DOE/EA--1233

Environmental Assessment and Finding of No Significant Impact

Biorecycling Technologies, Inc., Noble Biogas and Fertilizer Plant

Fresno County, California

U.S. Department of Energy
Denver Support Office
Commercialization Ventures Program
1617 Cole Boulevard
Golden, Colorado

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DOE/EA--1233

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ACRONYMS AND ABBREVIATIONS

BTI	Biorecycling Technologies, Inc.
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
DOE	U.S. Department of Energy
EA	Environmental Assessment
FONSI	Finding of No Significant Impact
FR	Federal Register
kw	kilowatts
NEPA	National Environmental Policy Act
P.L.	Public Law
SHPO	State Historic Preservation Officer
USFWS	U.S. Fish & Wildlife Service

EXECUTIVE SUMMARY

The U.S. Department of Energy (DOE) is considering a proposal from the California Energy Commission for partial funding up to $1,500,000 of the construction of the Biorecycling Technologies, Inc., (BTI) Noble Biogas and Fertilizer Plant in Fresno County, California. BTI along with its contractors and business partners would develop the plant, which would use manure and green waste to produce biogas and a variety of organic fertilizer products. The California Energy Commission has requested funding from the DOE Commercialization Ventures Program to assist in the construction of the plant, which would produce up to one megawatt of electricity by burning biogas in a cogeneration unit.

DOE, through its Commercialization Ventures Program, has solicited applications for financial assistance from state energy offices, in partnership with private-sector organizations, for projects that will accelerate the commercialization of renewable energy technologies. The Commercialization Ventures Program was established by the Renewable Energy and Energy Efficiency Technology Competitiveness Act of 1989 (P.L. 101-218) as amended by the Energy Policy Act of 1992 (P.L. 102-486). The Program seeks to assist entry into the marketplace of newly emerging renewable energy technologies, or of innovative applications of existing technologies. In short, an emerging renewable energy technology is one which has already proven viable but which has had little or no operational experience. The Program is managed by the Department of Energy, Office of Energy Efficiency and Renewable Energy. The Federal action triggering the preparation of this EA is the need for DOE to decide whether to release the requested funding to the California Energy Commission to support the construction of the BTI Noble Biogas and Fertilizer Plant.

The purpose of this environmental assessment (EA) is to provide DOE and the public with information on potential environmental impacts associated with funding development of the proposed project. This EA draws upon extensive documentation, agency review and public comment developed during the impact assessment process which was required by the California Environmental Quality Act (CEQA). DOE regulations (10 CFR 1021.342) direct DOE "to cooperate with the other agencies in developing environmental information and in determining whether a proposal requires preparation of an EIS or EA...." These regulations encourage interagency cooperation to "facilitate coordination and to reduce delay and duplication." In the interest of interagency cooperation, and to reduce delay and duplication in the preparation of its own EA, DOE has relied upon documentation completed under the CEQA process as well as its own review of site conditions and the proposed activities. The attached EA, prepared under the National Environmental Policy Act, reflects DOE's independent evaluation of the impacts associated with the proposed project. The analysis contained in the EA found that the project would have minimal adverse impact on the environment, and would produce several positive environmental outcomes.

CHAPTER ONE
INTRODUCTION

1.1 Purpose of this EA and the NEPA Process

The purpose of this environmental assessment (EA) is to provide the U.S. Department of Energy (DOE) and the public with information on the potential environmental impacts associated with its partial funding up to $1,500,000 for development by Biorecycling Technologies, Inc. of a manure-green waste processing plant near the town of Kerman in Fresno County, California. This EA and supporting documentation will be used by DOE in its deliberations on whether to fund this proposed renewable energy project under its Commercialization Ventures Program. This EA has been prepared in conformance with the following Federal regulations and guidelines:

- National Environmental Policy Act (NEPA) (Public Law 91-190);
- Council on Environmental Quality Regulations implementing NEPA (40 CFR Parts 1500-1508);
- DOE regulations governing agency compliance with NEPA (10 CFR Part 1021); and,
- DOE Secretarial Policy on the National Environmental Policy Act (June 1994).

DOE regulations (10 CFR 1021.341) direct that: "DOE shall integrate the NEPA process and coordinate NEPA compliance with other environmental review requirements to the fullest extent possible." An environmental assessment of the proposed project has already been prepared to comply with the requirements of the California Environmental Quality Act (CEQA). That CEQA-EA has been reprinted as Appendix B of this document. As part of the CEQA review of the project, substantial supporting documentation also was prepared. The CEQA process incorporated numerous opportunities for public comment on the project. In addition, extensive documentation for various Federal, state and local permit applications has been completed. In preparing this EA, DOE has drawn upon these sources as well as its own review of the site, the adjacent environment and proposed project activities. Additional discussion on the intersection of NEPA compliance and the CEQA process is provided below.

Further support for relying on environmental analysis and documentation prepared under the CEQA process can be found in DOE regulations (10 CFR 1021.342) directing DOE "to cooperate with the other agencies in developing environmental information and in determining whether a proposal requires preparation of an EIS or EA...." The regulations encourage interagency cooperation to "facilitate coordination and to reduce delay and duplication." In the interest of interagency cooperation and to reduce delay and duplication in the preparation of its own EA, DOE has relied upon documentation completed under the CEQA process. However, this EA prepared under NEPA reflects DOE's independent evaluation of the impacts associated with the proposed project. DOE takes full responsibility for the scope and content of this document.

