hospitals, nursing homes, auditoriums, and parks and other outdoor recreation areas generally are more sensitive to noise than are commercial and agricultural land uses.

The project site is bordered to the north, south, and east by open space and rangelands. The nearest residences to the project site are along the western side of Potter Valley Road, approximately 4,800 feet to the west of the compost pad. These residences are approximately 600 feet from the access road.

EXISTING NOISE SOURCES AND LEVELS

The existing ambient noise environment in the project area is characterized primarily by traffic along Potter Valley Road. To further characterize ambient noise conditions in the project vicinity, noise measurements were conducted. Short-term measurements were taken at two locations in the project vicinity where project-related traffic would be expected to have an impact. In addition, a 24-hour noise measurement was taken near the closest receptor location which would potentially experience the greatest change in noise environment from project-related traffic noise with the implementation of the project. Noise measurement results are presented in Table 3.4.2. The locations of all measurements are shown in Figure 3.4.2, and are described below.

Location A: Intersection of Potter Valley Road and Site Access Road

This measurement was taken at a park on the western side of Potter Valley Road, directly across from the gate at the bottom of the access road to the site. This property, currently in use as a county parkway, is only 25% in county ownership. The remaining 75% is still owned by the Guntlys (CCCI, 1997). The measurement was designed to measure the noise generated by a typical truck trip to the site. The ambient noise environment at this location was characterized by traffic along Highway 20, particularly heavy truck traffic, and the Russian River. During the first three minutes of the measurement, an M&M Feed truck entered the site. Approximately 14 minutes into the measurement, another M&M Feed truck entered the site.

Location B: Residence along Road on West Side of Potter Valley Road

This measurement was taken along the public road to the southwest of Guntly Ranch, across from the old quarry. The meter was placed at the residence most likely to be affected by project-related truck noise, at approximately 100 feet above the valley floor. The noise measurement was taken from 12:28 p.m. to 12:50 p.m., and was designed to measure the noise generated by a

TABLE 3.4.2
MEASUREMENTS OF EXISTING NOISE LEVELS

Location ^a	Time Period ^b	Noise Levels (dBA) ^c		Noise Sources
		L_{eq} ^d	L_{max} ^e	
A	11:48 a.m.-12:04 p.m.	57-66	81	Traffic along Potter Valley Road
B	12:28-12:50 p.m.	43-50	62	Trucks on access road
B ^f	24-hour	51 (L_{dn} ^g)	84	Traffic along Potter Valley Road

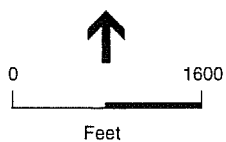
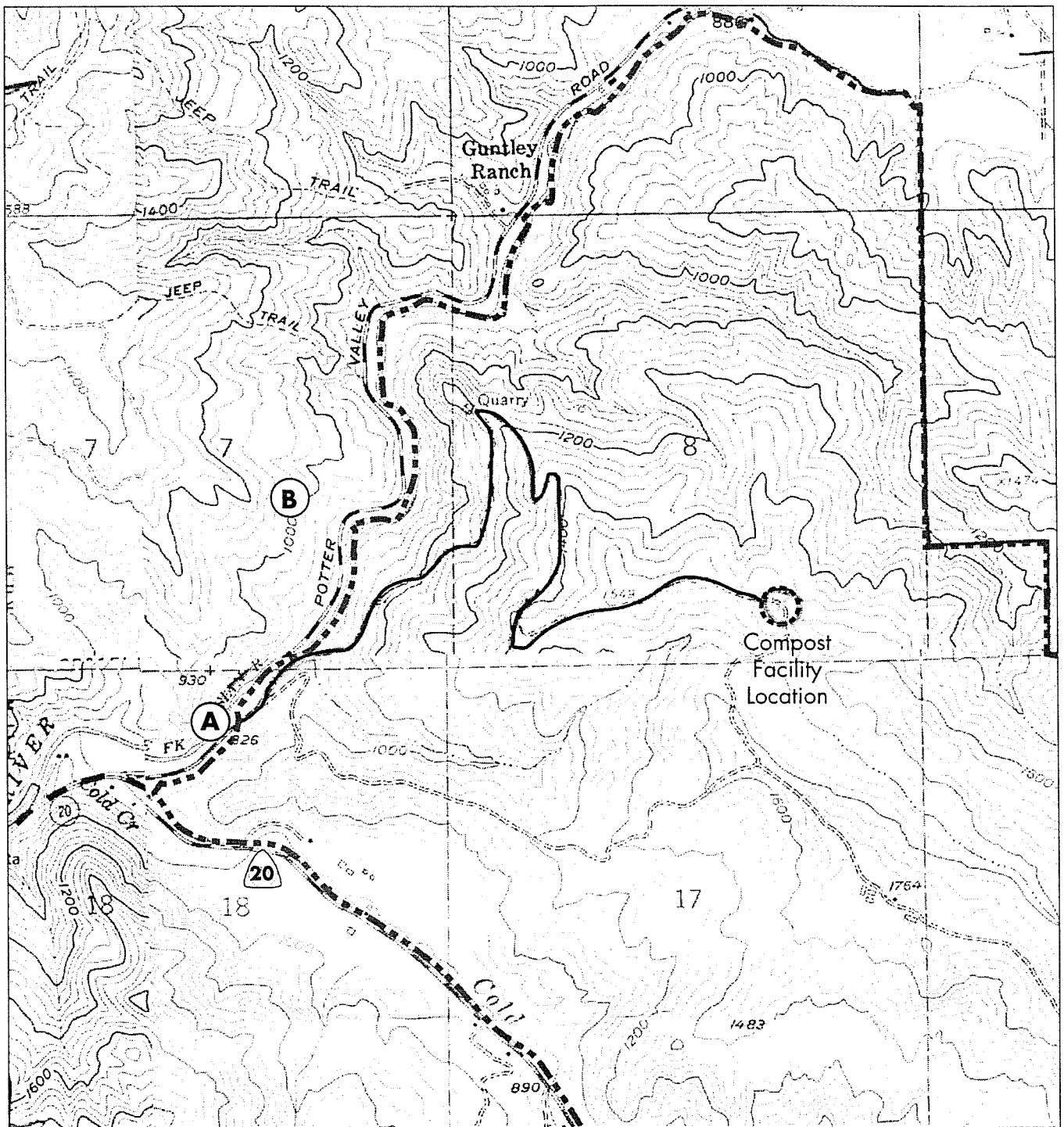
- ^a Locations where the noise meter was located correspond to those illustrated in Figure 3.4.2 and are described in the text.
- ^b Environmental Science Associates measured short-term noise levels on Monday, December 2, 1996, using a Metrosonics dB-308 sound level meter, calibrated prior to use. Measurements were taken to determine the noise generated by a typical truck trip to the site. Short-term noise measurements were taken in two-minute intervals.
- ^c A decibel (dB) is a logarithmic unit of sound energy intensity. An A-weighted decibel (dBA) is a decibel corrected for the variation in frequency response of the typical human ear at commonly-encountered noise levels.
- ^d L_{eq} , the energy-equivalent noise level (or "average" noise level), is the equivalent steady-state continuous noise level which, in a stated period, of time, contains the same acoustical energy as the time-varying sound level actually measured during the same period.
- ^e L_{max} is the highest dBA recorded in a given period of time.
- ^f Environmental Science Associates measured noise levels over a 24-hour period beginning on Tuesday, December 3, 1996, at 12:00 a.m. to Wednesday, December 4, 1996 at 12:00 a.m., using a Metrosonics dB-308 sound level meter, calibrated prior to use. The 24-hour noise measurement was taken using hourly intervals.
- ^g L_{dn} , the day-night average noise level, is a weighted 24-hour average noise level. With the L_{dn} descriptor, noise levels between 10:00 p.m. and 7:00 a.m. are adjusted upward by 10 dBA to take into account the greater annoyance of nighttime noise as compared to daytime noise.

SOURCE: Environmental Science Associates

truck descending the access road while using its Jake brakes. An M&M Feed truck descended the road during the last four minutes of the noise measurement. The noise generated by the truck was audible during its descent, and appeared to increase the L_{eq} by two to four dBA, from 44 dBA to approximately 46 to 48 dBA. The maximum noise level measured at this location during the truck descent was 54 dBA. The meter was left in this location for the 24-hour noise measurement. The L_{eq} hourly averages for this 24-hour noise measurement are shown in Figure 3.4.3.

IMPACTS AND MITIGATION MEASURES

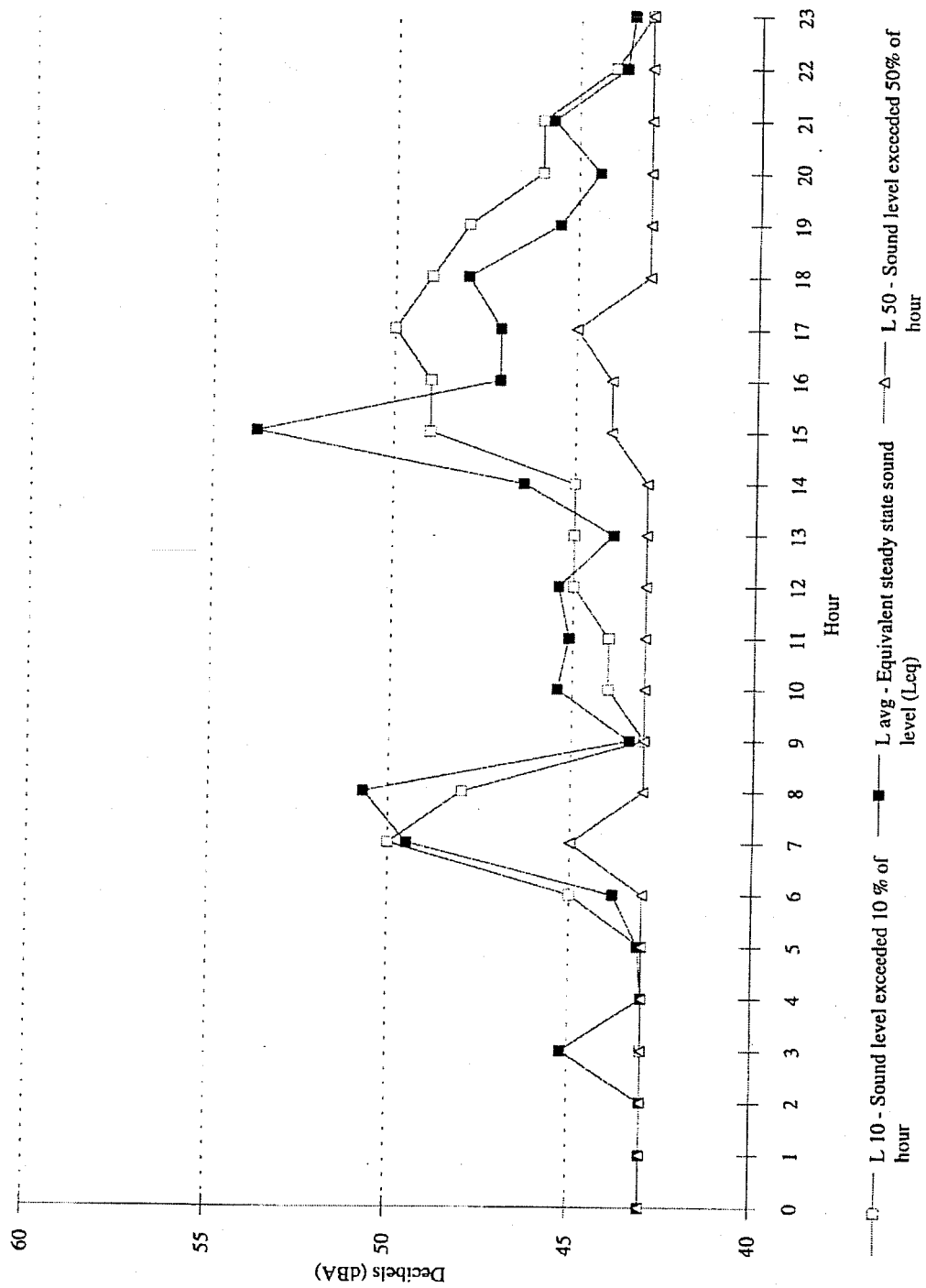
Future noise sources associated with the project would include vehicle traffic from increased truck trips to and from the site, employee trips, and heavy machinery used at the site. The trucks would be primarily class 7 (10 wheel) and class 8 (18 wheel) trucks.



- Gunley Ranch Property Boundary
- (A) Noise Measurement Location

Cold Creek Compost EIR / 960106 ■

Figure 3.4.2
Noise Measurement
Locations



SOURCE: Environmental Science Associates

Cold Creek Compost EIR / 960106

Figure 3.4.3

24 - Hour Noise Measurement

SIGNIFICANCE CRITERIA

Appendix G of the CEQA *Guidelines* states that a project would normally have a significant adverse impact on the environment if it would substantially increase the ambient noise levels of adjoining areas (Governor's Office of Planning and Research, 1994). For the purposes of this EIR, an impact will be considered significant if it would cause the ambient noise levels at the nearest affected receptor to increase to greater than 55 dBA, L_{dn} , as specified in the project Conditions of Approval prepared in 1995.

Impact 3.4.1: Project-generated vehicle traffic would result in an increase in ambient noise levels to residences directly adjacent to the access road. (LESS THAN SIGNIFICANT)

The proposed project would result in approximately 40 total peak daily truck round trips and eight to 10 employee round trips per day. The diesel-powered heavy trucks would generate the most noise by using air brakes on the descent down the access road.

To assess the impact of project-related traffic on residences on the western edge of Potter Valley Road, the future L_{dn} at the nearest affected residence (location B) was modeled. During the short-term noise measurement at location B, a truck descending the access road increased the noise level at this location by two to four dBA (see Table 3.4.2 and text regarding measurement B, above). To predict the increase in noise level at this location, four dBA was added to the noise level actually measured for all hours between 7:00 a.m. and 6:00 p.m., the expected hours of operation of the facility. It should be noted that during the period of the fall grape crush, the facility will receive nighttime truck deliveries. This is unavoidable due to the around-the-clock nature of the grape crush. It is expected that no more than one or two nighttime deliveries per hour will occur. This is a conservative assumption made to overestimate the increase in noise level at this location. Adding four dBA to all hours between 7:00 a.m. and 6:00 p.m. increased the L_{dn} by one dBA, from 51 dBA to 52 dBA. Since this level is below the 55 dBA, L_{dn} specified in the 1995 Conditions of Approval for the project, this would be a less than significant impact.

Mitigation Measure 3.4.1:

None required.

Impact 3.4.2: Operation of heavy-duty equipment at the site, such as the loaders or grinder, will increase ambient noise levels at nearby receptors. (LESS THAN SIGNIFICANT)

Noise levels at receptors near the site will fluctuate depending upon the particular type, number, and duration of use of various pieces of equipment, as well as the seasonal production of some of

the facility's feedstocks. Equipment used at the site will include two loaders, a water truck, a hammermill grinder, and a windrow turner. Of this equipment, the hammermill grinder would generate the most noise. Typical hammermills generate about 90 dBA, L_{eq} at about 20 feet, and the loudest hammermills can produce noise levels of 96 to 97 dBA, L_{eq} at about 20 feet (ESA, 1995).

Assuming an attenuation rate for this site of six dBA per doubling of distance, a piece of equipment generating 97 dBA at 20 feet would attenuate to 50 to 52 dBA at the nearest residences, approximately 4,800 feet away. This noise level is only slightly higher than the ambient noise level at these residences, and is lower the 55 dBA specified in the Conditions of Approval for the project. This would be a less than significant impact.

Mitigation Measure 3.4.2:

None required.

Impact 3.4.3: The project could result in an increase in the cumulative noise levels in the project area. (LESS THAN SIGNIFICANT)

The project is located in an area which is characterized by low ambient noise levels. Land uses such as rangeland and agricultural are sparsely populated, and are generally tolerant of noise levels generated by activities such as those occurring at the composting facility. While the project may slightly increase ambient noise levels at nearby off-site receptors, there are no other identified similar projects (current or future) near the project site.

Mitigation Measure 3.4.3:

Proposed as Part of the Project

Although the impact is less than significant, this feature of the proposed project is presented to demonstrate methods the facility would employ to prevent cumulative noise impacts in the project area:

- a. Noise from project operations shall be limited to 55 dBA, L_{dn} , at the nearest off-site receptor.
- b. Operations at the site are strictly limited to 7 a.m. to 6 p.m., except during periods of the fall grape crush, when nighttime deliveries will occur.

PSRPs include aerobic digestion, air drying, anaerobic digestion, composting, and lime stabilization.

Reducing vector attraction reduces the potential for transmitting diseases from pathogens in biosolids. The Part 503 rules set standards for vector attraction reduction and contain 12 options for reducing the attractiveness of biosolids to vectors (ibid, p. 121).

The Part 503 rules specify risk-based pollutant limits for biosolids that are applied to the land. The rules set four different limits for pollutants, each defining a different standard for preparing and applying biosolids to land. Pollutants for which standards are set are arsenic, cadmium, chromium, copper, lead, mercury, molybdenum, nickel, selenium, and zinc.

Taken together, the pathogen reduction, vector attraction reduction, and pollutant limit standards define the quality of biosolids, and the conditions under which they can be applied to land. Biosolids are designated "exceptional quality" (EQ), if they meet the highest standard for pollutant limits, meet Class A pathogen reduction standards, and meet vector attraction reduction requirements. They must also meet monitoring, recordkeeping, and reporting requirements. Generally, EQ biosolids can be land applied without restriction.

State and Regional

Four California state agencies are involved in aspects of the proposed project: the California Integrated Waste Management Board (CIWMB), the Department of Toxic Substances Control (DTSC), the Air Resources Board (ARB), and the State Water Resources Control Board (SWRCB). All four of these agencies are part of the California Environmental Protection Agency. In addition, the California Occupational Safety and Health Administration (Cal/OSHA) regulates work places, including those of solid waste management facilities, to assure worker safety.

CIWMB is the principal State agency that regulates solid waste facilities. The CIWMB was created by the California Integrated Waste Management Act of 1989, Assembly Bill 939 (AB 939). The primary function of the CIWMB is to implement the goals and policies of AB 939 and related legislation. Among other responsibilities, the CIWMB reviews Solid Waste Facilities Permits for consistency with State laws, and approves designation of the Local Enforcement Agency for the waste management facility.

The CIWMB has established compost facility siting, design, and operation requirements; these regulations are found in CCR, Title 14, Division 7, and became effective July 31, 1995. Under these regulations, mixed solid waste composting facilities must obtain a full Solid Waste Facilities Permit. Pursuant to CCR Title 14 Section 17867, all composting activities must be conducted in a manner that minimizes vectors, odors, litter, hazards, nuisances and noise

impacts, including minimizing human exposure to inhalation, ingestion, and transportation of dust, particulates, and pathogenic organisms.

The DTSC regulates hazardous waste treatment, storage, and disposal facilities in California under numerous provisions of CCR, Title 22. When necessary, DTSC classifies materials as hazardous or non-hazardous.

The ARB is responsible for preserving and enhancing air quality within the State. Policies of the ARB are implemented in the region by the Mendocino County Air Quality Management District (MCAQMD). The MCAQMD regulates gas and particulate emissions that are typically associated with composting.

The Porter-Cologne Water Quality Control Act established the SWRCB and each of the nine Regional Water Quality Control Boards (RWQCBs) as the principal State agencies with primary responsibility for the coordination and control of water quality in the State. Mendocino County is within the jurisdiction of the North Coast Regional Water Quality Control Board. Water quality is discussed in Section 3.2, Hydrology and Water Quality, of this EIR.

Cal/OSHA and the Federal Occupational Safety and Health Administration are the agencies responsible for assuring worker safety in the handling and use of potentially hazardous materials in the workplace. In California, Cal/OSHA assumes primary responsibility for developing and enforcing workplace safety regulations. Cal/OSHA standards are generally more stringent than federal regulations.

Local

Local officials enforce public health standards developed and mandated by the CIWMB through Local Enforcement Agencies (LEAs) approved by the CIWMB. The LEA, the Mendocino County Division of Environmental Health, has the primary responsibility for ensuring that a solid waste management facility complies with all rules and regulations under its jurisdiction. The LEA issues a Solid Waste Facilities Permit for composting facilities, and maintains ultimate responsibility for enforcing all provisions pertaining to State minimum standards for solid waste handling and disposal. The LEA also has the responsibility to protect public health and safety, prevent environmental damage, and enforce long-term environmental protection.

EXISTING HAZARDS

Hazardous Wastes

Hazardous wastes are defined as wastes that pose a hazard to human health or the environment due to their flammability, corrosiveness, reactivity, or toxicity to living things. No hazardous

materials have been identified in materials brought to the site, and no hazardous waste violations were identified at the facility during a DTSC site inspection on September 11, 1996 (DTSC, 1996).

Accident History

No accidents related to equipment use or during on-site composting activities have occurred at the existing facility. Cal/OSHA records indicate that no inspections of the facility have been required (McCarthy, 1996).

Vectors

A vector is an animal capable of transmitting pathogenic microorganisms (disease) to humans. The vectors of greatest concern are flies and rats because of their ability to reproduce rapidly and disperse from the site. Other vectors of concern include birds and other insects. Operations of the existing facility do attract flies and bees. The LEA has not identified the numbers of insects present to be a health hazard (Morley, 1996a and 1996b).

Fire History

Compost piles can present a fire risk if poorly managed. Vegetation surrounding the facility includes scattered oaks and chaparral. The site is located in a region classified as a "very high" fire hazard severity zone. To date, there have been no instances of fire at the composting facility.

Sewage Sludge Biosolids

Federal regulations (40 CFR and 503) define sewage sludge as a solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in a treatment works. The Part 503 rules create incentives for the beneficial use of sewage sludge biosolids. EPA believes that sewage sludge biosolids are an important resource that can provide beneficial nutrients and organic matter that improve soils and that have other horticultural, and agricultural uses (EPA, 1994). The presence of human pathogens distinguish sewage sludge biosolids from other types of animal manure, and make their handling and processing potentially more problematic. Other constituents sometimes present in sewage sludge biosolids, such as heavy metals, solvents, and other potentially harmful substances, warrant particular concern.

Sewage sludge biosolids are not currently processed by CCCI, but the applicant has identified sewage sludge biosolids from publicly owned treatment works (POTWs) as a potential feedstock.

SENSITIVE RECEPTORS

The term "sensitive receptors" can refer both to population groups and to facilities or land uses where such groups are likely to reside or spend a substantial amount of time. The young, the old, and the infirm are considered sensitive receptors because they are more sensitive to chemical agents than the healthy working population. Schools, hospitals, convalescent homes, and residences are considered sensitive receptors because they have the potential to house or support these sensitive receptors. The closest school, hospital, or convalescent home is Potter Valley High School, approximately four miles north of the project site. Residential areas closest to the site are located on the west side of Potter Valley Road, approximately 4,800 feet from the project site.

Approach to Analysis

The composting facility is currently accepting many of the feedstocks proposed by the project. The facility receives an average of 54 tons per day of incoming material. Feedstock materials are stored on site until sufficient quantities exist to construct windrows. Temperature and water conditions are monitored daily to maintain conditions that enhance microbial activity. Process water is added to maintain optimal moisture. All compost is subjected to a process to reduce pathogens according to State regulations. The pathogen reduction process involves maintaining the windrows at an average temperature of 55 degrees Celsius (131 degrees Fahrenheit) for a period of 15 days or longer. During this time, each windrow is turned a minimum of five times, ensuring through exposure of all surfaces to thermophilic temperatures. Process water is added to maintain a moisture content of 40% to 60%. Total compost processing time ranges from a minimum of two months to a maximum of three months.

The composting processes under the proposed project would not change from the current operations. The following public health and safety concerns are addressed below: the potential for worker exposure to hazardous materials; worker exposure to other hazards; and public exposure to hazards.

IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

According to CEQA standards, a project would be considered to have a significant adverse impact on the environment if it would create a potential public health hazard; involve the use, production, or disposal of materials that pose a hazard to people, animal, or plant populations in the area affected; or if it would interfere with emergency response plans or emergency evacuation plans.

Impact 3.5.1 Workers at the Cold Creek Compost Facility could be exposed to hazardous materials brought to the site. (LESS THAN SIGNIFICANT)

Workers could be exposed to hazardous materials brought to the site in two ways: 1) hazardous material containers could be commingled with incoming feedstock and additive materials brought to the site; and 2) incoming compostable materials could contain hazardous constituents.

The project would allow additional feedstock materials and additives to be brought to the site. None of the proposed materials contain hazardous constituents. Additional feedstock materials may include: various animal manures (already accepted at the site); other agricultural materials, including grape pomace, plant trimmings, and culled fruit; green material; animal stall bedding; grocery store food waste; restaurant food waste; street sweepings (primarily from autumn leaf collections); fishery waste; and sewage sludge biosolids. Amendments and additives may include wood ash (including fly ash and scrubber ash), lime, rock phosphate, gypsum, or other commercial fertilizers. No contaminated soils would be accepted at the site.

Wood ash, including fly ash and scrubber ash, is brought to the facility via trucks from the Masonite Company and used as an additive or amendment. Both fly ash and scrubber ash are derived from wood used to fire Masonite's generator. The site would receive a total of 2,000 to 4,000 tons of fly ash and scrubber ash per year. Fly ash and scrubber ash samples were collected at the Masonite facility on September 4, 1996, to determine the characteristics of those materials. After analyzing sample results, DTSC determined that the fly ash and scrubber ash proposed for use in composting operations were not hazardous (DTSC, 1996). Other feedstock materials and additives are also not expected to contain hazardous materials.

As described previously, no hazardous materials have been brought to the site to date. The facility would not be open to the public. All contracts for the receipt of materials (i.e., feedstocks and additives) at the facility would stipulate that the facility does not accept hazardous wastes, and that such wastes are the generator's responsibility. For these reasons, it is not reasonably foreseeable that hazardous wastes would be commingled with incoming truck loads. CCCI has an obvious economic incentive to produce non-hazardous compost.

Pursuant to CCR Title 14, Section 17867(a)(2), facility staff would visually inspect all incoming materials. Curbside pick-up materials and other truck loads suspected of containing non-compostable materials would be unloaded at the grinding location, visually inspected, and separated. Non-hazardous materials would be placed in a debris box for regularly scheduled pick-up. Employees would be trained to recognize potentially hazardous materials and to treat any unidentifiable material as if it were a hazardous material. If hazardous materials are brought to the site, those materials would be held in the locked storage building at the facility until proper notifications can be made. The Redwood Empire Hazardous Waste Team would be contacted to

identify the substance and provide direction concerning appropriate actions. No hazardous wastes would be stored at the site longer than 90 days.

Since hazardous materials are not proposed for use at this site, and hazardous waste handling procedures would be implemented to remove any identified, this would be a less than significant impact.

Mitigation Measure 3.5.1:

Proposed as Part of the Project

Although the impact is less than significant, these features of the proposed project are presented to demonstrate the methods the facility would employ to prevent exposure to hazardous materials.

- a. Facility staff shall visually inspect all incoming materials.
- b. Hazardous wastes, if found, shall be held in locked storage and appropriate notifications would be made to assure proper disposal of those materials.

Identified in this EIR

None required.

Impact 3.5.2: Worker exposure to hazards during composting operations could exceed levels protective of health or safety. (SIGNIFICANT)

CCR Title 14, Section 17642, requires that employees be "adequately trained in subjects pertinent to the site operation and maintenance, with emphasis on safety, health, environmental controls and emergency procedures." The applicant is in the process of developing the site's Health & Safety Plan. In addition, the legally-required Injury and Illness Prevention Program (required by SB 198) provides for the training of personnel working with potentially toxic substances. Adequate personal protective equipment and monitoring programs are required by law. It is expected that compliance with provisions of Title 14 and SB 198 would automatically mitigate most potential worker health and safety impacts. Facility training, OSHA-required tailgate meetings, scheduled monthly health and safety meetings, and any necessary special training regarding equipment operation and emergency fire protection measures would be provided on a regular basis. The following safety equipment would be provided for site personnel and visitors: hard hats, gloves, earplugs, dust masks/respirators, safety goggles, and disposable coveralls.

Workers at the composting facility could be exposed to the following types of hazards: hazardous materials, physical hazards, noise, dust, human pathogens from sewage sludge biosolids, and *aspergillus fumigatus*.

Hazardous Materials. Workers and the general public can be exposed to hazardous materials through four principal routes: inhalation, direct skin and eye contact, ingestion, and injection or cuts (NIOSH, 1985). Since it has been determined that materials brought to and stored on site do not contain hazardous materials, the primary route of exposure for workers could be through inhalation of waste material in the form of dust.

Dust. Dust itself can be hazardous to worker health and safety under conditions of heavy exposure even if the dust is not contaminated. The American Conference of Governmental Industrial Hygienists (ACGIH) publishes Threshold Limit Values (TLVs) for airborne concentrations of substances representing conditions under which it believes nearly all workers may be repeatedly exposed day after day without adverse health impact. These TLVs are listed for time-weighted averages (TWAs) and short-term exposure limits (STELs). The TWAs for particulates (not otherwise classified) is 10 mg/m³ (milligrams per cubic meter) for inhalable particulates, and three mg/m³ for respirable particulates (ACGIH, 1995). Inhalable particulates are those materials that are hazardous when deposited anywhere in the respiratory tract, while respirable particulates refer to those materials that are hazardous when deposited in the gas-exchange region. While this level represents relatively dusty conditions, it is possible that levels at the site could occasionally exceed this safety standard if dust control measures are not effective. Exceeding the TWAs occasionally would not be a significant problem. There are also TLVs for various metals and organic compounds. Exceeding worker safety standards, if it occurred, would be considered a significant impact of the project unless actions were taken to reduce worker exposure; use of proper protective clothing and respirators, if needed, would eliminate the potential for this impact to occur.

Dust conditions are highly dependent on the types of operations that occur at the facility and how materials are stored on site. While some grinding of green material would occur on site, most grinding operations would occur off site. Although dust generation from the grinding operation would be minimal due to the high moisture content of the incoming material, the grinding operations would be closely monitored and moisture suppression would be employed to minimize any excessive dust generation. Storage of amendments and additives would be confined to the compost pad. During unloading and mixing operations, moisture suppression would be used as needed to control dust and particulate emissions. Stored materials would be securely covered. The high moisture content of most incoming material would prevent windblown distribution. Dry materials that could generate dust would be covered immediately after delivery.

***Aspergillus fumigatus*.** Section 3.3, Air Quality, discusses in detail health concerns related to *Aspergillus fumigatus*, how it is dispersed, and typical spore concentrations. A study of compost facilities in the United States found airborne concentration of *Aspergillus fumigatus* at the active site of operations to be, on the average, 10-fold higher than background levels (CIWMB, 1993). Without dust control measures (e.g., proposed water suppression measures), there is an elevated risk of exposure to spores for workers at compost facilities. The following practices would be employed to minimize spore dispersal: scheduled windrow turning; screening and loading activities during low wind conditions; temperature and moisture monitoring; and good housekeeping practices. Workers would be provided with protective clothing, gloves, and respirators to protect them from high concentrations of *Aspergillus fumigatus*.

Noise. Excessive noise levels can result from operating heavy equipment. Such noise levels may cause hearing loss and increased stress, which may lead to such effects as nervousness, irritability, constriction of blood vessels, and heart disease. Excessive noise levels can also reduce job performance and contribute to accidents. The OSHA-established regulatory limit for worker noise exposure is an eight-hour time-weighted average of 90 decibels measured on the "A" scale of frequency distribution (90 dBA). The action level requiring a hearing conservation program is 85 dBA. Workers at the facility could be exposed to noise levels exceeding the 85 dBA threshold. Compliance with OSHA hearing conservation regulations would ensure that this impact is less than significant.

Physical Hazards. Movement and operation of vehicles, use of equipment, and other on-site activities generate potential accident hazards for employees at composting facilities. Accidents could be caused by equipment failure, human error such as carelessness or fatigue, or natural events such as storms, earthquakes, or floods. Regardless of how well managed a facility is and how well trained its employees are, accidents are unplanned events that inevitably occur.

The Report of Composting Site Information (RCSI) describes provisions for signage, sanitary facilities, water supply, communications, lighting, back-up generator power, and personal protective equipment. Because there has been no historical evidence of physical accidents at the site, and adequate control measures would be implemented to ensure workers are protected from accidents to the extent feasible, the potential for on-site accidents would be less than significant.

Sewage Sludge Biosolids. The handling and composting of sewage sludge biosolids presents potential hazards to facility workers. These include dust (discussed above), asthma and/or other allergic and hypersensitivity reactions to molds, fungus, bacteria and endotoxins, potential exposure to airborne diseases and human pathogens, exposure to heavy metals, solvents and other potentially hazardous substances, and exposure to needlestick and other sharps-related injuries. As discussed above, Title 14 requires adequate training in subjects pertinent to site operation and maintenance. Proper training and education on the potential hazards and proper handling and processing procedures for sewage sludge biosolids would mitigate this impact to

less than significant. In compliance with applicable OSHA regulations, all personnel operating equipment and handling sewage sludge biosolids should be trained in proper facility and equipment operations and maintenance. Newly introduced feedstocks, like sewage sludge biosolids, should have feedstock-specific worker health and safety plans developed as part of the permitting process.

Mitigation Measure 3.5.2:

Proposed as Part of the Project

- a. New employees shall be provided copies of the RCSI, the SWPPP and the facility Use Permit, and shall be familiarized with requirements of all regulatory agencies. All employees shall be familiarized with facility operations and with the contents of the CIWMB LEA Advisory No. 6, regarding *Aspergillus fumigatus*.
- b. The Facility Manager shall schedule regular health and safety meetings to ensure regulatory compliance, and update facility personnel with any changes or new information pertaining to worker health and safety.
- c. Water and equipment for dust suppression would be available at grinding, turning, screening, and dry material unloading operation areas.
- d. Temperature and moisture monitoring of windrows would be employed.
- e. Facility personnel and visitors would be provided with hard hats, gloves, earplugs, dust masks/respirators, safety goggles, and disposable coveralls pursuant to State law and OSHA regulations.
- f. Facility personnel would be provided with hearing protection equipment (e.g., ear muffs or ear plugs) pursuant to State law and OSHA regulations.
- g. Facility access would continue to be controlled to discourage unauthorized entry by persons or vehicles, and would not be open to the public.
- h. The facility would be equipped with signage, sanitary facilities, water supply, communications, equipment, lighting, and a back-up generator.
- i. Any accidents that occur would be recorded in a daily log kept at facility offices.

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- j. Site employees shall wear a high visibility vest during all facility operations so as to be easily seen by other workers and visitors to the site.
- k. Newly introduced feedstocks, such as sewage sludge biosolids, should have feedstock-specific worker health and safety plans developed as part of the permitting process.
- l. Best Management Practices (BMPs) shall be implemented to minimize exposure of facility workers. This should include:

- A handout shall be developed which explains in common terms the health aspects and proper handling procedures for waste products. The handout will be distributed to all current employees and new employees.
- All facility operations personnel shall be trained in safe, proper composting procedures and related activities. Proper operating procedures should be reviewed annually and be repeated as needed for new employees.

Level of Significance After Mitigation

Implementation of the above measures would render Impact 3.5.2 less than significant.

Impact 3.5.3: Composting operations would increase the potential for hazards that could pose threats to public health or safety. (SIGNIFICANT)

Air quality and *Aspergillus fumigatus* impacts on nearby sensitive receptors are discussed in detail in Section 3.3, Air Quality. Potential impacts on water quality are discussed in Section 3.2, Hydrology and Water Quality.

Fires. According to CIWMB staff, the occurrence of composting fires is infrequent, but the potential does exist (Blakesley, 1996). The risk of fire within a windrow or material stockpile increases as the moisture content decreases below the optimum composting range of 40% to 60%. Typically, fires are a result of poor management practices (e.g., improper temperature and moisture balance) (Hambleton, 1996). Fires at a composting facility could result from internal heat generated by decomposition. Sparks from equipment may also pose a fire hazard.

The project involves handling and storage of organic materials that are combustible. These materials, when stockpiled, pose a risk of fire hazard as internal heating and spontaneous combustion can occur. An uncontrolled fire at the site could spread to surrounding off-site areas and jeopardize the health and safety of nearby residences. To address these concerns, temperature and moisture monitoring would be monitored daily to maintain conditions conducive to optimum microbial activity. Process water would be added as needed to maintain a moisture content of 40% to 60%.

Other fire risk mitigation measures have been included in the project design. These are detailed in the facility's RCSI. The applicant would maintain a passive perimeter fire break consistent with local regulations, including removal of all brush and combustible fuels. The grass buffer strip surrounding the pad, required in the facilities SWPPP for sediment control, will be kept mowed or grazed during the dry season. The applicant would provide signage regarding standard fire safety information and emergency contact information at the truck scales, maintenance facilities, offices, and other locations as deemed necessary by facility staff or the

LEA. All equipment would be fitted with spark arresters, as required by the California Department of Forestry. Permanent on-site mobile water equipment would be readily available for use at all times. Equipment used in normal daily operations would also be available for use in emergency situations. Any additional standby equipment required by the LEA during the fire season would be provided. Open burning at the facility would be expressly prohibited.

Composting operations would occur under a covered roof structure equipped with a sprinkler system or on the compost pad (in areas where the roof is not completed). The use of the sprinkler system and maintenance of appropriate moisture and temperature levels should minimize the risk of fires occurring in the active compost piles. Because the majority of materials at a well-managed compost facility are of a high moisture content, fires are most likely to smolder rather than flare up. Compost fires are extinguished by adding large amounts of water and breaking down the affected piles. Facility equipment, the wheel loader and the water truck, can be used for this in the event of a fire. Additional mitigations may be required by local fire protection agencies. Maintenance of appropriate moisture content and regular temperature monitoring would render this impact less than significant.

Vectors. The creation of nuisance level vectors and the potential spread of diseases by vectors can be mitigated through maintenance of site drainage features ensuring the elimination of standing water; rapid incorporation (within 48 hours) of newly arrived materials, particularly nitrogen-rich materials like manures, grape pomace, and sewage sludge biosolids; stockpiling carbon rich materials to assure an adequate supply; proper management of key compost process parameters (temperature, oxygen, moisture content); and regular turning. The LEA inspects the site monthly and is able to identify vector problems. It has been noted by the LEA that flies may become a problem due to the static pile composting (Morley, 1997). The facility operator currently employs biological methods to control fly populations. These methods include the release of parasitic wasps and the use of traps which use pheromone attractants. These methods were implemented during the spring and summer of 1996, and according to the applicant have reduced the fly populations at the site.

Sewage Sludge Biosolids. As discussed above (under impact 3.5.2), sewage sludge biosolids, if improperly processed or handled, have the potential to impact public health and safety. Proper composting of sewage sludge biosolids incorporates a time/temperature regime to ensure destruction of harmful pathogens and other organisms which could be harmful to humans. Federal and State regulations require compliance with this time/temperature regime to ensure pathogen kill. However, unless properly handled, treated (i.e., composted and pathogen-reduced) sewage sludge biosolids can be re-infected with non-processed materials. The applicant would need to develop an operating plan which minimizes the potential to re-infect treated material from cross-contamination. Equipment used to turn and form windrows must be thoroughly cleaned before proceeding to treated materials. Treated materials must be segregated

from untreated materials. Facility operations personnel must be instructed in ways to minimize potential for contaminating treated materials. Finished compost materials must be stored upgradient from untreated materials to prevent contamination.

Mitigation Measure 3.5.3:

Proposed as Part of the Project

- a. Temperature and moisture monitoring of windrows shall be employed.
- b. A perimeter fire break, including removal of brush and combustible fuels, shall be maintained. Clearing of vegetation for fire protection shall minimize disruption of vegetation root structures and soil-holding properties, such that erosion is minimized. The width of the fire break will be determined in consultation with the Fire Marshal or with the California Department of Forestry.
- c. All equipment shall be fitted with spark arresters.
- d. The existing roof structure is equipped with a sprinkler system.
- e. Any special or unusual occurrences such as fire, property damage, or incidents related to hazardous wastes would be recorded in a daily log kept at the facility offices.
- f. The project applicant shall install fencing adequate to exclude range animals and contain litter, as approved by the Planning and Building Services Department. At a minimum, fencing shall encompass the compost pad.
- g. The applicant shall employ appropriate management techniques to eradicate vectors identified by the LEA.

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- h. The applicant shall meet with the Fire Marshal of the local fire department to develop a Fire Prevention Plan specific to the characteristics and activities of the site. The applicant shall obtain verification from the California Department of Forestry that the revised project meets the requirements of the Final Clearance.
- i. If vectors become a problem, the project applicant shall implement a vector eradication program using a professional pest control service.
- j. The Applicant shall develop a detailed operating plan to be reviewed by the LEA, prior to accepting any sewage sludge biosolids. The operating plan shall identify likely sources of material, material characteristics (percent solids, Class A or Class B designation, constituents, etc.), volumes and types of materials, material flow through the facility, plans to reduce pathogens, plans to educate employees about potential health risks associated with sewage sludge biosolids, plans to prevent biosolids from re-contaminating finished product or windrows that have begun the pathogen reduction process, and other relevant information as requested by the LEA.

Level of Significance After Mitigation

Implementation of the above measures would render Impact 3.5.3 less than significant.

REFERENCES - Public Health and Safety

American Conference of Governmental Industrial Hygienist (ACGIH), *Threshold Limit Values and Biological Exposure Indices*, 1995.

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Department of Toxic Substances Control (DTSC), Inspection Report for Cold Creek Compost, Inc., prepared by Luz Castillo and Anotia Becker, September 11, 1996.

Hambleton, Suzanne, Supervisor of Permitting and Enforcement, CIWMB Permit Division, telephone conversation, December 9, 1996.

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Morley, John, LEA, County of Mendocino, Public Health Department, Division of Environmental Health, CCCI site review with ESA, September 16, 1996a.

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Morley, John, LEA, County of Mendocino, Public Health Department, Division of Environmental Health, Letter to Pamela Townsend, January 6, 1997.

NIOSH, *Occupation Safety and Health Guidance Manual for Hazardous Waste Site Activities*, Publication Number 85-115, 1985.

US EPA, *A Plain English Guide to the EPA Part 503 Biosolids Rule*, EPA/832/R-93-003, September 1994.