1.2 Project Background

DOE is considering a proposal from the State of California, California Energy Commission, for the construction of a manure-green waste processing plant by BTI in Fresno County, California. BTI would develop and operate the project, which has been named the Noble Biogas and Fertilizer Plant. For purposes of this EA, reference to "BTI" includes BTI and any project-related contractors, subcontractors and business partners involved in the development or operation of the plant. The plant would produce biogas and various fertilizer products from locally available manure and green waste. The biogas would be burned in a cogeneration unit to supply heat and electricity to the plant. Up to one megawatt (1,000 kilowatts) of electricity could be generated, of which about 500 kw would be consumed by the plant. Excess electricity would be sold to a local utility or to a local consumer.

1.3 Purpose and Need for the Federal Action

DOE, through its Commercialization Ventures Program, has solicited applications for financial assistance from state energy offices, in a teaming arrangement with private-sector organizations, for projects that will accelerate the commercialization of emerging renewable energy technologies. The Commercialization Ventures Program was established by the Renewable Energy and Energy Efficiency Technology Competitiveness Act of 1989 (P.L. 101-218) as amended by the Energy Policy Act of 1992 (P.L. 102-486). The Program is intended to assist entry into the marketplace of newly emerging renewable energy technologies, or the innovative applications of existing technologies. Generally, an emerging technology means one that a) has already been proven to be technically viable (i.e., it works) but which has had little or no operational experience, b) has not been generally utilized in an innovative application, or c) has been limited to sub-commercial size or quantities, or to restricted or controlled operations or applications. In short, an emerging renewable energy technology is one which has already been proven to be viable but which has had little or no operational experience. The Commercialization Ventures Program is managed by the Department of Energy, Office of Energy Efficiency and Renewable Energy.

The Federal action triggering the preparation of this EA is the need for DOE to decide whether to release the requested funding to help support construction of Noble Biogas and Fertilizer Plant. In addition to supporting construction of a plant that would be energy self-sufficient, DOE funding would be critical to the commercial development of other biogas and manure-green waste processing plants. Commercialization of this plant could lead to similar projects elsewhere in the U.S. These plants could offer a more environmentally benign means of generating electricity which would reduce the reliance on fossil-fuel-fired facilities while offering one solution to a serious agricultural waste disposal problem. In considering whether to fund this project through its Commercialization Ventures Program, DOE must assess its environmental impacts and benefits.

1.4 Regulatory Actions and Requirements

The DOE would issue no permits for the project. Its primary involvement would be confined to partially financing the commercialization of the project and technology. However, in considering a decision to release funding for the project, the DOE has a responsibility under NEPA to assess the project's potential impacts.

Analysis of the Proposed Action assumes that BTI would conform with all applicable Federal, state and local permits and regulations. Conformance with regulatory and permit requirements would help to avoid or minimize potential adverse impacts. The project was submitted to the California State Clearinghouse and subsequently was reviewed by agencies who would have regulatory requirements, permits or oversight over the project (see Appendix C-II). The project proposal and/or the draft Mitigated Negative Declaration was reviewed the U.S. Department of Agriculture--Natural Resources Conservation Service, the Governor's Office of Planning & Research, California Department of Fish & Game, San Joaquin Valley Unified Air Pollution Control District, the Regional Water Quality Control Board for the Central Valley Region, the California Environmental Protection Agency, the state Department of Food and Agriculture, the Integrated Waste Management Local Task Force, the California Department of Conservation, the California Department of Health, the California Air Resources Board, and Fresno County Offices including health, transportation, planning and development engineering.

1.5 Public Involvement

Due to the extensive public involvement and notice completed as part of the NEPA process, DOE decided that a separate Notice of Public Scoping was not required. As part of the CEQA process public notice and opportunities for public comment on the project were provided on several occasions. For example, a public notice of the draft Negative Declaration was issued and the public was allowed to review and comment on it. At the same time the draft was sent to the State Clearinghouse and local governments for review and comment (see Appendix C-II). A public hearing on the proposed Negative Declaration was also held (see Appendix C-III). The project also has been reviewed by local city governments. The closest incorporated city, the City of Kerman, spoke in favor of the project at a public hearing on the project (see Appendix A).

CHAPTER TWO
PROJECT DESCRIPTION

2.1 Proposed Location

The project would be located on the 40 acre site of an abandoned winery in Section 9 of Township 15 South, Range 17 East approximately six miles south of the town of Kerman, California. A detailed description of the project site, adjacent lands and maps of the area can be found in Appendix B.