3.6 TRAFFIC AND CIRCULATION

SETTING

EXISTING ROADWAY SYSTEM/TRAFFIC VOLUMES

U.S. 101 and State Route (SR) 20 are regional-serving roadways in the project area (see Figure 2.1 in Project Description). U.S. 101 serves as the primary north-south access route through Mendocino County, linking the project area to Willits and points north, and Ukiah and points south. U.S. 101 ranges from a two-lane expressway to four-lane freeway in the project vicinity, with Annual Average Daily Traffic (AADT) volumes ranging from approximately 16,700 to 22,400 vehicles per day (vpd) (Caltrans, 1996). SR 20 extends southeast from U.S. 101 to Clear Lake and locations east of the project area. SR 20 ranges from a two to four-lane expressway in the project vicinity, with AADT volumes ranging from approximately 7,400 vpd to 9,100 vpd (Caltrans, 1996).

County Road 240 (Potter Valley Road) is a two-lane roadway that extends north from SR 20 to the Town of Potter Valley (see Figure 2.1 in Project Description). Daily traffic volumes on Potter Valley Road are approximately 3,100 vpd (County of Mendocino, 1996). The maximum posted speed limit on Potter Valley Road is 45 miles per hour (MPH).

Truck traffic on U.S. 101, SR 20 and Potter Valley Road in the project vicinity account for approximately 10% of total traffic on these roadways (Caltrans, 1994; County of Mendocino, 1993).

SITE ACCESS

The entrance to the Cold Creek Composting Facility is located off Potter Valley Road, approximately 0.2 miles north of SR 20. Potter Valley Road contains two 11-foot travel lanes in this vicinity. The facility access road forms a T-intersection with Potter Valley Road, and extends northeast to the facility. This intersection is stop-controlled for vehicles leaving the facility access road and entering Potter Valley Road only. "Truck Crossing" signs are posted on Potter Valley Road on the approaches to the facility access road. The facility access road extends in a northeasterly direction for approximately 2.05 miles from Potter Valley Road to the compost facility.

The facility access road intersects with Potter Valley Road along a sharp curve approximately 70 feet south of the East Side Potter Valley Road Bridge (State Bridge 10C-102). Potter Valley Road has experienced a history of vehicular accidents in the bridge vicinity. During the period of January 1989 through mid-August, 1996, there were eight reported accidents, involving 11 injured persons and two fatalities, although none of these occurred after 1993 (County of Mendocino, 1996). None of these accidents involved Cold Creek Compost Facility vehicles. Due to the safety issues associated with the alignment of Potter Valley Road in the vicinity of the

bridge, and structural deficiencies identified with the bridge, the County is proposing to realign Potter Valley Road and replace the East Side Potter Valley Road Bridge with a new bridge.

IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

A project that would cause an increase in traffic that is substantial in relation to the existing load and capacity of the street system is considered to have a significant impact on the environment. Appendix I of the *CEQA Guidelines* indicates that a project could have a significant impact if it would result in an increase in traffic hazards to motor vehicles, bicyclists, or pedestrians.

Impact 3.6.1: The proposed project would generate new off-site vehicle trips, including truck trips, on roadways serving the project site. The projected increase in daily vehicle trips would not significantly disrupt traffic flow or increase congestion on roadways serving the project site. (LESS THAN SIGNIFICANT)

Trip Generation. The facility currently receives a variety of feedstocks. Due to the seasonal production of some of the facility's feedstocks, types and amounts of feedstocks accepted at the facility fluctuates throughout the year.

The proposed facility design capacity is a maximum 50,000 tons per year (tpy) of incoming material; based on an estimated 250 days of receiving feedstocks in the year, this amounts to an average of 200 tons per day (tpd) of incoming materials. The facility could be open 312 days a year, but would not be busy during all seasons. For purposes of this EIR, a worst-case scenario is presented that assesses the projected daily trip estimates during a peak delivery period, based on the facility's design capacity of 400 tons per day (tpd). Furthermore, as a conservative estimate, the total projected trip estimates includes any existing traffic generated at the facility, including truck trips that occur under the facility's current land use permit.

The facility will not be open to the public. Off-site truck traffic generated by the facility would consist primarily of Class 8 (18-wheel) trucks (with 45,000 pound haul capacities) and some Class 7 (10-wheel) smaller-capacity trucks. It is estimated that approximately half of the trucks delivering the incoming feedstock would backhaul out the finished compost (Anderson, 1996a). The peak daily truck trips associated with delivery of incoming feedstock and outgoing compost is estimated for this analysis to be approximately 36 truck round-trips (72 one-way trips) per day. Additional off-site truck traffic would be associated with the proposed delivery of brewery wastewater to the facility for use with the compost. The truck delivering this brewery wastewater would have a 4,000 gallon capacity. At maximum production volume of 12,000 gallons per day, this truck could make up to three round-trips per day (Anderson, 1996b). Thus, the total peak daily truck trips associated with the facility operations would amount to approximately 40 round-trips per day (80 one-way trips).

Additional trips would be generated by employees at the Facility. Off-site employee trips could account for an additional five to 10 round-trips a day.

Trip Distribution. Given the potential locations of feedstock sources and market areas for finished compost for the project (including locations within the Counties of Mendocino, Humboldt, Lake, Sonoma and Yolo), it is anticipated the great majority of truck traffic would access the project vicinity from south of the project site on Potter Valley Road (from SR 20), with only a nominal amount of truck traffic originating or destined to areas north of project site via Potter Valley Road.

Using the peak-day trip generation rates discussed above, daily traffic volumes would be increased by less than three percent on Potter Valley Road, less than two percent on SR 20, and less than one percent on U.S. 101. This increase in traffic would fall within the normal fluctuations of daily traffic on these roadways, and would not significantly disrupt daily traffic flow or increase congestion on roadways serving the project site. However, truck traffic generated by the project will result in an increase in truck traffic of approximately 25% on Potter Valley Road between SR 20 and the facility access road.

Deliveries to the facility hours would generally be from 7:00 a.m. to 6:00 p.m., Monday through Saturday (no operation on Sunday). Project trips would be expected to be distributed relatively evenly throughout the work day. Using the peak day daily trip generation rates discussed above, and a typical 10-hour work day, a truck would be expected to either enter or leave the facility every seven to eight minutes during the course of the work day. Because these trips would be dispersed throughout the day, they would not significantly affect peak-hour traffic on area roadways. The occasional nighttime deliveries of grape pomace during the crush would not significantly disrupt traffic flow or increase congestion.

The peak traffic scenario presented above would be seasonal in nature and of limited duration.

Mitigation Measure 3.6.1:

None required.

Impact 3.6.2: (Interim between implementation of the proposed project and the completion of the County-planned realignment/bridge replacement): The existing project access road intersects with Potter Valley Road along the south approach to the East Side Potter Valley Road Bridge (State Bridge 10C-102). The County has determined the bridge and south approach to the bridge to have existing safety deficiencies. The introduction of project traffic at this location would increase the potential for conflicts. (LESS THAN SIGNIFICANT)

Due to the existing safety issues associated with the alignment of Potter Valley Road in the vicinity of the bridge, and structural deficiencies identified with the bridge, the County is proposing to realign Potter Valley Road and replace the East Side Potter Valley Road Bridge with a new bridge. An Initial Study/Negative Declaration was recently completed for the bridge replacement project, and preliminary engineering drawings for the roadway realignment have been prepared by the County. The proposed Potter Valley Road realignment would extend along the east side of the East Fork Russian River and cross the river approximately 1,200 feet north of the existing bridge. The replacement bridge will feature a 1.57 meter sidewalk on either side of the bridge. Construction is expected to begin in the summer of 1997 and span two construction seasons (Mendocino County, 1997).

During the period between implementation of the proposed project and the completion of the County-planned realignment/bridge replacement project, the addition of project trips would increase interaction between project traffic and other motor vehicles on project roadways at this location, and thus would increase the potential for conflicts. However, project-generated trips would not be expected to result in a significant increase in the potential for accidents. The majority of project vehicle trips would occur during off-peak traffic periods. Existing "Truck Crossing" signs are present on Potter Valley Road on the approaches to the CCCI access road to alert drivers and bicyclists of the presence of project trucks. Other than park users leaving their vehicles (see Impact 3.6.3), there is virtually no pedestrian traffic in the project vicinity.

The completion of the planned roadway realignment/bridge replacement project would improve existing safety conditions in the project area. Aspects of the proposed project (e.g., number of truck trips and types of trucks) are being taken into account in the design of the realignment/bridge replacement project, including the placement and design of the compost facility access road connection to the realigned Potter Valley Road (Rockway, 1997).

Mitigation Measure 3.6.2:

None required.

Impact 3.6.3: (Interim between implementation of the proposed project and the completion of the County-planned realignment/bridge replacement): Instances could occur when project trucks that would need to wait along the shoulder of Potter Valley Road outside the project entrance would be prevented from doing so by the presence of recreational-related parked vehicles associated with McKee County Parkway. (LESS THAN SIGNIFICANT)

A roadway cutout currently exists along the northbound approach to the project access road on Potter Valley Road (east shoulder of roadway) that allows the facility trucks to pause outside the

access road (for example, in instances when an incoming truck is waiting for an outgoing truck to exit the facility access road).

During periods of peak use of McKee County Parkway (primarily on weekends, during the warmer months), McKee County Parkway's limited parking areas do not meet the parking demand. As a result, recreationists resort to using the shoulder along Potter Valley Road, including the aforementioned cutout near the project access entrance.

Instances could occur when project trucks that would need to wait along this shoulder would be prevented from doing so by the presence of recreational-related parked vehicles, resulting in the truck having to wait within (or partially within) the travel lane of Potter Valley Road. This condition would be a traffic safety hazard to other northbound traffic, as well as southbound traffic (if northbound traffic were to enter the southbound travel lane to go around the paused trucks). Although this condition would be infrequent, this occurrence would be considered an adverse less-than-significant impact on safety conditions.

Mitigation Measure 3.6.3:

Identified in this EIR

- a. Post "No Parking" signs on northbound approach to the project access road on Potter Valley Road (east shoulder of roadway).

This mitigation measure would prohibit parking by recreationists from McKee County Parkway along the access road approach, and maintain this stretch of shoulder for project trucks to wait. However, to be effective, this measure would require enforcement by the Mendocino County Sheriff's Department.

Impact 3.6.4: The existing project facility access road is unpaved along its length, and steep and winding in sections. This roadway could pose a traffic safety hazard if unsafe driving conduct occurred by truck operators. (LESS THAN SIGNIFICANT)

All project traffic uses a single internal road to access the facility. The facility access road extends in a northeasterly direction within Guntly Ranch for approximately 2.05 miles, ascending approximately 650 feet from Potter Valley Road to the compost facility. This unpaved roadway is approximately 18 feet wide, with some wider sections as well as cutouts along its length. The roadway is not wide enough in all locations to allow two-way travel of haul trucks; currently, the trucks use radio control to coordinate access in and out of the facility.

The access road begins with a gradual slope at the lower end, becoming more steep and winding as it approaches the peak of the ridge. Project-related truck operators can safely negotiate the access road if safe driving practices are conducted (e.g., safe driving speed, proper radio

communication between drivers inside access road). However, this road could pose a traffic safety hazard (to the drivers themselves, and well as creating a potential environmental hazard from spillage of haul loads) if unsafe driving conduct occurred by truck operators.

Mitigation Measure 3.6.4:

Identified in this EIR

- a. The applicant shall post a speed limit on the project access road that would ensure safe travel speed by project traffic.
- b. The applicant shall review their system of using radio control to coordinate access in and out of the facility in light of the proposed increase in truck traffic on this road.
- c. An accident reporting system shall be prepared that would allow immediate contact of emergency services if a truck accident should occur on the project access road.
- d. The applicant shall be responsible to assure that the access road is properly maintained for safe driving conditions.

REFERENCES - Traffic and Circulation

1993 Annual Average Daily Truck Traffic on the California State Highway System, Caltrans, 1994.

1995 Traffic Volumes on California State Highways, Caltrans, 1996.

Anderson, Eric, General Manager, Cold Creek Composting, Inc., letter to Environmental Science Associates, December 10, 1996b.

Anderson, Eric, General Manager, Cold Creek Composting, Inc., telephone conversation, December 18, 1996a.

Mendocino County Department of Public Works, traffic data for Potter Valley Road, April, 1993, and August, 1996.

Mendocino County Department of Public Works, *Initial Study for the East Side Potter Valley Road Bridge Replacement Project (No. 10C-102)*, October, 1996, and memorandum to Mendocino County Department of Planning and Building Services, March 4, 1997.

Rockway, Chris, engineer, URS/Greiner, Inc. (consultant to County for East Side Potter Valley Road Bridge Replacement Project (No. 10C-102), telephone conversation, March 13, 1997.

CHAPTER 4

IMPACT OVERVIEW

4.1 GROWTH-INDUCING IMPACTS

Section 15126 (g) of the CEQA *Guidelines* requires an EIR to evaluate the growth-inducing impacts of a proposed action. A growth-inducing impact is defined as one that could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in the definition are public works projects which would remove obstacles to population growth. Any infrastructure project involving the creation of capacity to serve any new level of development (*e.g.*, extension of roads, sewer lines, water lines, etc.) may be growth inducing.

The environmental effects of induced growth are secondary, or indirect, impacts of a proposed action. Secondary effects of growth include increases in the demand on community services and infrastructure, increased traffic and noise, and conversion of agricultural and open space land to developed use. Inducement of disorderly growth that is inconsistent with local land use plans generally causes significant, adverse environmental impacts.

The Cold Creek Compost Facility project involves composting operations for a service area to include surrounding regions, such as areas in Mendocino, Humboldt, Lake, Napa, Sonoma, and Yolo Counties. Without this project, near-term future development in these counties could occur, and existing development could continue to function properly. The Cold Creek Compost Facility project would not remove any obstacle to near-term development and urban growth in Mendocino County, because other options for disposal (*e.g.*, landfilling) are now used and would be available in the future. The Cold Creek Compost Facility project would not foster substantial population growth, or the construction of additional housing, either directly or indirectly, or any substantial economic growth; therefore, the Cold Creek Compost Facility project would not be considered growth-accommodating or growth-inducing within Mendocino County.

4.2 CUMULATIVE IMPACTS

Section 15130 of the CEQA *Guidelines* requires consideration in an EIR of potential environmental impacts that are individually limited but cumulatively significant. The cumulative impact from several projects is the change in the environment that results from the incremental effect of the project when evaluated in conjunction with other closely-related past, present, and reasonably foreseeable future projects.

The cumulative development considered in conjunction with a project is related to the type of environmental impact evaluated, and the location of probable impacts. Other than the CCCI facility, there are no other solid waste facilities (e.g., composting, recycling facilities or landfills) near the site. The specific past and reasonably foreseeable projects considered in conjunction with the Cold Creek Compost Facility Project include:

- *Cellular Tower, Variance #8-96*, located approximately two miles southeast of the CCCI facility. This project includes the construction of a 150-foot-tall communications tower on a 160-acre parcel of the Guntly Ranch property. The project requires a variance to the Mendocino County Code's maximum allowable height limit of 60 feet. A CEQA Negative Declaration for the project was approved on October 3, 1996.
- *Potter Valley Road Bridge Replacement*, located adjacent to the project site. The Mendocino County Department of Public Works proposes to replace the East Side Potter Valley Road Bridge with a new bridge because of safety issues associated with the sharp curve at the south side of the bridge, and because of structural deficiencies. The project consists of construction of a replacement bridge and the realignment of the approach roadway. The realignment would occur on a portion of the Guntly Ranch property used to access the CCCI facility. A CEQA Negative Declaration for the project was approved in December, 1996.
- *Parnum Paving, Inc., Gravel Extraction*, located approximately three miles southeast of the CCCI facility. This project includes the renewal of a use permit for the removal and processing (crushing/screening) of 100,000 to 300,000 cubic yards of rock per year for a period of 10 years, with a maximum extraction not exceeding 1,000,000 cubic yards of rock from an existing hillside quarry. Renewal of the use permit was approved, and a CEQA Negative Declaration for the project issued on September 27, 1994.

While implementation of the project itself may result in some mitigable environmental impacts, there are no other similar projects (current or future) near the project site that would result in cumulative impacts. Due to the nature and type of other foreseeable projects in the project vicinity, they would not contribute to the cumulative impact of odors and *Aspergillus fumigatus* on nearby sensitive receptors. Construction of the cellular communication tower will occur in an area that consists of grazing land only; no residences are within the vicinity and, therefore, no significant cumulative visual impacts to surrounding areas are expected. These projects would not carry leachate or sediments to the East Fork Russian River and, therefore, implementation of the project would not result in any significant cumulative impacts to water quality or hydrology. Noise from cumulative development in the area would primarily occur from increases in motor vehicle traffic. The addition of project-generated and cumulative traffic would not significantly increase traffic noise levels at nearby sensitive receptors. Traffic related to the gravel quarry would utilize State Route 20 as trucks haul materials to and from the company's Ukiah plant, and would therefore affect residences at other locations than those affected by project-related traffic noise from the Cold Creek Compost Facility. Cumulative traffic and noise impacts from these projects would be less than significant. The replacement bridge and approach roadway will be

designed to allow for safe entrance to and exit from the Cold Creek Compost Facility. Other projects together with this project do not act to change the rural, agrarian character of the area.

4.3 RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF THE ENVIRONMENT AND LONG-TERM PRODUCTIVITY

According to Section 15126(e) of the CEQA *Guidelines*, the purpose of this section is to:

"describe the cumulative and long-term effects of the proposed project which adversely affect the state of the environment. Special attention should be given to impacts that narrow the range of beneficial uses of the environment or pose long-term risks to health or safety. In addition, the reasons why the proposed project is believed by the sponsor to be justified now, rather than reserving an option for further alternatives, should be explained."

Prior to composting, the site was part of the overall Guntly ranching operation in the form of unimproved range. Access to the site was improved.

Once operation ceased, the site would be cleared of feedstocks, compost, and associated materials. The office and scales, as well as the water tanks, could be removed. The compost pad and access roads would remain. The roofed structure, if not removed, could be used to cover/store agricultural materials and equipment. It is unlikely that the compost pad would be rehabilitated for pasture. The water tanks could be retained for fire suppression. The use of the property for agricultural purposes, excluding use of the compost pad for grazing, would remain viable. Impacts associated with the continued exclusion of the compost operation from the agricultural preserve would be insignificant.

Although site development would curtail the use of the compost pad area for production of range feed, site development would have little effect on potential future uses of the larger site, and there would be no long-term effects of the Cold Creek Compost Facility project. Use of the site for composting is serving to assist local communities in complying with State waste diversion mandates (AB 939) to divert 50% of wastes by the year 2000. The proposed composting operations would result in short-term beneficial effects by diverting materials that may otherwise be landfilled, and by producing a product beneficial for agricultural use. Since Mendocino County has limited remaining permitted landfill capacity, the project has the regional benefit of helping to conserve the remaining permitted landfill capacity in the region.

4.4 UNAVOIDABLE SIGNIFICANT ADVERSE IMPACTS

The potentially significant adverse effects of the Cold Creek Compost Facility project are listed in Sections 3.1 through 3.6. Mitigation measures have been identified that would reduce all of the significant impacts to a level of insignificance. Therefore, there are no unavoidable significant effects of the project that cannot be mitigated.

4.5 EFFECTS FOUND NOT TO BE SIGNIFICANT

At the onset of the project, the County determined that the preparation of a Negative Declaration would be adequate for the proposed project. In February 1995, the Mendocino County Board of Supervisors upheld, on appeal from the Planning Commission, the Negative Declaration and Use Permit (#U 26-93) to compost the range of feedstocks proposed at that time as part of the project. Superior Court Order No. CV71886, Preserve County Neighborhoods v. County of Mendocino, later determined that an EIR should be prepared and should focus on the following concerns:

1. The effect of compost leachate on domestic water wells in the area, the Russian River and Lake Mendocino, and the effect of the construction of a roof (shed) over a 3.5-acre portion of the compost pad.
2. The public health impacts on ground and surface water, *Aspergillus fumigatus*, and impacts related to traffic noise, safety, and odors.

Pursuant to the Superior Court Order, this EIR was prepared to cover only those topics identified as requiring further environmental review including:

- Visual Resources
- Hydrology and Water Quality
- Air Quality
- Noise
- Public Health and Safety
- Traffic and Circulation

Effects that were not found to be potentially significant for the proposed project and were not identified as areas of concern by the Superior Court or commenting agencies (and therefore not focused on in this EIR) include:

- Geology and Seismicity
- Land Use, Plans and Policies
- Biological Resources
- Cultural Resources
- Energy Resources
- Population, Housing and Employment
- Community Services

CHAPTER 5

ALTERNATIVES

The California Environmental Quality Act (CEQA) requires an evaluation of the comparative effects of a range of reasonable alternatives to a project that could feasibly attain the basic objectives of the project (CEQA *Guidelines* Section 15126 (d)). The range of alternatives is governed by the "rule of reason" requiring the EIR to set forth only those alternatives necessary to permit a reasoned choice. An EIR need not consider an alternative whose effect cannot be reasonably ascertained or whose implementation is remote and speculative (CEQA *Guidelines* Section 15126 (d)(5)). Evaluation of a No-Project Alternative is required. If the environmentally superior alternative is the "No-Project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives (CEQA *Guidelines* Section 15126(d)(2)). This discussion of alternatives shall focus on alternatives capable of avoiding or reducing significant environmental effects, even if the alternatives "... would impede to some degree the attainment of the project objectives, or would be more costly" (CEQA *Guidelines* Section 15126(d)(3)). The significant effects of the alternatives shall be discussed, but in less detail than the significant effects of the project (CEQA *Guidelines* Section 15126 (d)(4)).

This EIR considers three feasible alternatives that provide a reasonable range to full build out of the project.

- A. The **No-Project Alternative** assumes that the CCCI would continue animal waste composting on its site as permitted under the existing land use zoning of the site, and would not expand the feedstocks to the extent proposed by Use Permit #U 26-93.
- B. The **Off-Site Alternative** evaluates the composting facility project as proposed at an alternative off-site location near Covelo.
- C. The **Reduced-Project / Mitigated Alternative (No Biosolids)** evaluates the compost facility at a reduced facility design capacity of 30,000 tons per year of incoming materials, and considers a number of design modifications that would further reduce any potential negative environmental impacts of the project. This alternative removes sewage sludge biosolids as a potential feedstock.

Each alternative discussion below includes a description, text analyses of environmental effects compared to the project, and the status of the alternative, which will include whether the alternative has been accepted, rejected, or is under consideration by the applicant. Table 5.1 summarizes the impacts and significance levels of the proposed project and the three alternatives. Per the CEQA *Guidelines* (Section 15126 [d]), Table 5.1 was analyzed to

TABLE 5.1
IMPACTS AND SIGNIFICANCE LEVELS OF THE PROJECT AND ALTERNATIVES /a,b/

Impact	Proposed Project	A. No Project	B. Off-Site Alternative	C. Reduced Project / Mitigated Alternative
<u>Visual</u>				
3.1.1 Degradation in view from surrounding areas.	NS(M)	E	E	L
<u>Hydrology and Water Quality</u>				
3.2.1 Stormwater runoff carrying leachate to surface waters.	S/M	L	G	L
3.2.2 Stormwater carrying sediments to surface waters.	S/M	E	G	E
3.2.3 Leachate percolation through compost pad to groundwater.	NS(M)	L	E	L
3.2.4 Spillage of leachate and brewery process water from storage tanks.	S/M	E	L	E
3.2.5 Water drawn from creek during low flows reducing flows in creek.	S/M	E	E or G	L
<u>Air Quality</u>				
3.3.1 Emissions of project-generated criteria air pollutants contributing to regional air pollutants.	NS	E	G	L
3.3.2 Increase in concentration of odors at the locations of downwind receptors.	NS(M)	E	G	L
3.3.3 Increase in <i>Aspergillus fumigatus</i> concentrations at nearby sensitive receptors.	NS(M)	E	G	L
<u>Noise</u>				
3.4.1 Project-generated vehicle traffic would result in increase in ambient noise levels to nearby sensitive receptors.	NS	E	G	L
3.4.2 Operation of heavy-duty equipment would increase ambient noise levels at nearby receptors.	NS	E	G	L
3.4.3 Increase in cumulative noise levels in the project area.	NS(M)	E	G	L
<u>Public Health and Safety</u>				
3.5.1 Exposure of workers at project site to hazardous materials brought to the site.	NS(M)	E	E	L
3.5.2 Exposure of workers to hazards during composting operations.	S/M	L	E	L
3.5.3 Increase in potential for hazards that could pose threats to public health or safety.	S/M	L	E	L

(Continued)

TABLE 5.1
IMPACTS AND SIGNIFICANCE LEVELS OF THE PROJECT AND ALTERNATIVES (Continued)

Impact	Proposed Project	A. No Project	B. Off-Site Alternative	C. Reduced Project / Mitigated Alternative
<u>Traffic Safety</u>				
3.6.1 Increase in project vehicle trips disruption of off-site traffic flow or increase in congestion.	NS	E	G	L
3.6.2 Introduction of project vehicle trips would increase the potential for conflicts on Potter Valley Road near Potter Valley Bridge.	NS	E	L	L
3.6.3 Potential increase conflicts between project trucks and parked vehicles (related to McKee County Parkway) along northbound approach project access road.	NS(M)	E	Ø	L
3.6.4 Characteristics of existing internal project access road could pose traffic safety hazard if unsafe driving conduct occurred by project truck operators.	NS(M)	E	UKN	E

Notes:

/a/ Significance levels for the project and the alternatives reflect the levels of significance after all mitigation measures are applied.

B = Beneficial impact.
 NS = Impact is less than significant; no mitigation is warranted.
 NS(M) = Impact is less than significant; supplemental mitigation is identified.
 S/M = Potentially significant impact; impact would be reduced to less than significant by mitigation measures required in this report.
 G = Greater (or less favorable) impact than under the proposed project.
 L = Less (or more favorable) impact than under the proposed project.
 E = Equal (or similar) impact as under the proposed project.
 Ø = Impact would not occur.
 UKN = Unknown level of impact.

/b/ This table presents a relative comparison of environmental impacts that were identified under the proposed project with each of the alternatives. Additional environmental impacts that would potentially occur under each the alternatives are presented in the text discussion.

SOURCE: Environmental Science Associates, 1997.

determine which of the alternatives is the environmentally superior alternative. On the basis of the impacts of the alternatives shown in Table 5.1, the Reduced Project / Mitigated Alternative would be the environmentally superior alternative because the environmental impacts of the Reduced Project / Mitigated Alternative are generally less than the project or the No-Project Alternative. The impacts analysis of the alternatives does not consider the potential benefit of the project to divert solid wastes from going to landfills and produce a product with agricultural benefits. When this broader perspective is considered, it is not clear if any of the alternatives to the project would be environmentally superior to the project.

5.1 NO-PROJECT ALTERNATIVE

DESCRIPTION

Under the No-Project Alternative, the CCCI facility would continue composting operations as permitted under the existing land use zoning of the site. Thus, the facility would continue to compost animal manures, as well as using amendments and additives required to produce a product. However, this alternative would not include those operations proposed by Use Permit #U 26-93 that would relate exclusively to the use of compost feedstocks other than for processing animal wastes. Biosolids would also not be a feedstock under the No-Project Alternative.

As with the project, it is assumed that the facility design capacity would be a maximum 50,000 tons per year incoming material, an average of approximately 200 tons per day, with a maximum of 400 tons per day of incoming material. The facility components assumed to be constructed under the project, including compost roof structure expansion, buildings for equipment maintenance, field office functions and laboratory operations, and water and septic systems would also be proposed under this alternative. In addition, the number and types of on-site compost facility heavy equipment operated under the No-Project Alternative would be similar to those used under the project. There may be less need for grinding operations with the No-Project Alternative.

The hours of operation are also assumed to be identical to the project.

ENVIRONMENTAL IMPACTS

VISUAL RESOURCES

Under the No-Project Alternative, all facility buildings and structures would still be built, including the compost roof structure expansion, storage and office buildings, and water and brewery wastewater holding tanks. Thus, views of the project site from off-site locations would not be changed from those which would occur under the project. Like the project, the No-Project Alternative would not involve nighttime operations.

HYDROLOGY AND WATER QUALITY

Under the No-Project Alternative (as with the project), all active composting and storage of feedstock would occur over the compost pad and under the expanded roof structure. Since the design of the compost facility (including roof expansion structure, compost pad, and drainage system) would be identical to that proposed under the Project, the potential for stormwater runoff carrying leachate to surface water, for leachate percolation through the compost pad to groundwater, or for leakage from leachate collection and brewery water-storage tanks, would be the same as that assessed under the project. However, under the No-Project Alternative, the CCCI facility would not have biosolids as a feedstock. As discussed in Section 3.2 of this EIR, leachate derived from sewage sludge biosolids can be expected to have human pathogens and heavy metals, which are contaminants of special concern. Contamination of water sources by animal wastes would have less environmental and safety impacts than contamination of water sources by biosolids, because biosolids have the additional concerns related to their potential for containing heavy metals and human pathogens.

The amount of water required for animal manure-only composting would not be substantially different than that required for other feedstocks proposed under the project; thus, the level of water drawn from Cold Creek or other sources under the No-Project Alternative would be similar to that of the project. The potential for the No-Project Alternative to increase sediments to surface waters would be similar to the project.

AIR QUALITY AND ODORS

Since the average and maximum daily tonnages of incoming materials would be similar to the project, emissions related to criteria air pollutants from on-site composting equipment, off-site truck trips, and employee vehicle trips under the No-Project Alternative would be similar to the project.

The No-Project Alternative would limit the diversity of feedstocks that would be processed at the CCCI facility. Although odors related to materials such as biosolids, restaurant food wastes, and fishery wastes would not occur, an increase in odors related to a higher percentage of animal manures processed at the CCCI could occur. In any case, the location of composting operations on the site would be identical to the project (i.e., approximately 4,800 feet downwind of the nearest residences). Thus, the project site would be located a sufficient distance away from sensitive receptors to minimize potential odor impacts to off-site receptors.

Since approximately the same tonnage of compost would be processed under the No-Project Alternative as the project, the No-Project Alternative would not result in a significant change in *Aspergillus fumigatus* concentrations at nearby sensitive receptors compared to the project.

NOISE

Since the average and maximum daily tonnages of incoming material and hours of operation under the No-Project Alternative would be the same as the project, the number of off-site generated project truck trips and daily distribution of truck traffic would not be expected to differ from the project considerably. The number and types of on-site heavy equipment for the compost facility that would be operated under the No-Project Alternative would be similar to those used under the project. In addition, the location of the project access road in relation to nearby sensitive receptors would not be altered. Thus, noise levels generated by off-site trucks serving the project and on-site equipment under the No-Project Alternative would be comparable to that which would be associated with the project. The No-Project Alternative could result in less grinding activity than the project.

PUBLIC HEALTH AND SAFETY

Under both the No-Project Alternative and the project, no hazardous materials would be accepted at the site, nor would the facility be open to the public. The potential for facility workers to be exposed to hazardous materials, noise, dust, *Aspergillus fumigatus*, and physical hazards would be the same under the No-Project Alternative and the project. If hazardous waste was identified in the incoming materials, hazardous waste handling and notification procedures would be identical for the No-Project Alternative and the project.

Limiting the variety of feedstocks under the No-Project Alternative, including potentially not accepting feedstocks such as biosolids, fishery and restaurant wastes, could result in fewer numbers and types of vectors (i.e., birds, mice, rats, and larger mammals) that would be attracted to the composting area. Eliminating biosolids would reduce the potential for vectors to come in contact with human pathogens and then spread the pathogens to humans.

TRAFFIC SAFETY

Since the average and maximum daily tonnages of incoming material and hours of operation would be identical to the project, the number of off-site generated project truck trips and daily distribution of truck traffic would not be expected to differ considerably from the project. The No-Project Alternative would not differ from the project with respect to issues related to site access (e.g., existing safety concerns on Potter Valley Road near State Bridge 10C-102, internal access road).

BIOLOGICAL RESOURCES

Under the No-Project Alternative, potential impacts to wildlife and vegetation on the project site would be the same as the project, and would remain less than significant.

STATUS OF ALTERNATIVE

By limiting the feedstocks that would be processed at the CCCI facility, the No-Project Alternative would have less variation in operations than the project, which would probably simplify the overall operations and reduce the potential for some impacts to occur. For example, the No-Project Alternative would attract fewer vectors.

The No-Project Alternative would limit the project's ability to assist jurisdictions in meeting the goals and objectives for waste diversion as set forth in AB 939. By limiting feedstock types, the No-Project Alternative may also be unable to achieve the project goal of meeting the needs of the expanding market for its compost products, due to lack of feedstock material.

5.2 OFF-SITE ALTERNATIVE

DESCRIPTION

Under this alternative, the project would be built and operated at an off-site location. This alternative would include the full scale of operations proposed by the applicant, including composting of animal manures and the proposed expanded feedstocks. As with the project, it is assumed that the facility design capacity would be a maximum 50,000 tons per year incoming material, an average of approximately 200 tons per day, with a maximum of 400 tons per day of incoming material (including sewage sludge biosolids). The facility components assumed to be constructed under the project, including compost roof structure, buildings for equipment maintenance, field office functions and laboratory operations, and water and septic systems would also be proposed under this alternative. In addition, the number and types of compost facility heavy equipment operated under the Off-Site Alternative would be similar to those used under the project. The hours of operation are also assumed to be identical to the project.

A number of factors were considered in identifying potential No-Project locations, including environmental considerations. In addition, issues related to feasibility of the site, including ownership or potential for a long-term lease of the property; location of site relative to the project's market area; internal access; access to water supplies; and meteorological conditions of the area were also considered.

The applicant stated that siting requirements for this project should include, but not necessarily be limited to, the following: (CCCI, 1996)

- Ownership, or long-term control, of property.
- Appropriate zoning.
- Good year-round access for vehicles with a gross vehicle weight of 80,000 pounds.

- A location close enough to major transportation arteries, and centrally located within the project's major market area, so as to make the operation financially feasible.
- A reasonable distance from potential off-site receptors of operational impacts. Prior to amendment in 1995, the State compost regulations required a minimum distance of 300 feet. While the State regulations no longer specify a minimum distance, many compost facility operators feel a minimum distance of 1,000 feet is desirable. The project applicant desires a site as distant as possible from potential off-site receptors that meets the other needs of the project.
- Access to adequate water supplies.
- Geography, typography, meteorological conditions and other attributes, that eliminate or allow reasonable mitigation of any potential negative environmental impacts or nuisance conditions.
- Located close enough to public agency yard and wood waste diversion program operations so as to minimize the cost to public entities.

POTENTIAL OFF-SITE ALTERNATIVE LOCATIONS CONSIDERED BUT REJECTED

One of the sources of information used in determining alternative off-site locations for the compost facility was the *Mendocino County Landfill Siting Study Final Report*, prepared for the Mendocino Solid Waste Management Authority (Anderson Consulting Group, 1992). This siting study report assessed a number of candidate landfill sites within the County for construction of a new County landfill. Although some of the specific technical criteria for locating a landfill would be different than for a compost facility (e.g., siting a landfill would require specific geotechnical considerations and sufficient size to accommodate long-term landfill capacity), many other factors (e.g., zoning and land use compatibility) would be pertinent to both types of facilities.

The landfill siting report selected a site within the Guntly Ranch property (approximately 1/3 mile southeast of the Cold Creek Compost Facility) to score highest for location of a new landfill. In addition to the Guntly Ranch property, the landfill siting study highly ranked the following two sites:

- *Louisiana-Pacific Bridge Creek Site.* The site is located about 14 miles west of Ukiah, and 0.8 miles north of Masonite Toll Road in Mendocino County. Access to this site is made from Masonite Toll Road. The site consists of heavily dissected, angular canyons with well pronounced dendritic drainage channels. Vegetation appears to be controlled by bedrock conditions, with conifer and oaks growing on the north facing slopes. Drainage channels are deep and steep, while ridges are relatively rounded. Elevations range from 800 to 1,400 feet. The site is owned by Louisiana Pacific.
- *Northeast Ukiah Landfill Site:* The site is located approximately two miles east of U.S. 101 in Ukiah, off of Vichy Springs Road in Mendocino County. The 200-acre site is

adjacent to the existing City of Ukiah Landfill. Elevations range from approximately 750 to 950 feet. The existing landfill is owned and operated by the City of Ukiah.

A number of other sites were initially determined to score highly, but were later identified to be unacceptable due to potential environmental impacts. These include:

- *McCarvey Creek Site.* The site is located 23 miles west of Ukiah on Masonite Road. The site is owned by Louisiana Pacific. The landfill siting report identified that significant fish habitat were found to exist in the creek that runs through the middle of the site.
- *Mann Road "South Site."* The site is located approximately five miles west of Ukiah off Masonite Road. The landfill siting report determined that significant cultural resources were located throughout the site.

In addition, a number of public lands were considered in the landfill siting report, including 10 sites in the Cow Mountain Recreation Area. However, the landfill siting report identified that current governing legislation does not permit solid waste facilities on this land; furthermore, potential public opposition could make the locating of a solid waste facility on this land infeasible.

COMPOST FACILITY LOCATIONS PREVIOUSLY CONSIDERED BY THE PROJECT APPLICANT

- *Former Processing Site in Hopland.* This site (approximately 3.5 acres) was considered by the applicant to be too small to support expanded operations. In addition, the property owner would not make a long-term commitment to operating facility on the property (CCCI, 1996).

COMPOST FACILITY LOCATIONS CONSIDERED BY THIS EIR

- *City of Ukiah Landfill.* At a public hearing on an environmental document for the City of Ukiah Landfill in 1996, there was public input (one individual) that indicated a preference for the composting proposed at the CCCI to be relocated to the City of Ukiah Landfill. When contacted about the feasibility of windrow composting at the Ukiah Landfill, the City Public Works Director indicated that the Ukiah Landfill would probably not be a good location for windrow composting. The Ukiah Landfill is scheduled to close within three years, and the landfill is very hilly except for the flat area used for the working face (Kennedy, 1996). Additionally, the City of Ukiah Landfill is closer to potential sensitive receptors than the CCCI facility (4,800 feet). The City of Ukiah Landfill property line is 550 feet from the nearest structure on the Vichy Springs Resort. The nearest single family residence west of the City of Ukiah Landfill is 1,300 feet away, in the Deerwood area.
- *City of Willits Disposal Site.* The City of Willits landfill is also closing and was considered as a possible off-site alternative. When contacted about the feasibility of windrow composting, the Willits Director of Public Works indicated that windrow composting is not identified as a possible future use in their closure plan. The Willits landfill is scheduled to close by the end of June 1997. There is only about 0.25 to 0.5 acres of flat area at the Willits landfill, which is not enough area for windrow composting, and the benches are not wide enough for composting (Madrigan, 1997). Furthermore, there are residents within 500 to 700 feet of most areas of the landfill, far

less of a buffer than the approximately 4,800-foot buffer that would exist at the Guntly Ranch CCCI project site.

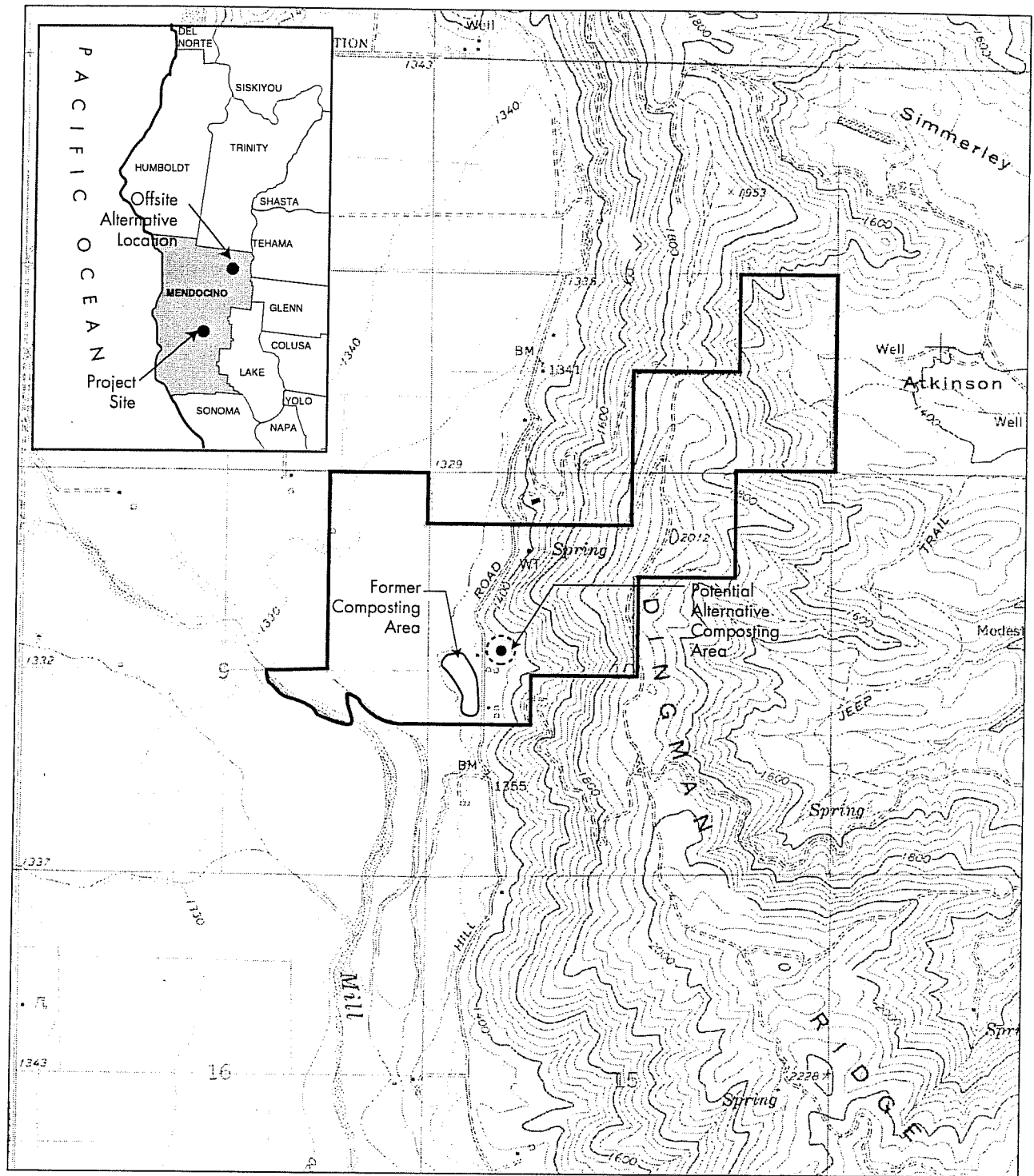
- *Mendocino Solid Waste Management Authority (MSWMA) Solid Waste Transfer Station.* The MSWMA is proposing a solid waste transfer station at a 9.3-acre parcel at 3401 N. State Street in Ukiah. When contacted about the feasibility of windrow composting at the proposed State Street location, the MSWMA General Manager did not think the MSWMA site would be feasible for windrow composting. An EIR was recently prepared for the transfer station project, and it did not identify windrow composting as a potential use of the site. The site is within 1/4 mile of mobile homes, which is not considered enough buffer to add windrow composting to the site because the site would also be used as a transfer station (Sweeney, 1997).