In brief the proposed project site possesses the following characteristics:

- it is located in an agricultural area and is surrounded by vineyards and cultivated fields;
- a private access road and utilities are in place;
- the private road into the site does not pass through any residential or commercial area;
- the site is a winery which has been abandoned for five years;
- the winery facility has been paved and existing improvements (buildings, stainless steel tanks) on the site can easily be converted to fertilizer production;
- the presence of stainless steel tanks on site whose integrity has been verified by an engineering firm substantially reduces the cost of development;
- there are approximately 8-90 dairies within 30 miles of the site that can provide manure to the plant;
- there is a local market for fertilizer products to be produced by the plant;
- there is a local supply of green waste from agricultural and urban areas, such as vineyard and grass clippings, that can feed the plant;
- the plant site is near the county landfill which currently receives green waste but does not process that waste into usable products;
- in addition to dairies, other local sources of manure include large-scale poultry-growing operations;
- the site includes water wells, including a 400-foot deep well that meets state water quality standards for a potable waster supply;
- a cultivated field can be used for composting operations; and,
- main roads leading to the site access road can support heavy traffic and the estimated maximum traffic levels into the site.

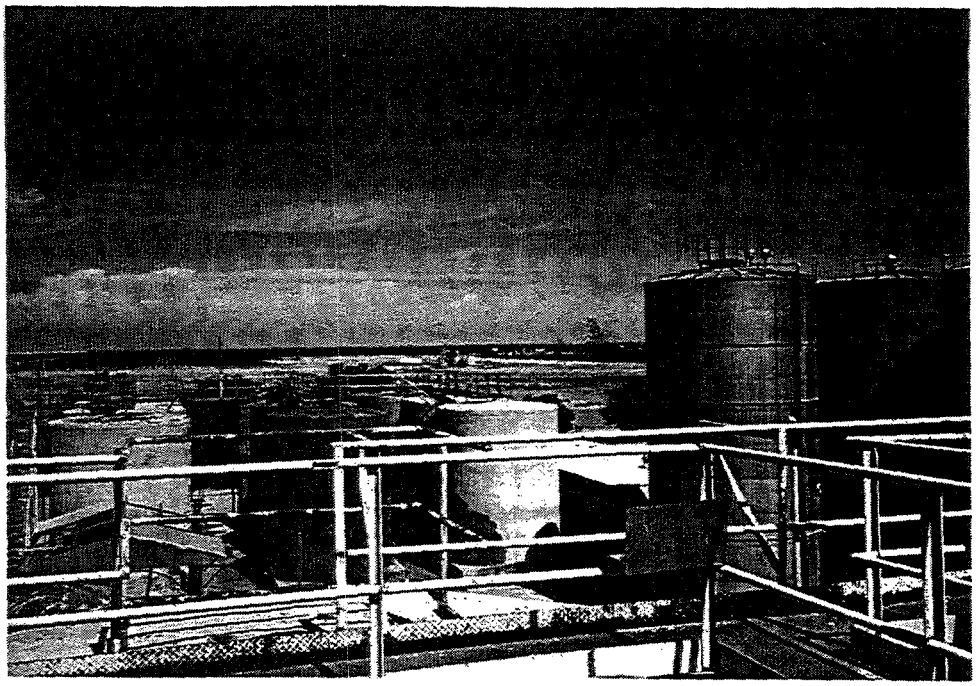
2.2 Existing Activities and Development

Photographs of the site (Figure 2-1) show the extent of existing development.

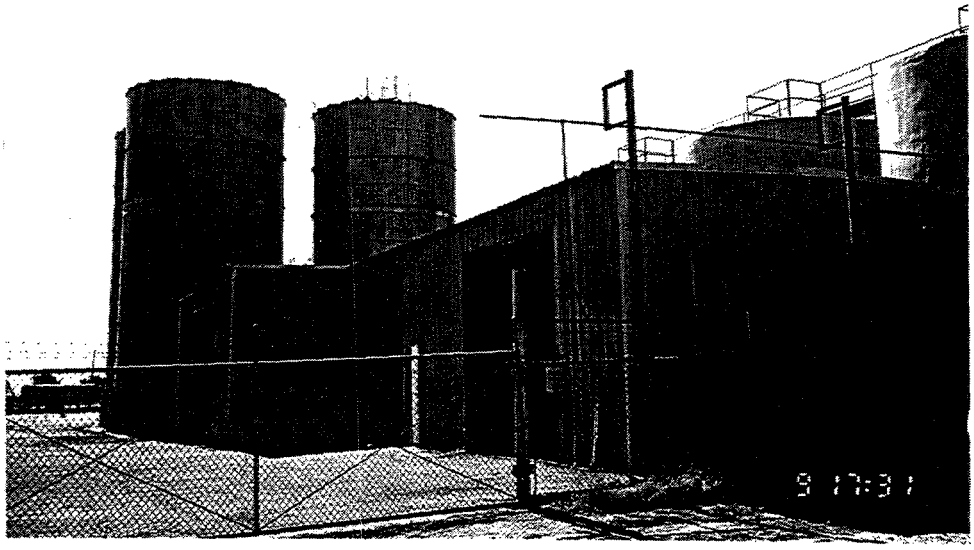
Photographs #1 and #2 of the site. See back of photo for #

Photograph #1. Overview of the Biogas Production and Manure Processing Area.

Photograph #2. Existing Buildings and Stainless Steel Tanks on Site Which Would be Converted to Manure Processing.