SELECTED OFF-SITE ALTERNATIVE

In selecting the location of the Off-Site Alternative, the EIR preparers have selected an alternative to foster informed decision-making, knowing that the location of the Off-Site Alternative could impede to some degree the attainment of the project objectives, or would be more costly than the project (*CEQA Guidelines*, Section 15126[d]).

The preferred Off-Site Alternative selected for analysis in this EIR was determined to be on one of the project applicant's properties, located near Covelo in northeastern Mendocino County (see Figure 5.2.1). From U.S. 101, the property is accessed via SR 162, East Lane, and Hill Road (Hill Road dissects the property). The property consists of over 400 acres. The west portion of the property boundary is relatively level, and used primarily for agricultural use (currently alfalfa crops). Two creeks are present on the site: Mill Creek forms a portion of the western boundary of the property, and a seasonal creek extends north-south through the site. A spring is located in the north-central part of the property. Some residential and small commercial development is located within the property boundary along Hill Road. The east portion of the property boundary is traversed by Dingman Ridge, and is mostly undeveloped. Elevations vary from approximately 1,300 feet in the west portion, to over 2,000 feet in the east portion of the property.

The applicant has used a portion of the property west of Hill Road for composting operations in the past. However, to avoid periodic inundation of the composting area from nearby creeks, the proposed composting area assumed under this alternative would be constructed at a slightly higher elevation east of Hill Road (see Figure 5.2.1). It is assumed that applicant would acquire water for composting operation from on-site springs or wells. It would probably be infeasible (because of the long distance from Ukiah) to transport brewery process water to this location. There is one residence near the site (about 200 feet away). The residence is on the applicant's



SOURCE: USGS, Environmental Science Associates

Cold Creek Compost EIR / 960106 ■

Figure 5.2.1
Off-Site Alternative-
Applicant's Covelo Property

property and leased. Because the residence is owned by the applicant, the proximity to the compost facility is not considered a fatal flaw for purposes of this CEQA alternatives analysis.

ENVIRONMENTAL IMPACTS

VISUAL RESOURCES

The Off-Site Alternative location is situated on the floor of Round Valley, just west of Dingman Ridge. This general area is remote, with very little surrounding development. The site would be primarily visible from hills east of the site, however much of surrounding area, including hills directly east of the site, is within the applicant's property. The compost facility would be located just east of, and visible from, a public roadway (Hill Road). However, there is very little overall traffic on this roadway; furthermore, the addition of a compost facility on the site would not significantly block views, or be inconsistent with the agricultural uses already on the property.

HYDROLOGY AND WATER QUALITY

Under the Off-Site Alternative (as with the project), all active composting and storage of feedstock would occur over the compost pad and under the roof structure. Since the design of the compost facility (including roof structure and compost pad) under the Off-Site Alternative would be similar to that under the project, the potential for leachate percolation through the compost pad to groundwater, or for leakage from leachate collection or other water storage tanks, would not be changed from that assessed under the project. Since it is unlikely that brewery process water could be used as a supplemental water source at this location, there would be no potential for it to leak.

The Off-Site Alternative and project are in different topographical settings (with the project located at the top of a ridge, and the Off-Site Alternative located at the base of a ridge); consequently, surrounding drainage patterns would be quite different for each site. Thus, the potential for the Off-Site Alternative to increase leachate addition to surface or groundwater sources, and to increase sediments to surface waters, are unknown at this time and would be largely dependent on the off-site drainage plans implemented for the facility. The potential for run-on waters to enter the compost pad and become contaminated with leachate would be greater for the Off-Site Alternative than for the project. Additional measures to segregate run-on water from leachate would potentially be required.

The amount of water required for composting at the Off-Site Alternative site would be similar to that required under the project. Because the Off-Site Alternative would not use brewery process water, the level of water drawn from local water sources would be greater than the project.

AIR QUALITY AND ODORS

Given that the Off-Site Alternative site is more remotely located than the project site, trucks would need to travel further distances from feedstock locations and to potential market areas for finished compost. Thus, emissions related to criteria air pollutants from off-site truck trips would be proportionately higher for the Off-Site Alternative, based on the increased haul distances.

Approximately the same tonnage of compost would be processed at the Off-Site Alternative site as the project. Therefore, the amount of odors and *Aspergillus fumigatus* created by the compost facility under the Off-Site Alternative would be similar to the project. However, three residences located within the Off-Site Alternative site would be located in the immediate vicinity of the compost facility. In addition, the nearest land owner outside the applicant's property would be located about 1,000 feet south of the facility (as compared to the nearest receptor for the project being approximately 4,800 feet from the composting pad). Thus, the potential for odor and off-site concentrations of *Aspergillus fumigatus* to impact these receptors would be expected to be higher than the project.

NOISE

Since the average and maximum daily tonnages of incoming material and hours of operation under the Off-Site Alternative would be identical to the project, the number of off-site generated project trucks and the daily distribution of truck traffic would not be expected to differ from the project considerably. Thus noise impacts of off-site trucks on sensitive receptors along the haul route would be similar to that which would be experienced under the project.

The number and types of on-site compost facility heavy equipment that would be operated under the Off-Site Alternative would also be similar to those used under the project. However, three residences are located within the Off-Site Alternative site, and the nearest land owner outside the applicant's property would be located about 1,000 feet south of the facility. Thus, noise levels of on-site equipment experienced by nearby residences under the Off-Site Alternative would be higher than that which would be associated with the project. This would be a significant project impact that would be difficult to mitigate to less than significant.

PUBLIC HEALTH AND SAFETY

Under both the Off-Site Alternative and the project, no hazardous materials would be accepted at the site, nor would the facility be open to the public. The potential for facility workers to be exposed to hazardous materials, noise, dust, *Aspergillus fumigatus* and physical hazards, would be the same under the Off-Site Alternative and the project. The potential for off-site residents to be affected by these potential public health effects would be greater for the Off-Site Alternative, because it is closer to residences than the project. If hazardous waste was identified in the

incoming materials, hazardous waste handling and notification procedures would be identical for the Off-Site Alternative and for the project.

TRAFFIC SAFETY

Since the average and maximum daily tonnages of incoming material and the hours of operation under the Off-Site Alternative would be identical to the project, the number of off-site generated project trucks and daily distribution of truck traffic, would not be expected to differ considerably from the project. However, since the Off-Site Alternative site is more remotely located than the project site; project trucks would need to travel further distances from potential feedstock source locations, and to potential market areas for finished compost. Some of this extra hauling distance would occur along SR 162 (the primary connection between U.S. 101 and Covelo), which has some very winding segments. Thus, the potential for an increase in vehicle conflicts with off-site truck trips would be expected to be higher for the Off-Site Alternative than for the project.

Impacts to existing safety concerns on Potter Valley Road near State Bridge 10C-102 and the internal access road to Guntly Ranch, would not occur under the Off-Site Alternative.

BIOLOGICAL RESOURCES

No biological surveys were conducted for the Off-Site Alternative. Thus, potential impacts to wildlife and vegetation at the Off-Site Alternative site cannot be completely determined at this time. The following is a preliminary review of the biological resources for the Off-Site Alternative.

The alternative site is located east of Hill Road at approximately 1,400 feet elevation, potentially within oak woodland or oak savannah habitat. Valley oak woodland (*Quercus lobata*), with heights ranging from 13 meters to 20 meters, occurs throughout the area. Understory ranges from annual grassland understory modified by prolonged cattle grazing, to an understory dominated by snowberry (*Symphoricarpus rivularis*) with no bare ground. Mill Creek flows west of Hill Road.

A query into the California Department of Fish and Game (CDFG) Natural Diversity Data Base (NDDDB) for the Covelo East 7.5 minute quadrangle revealed the following species have been reported in the area:

Common Name	Scientific Name	Status	Habitat
Milo Baker's bush lupin	<i>Lupinus milo-bakeri</i>	Federal: species of concern State: Threatened	Cismontane woodland in roadside ditches, dry gravelly areas along roads, and along small streams; about 1500 ft.
Northern red-legged frog	<i>Rana aurora aurora</i>	Federal: species of concern State: special concern	Creeks and pools with upland habitat for refugia during summer.
Foothill yellow-legged frog	<i>Rana boylei</i>	Federal: species of concern State: special concern	Creeks and pools with upland habitat for refugia during summer.
Western pond turtle	<i>Clemmys marmorata marmorata</i>	Federal: species of concern State: special concern	Associated with permanent or nearly permanent water in a wide variety of habitats. Requires basking sites. nests sites may be found up to 0.5 km from water.

This is not a complete listing of species potentially occurring in the area. The lack of recording of a certain species on the CNDDDB does not mean that it is not present in the area but rather, surveys for that species have not been conducted or reported to the CNDDDB. If this alternative was selected, a more detailed biological analysis would be required.

The California red-legged frog would not occur on site. The northern red-legged frog (*Rana aurora aurora*) ranges from Vancouver Island, British Columbia, Canada, south along the Pacific Coast west of the Cascades to northern Del Norte County. The northern red-legged frog and the California red-legged frog often intergrade in the area between southern Del Norte and northern Marin County, as described by the U.S. Fish and Wildlife Service in Federal Register: May 23, 1996 (Vol. 61, No. 101). The historical range of the California red-legged frog (*Rana aurora draytonii*), a federally threatened species and a California Department of Fish and Game (CDFG) species of concern, extended coastally from the vicinity of Point Reyes National Seashore, Marin County, and inland from the vicinity of Redding, Shasta County, southward to northwestern Baja California, as described by the U.S. Fish and Wildlife Service in Federal Register: May 23, 1996 (Vol. 61, No. 101). However, the California red-legged frog is not expected to occur on the alternative site given the location of the alternative site.

Potential Impacts

Because of the potential destruction of valley oak woodland and associated species, such as the State threatened plant species Milo Baker's bush lupine, using this habitat could cause a

significant impact. Further analysis of the Off-Site Alternative may require mitigation in the form of mitigation lands and potentially a wetland delineation for any ponds potentially occurring on site. Further analysis would be required if the project were to be implemented at the Off-Site Alternative location.

Other potential impacts include the attraction of small and large mammals to the proposed compost site. Species such as raccoons (*Procyon lotor*) and skunks (*Mephitis mephitis*) may be attracted to the compost and become habituated to the presence of humans. If a rabid individual comes into contact with a human, there is potential for mortality for both the human and the small mammal. Larger mammals, such as black bears (*Ursus americanus*), may cause bodily harm to humans if contact is too close. This impact would generally be the same as at the project site.

STATUS OF ALTERNATIVE

The positive aspects of the location of the Off-Site Alternative are that the applicant has ownership of the property already, and the location of the Off-Site Alternative is in a sparsely populated area. Although the location of the Off-Site Alternative is in a relatively remote area of the County, the buffer area (between the operations and residences) for operational impacts would be less than the buffer area for the project. The remoteness of the area would also tend to increase impacts associated with traffic, traffic-related noise, and traffic-related air quality.

The project applicant does not believe a windrow compost site could be economically feasible at this location due to the haul distances.

5.3 REDUCED PROJECT / MITIGATED ALTERNATIVE (NO BIOSOLIDS)

DESCRIPTION

Under the Reduced Project / Mitigated Alternative, the CCCI would generally expand the diversity of feedstocks to the extent analyzed under the project; however, the facility's design capacity is assumed to be 60 % of that considered under the project. Thus, the volume of incoming materials at the CCCI facility would amount to approximately 30,000 TPY. Daily tonnages of incoming materials are also assumed be decreased proportionately, amounting to an average of approximately 120 TPD, and a maximum of 240 TPD. This alternative eliminates sewage sludge biosolids as a potential feedstock.

It is assumed that the facility components that would be constructed under the project would also be built under the Reduced Project / Mitigated Alternative; however, some of the facility components would be of a smaller scale. Most notably, the compost roof structure would be approximately two acres (as opposed the approximately 3.5-acre roof assumed under the project). Other ancillary facilities, including buildings for equipment maintenance, field office

functions and laboratory operations, and water and septic systems proposed under this alternative are assumed to be similar to the project. In addition, the types of on-site compost facility heavy equipment operated under the Reduced Project / Mitigated Alternative would be similar to those used under the project.

Another component of this alternative consists of implementation of a number of mitigation measures designed to lessen potential environmental impacts of the project. These measures, some of which are identified in this EIR as mitigation measures for the project, include:

- improvements to access road, including use of energy dissipaters in culverts; and
- use of secondary containment structures around the leachate and brewery process water tanks, such as earthen berms.

Additionally, the Reduced Project / Mitigated Alternative eliminates biosolids as a potential feedstock. Sewage sludge biosolids are a feedstock with characteristics such as the potential for heavy metals and human pathogens that are unique compared to the feedstocks otherwise being considered by CCCI.

The assumed hours of operation for this alternative are identical to the project.

ENVIRONMENTAL IMPACTS

VISUAL RESOURCES

The primary change in visual impacts would be related to the compost roof structure, which would be approximately one-third smaller than the roof proposed by the project. Like the project, the Reduced Project / Mitigated Alternative would not involve nighttime operations. Thus, visual impacts of the site from off-site locations would be slightly less with this alternative than under the project, and would remain less than significant.

HYDROLOGY AND WATER QUALITY

Design features implemented under this alternative would include: construction of earthen berms around the various water storage tanks, and use of energy dissipaters on the access road.

The Reduced Project / Mitigated Alternative would have less overall potential to contaminate any local surface or groundwater resources because of the reduced amount of compost materials processed annually. Such potential contamination would also have slightly less environmental and safety impacts than potential contamination from the project because of the elimination of sewage sludge biosolids as a feedstock, which could contain heavy metals and/or human pathogens.

The amount of water required for the Reduced Project / Mitigated alternative would be proportionately less than the amount required under the project; thus, the level of water drawn from water sources under this alternative would be less than that of the project.

AIR QUALITY AND ODORS

The average and maximum daily tonnages of incoming materials under the Reduced Project / Mitigated Alternative are assumed to be on the order of about 40% less than project; therefore, emissions related to criteria air pollutants from on-site composting equipment, off-site truck trips, and employees vehicle trips under the Reduced Project / Mitigated Alternative would also be proportionately less than the project.

The variety of feedstocks that would be processed at the CCCI under the Reduced Project / Mitigated Alternative would be similar to that under the project (except for sewage sludge biosolids). Since the amount of compost that would be present on the site would be approximately 40% less under the project, associated compost odors would be expected to be less than the project. In addition, the Reduced Project / Mitigated Alternative would be expected to result in slightly lower concentrations of *Aspergillus fumigatus* concentrations at nearby sensitive receptors. The elimination of biosolids as a potential feedstock would completely eliminate the possibility of odors from sewage sludge biosolids at the CCCI facility.

NOISE

Since the level of activity at the site and number of off-site generated project trucks trips would be less than the project, daily noise levels from on-site equipment and off-site generated project trucks under the Reduced Project / Mitigated Alternative would be less than the project

PUBLIC HEALTH AND SAFETY

Under both the Reduced Project / Mitigated Alternative and project, no hazardous materials would be accepted at the site, nor would the facility be open to the public. Since the average and maximum daily tonnages of incoming materials under the Reduced Project / Mitigated Alternative are assumed to be on the order of about 40% less than project, the potential for facility workers to be exposed to hazardous materials, noise, dust, *Aspergillus fumigatus*, and physical hazards would also be proportionately less under the Reduced Project / Mitigated Alternative. If hazardous waste was identified in the incoming materials, hazardous waste handling and notification procedures would be identical for the Reduced Project / Mitigated Alternative as for the project. Eliminating biosolids as a feedstock would reduce the potential for human pathogens to be present at the site, thus reducing the risk that activities at the CCCI facility could spread human pathogens via vectors or from re-contamination of finished or nearly finished compost. Eliminating biosolids would reduce the need for rigorous procedures to

segregate or manage use of process water, equipment, and windrows to achieve the objective of avoiding recontamination.

TRAFFIC SAFETY

Since the average and maximum daily tonnages of incoming materials under the Reduced Project / Mitigated Alternative are assumed to be on the order of about 40% less than project, the number of off-site generated project truck trips would also be expected to be proportionately lower. This reduced daily vehicle trip generation would reduce the amount of interaction between project trucks and other traffic on Potter Valley Road and, thus, reduce the potential for vehicle conflicts.

BIOLOGICAL RESOURCES

Under the Reduced Project / Mitigated Alternative, potential impacts to wildlife and vegetation on the project site would be the same as the project, and would remain less than significant.

STATUS OF ALTERNATIVE

By limiting the facility incoming materials to 30,000 TPY and reducing the maximum for incoming materials to 240 TPD, many of the volume sensitive impacts of the project (i.e., vehicle truck trips and noise and air quality emissions from the trucks) would be reduced by approximately 40% if the Reduced Project / Mitigated Alternative is implemented. However, the EIR has determined that with mitigation all potential impacts of the project can be reduced to a level of less than significant without the volume reductions identified in this alternative.

By reducing incoming materials to 30,000 TPY, the Reduced Project / Mitigated Alternative would limit the goal for the project to assist jurisdictions in meeting the goals and objectives for waste diversion as set forth in AB 939. By limiting feedstock volumes that would be received at the CCCI facility, the Reduced Project / Mitigated Alternative may also be unable to achieve the project goal of meeting the needs of the expanding market for its compost products.

Eliminating sewage sludge biosolids as a potential feedstock may not affect any of the primary goals of the project. Eliminating biosolids would reduce some of the economic potential for the CCCI facility, and would reduce options for facilities that generate sewage sludge biosolids in the project area, such as the City of Ukiah wastewater treatment plant.

Both major aspects of the Reduced Project / Mitigated Alternative ([1] the lowered maximum volumes, and [2] elimination of biosolids) could reduce potential impacts of the proposed project. If desired, either one or both of these aspects of this alternative could be required by the County, the two major aspects would not have to both be adopted.

REFERENCES - Alternatives

Anderson Consulting Group, Mendocino County Landfill Siting Study Final Report, 1992

Cold Creek Compost, Inc., Data Request Responses sent to Environmental Science Associates,
December 20, 1996.

Kennedy, Rick. City of Ukiah Director of Public Works, telephone interview, January 14, 1997.

Madrigal, Dave. City of Willits Public Works Director, telephone interview, January 14, 1997.

Sweeney, Michael. General Manager Mendocino Solid Waste Management Association,
telephone interview, January 14, 1997.

CHAPTER 6

EIR AUTHORS, PERSONS AND ORGANIZATIONS CONTACTED

6.1 EIR AUTHORS

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6.2 EIR CONSULTANTS

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Deputy Project Manager:	Paul Mitchell
Traffic Section:	Jack Hutchison, P.E. (Registration #T1411) and Paul Mitchell
Composting Subconsultant:	Matthew Cotton, Integrated Waste Management Consulting
Air Quality & Noise Sections:	Erik Brown, Paul Miller
Visual Section:	Paul Mitchell
Hydrology & Water Quality Section:	Dan Sicular
Public Health & Safety Section:	Nanette Sartoris, Paul Miller, Matthew Cotton, Dan Sicular
Biological Resources Appendix:	Tom Roberts, Certified Wildlife Biologist

6.3 PERSONS AND ORGANIZATIONS CONSULTED

List of other people and organizations consulted are provided in the references at the end of each section.

CHAPTER 7

GLOSSARY AND ACRONYMS

7.1 GLOSSARY

Active Compost: compost feedstock that is in the process of being rapidly decomposed and is unstable. Active compost is generating temperatures of at least 50 degrees Celsius (122 degrees Fahrenheit) during decomposition; and is releasing carbon dioxide at a rate of at least 15 milligrams per gram of compost per day, or the equivalent of oxygen uptake.

AB 939 (Assembly Bill 939): enacted the California Integrated Waste Management Act of 1989. California law requiring each city and county to prepare plans detailing how the jurisdiction will meet specified waste diversion goals. The Act establishes a new waste-management hierarchy for the State, emphasizing (in order of importance) source reduction, recycling and composting, and environmentally-safe transformation and environmentally safe landfilling.

Additives: material mixed with feedstock or active compost in order to adjust the moisture level, carbon to nitrogen ratio, or porosity to create a favorable condition. Additives include, but are not limited to, fertilizers and urea. Additives do not include septage, sewage, or compost feedstock.

Aerated Static Pile: a composting process that uses an air distribution system to either blow or draw air through the pile. Little or no pile agitation or turning is performed.

Aerobic Decomposition: the biological decomposition of organic substances in the presence of oxygen.

Amendments: materials added to stabilized or cured compost to provide attributes for certain compost products, such as product bulk, product nutrient value, product pH, and soils blend. Amendments do not include septage, or compost feedstock.

Anaerobic Decomposition: the biological decomposition of organic substances in the absence of oxygen.

***Aspergillus fumigatus*:** A fungus which brings about the everyday decay of leaves, wood and other organic matter in the environment. *Aspergillus fumigatus* is a normal and integral part of the composting process, participating with other microbes in the final breakdown of compostable materials to a finished product, stabilized compost.

Beneficial Use: beneficially using a waste instead of disposing of it in a landfill. Examples include agricultural land application of ash or dewatered sludge for soil amendment purposes.

Biosolids: see Sewage Sludge Biosolids.

BOD (Biological Oxygen Demand): the amount of oxygen required by aerobic microorganisms to decompose the organic matter in a sample of water, used as a measure of the degree of water pollution.

California Environmental Quality Act (CEQA): California law requiring the disclosure of environmental effects of proposed projects before discretionary approval can be issued.

California Integrated Water Management Act (1989): the purpose of this Act is to reduce, recycle, and reuse solid waste generated in the state to the maximum extent feasible in an efficient and cost-effective manner to protect the environment, to improve regulation of existing solid waste landfills, to improve permitting procedures for solid waste management facilities, and to specify the responsibilities of local governments to develop and implement integrated waste management programs. (See AB 939)

Class I Landfill: landfill permitted to accept hazardous waste. This class of waste disposal facilities must be constructed and operated in the most stringent manner.

Class II Landfill: landfill permitted to accept municipal solid waste (MSW) and designated wastes. Class II landfill construction design and operation requires more stringent groundwater protection than Class III landfills.

Class III Landfill: sanitary landfill permitted to accept only municipal solid waste (MSW).

Clean Green Material or Clean Green: green material that is processed by a permitted solid waste facility in order to reduce contamination to the greatest extent possible as set forth in Section 17868.4. Tree and landscape trimming materials that have never been combined with other waste materials are considered "Clean Green Materials".

Chipping and Grinding: activity that mechanically reduces the size of organic matter. Chipping and grinding shall not include activities that produce material that will be sold or given-away based on biological decomposition that has occurred to the material.

Compost: the product resulting from the controlled biological decomposition of organic wastes that are source separated from the municipal solid waste stream, or which are separated at a centralized facility. Compost includes vegetable, yard, and wood wastes which are not hazardous waste (PRC Section 40116).

Composting: the process by which discarded organic materials -- including tree trimmings, grass clippings, yard waste, agricultural wastes, leaf debris and manures -- are converted to usable products through controlled biological aerobic decomposition.

Composting Facility: a facility that is operated for the purpose of producing compost, as defined in Division 30, Part 1, Chapter 2, Section 40116 of the Public Resources Code. A "Composting Facility" includes:

- 1) Green material composting facilities that have greater than 1,000 cubic yards of feedstock and active compost on-site at any one time;
- 2) Animal material composting facilities;
- 3) Sewage sludge composting facilities; and
- 4) Mixed solid waste composting facilities.

Composting Operation: one or a combination of the following processes used to produce a compost product:

windrow composting;
aerated or non-aerated static pile composting;
enclosed or within-vessel composting; and
other processes approved by the enforcement agency.

County Integrated Waste Management Plan (CIWMP): plan submitted by each county to the California Integrated Waste Management Board consisting of the following:

- all city Source Reduction and Recycling Elements (SRREs) and Household Hazardous Waste Elements (HHWEs);
- SRRE and HHWE prepared for the unincorporated areas of the county; and
- the Countywide Siting Element.

Countywide Siting Element (Countywide Solid Waste Facility Siting Element): under AB 939, each county must prepare a Countywide Siting Element which includes a description of the area to be used for development of adequate transformation or disposal capacity consistent with the development and implementation of the county and city SRREs.

Curing: the final stage of the composting process that occurs after compost has undergone pathogen reduction, as described in Section 17868.3, and after most of the readily metabolized material has been decomposed and stabilized.

Electrical Conductivity: electrical conductivity is a numerical expression of the ability of an aqueous solution to carry an electric current. This ability depends on the presence of ions, their total concentration, mobility, valence, and relative concentrations, and on the temperature of measurement.

Feedstock: any decomposable organic material used in the production of compost including, but not limited to, clean green material, green material, animal material, sewage sludge, and mixed solid waste. Feedstock shall not be considered as either additives or amendments.

Flood Plain: the land area which is subject to flooding in any year from any source.

Fly Ash: the residual that is captured from the flue gas stream when combusting solid fuels.

Generator: the source of materials discharged into the wastestream: the household, commercial establishment, or factory.

Green Material: any plant material that is either separated at the point of generation, or separated at a centralized facility that employs methods to minimize contamination. Green material can include, but is not limited to, yard trimmings, plant wastes from the food processing industry, manure, untreated wood wastes, paper products, and natural fiber products. Green material does not include treated wood waste, mixed demolition or mixed construction debris.

Grinding: see Chipping and Grinding.

Groundwater: water below the land surface.

Hazardous Wastes: wastes that pose a hazard to human health or the environment due to their flammability, corrosiveness, reactivity, or toxicity to living things.

Heavy Metals: elements including cadmium, mercury, lead, and arsenic which tend to accumulate in the food chain.

Insulating Material: material used for the purpose of minimizing the loss of heat from a compost pile undergoing the "Process to Further Reduce Pathogens" (PFRP), as described in Section 17868.3. Insulating material includes, but is not limited to, soil and stabilized compost.

Land Application: the application of ash, sludge or sludge products such as compost to agricultural and nonagricultural lands. Agricultural lands include land used for food crops, feed crops, range, and pasture lands. Nonagricultural lands include forest, reclaimed or disturbed lands, and lands with potential public contact such as ball fields and golf courses. Land application is a disposal alternative to landfilling.

Leachate: liquid that has come in contact with or percolated through waste materials and has extracted or dissolved substances therefrom.

Local Enforcement Agency (LEA): county agency (other than the government department or agency which is the operating unit for a solid waste facility) given authority to oversee implementation of CIWMB regulations. The LEA may be certified under four categories:

1. permitting, inspection, and enforcement at solid waste landfills
2. incineration
3. transfer and processing stations
4. inspection and enforcement of litter, odor, and nuisance regulations at landfills.

Manure: accumulated animal excrement. This definition shall include feces and urine, and any bedding material, spilled feed, or soil that is mixed with feces or urine. If intentionally composted, manure is a subset of green material and is regulated as green material, except as provided in CCR, Title 14, Division 7, Sections 17855 and 17856. Manure that is inadvertently composted, such as may occur at feedlots, dairies, and poultry farms, is not subject to regulation.

Maximum Credible Earthquake: the maximum earthquake that appears capable of occurring under the presently known geologic framework. In determining the maximum credible earthquake, little regard is given to its probability of occurrence except that its likelihood of occurring is great enough to be of concern.

Maximum Probable Earthquake: the maximum earthquake that is likely to occur during a 100-year interval.

Mixed Solid Waste: any material that is part of the municipal solid waste stream, and is mixed with or contains non-organics, processed industrial materials, or plastics.

Mixed Solid Waste Composting Facility: a facility that processes mixed solid waste into compost. A facility that composts sewage sludge, animal material, or green material, in addition to mixed solid waste, shall be considered a mixed solid waste composting facility.

Municipal Solid Waste(MSW): solid waste from residential, commercial, and institutional sources that is generally disposed of in Class III landfills.

NPDES (National Pollutant Discharge Elimination System): federal requirement under the Clean Water Act (CWA) that any discharge of a non-point source of pollution (from a MSW landfill unit) into waters of the United States be in conformance with any established water quality management plan developed under the Clean Water Act.

Operation Area: the following areas within the boundary of a composting operation or facility:

1. equipment cleaning, maintenance, and storage areas;
2. feedstock, active, and stabilizing compost processing or stockpiling areas; and
3. process water and stormwater drainage control systems.

Operator: the person responsible for the overall operation of a composting facility or part of a composting facility.

Owner: the person who owns a composting facility or part of a composting facility.

Pathogenic Organism: disease-causing organisms.

Pathogen Reduction Period: period of time, specified by state and federal composting regulations, required to reduce pathogens in active compost.

Permeability: the measurement of a material's ability to allow the passage of moisture. It is usually expressed in centimeters per second.

Pomace: The pulpy refuse remaining after the juice has been pressed from apples, grapes or other fruit.

Potable Water: Water that is safe for human consumption.

POTW (Publicly Owned Treatment Work): municipal sewage treatment plant.

Process Water: liquid that is generated during or used in the production of compost.

Recycling: the process of collecting, sorting, cleansing, treating, and reconstituting materials that would otherwise become solid waste, and returning them to the economic mainstream in the form of raw material for new products. Does not include the conversion of waste into energy.

Recycling Market Development Zones are geographic areas established by jurisdictions that are specifically designed to develop new, and stabilize existing, businesses that utilize secondary materials in the production and manufacture of finished products.

Report of Waste Discharge (RWD): functions as a facility's permit application to the Regional Water Quality Control Board to receive a Waste Discharge Requirement.

Run-off: any rainwater, leachate, or other liquid that drains over land *from* any part of a facility.

Run-on: any rainwater, leachate, or other liquid that drains over land *onto* any part of a facility.

Sanitary Landfill: a disposal site employing an engineered method of disposing of solid wastes in a manner that minimizes environmental hazards by spreading, compacting to the smallest practical volume and applying cover material over all exposed wastes at the end of each operating day.

Saturation Zone: that part of the earth's crust in which all voids are filled with water.

Sewage Sludge Biosolids: a solid, semi-solid, or liquid residue generated during the treatment of municipal wastewater. These separated solids contain primarily organic material, sand grit, microorganisms and trace amounts of heavy metals, and synthetic and naturally occurring chemicals.

Sewage Sludge: solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in a treatment works. Sewage sludge includes, but is not limited to, domestic septage and scum or solids removed in primary, secondary, or advanced wastewater treatment processes. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screenings generated during the preliminary treatment of domestic sewage in a treatment works.

Stabilized Compost: any organic material that has undergone the Process to Further Reduce Pathogens (PFRP), as described in Section 17868.3, and has reached a stage of reduced biological activity as indicated by reduced temperature and rate of respiration below that of active compost.

Static Pile: a composting process that is similar to the aerated static pile except that the air source may or may not be controlled.

SWFP (Solid Waste Facility Permit): permit issued by the Local Enforcement Agency (LEA) and concurred in by the CIWMB, authorizing a landfill, transfer station, composting facility, or other solid waste facility to operate.

Storm Water Pollution Prevention Plan (SWPPP): federal program under the Clean Water Act (CWA) to prevent storm water runoff pollution. All facilities covered by NPDES permits

for storm water discharges associated with industrial activities must prepare and implement a SWPPP approved by the Regional Water Quality Control Board.

Transformation: incineration, pyrolysis, distillation, gasification, or biological conversion of solid waste.

Vadose Zone: sub-surface zone between the ground surface and the groundwater level (water table) within the unsaturated zone. Soil voids in this zone contain air and water.

Vector: any insect or other arthropod, rodent, or other animal capable of transmitting the causative agents of human disease.

Vermicomposting: an activity that produces compost through worm activity.

Waste Discharge Requirements (WDR): the permit issued by the Regional Water Quality Control Board for the discharge of waste to land.

Waste Shed: area in which a waste stream is generated.

Wastestream: the body of material composed of discards, by-products, and obsolete objects that is generated by industry, government, and the private commercial and residential sectors. The "wastestream" does not always end up wasted *per se* in landfills or incinerators: some of it will be recycled, composted, salvaged for re-use, or sent to waste-to-energy facilities.

Wetland: those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands include, but are not limited to, swamps, marshes, bogs, and similar areas. [as defined by the U.S. Army Corps of Engineers and the U.S. EPA]

Windrow Composting Process: the process in which compostable material is placed in elongated piles. The pile or "windrows" are aerated and/or mechanically turned on a periodic basis.

Within-Vessel Composting Process: a process in which compostable material is enclosed in a drum, silo, bin, tunnel, reactor, or other container for the purpose of producing compost.

7.2 ACRONYMS USED IN THE EIR

AB: Assembly Bill

AB 939: Assembly Bill 939

ACGIH: American Conference of Governmental Industrial Hygienists

BOD: Biological Oxygen Demand

Cal-OSHA: California Occupational Safety and Health Administration

Cal-EPA: California Environmental Protection Agency

Caltrans: California Department of Transportation

CARB: California Air Resource Board

CCR: California Code of Regulations

CCCI: Cold Creek Compost, Inc.

CDF: California Department of Forestry

CDFG: California Department of Fish and Game

CEQA: California Environmental Quality Act

CFR: Code of Federal Regulations

CHP: California Highway Patrol

CIWMB: California Integrated Waste Management Board

CIWMP: County Integrated Waste Management Plan

cm/sec: centimeters per second

COE: U.S. Army Corps of Engineers

CoIWMP: County Integrated Waste Management Plan

dBA: Decibels (measured on the "A" scale of frequency)

DOT: U.S. Department of Transportation

DTSC: California Department of Toxic Substance Control

EIR: Environmental Impact Report

EPA: U.S. Environmental Protection Agency

Fed/OSHA: Federal Occupational Safety and Health Administration

LEA: Local Enforcement Agency

MCAQMD: Mendocino County Air Quality Management District

MSL: Mean Sea Level

MSW: Municipal Solid Waste

NAAQS: National Ambient Air Quality Standards

NIOSH: National Institute of Occupational Safety and Health

NPDES: National Pollutant Discharge Elimination System

OSHA: Occupational Safety and Health Administration

PEL: Fed/OSHA Permissible Exposure Limit

PM₁₀: Fine particulate matter

RCSI: Report of Composting Site Information

REL: NIOSH Recommended Exposure Limit

RWD: Report of Waste Discharge

RWQCB: Regional Water Quality Control Board

SAAQS: State Ambient Air Quality Standards

SWFP: Solid Waste Facility Permit

SWRCB: State Water Resources Control Board

SWPPP: Storm Water Pollution Prevention Plan

SWMP: Storm Water Monitoring Program

tpd: tons per day

tpy: tons per year

TLV: ACGIH Threshold Limit Value

USFWS: United States Fish and Wildlife Service

WDR: Waste Discharge Requirements

APPENDIX A

NOTICE OF PREPARATION (March 4, 1996 and January 16, 1997)

Notice of Preparation - Revised

Mendocino County

To:	Public Works	RWQCB	Janet Meader
	Environmental Health	State Clearinghouse	Donald Bone
	Building Inspection - Ukiah	Solid Waste - County	Marjorie Belt
	Emergency Services	Water Agency	Eric Sunswheat
	Assessor	California Highway Patrol	Bob Sack
	Ag Commissioner	Dept of Forestry	Pano Stephens
	Air Quality Management	Caltrans	Francine Long
	Mendo Environmental Center	Dept of Fish and Game	Noble Waidelich
	Horseshoe Circle Water Assoc	Dale McCulley	Mary Walsh
	Army Corps of Engineers	Gary Rasche	Mary Goodwin
	Mendocino Solid Waste Auth.	Susan Brandt-Hawley	Potter Valley Com Svc Dist
	California Integrated Waste Management		

Subject: Revised Notice of Preparation of a Draft Environmental Impact Report

Lead Agency:

Mendocino County Department of Planning
and Building Services
501 Low Gap road, Room 1440
Ukiah, CA 95482

Consulting Firm:

Environmental Science
Associates
301 Brannan St, Suite 200
San Francisco, CA 94107-1811

Contact: Pamela Townsend

Contact: Paul Miller

Mendocino County will be the Lead Agency and will prepare an environmental impact report for the project identified below. We need to know the views of your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency will need to use the EIR prepared by our agency when considering your permit or other approval for the project.

The project description, location, and the potential environmental effects are contained in the attached materials. A copy of the Initial Study is not attached.

Due to the time limits mandated by State law, your response must be sent at the earliest possible date but **not later than 30 days** after receipt of this notice. Please send your response to Pamela Townsend at the address shown above. We will need the name for a contact person in your agency.

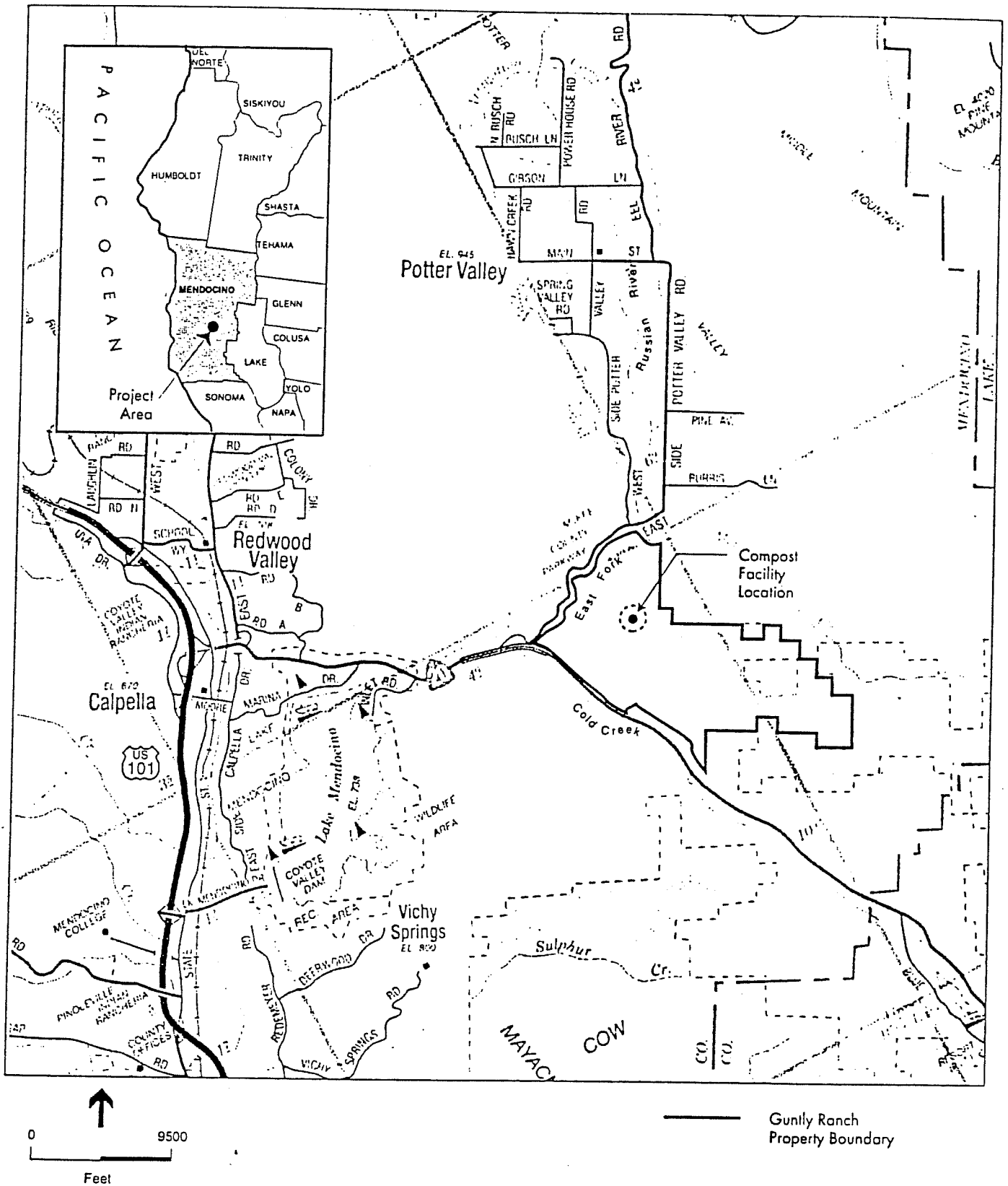
Project Title: Use Permit #U 26-93 - Cold Creek Compost Facility, SCH# 96032033

Project Location: Guntly Ranch, Eastside Potter Valley Road, Potter Valley, Mendocino County; AP# 177;150-02 and 177-150-03.

Project Description: The purpose of this NOP is to solicit comment on potential impacts relative to changes to the mixed solid waste compost facility proposed by Martin Mileck (dba Cold Creek Compost) on the Guntly Ranch (requiring a use permit - #U 26-93) that were not specified in the original NOP issued March 4, 1996.