Photograph #1: Overview of the Biogas Production and Manure Processing Area

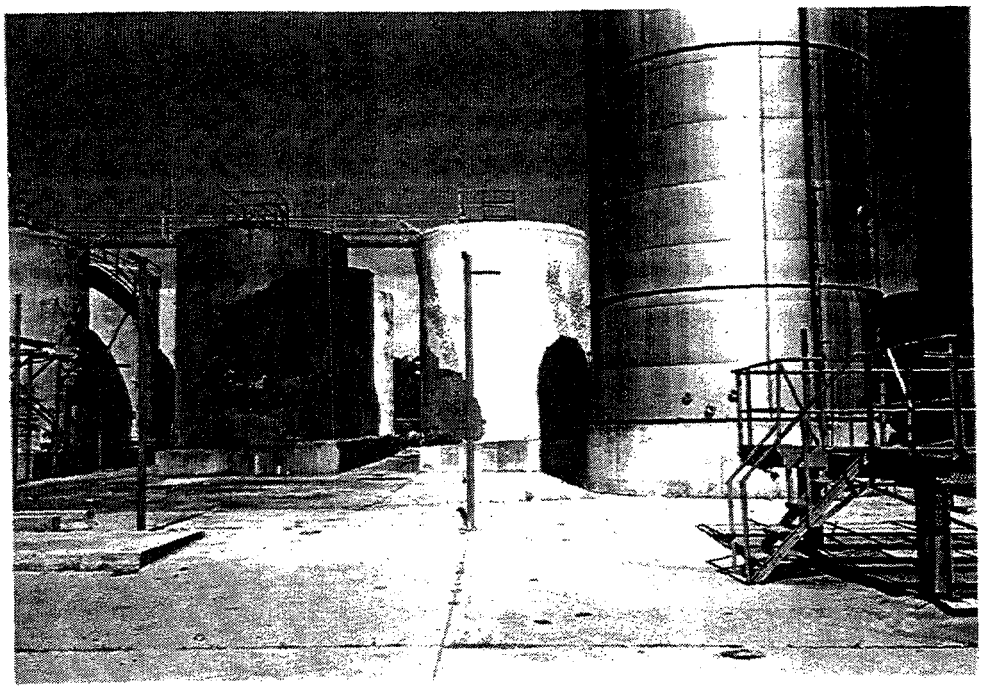


Existing Buildings and Stainless Steel Tanks on Site Which Would be Converted to Manure Processing

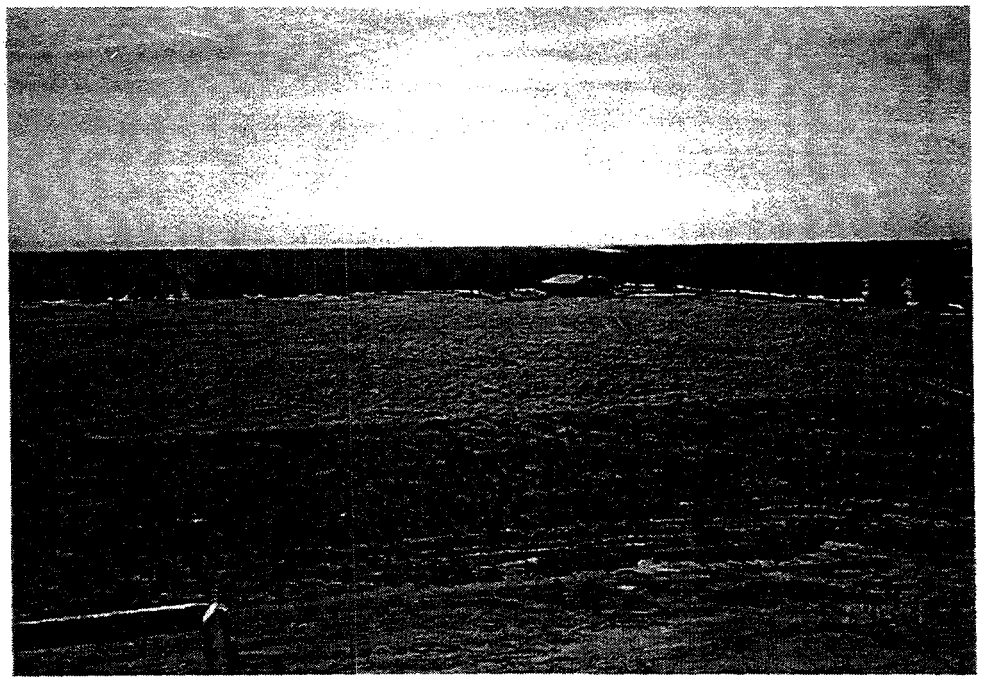
Photographs #3 and #4 of the site -- see back of photos for #

Photograph #3. Paved Area to be Used for Cogeneration Unit

Photograph #4. Overview of Proposed Composting Area and Proposed Caretaker's Residence (Currently Unoccupied)



Photograph #3: Paved Area to be Used for Cogeneration Unit



Photograph #4: Overview of Proposed Composting Area and Proposed Caretaker's Residence (Currently Occupied)

2.3 Proposed Action

Detailed description of the Proposed Action and project activities can be found in Appendix B. Only a brief overview of project components and activities is provded below.

Energy Production. Raw manure from local farms would be delivered to the site by contract hauler. The manure would be fed into closed, stainless steel tanks where anaerobic digestion of the manure would occur. Existing tanks on site would be converted to this use. An examination of the tanks by an engineering firm found them to be sound and reusable. In addition, tanks which would be used for the manure digester are already insulated with polyurethane.

Biogas generated by this process would be piped to a congenation unit on site where it would be burned to produce heat and electricity. Electricity would be used to power the plant. Excess electricity would be sold. Maximum capacity of the cogeneration unit would be about one megawatt. The plant would require about 500 kw. Waste heat captured from the cogeneration unit would be used to maintain the digester tanks at the appropriate temperature.

Fertilizer Production. Secondary digestion of partially digested material would occur to produce additional quantities of biogas. Digested manure would be run through several screens and a centifuge to separate liquid, coarse fiber and fine fibrous materials. Portions of these materials would be used to fabricate the following products:

- a liquid organic fertilizer called NutriPlus;
- a pelletized, dry organic fertilizer called NutriPellets; and,
- a solid, sterile fibrous component suitable for composting.

The proposed high-temperature, aneorbic process has the advantage of sterilizing the manure, destroying pathogens and weed seeds which could be found therein. The process is conducted entirely in closed tanks.

Compost Production. A sterile, fibrous remainder from the digestion process would be diverted to the composting operation where it would be mixed with green waste. Green waste would consist of grass clippings, vineyard clippings, tree branches, wood chips and similar material. Raw manure would not be used in the composting operation. Composting would be done in covered windrows. The compost would be marketed as a soil conditioner. A portion of the compost could also be used in a commercial worm plant which would produce another type of soil conditioner.

To enhance their marketability, fertilizer products would have a guaranteed analysis of nutrients similar to other commecial fertilizers. A lab on site would analyze the fertilizer. Soil conditions would find a local market as local soils are sandy and low in organic matter.

Project Stages and Timing. Construction of the first turbines is scheduled to commence as soon as funding is available and building and grading permits have been received from Fresno County. Construction of all aspects of the facility would occur concurrently.

Construction, Operations and Maintenance. All equipment necessary to produce and package these products would be located at the proposed project site. Existing improvements, such as tanks, foundations and metal buildings, have been examined by qualified engineers and found suitable for the proposed facility. In addition to fertilizer and cogeneration equipment, , the site would include greenhouses for testing fertilizer products, a lab for product analysis and quality control monitoring, a shop, a visitors' center, a caretakers' residence, a parking lot and various ancillary buildings. The County would require some repairs to the existing access road into the site. Power and telephone lines already serve the site. An existing water well would be used for potable water. Other existing wells could be used for process water, watering compost windrows, and for dust control. Approximately 35 workers would be hired to operate the facility. BTI is working with local economic development groups that encourage the use of local contractors and hires.

The digestion process would be operated 24 hours a day, 365 days a year. However, the facility would be open for manure and green waste deliveries only from 7:00 AM to 5:00 PM daily.

2.4 Proposed Environmental Protection Measures

The project would incorporate the following measures intended to reduce, avoid or minimize impacts.

Risk-Reducing Site Selection Criteria. In addition to the advantages of a partially developed infrastructure, the project site was proposed because it incorporated features which would reduce environmental risks (see Appendix B). For example,

- the location of the cogeneration unit and all manure and fertilizer processing is on an existing paved site that includes a drain and containment sump;
- land to be used for composting has been cultivated for years but is no longer in production;
- no natural vegetation exists at the site or vicinity;
- lands in the vicinity of the project site have been converted to vineyards and agricultural production for decades;
- no new water sources would have to be developed;
- a qualified biologist has determined that there are no wildlife values or potential wildlife habitat associated with the site (see Appendix C-I);
- a qualified wetlands specialist has determined that there are no wetlands on the site or potentially affected (see Appendix C-I);
- the environmental assessment prepared for the CEQA process and Mitigated Negative Declaration concluded that no significant historical, archaeological or cultural resources would be affected (see Table 1-1);

- the site is located outside a 100 year floodplain;
- the water table is estimated to be 200 feet deep or greater;
- the composting area is relatively flat and would require minimal grading (see Figure 2-1);
- the composting site is large enough to accommodate a storm water retention pond;
- there are no noise sensitive areas (e.g., occupied residences, hospitals) in the vicinity;
- the site has an available water supply sufficient to be used for dust suppression; and,
- traffic increases would be within the capabilities and service levels of existing roads (see Appendix C-II).

Mitigation Measures Required by the State and County CEQA Process. Approval of the project under CEQA was granted subject to implementation of environmental protection measures incorporated into the Proposed Action as well as the following mitigation measures specified in the Mitigated Negative Declaration (see Appendix A):

Site Plan Review. Prior to constructing new facilities, BTI's building plans must be reviewed by the County for conformity with the Conditional Use Permit as well as County building regulations. The site plan review includes consideration of parking and vehicle circulation requirements, grading and drainage, on-site fire protection, outdoor lighting and access road improvements.

Control of Nuisances. The facility must be operated in such a manner as to avoid creating odor, vector, dust, litter or noise nuisance to adjacent properties.