The comments originally submitted by your agency, organization or by any individual will also be considered in the preparation of the EIR and need not be duplicated. Changes to the project described in the March 4, 1996 NOP include:

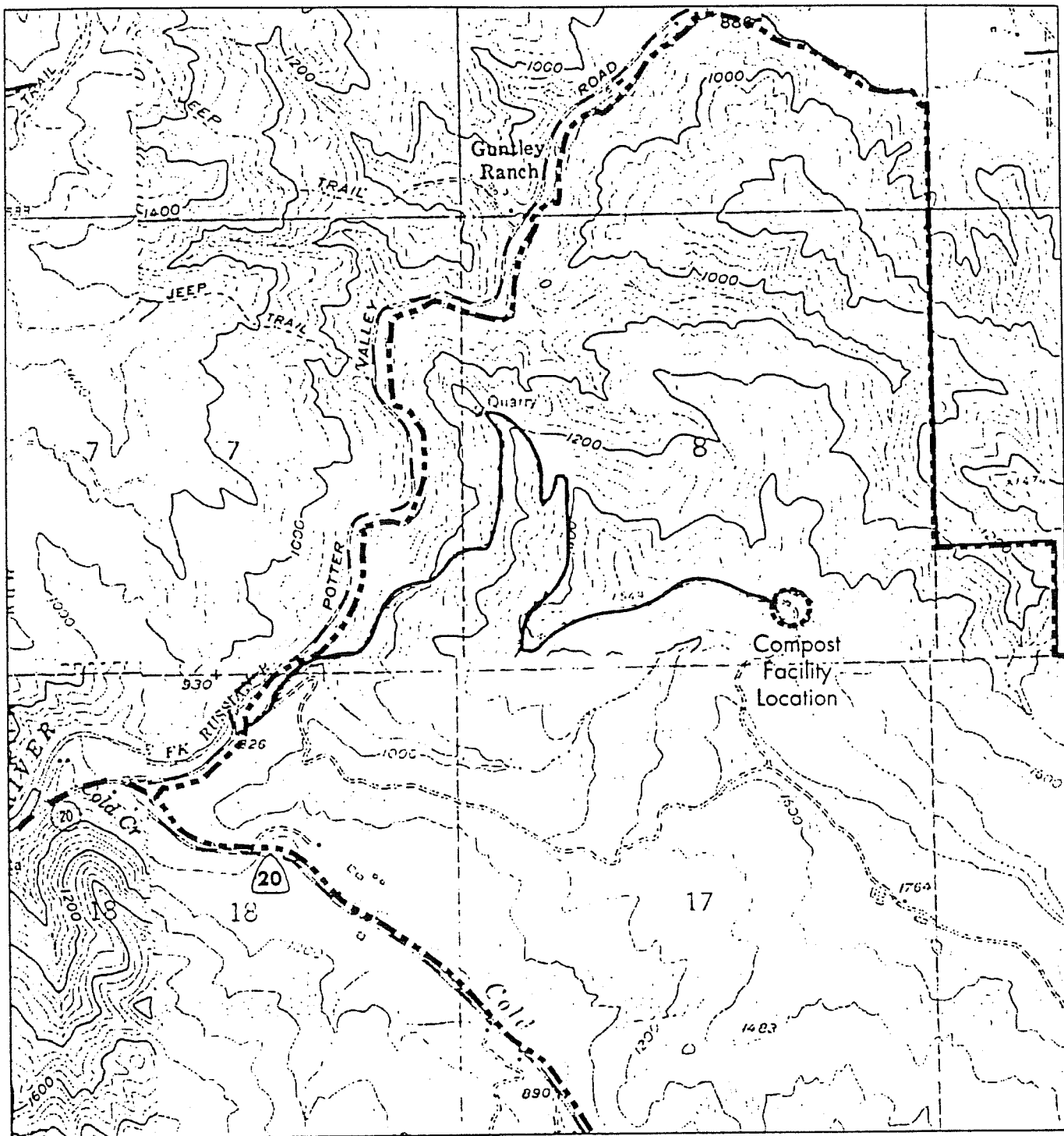
1. The project site also includes an area lying 1,800+- feet easterly of the 10 acre project site for three 22,000 storage tanks on cement pads for process water and potable water, and one 2,500 gallon tank at the well head for potable water (Figure 2.3).
2. The project also includes a floor drain system under the roof that captures rain water that blows under the roof. The floor drain channels the rainwater to a 22,000 gallon tank.
3. The project site includes auxiliary areas near the compost pad for storing lime and gypsum. Additives and amendments may also be stored outside the roof structure on the compost pad.
4. Addition of biosolids as a feedstock. Biosolids are processed and regulated wastewater solids that originate as sewage sludge.
5. Process water may include brewery process water from an offsite source. Rainwater collected by the floor drain system will also be used as process water.
6. Maximum truck traffic generation is estimated at 40 round trips per day (80 one way trips).



SOURCE: CSAA, Environmental Science Associates

Cold Creek Compost EIR / 960106 ■

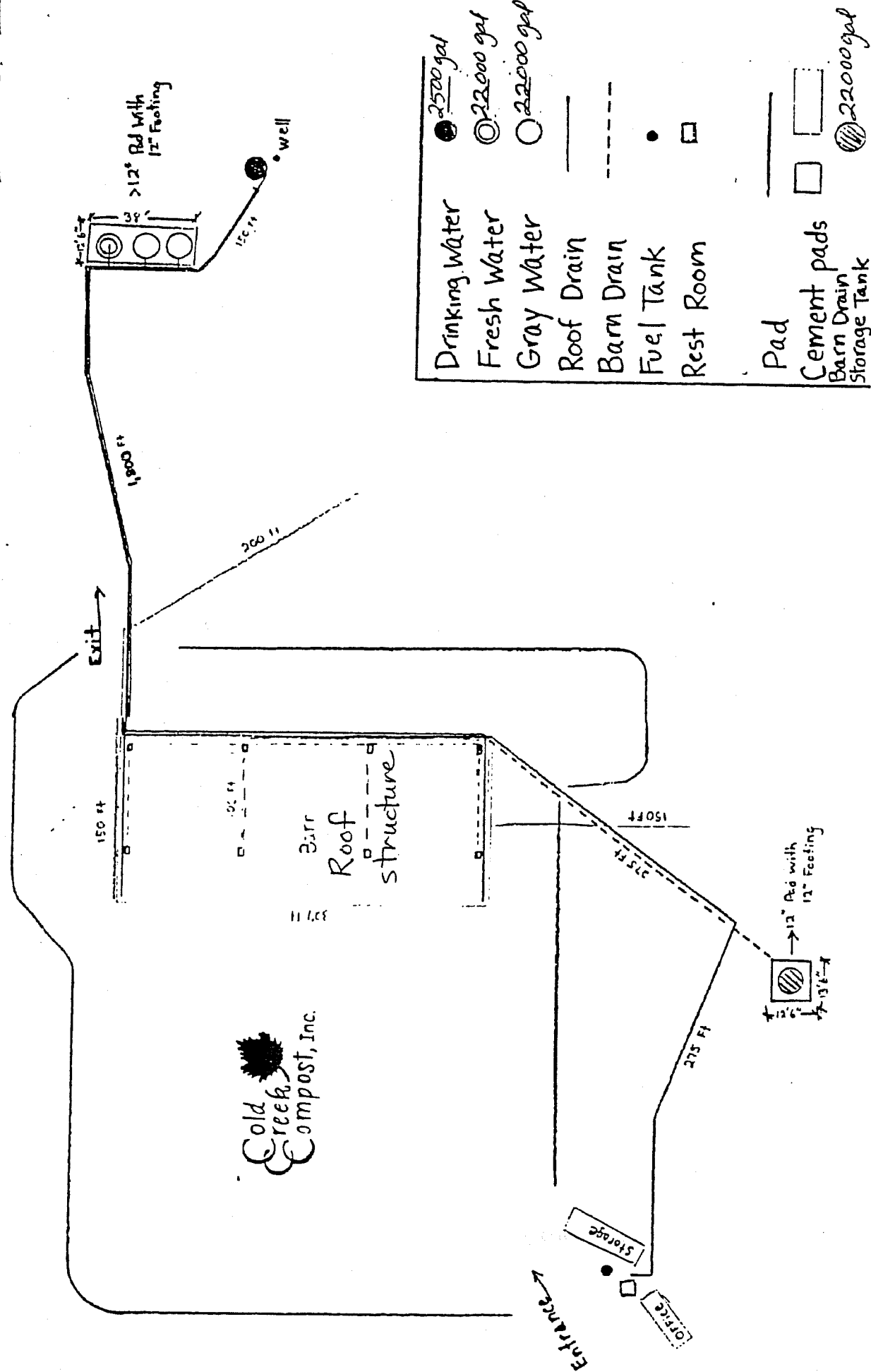
Figure 2.1
Site Vicinity Map



--- Guntley Ranch
Property Boundary

Cold Creek Compost EIR / 960106 ■

Figure 2.2
Project Area Topography



SOURCE: Cold Creek Compost, Inc.

Cold Creek Compost EIR / 960106 ■

Figure 2.3
Site Facilities Plan

Notice of Preparation

MENDOCINO COUNTY

To: Attached List / Interested Parties
(Agency)

(Address)

Subject: **Notice of Preparation of a Draft Environmental Impact Report**

Lead Agency:

Mendocino County
Agency Name Planning & Building Services
Mail Address: Courthouse
Street Address 589 Low Gap Road
City/State/Zip Ukiah, CA 95482
Contact Pamela Townsend

Consulting Firm (If applicable):

Firm Name _____
Street Address _____
City/State/Zip _____
Contact _____

Mendocino County will be the Lead Agency and will prepare an environmental impact report for the project identified below. We need to know the views of your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency will need to use the EIR prepared by our agency when considering your permit or other approval for the project.

The project description, location, and the potential environmental effects are contained in the attached materials. A copy of the Initial Study (☐ is ☒ is not) attached.

Due to the time limits mandated by State law, your response must be sent at the earliest possible date but **not later than 30 days** after receipt of this notice. A scoping meeting will be held March 20, 1996, 2:30 p.m., Conference Room Planning & Building Services, 589 Low Gap Road, Ukiah.
Please send your response to Pamela Townsend at the address shown above. We will need the name for a contact person in your agency.

Project Title: #U 26-93 Cold Creek Compost Facility

Project Location: Guntly Ranch, Eastside Potter Valley Road, Potter Valley, Mendocino County
City (nearest) _____ County _____

Project Description: (brief) Use Permit for a mixed solid waste compost facility on 10+ acres, with a design capacity of 50,000 tons per year finished compost. Refer to attached Poroperty owner- Guntly; Applicant- Martin Mileck, Cold Creek Compost, Inc.

Date

3-4-96

Signature

Title Planner II

Telephone (707) 463-4281; FAX 463-5709

Mail to: State Clearinghouse, 1400 Tenth Street, Sacramento, CA 95814 916/445-0613

SCH #

Project Title: Use Permit for Mixed Solid Waste Composting Facility

Lead Agency: Mendocino County Planning & Building Svcs Contact Person: Pamela Townsend

Street Address: Courthouse

Phone: (707) 463-4281

City: Ukiah, CA Zip: 95482

County: Mendocino

Project Location

County: Mendocino City/Nearest Community: Potter Valley

Cross Streets: East Side Potter Valley Road

Assessor's Parcel No. 177-150-01 Section: 7, 8 Twp. 16N Total Acres: 10 of 4000 ac

Within 2 Miles: State Hwy #: 20 Waterways: Russian River, Cold Creek

Airports: _____ Railways: _____ Schools: _____

Document Type

CEQA: ☒ NOP
☐ Early Cons
☐ Neg Dec
☐ Draft EIR

☐ Supplement/Subsequent
☐ EIR (Prior SCH No.)
☐ Other _____

NEPA: ☐ NOI
☐ EA
☐ Draft EIS
☐ FONSI

Other: ☐ Joint Document
☐ Final Document
☐ Other _____

Local Action Type

☐ General Plan Update
☐ General Plan Amendment
☐ General Plan Element
☐ Community Plan
☐ Specific Plan
☐ Master Plan
☐ Planned Unit Development
☐ Site Plan

☐ Rezone
☐ Prezone
☒ Use Permit
☐ Land Division (Subdivision, Parcel Map, Tract Map, etc.)

☐ Annexation
☐ Redevelopment
☐ Coastal Permit
☒ Other Solid Waste Facili-
ties Permit will

also be required

Development Type

☐ Residential: Units _____ Acres _____
☐ Office: Sq.ft. _____ Acres _____ Employees _____
☐ Commercial: Sq.ft. _____ Acres _____ Employees _____
☒ Industrial: Sq.ft. _____ Acres 10 Employees 2-5
☐ Educational
☐ Recreational

☐ Water Facilities: Type _____ MGD
☐ Transportation: Type _____
☐ Mining: Mineral _____
☐ Power: Type _____ Wats
☒ Waste Treatment Type Compost facility
☐ Hazardous Waste: Type _____
☐ Other: _____

Project Issues Discussed in Document

☐ Aesthetic/Visual	☐ Flood Plain/Flooding	☐ Schools/Universities	☒ Water Quality
☐ Agricultural Land	☐ Forest Land/Fire Hazard	☐ Septic Systems	☒ Water Supply/Groundwater
☒ Air Quality	☐ Geologic/Seismic	☐ Sewer Capacity	☐ Wetland/Riparian
☐ Archeological/Historical	☐ Minerals	☐ Soil Erosion/Compaction/Grading	☐ Wildlife
☐ Coastal Zone	☒ Noise (Truck traffic)	☐ Solid Waste	☐ Growth Inducing
☒ Drainage/Absorption	☐ Population/Housing Balance	☒ Toxic/Hazardous (leachate)	☐ Landuse
☐ Economic/Jobs	☐ Public Services/Facilities	☐ Traffic/Circulation	☐ Cumulative Effects
☐ Fiscal	☐ Recreation/Parks	☐ Vegetation	☒ Other <u>Public Health</u> <u>Safety</u>

Present Land Use/Zoning/General Plan Use

Ranching, classified Range Lands (RL); applicant is operating a compost facility for
animal waste processing.

Project Description

See attached. (SCH# 94103025 was assigned to a Notice of Completion of a Negative Declaration for the use permit, which was subsequently overturned by the Superior Court).

SEE NOTICE OF SCOPING MEETING ON NEXT PAGE

NOTE: Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. from a Notice of Preparation or previous draft document) please fill it in.

Revised October 1989

Reviewing Agencies Checklist

KEY

S = Document sent by lead agency
X = Document sent by SCH
✓ = Suggested distribution

☐ Resources Agency
☐ Boating & Waterways
☐ Coastal Commission
☐ Coastal Conservancy
☐ Colorado River Board
☐ Conservation
☒ Fish & Game
☒ Forestry
☐ Office of Historic Preservation
☐ Parks & Recreation
☐ Reclamation
☐ S.F. Bay Conservation & Development Commission
☒ Water Resources (DWR)

Business, Transportation & Housing
☐ Aeronautics
☐ California Highway Patrol
☒ CALTRANS District # 1
☐ Department of Transportation Planning (headquarters)
☐ Housing & Community Development
☐ Food & Agriculture
☒ Health & Welfare
☒ Health Services
 State & Consumer Services
☐ General Services
☐ OLA (Schools)

Environmental Affairs

☐ Air Resources Board
☒ APCD/AQMD
☒ California Waste Management Board
☐ SWRCB: Clean Water Grants
☐ SWRCB: Delta Unit
☐ SWRCB: Water Quality
☐ SWRCB: Water Rights
☒ Regional WQCB # 1 (North Coast)

Youth & Adult Corrections

☐ Corrections
 Independent Commissions & Offices
☐ Energy Commission
☐ Native American Heritage Commission
☐ Public Utilities Commission
☐ Santa Monica Mountains Conservancy
☐ State Lands Commission
☐ Tahoe Regional Planning Agency

Other _____

Public Review Period (to be filled in by lead agency)

Starting Date March 8, 1996

Signature _____

SCOPING MEETING: 2:30 P.M., MARCH 20, 1996, CONFERENCE ROOM, MENDOCINO COUNTY PLANNING & BLDG SERVICES, 589 LOW GAP ROAD, UKIAH

Ending: APRIL 8, 1996

Date _____

Lead Agency (Complete if applicable):

Consulting Firm: Mendocino County Planning & Building Services

Address: Courthouse

City/State/Zip: Ukiah, CA 95482

Contact: Pamela Townsend

Phone: (707) 463-4281

For SCH Use Only:

Date Received at SCH _____

Date Review Starts _____

Date to Agencies _____

Date to SCH _____

Clearance Date _____

Notes:

Applicant: _____

Address: _____

City/State/Zip: _____

Phone: () _____

AGENCY REFERRAL LIST:

State Clearinghouse

Mendocino County:

Public Works

Environmental Health

Building Inspection

Emergency Services

Assessor

Agricultural Commissioner

Water Agency

Mendocino County Air Quality Management District

Solid Waste

Federal

Army Corps of Engineers

Other

Mendocino County Solid Waste Authority

PROJECT DESCRIPTION

The project is a use permit (#U 26-93) for a mixed solid waste composting facility proposed by Martin Mileck, Cold Creek Compost, Inc. on a ranch owned by Charles Guntly. The EIR should also be adequate to serve as the environmental document for the following identified permits: solid waste facilities permit, waste discharge requirements, air quality authority construct and permit to operate; other identified County permits include well, septic system, building, grading and encroachment permits.

Feedstocks are limited to manures, other agricultural materials, green materials, streetsweepings, wood, and fishery, grocery and restaurant wastes. Facility design capacity is a maximum of 50,000 tons per year incoming feedstock, an average of 200 tons per day, producing approximately 133.2 tons compost per day. The compost pad encompasses approximately 6 acres of the 10 acre operations area. The site is surrounded by the 4,000+ acre Guntly Ranch, with the nearest residences located about 1 mile from the site.

The proposed project is a revision of a prior project (also #U 26-93) approved and litigated in 1995. In February 1995, the County Board of Supervisors upheld on appeal from the Planning Commission a Negative Declaration and use permit (#U 26-93) to compost the range of feedstocks listed above (except streetsweepings). The environmental impact report (EIR) which is the subject of this Notice of Preparation is being prepared pursuant to Superior Court Order No. CV71886, Preserve County Neighborhoods v. County of Mendocino. Although the scope of the EIR will be determined in compliance with procedures under CEQA and the the CEQA Guidelines, we anticipate that the scope of work will be substantially limited to the issues specified by the court:

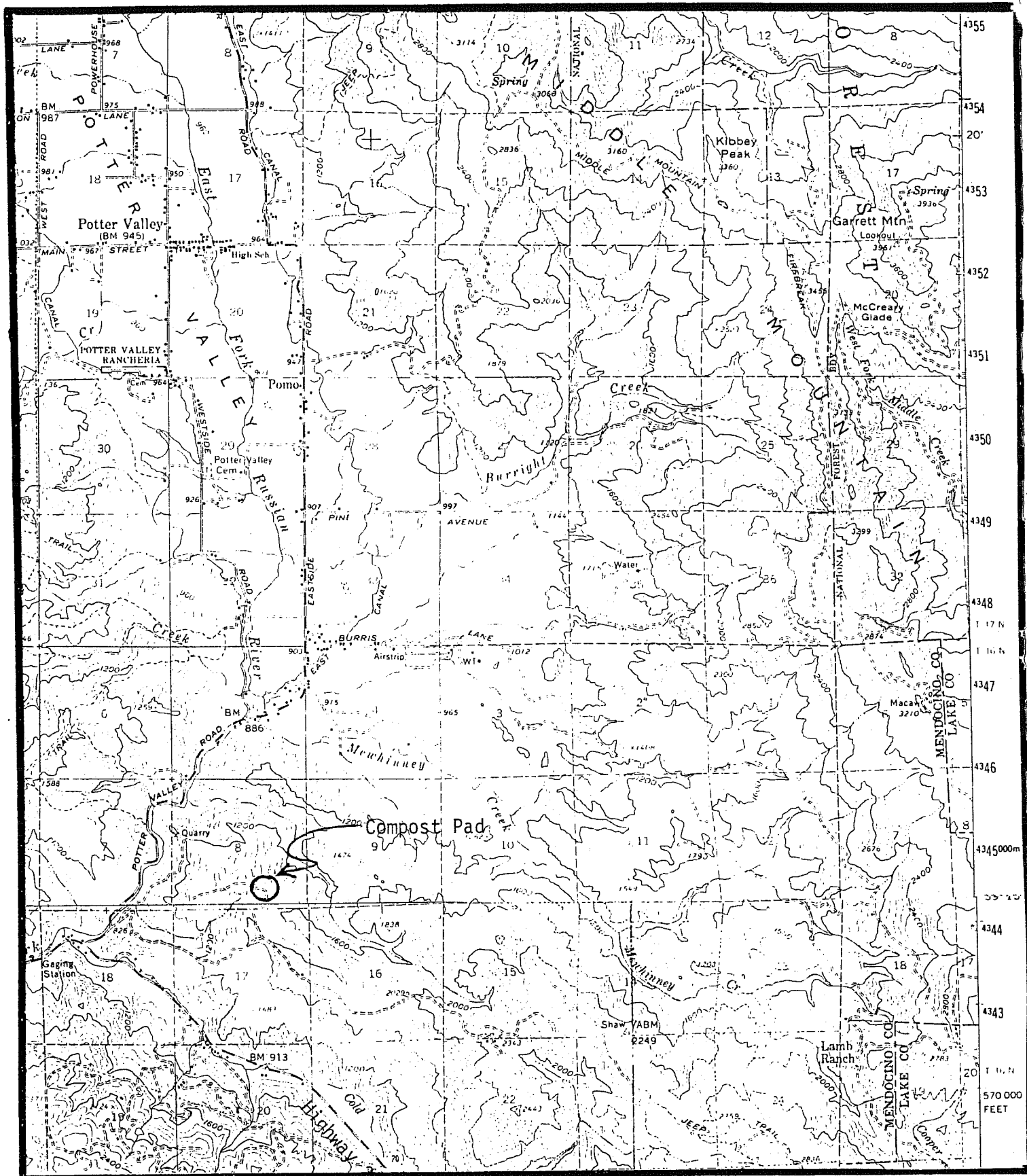
1. The effect of compost leachate on domestic water wells in the area, the Russian River and Lake Mendocino and the effect of the construction of a roof (shed) over a 3.4 acre roof over a portion of the compost pad.
2. The public health impacts on ground and surface water, *Aspergillus fumigatus*, and impacts related to traffic noise, safety and odors.