Outdoor Lighting. All outdoor lighting must be hooded so as not to produce glare upon adjacent properties.

Storm water Control. All storm water run-off generated by newly constructed surfaces must be contained on-site in a storm water pond.

Access Road. BTI must submit a report acceptable to the County detailing the condition of the access road and the improvements needed to ensure that the road will be adequate to accommodate the traffic generated by the facility. Access road improvements will be subject to Fresno Fire Protection District Standards and County Road encroachment standards.

Fire Control. Approved fire hydrants must be located not less than 50 feet and no more than 150 feet from all exterior building points or as approved by the Fire District.

Conformance with Noise Regulations. Within 30 days of the start of operation, an acoustical consultant selected by BTI and approved by Fresno County must conduct an acoustical analysis of the facility to prove conformance with the Fresno County Noise Ordinance. The analysis and report shall be submitted to the County for its review.

Noise Mitigation Measures. If acoustical analysis indicates that noise levels exceed the limits of the Fresno County Noise Ordinance, additional mitigation measures as approved by the County shall be implemented within 60 days.

Noise Control on Equipment, Machinery. During the construction phase, all noise generating equipment must be maintained according to manufacturers' specifications and must be equipped with mufflers. Equipment used as part of the daily operations of the facility must also be equipped with mufflers.

Time of Operations. Truck deliveries and facility operations (with the exception of the manure digester) must be limited to the hours of 7:00 AM and 5:00 PM.

2.5 Additional, Proposed Environmental Protection Measures

Land Use Compatibility. The project has been found compatible with the land use zoning and regulations of Fresno County, and a conditional use permit for the project has been approved (see Appendix A). Proposed activities would be conducted in conformance with the Conditional Use Permit and the results of the Site Plan Review.

Closed Process. All manure processing would occur in closed, stainless steel tanks which would reduce the risk of nuisance odors. No raw manure would be stored on site. Manure would be processed in closed, stainless steel tanks. No raw manure would be used in composting.

Sterility. Processing would be conducted a sufficiently high temperature to kill pathogens in the manure.

Worker Protection. All composting and feed stock materials would be handled by machinery. Workers would be protected from dust and high noise levels (see Appendix B).

Low visibility. The project would be constructed at the site of an existing, abandoned winery which is surrounding by vineyards, and would not be located near any visually sensitive areas such as residences or natural areas.

Air Quality. The cogeneration unit used to generate electricity would employ best available control technologies as stipulated by the regional air quality board. Dust control measures to ensure compliance with air quality standards regulating particulates would comply with the board's requirements as well. For example, composting windrows would be covered.

Hazardous Materials. BTI is required to submit a hazardous materials plan to Fresno County that includes spill response plans and material safety data sheets for all listed chemicals. A list of chemicals to be used on site and a description of proposed containment measures may be found at the end of the CEQA-EA (see Appendix B-II).

The delivery of any hazardous waste to the site would be reported to the Fresno County Health Department. Any hazardous waste accidentally delivered to the site would be stored in appropriate containers and removed by a permitted hazardous waste hauler.

Routine Waste Management. Potable water supply and sewage treatment must be in conformance with Fresno County regulations. Construction and routine trash would be collected in closed containers and sent to a permitted disposal facility.

Public Health & Safety. Measures to protect public health and safety are described in Appendix B (pp. 33-34).

Measures to Enhance Local Economies. BTI intends to use local contractors and personnel to the extent feasible. An estimated 35 new hires would be required. BTI its contractors would pay sales and use taxes as required. As improvements on the property are made, the project would generate increased County property tax revenue.

Post-Development Impact Monitoring. BTI has proposed to monitor both feed stock delivered to the site as well as the quality of products. Records of deliveries would be maintained and provided upon request to the California Integrated Solid Waste Management Board. A soil and groundwater monitoring program would be implemented in accordance with requirements of the California Regional Water Quality Control Board and detailed in the Report of Waste Discharge submitted to the Board.

2.6 No Action Alternative

CEQ regulations implementing NEPA require DOE to consider the No Action Alternative in all NEPA documents. Under the No Action Alternative, DOE would not authorize funding for the proposed project. DOE adoption of the No Action Alternative could cause construction to be delayed until the project proponents could develop alternative plans for financing the project. The No Action Alternative would not meet the purpose and needs described in chapter one. Analysis of the No Action Alternative assesses the impacts that would result if failure to fund the project resulted in its abandonment.

CHAPTER THREE
AFFECTED ENVIRONMENT

3.1 Resources Considered But Not Receiving Further Analysis

The potentially affected resources considered in this chapter includes the physical, biological, and human environment (40 CFR 1508.14). However, the purpose of this chapter is not to provide an encyclopedic description of the project area but rather to present a brief summary of the proposed project area and the surrounding environment. Existing documentation (see Appendix B) provides a detailed description of the affected environment. To help the reader visualize the project area and environs, photographs were included as Figure 2-1 of this EA.

The following resources are either not found in the project area or vicinity, or would not be affected, either directly or indirectly, by the proposed action or project alternatives; therefore, they are not analyzed further in this document:

- National parks, recreation areas or monuments;
- National historic sites;
- Wilderness or wilderness study areas;
- Areas of critical environmental concern;
- National historic, scenic or recreation trails;
- Wild, scenic and recreational rivers;
- Recreation areas, sites, facilities;
- Visual resources such as scenic vistas or other areas sensitive to visual impacts;
- Lands administered by agencies of the Federal government;
- National wildlife refuges;
- State parks or conservation lands or state-designated wildlife protection areas;
- Tribal lands;
- Fisheries; and,
- Timber, forest lands.

3.2 Streams, Wetlands and Floodplains

A field reconnaissance to identify any wetlands on the site was conducted and none were found (see Appendix C-I). The project site is not in a floodplain, and no streams, ponds or other surface water bodies are found in the vicinity of the project or within the project site.

3.3 Soils and Vegetation

The project site is an abandoned winery. Adjacent lands are used for vineyards and agricultural operations. No natural vegetation or uncultivated soils are found within the project site or vicinity (see Appendix C-I and Figure 2-1). Soils are sandy and prone to wind erosion. Agricultural

operations in the vicinity of the project site rely on drip or channel irrigation. The regional air quality control board requires measures to control fugitive dust.

3.4 Water Quality

Agricultural operations pump groundwater to irrigate adjacent fields. Groundwater wells adjacent to the project area are pumped at rates of thousands of gallons per minute. Existing groundwater wells found within the project site are currently idle. Groundwater can be found at a depth of about 200 feet in the area. The potable water well located within the proposed project site is approximately 400 feet deep. No surface water is found on the proposed project site or vicinity.

3.5 Air Quality

The project area lies within the Central Valley of California in an area of intensive large-scale agriculture which is far from any Class I airshed. Class I refers to a set of the most stringent federal air quality standards which are intended to prevent the significant deterioration of air quality in national parks and wilderness areas. The project--e.g., emissions from the cogeneration unit--would be regulated under a permit issued by the San Joaquin Valley Unified Air Pollution Control District.

3.6 Socioeconomic Conditions

The project area is located in Fresno County, California. The project is outside any incorporated city or town. No occupied residences are found adjacent to the project site. An abandoned house, which would be restored into a caretaker's residence, is found on the property. The closest town is Kerman, California, approximately six miles from the site. The City of Kerman is part of the I-5 Business Corridor Development Partnership and has testified in favor of the project at a public hearing (see Appendix A).

No economically disadvantaged communities or residents would be affected by the proposed project, as no occupied residences or communities are found in the vicinity of the proposed project site. The site is surrounded by vineyards. BTI is working with local economic development groups to use local contractors where feasible. Approximately 35 new permanent hires are expected to result from the project. However, while local communities have welcomed the new employment opportunities, the project is not expected to affect local population to the point that demand for housing, government services, educational or health services would exceed available capacity. Therefore, these conditions are not examined further in this document. Currently, the project site is an abandoned winery and a fallow field. Property tax payments to Fresno County would increase with any improvements made to this property.

3.7 Energy Resources

The project site is served by electrical and telephone utilities. There are no oil or gas wells on the project site, but electrically-driven pumpjacks on oil wells are located on adjacent properties. No new power lines would be required and none are proposed. The site provides ready access to power lines for sale of excess electricity generated by the proposed cogeneration unit. It is possible that excess electricity could also be sold to operate local oil well pumpjacks or irrigation pumps.

3.8 Noise

No noise sensitive areas, such as occupied residences or hospitals, are found adjacent or in the vicinity of the project site. As part of the Mitigated Negative Declaration, BTI would be required to conduct a noise monitoring study to ensure compliance with local noise ordinances and, if non-compliance appears likely, to implement noise abatement measures subject to County approval.

3.9 Transportation

A paved, private access road already serves the project site; however, the road is in poor condition and road improvements would be necessary as stipulated as a condition of approval in the CEQA Negative Declaration (Appendix A). Fresno County has determined that no other road improvements would be necessary (see Appendix C-II).

3.10 Cultural Resources

According to regulations promulgated under the National Historic Preservation Act (36 CFR 800.1(a)), a Federal agency having direct or indirect jurisdiction over a Federally-assisted undertaking is required--prior to the expenditure of any Federal funds for the undertaking--to "take into account" the effect of the undertaking on any district, site, building, structure, or object that is included or eligible for inclusion in the National Register of Historic Places. CEQA outlines a similar requirement for considering impacts to cultural and historical resources potentially affected by the proposed project (Bass et al., 1996). As part of the CEQA review, it was found that the proposed project would have no effect on cultural or archaeological resources and for this reason these resources are not discussed further in this document.

3.11 Land Use

The proposed project would be located in an agricultural zone. Feed stock for the plant would come from nearby dairies and agricultural lands. Products from the plant would be sold to agricultural operations. Following a review of the project for conformance with the County Land Use Code and zoning, the Fresno County Planning Commission approved a Conditional Use Permit for the project (Appendix A) and found the facility to be compatible with an agricultural zone.

3.12 Public Health and Safety

The site in its current condition presents a slight threat to public health and safety due to the lack of controlled access into buildings, tanks and other equipment found on site. An abandoned residence on the property has been used by transients.