Existing Uses: The Rangelands (R-L) zoning district allows animal waste processing as a permitted use. Animal waste composting is currently being conducted on the project site designed and operated in accordance with the Report of Composting Site Information under the notification requirements of the composting regulations of the California Integrated Waste Management Board and County Division of Environmental Health, the local enforcement agency.

Changes to Project Description: Pursuant to litigation in 1995, the Superior Court identified a number of deficiencies requiring preparation of an EIR. The project which is the subject of this EIR incorporates several changes to the original project approved and litigated as #U 26-93. The Report of Composting Site Information, January 15, 1996, represents the revised project. Noteworthy changes to the project include:

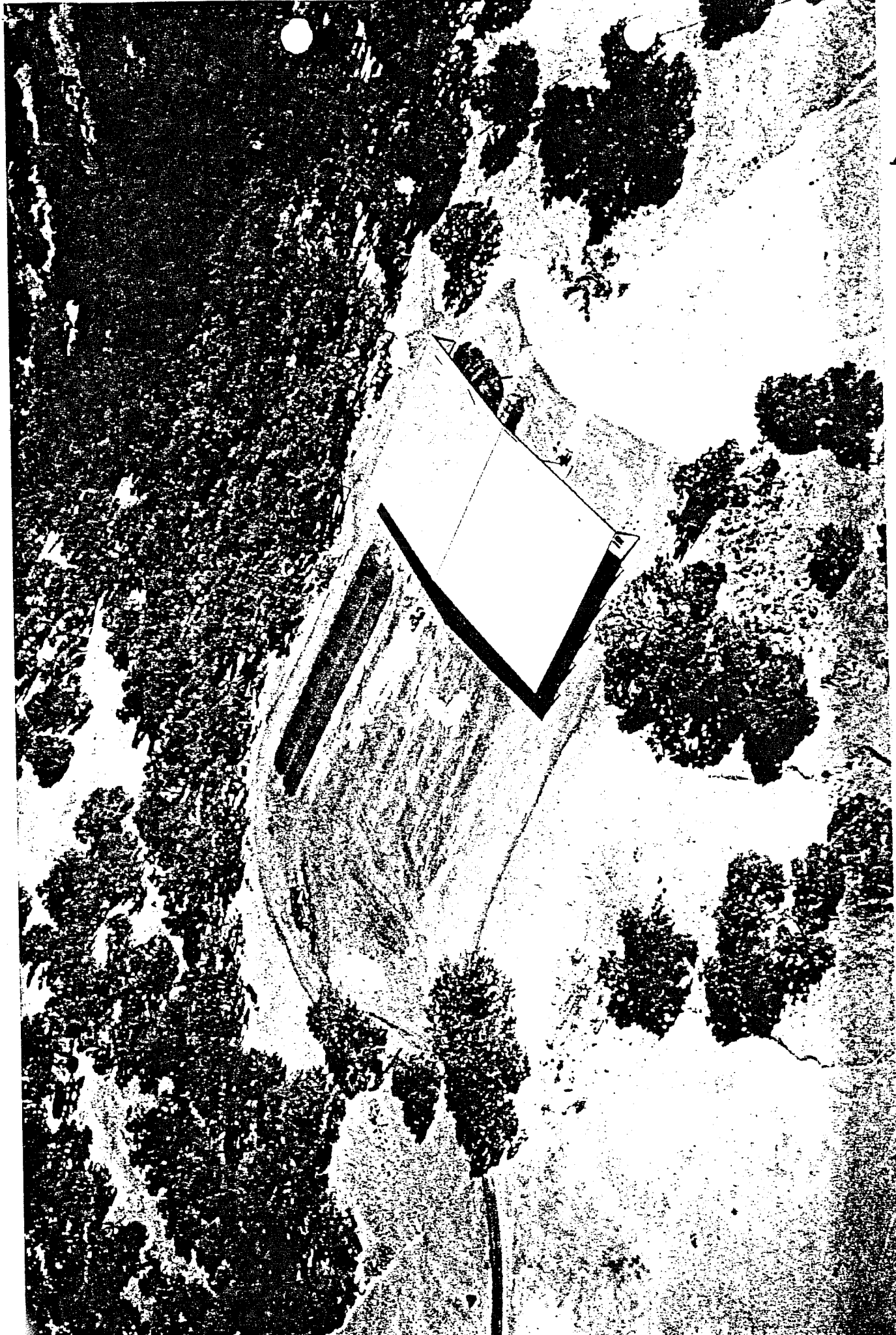
1. Steetsweepings are an added feedstock.
2. Maximum percentages for additives and amendments, and estimated percentages for various feedstock types are omitted, in conformance with revised State regulations.
3. Maximum daily load capacity/design capacity is increased from 200 tons per day (250 days per year) to 400 tons per day. (Average daily incoming feedstock and maximum annual processing volumes are unchanged at 200 tons per day and 50,000 tons per year, respectively).
4. Facility size is reduced from 12.5 to 10 acres (reflects elimination of leachate ponds), and compost pad is increased from estimated 5.5 to 6.0 acres.
5. Leachate collection ditches, sedimentation ponds and containment ponds are eliminated.
6. Compost pad permeability, previously specified at 1×10^{-6} cm/s, is specified to conform to requirements of Regional Water Quality Control Board.
7. Addition of a 3.4 acre roof structure covering about 65% of the compost pad; a 1.14 acre roof has been constructed. To eliminate leachate production, compost operations will be maintained under this structure during the rainy season, and any finished compost or additives stored on the pad will be securely covered consistent with the facility Storm Water Pollution Prevention Plan.
8. Seasonal peak delivery truck traffic of limited duration is estimated at 20-25 round trips per day to accommodate 400 peak tons per day, compared with the previous estimated 12 round trips per day.

The proposed operation is more fully described in the Report of Composting Site Information, January 15, 1996, geotechnic reports and original staff report for #U 26-93 which are available upon request.



CASE NUMBER: U 26-93	OWNER: Guntly	AGENT: Mileck
A/P NUMBER: 177-150-01 Compost Pad	Location Map	SCALE: 1" = 1 mile  NORTH





COMPOST PAD/ Existing roof structure, January 1996



APPENDIX B

SITE PHOTOGRAPHS

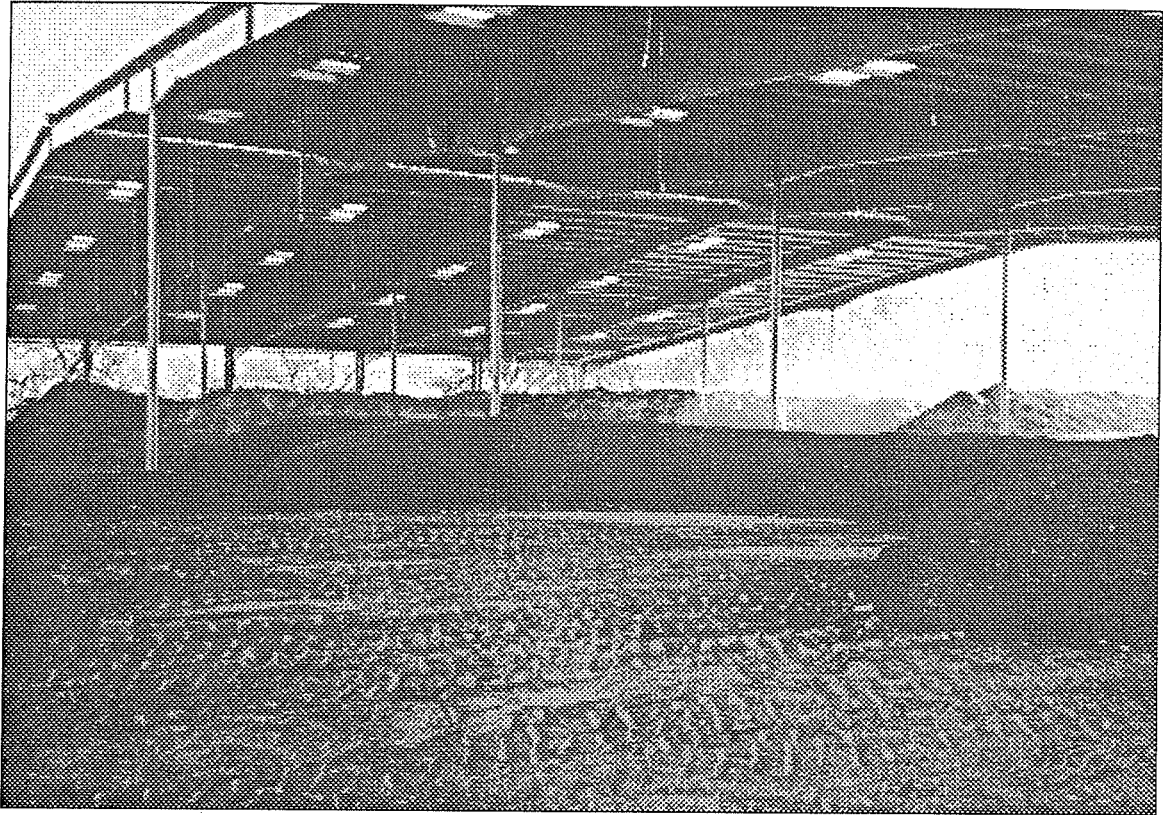


Plate 1: Windrows under roof structure.

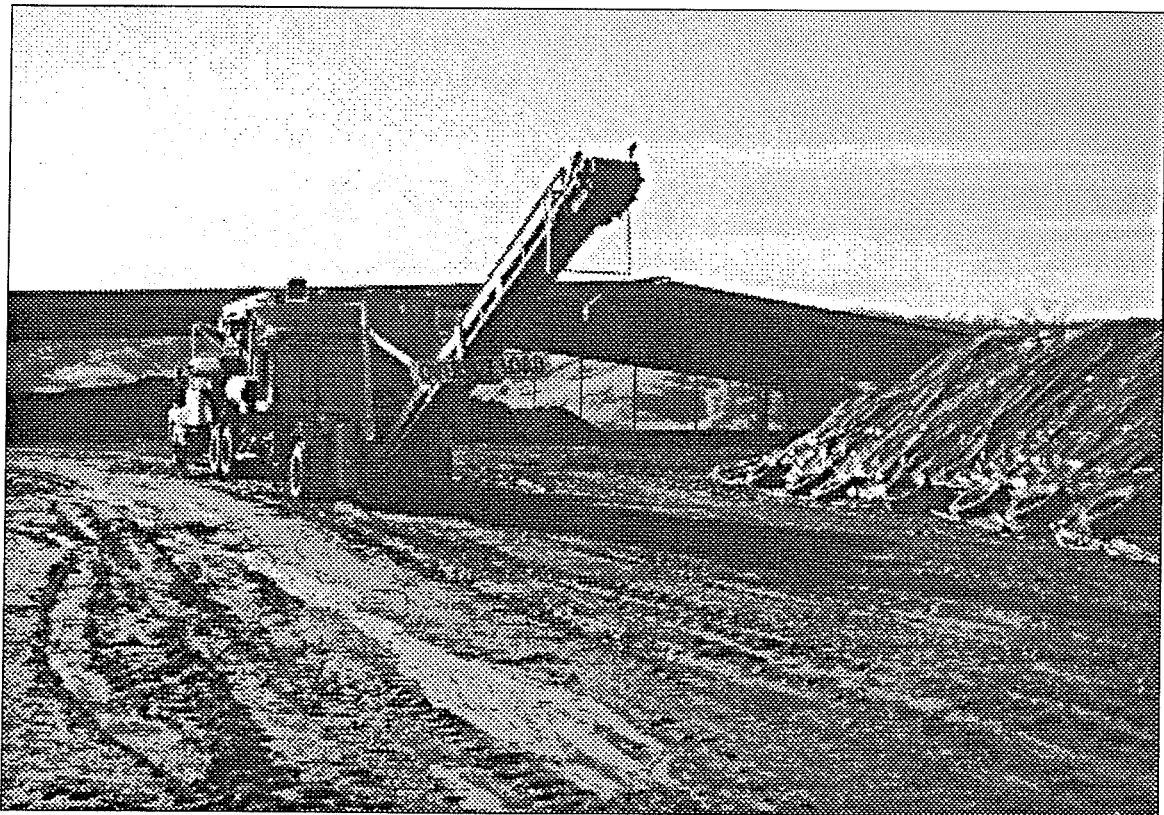


Plate 2: Tub Grinder

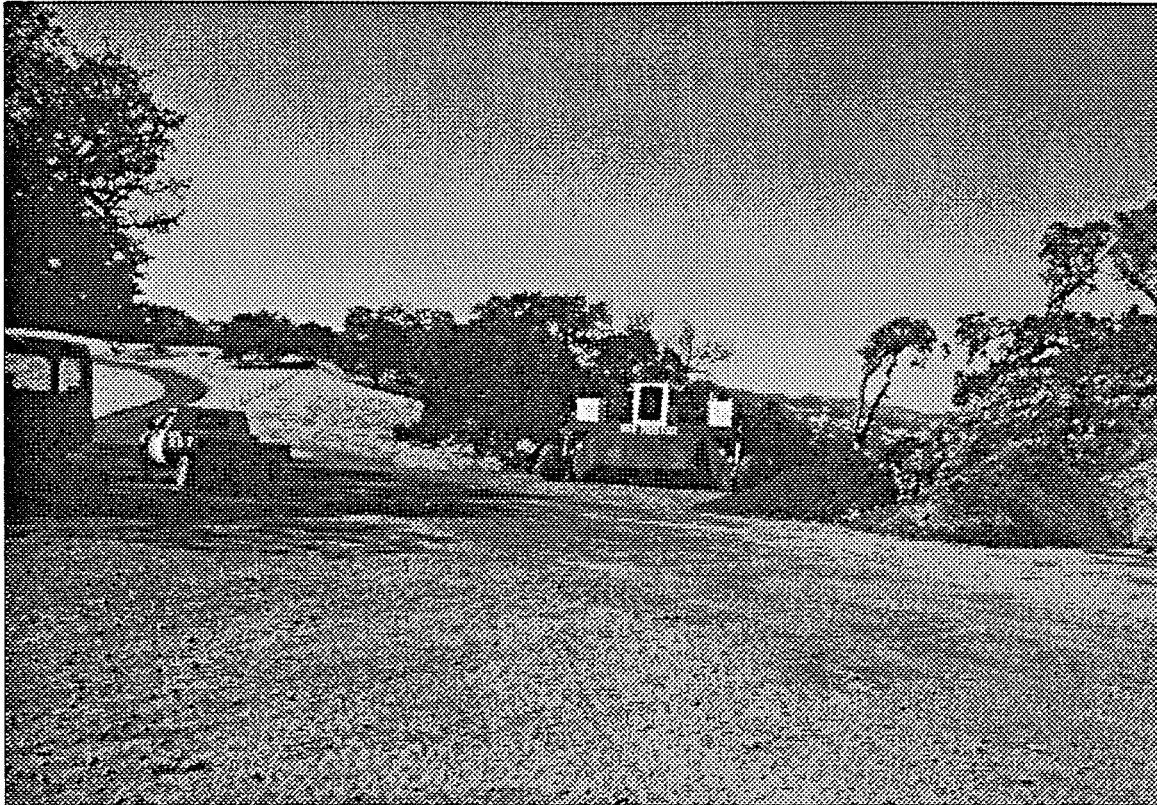


Plate 3: Windrow Turner



Plate 4: Power Screen 6-16 Trommel



Plate 5: Three 22,000 - gallon water supply storage tanks.

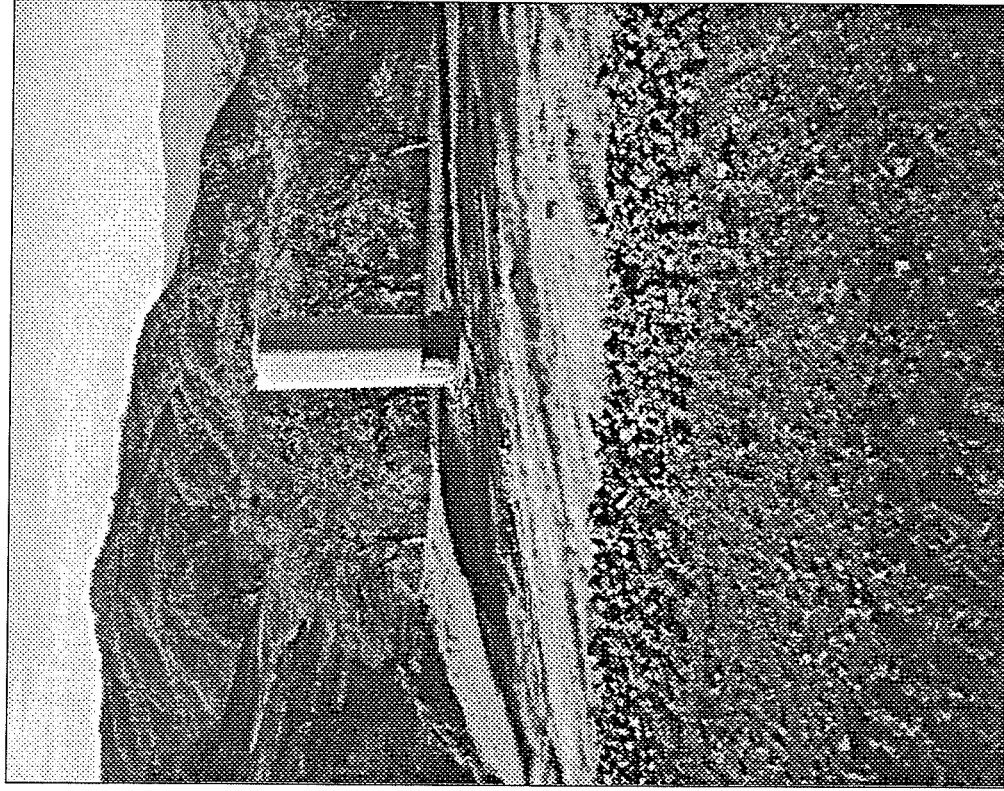


Plate 6: 22,000 - gallon leachate collection tank.

APPENDIX C

BIOLOGY TECHNICAL MEMORANDUM

ESA MEMORANDUM

TO: Paul Miller

FROM: Tom Roberts

DATE: April 6, 1997

SUBJECT: Cold Creek Compost EIR - Biological survey and results

ESA reviewed the project site biological data and made its initial assessment by comparing information on special status species¹ from the California Natural Diversity Data Base (County listing for Mendocino County) with habitat predictions based on the Wildlife Habitat Relationships (WHR) data base (Version 5.0). We also reviewed the Mendocino County Landfill Siting Study (Anderson Consulting Group (1992)). Where a special-status species occurring in the County was also normally resident in the general habitat type found on site, we considered it a species with a potential to occur, and designed our field review accordingly.

Certified Wildlife Biologist Tom Roberts visited the site on December 12, 1996.

Setting and Impact Analysis

Wildlife and Vegetation. The Cold Creek Compost facility is within the California Floristic Province. The eastern Mendocino County region has a Mediterranean climate and is a mosaic of upland oak, mixed evergreen, and coniferous forests, native and non-native grasslands, upland scrubs, wetland communities, and riparian scrubs and forests. In the "bioregional" characterizations recently developed as part of California's Agreement on Biological Diversity (a multi-agency memorandum signed in 1993), the area is near the regional separation between the North Coast Klamath and Sacramento Valley Bioregions, and shares plant and animal species from both areas. Special status plant and animal species with a potential to occur include several species of bat, American badger (*Taxidea taxus*), nesting raptors, and riparian-dependent passerine birds such as yellow warbler (*Dendroica petechia brewsteri*) and yellow breasted chat (*Icteria virens*). Mendocino County has many special status plant species, but most are associated with coastal or wetland habitats and no ground-disturbing activity is planned at the site above current levels.

The immediate vicinity of the Cold Creek Compost facility supports a mixed oak type, combining Coastal Oak and Valley oak woodlands (*Quercus* sp.) as described by Mayer and Laudenslayer (1988). Closer to the composting area, these trees are small and widely scattered, with an understory of predominately annual rye grass (*Lolium multiflorum*) and foxtail (*Hordeum* sp.). There are few shrubs, and the structural

¹Special status species are defined for the purpose of this document to include species considered to meet CEQA Guidelines Section 15380 criteria as rare, threatened or endangered, and those not meeting the criteria but of other public concern.

December 16, 1996

Page 2.

elements which would support special-status wildlife (cavity nest sites, an abundant small mammal population, key forage plants) are lacking.

Wildlife use of the immediate composting area is limited to such habitat generalists as scrub jay (*Aphelocoma coerulescens*) and brown towhee (*Pipilo fuscus*), both observed during the reconnaissance. Deer use (*Odocoileus hemionus*) is evident, but these ungulates and the resident elk herd have the ability to acclimate quickly to human noises and actions when these are not associated with an immediate threat.

Wetlands. Wetlands are defined by the U.S. Army Corps of Engineers (Corps) and the U.S. Environmental Protection Agency (EPA) as those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Road grading has resulted in some interference with the surface water table, but there are no wetlands on the site, which is well drained.

Conclusions. Changes in the ambient pattern of composting activity at the site may include the use of grinding machinery and a possible increase in the number of trucks using the access road. The site provides habitat for species which are common and widespread in the immediate vicinity and throughout the County, and which are tolerant of human disturbance. We anticipate no significant impacts on wildlife or vegetation from the proposed action.

References

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