3.13 Wildlife and Federally-Listed Threatened, Endangered or Candidate Species

The proposed site is surrounded by vineyards. A portion of the proposed site is paved. The remainder of the proposed site is agricultural land which has been farmed for years. Field reconnaissance found that unpaved areas of the project site have been modified by disking and agricultural operations; most vegetation is introduced Mediterranean grasses: there are no native plants of biological significance to be found on the site; and the development of the site would not affect wildlife or wildlife habitats (see Appendix C-I).

CHAPTER FOUR
ENVIRONMENTAL IMPACTS OF PROJECT ALTERNATIVES

4.1 Introduction

This chapter summarizes impacts on affected resources discussed in chapter three. In chapter three, several resource categories were identified which, due to their absence from the project area or the nature of the Proposed Action, were eliminated from consideration as part of the affected environment. Those resources are not considered further in this chapter. Cumulative impacts are considered in chapter five. Additional information on potential impacts associated with the project can be found in CEQA-EA reprinted in Appendix B.

4.2 Streams, Wetlands and Floodplains

Proposed Action. Executive Order 11988 (42 FR 26951) addresses the protection of floodplains. Executive Order 11990 (42 FR 26961) addresses avoidance of adverse impacts associated with the destruction or modification of wetlands associated with new construction. A significant impact could occur if wetlands, natural stream channels and riparian areas were irretrievably lost or the threat of flood damage was substantially increased. None of these impacts would occur under the Proposed Action.

No Action Alternative. Implementation of this alternative would have no substantial effect, positive or negative, on the protection of streams, wetlands or floodplains.

4.3 Water Quality

Proposed Action. Given the lack of water bodies in the project area and the proposed implementation of groundwater monitoring and storm water control measures as required by state and local regulations, no water quality impacts are likely to occur.

No raw manure would be stored on site, thus eliminating this potential source of pollution. Composting windrows would be covered, which would minimize leachate from that portion of the operation. Runoff from exposed portions of the composting yard would be directed to a storm water retention pond (see Appendix B). The fertilizer and cogeneration area is paved, and drains to an enclosed sump. Threats to groundwater quality would be reduced by minimizing the production of leachate and because the minimum depth to groundwater is at least 200 feet. An existing potable water well on the proposed project site is at least 400 feet deep. In accordance with requirements of the California Regional Water Quality Control Board, a groundwater quality monitoring program would be implemented to ensure that facility operations are not having an adverse impact on water quality.

The proposed project would reduce the stockpiling of manure at dairy and livestock operations elsewhere in the region and thus would help to reduce a potential source of polluted runoff and threat to water quality. Experience gained from the proposed facility could be applied to other parts of the U.S. where polluted runoff from dairies, feedlots, swine and poultry operations are a significant source of water pollution.

No Action Alternative. Implementation of this alternative would have no impact, positive or negative, on surface water quality in the vicinity of the project site but could have an adverse impact on surface water quality in the vicinity of agricultural operations that would otherwise send manure to the proposed site for processing.

4.4 Soils and Vegetation

Proposed Action. Exposed soils on vacant farmland within the project site would be completely converted to a composting operation. Dust control measures would be implemented. Given these conditions, no adverse impact on soils and vegetation is expected to occur. Compost and manure-based products generated from the proposed project would be used to enhance soil fertility and increase organic matter in sandy soils found in the area. The project would divert green waste such as vineyard and grass clippings from disposal in the County landfill. In these ways the project would result in a positive impact on soil resources.

No Action Alternative. Implementation of this alternative would result in the disposal of agricultural wastes in local land fills, and the loss of potentially valuable soil amendments and fertilizers.

4.5 Air Quality

Proposed Action. No impacts that would exceed Federal or state ambient air quality standards are expected to occur. As stated in the Mitigated Negative Declaration (see Appendix A), the San Joaquin Valley Unified Air Pollution Control District concluded that the project would not have a significant impact on air quality (also see letter found in Appendix C-II). Operation of the facility and its cogeneration unit would be subject to an air quality permit by the District.

No Action Alternative. Implementation of this alternative would avoid the risk of a temporary increase in fugitive dust from construction activities and a small increase in emissions from the cogeneration unit, but otherwise would have no effect on regional air quality.

4.6 Socioeconomic Conditions

Proposed Action. Based on the site's distance from any residents or residential area, the surrounding land use, and the relatively small, local work force involved, the proposed facility would not impose any socioeconomic impacts, nuisances or disproportionately high and adverse health or environmental effects on a minority or low-income community (Executive Order

12898). The owner of the project area has granted approval for the use of the property and at least one adjacent property owner has expressed support for the project. The proposed project would have a positive impact on local employment, as an estimated 35 workers would be hired to operate the facility.

Currently, green waste such as vineyard and grass clippings are sent to the County landfill for disposal. Diversion of this waste stream to the proposed facility would increase the lifespan of that County-owned facility. Improvements to the abandoned caretaker's residence and the developed portion of the property (i.e., winery, etc.) would increase property tax revenues for Fresno County.

No Action Alternative. Implementation of this alternative would result in the loss of increased employment opportunities and tax revenues. It would have a negative impact on operation of the County landfill by consuming limited capacity with green waste shipments and ultimately shortening the lifespan of that facility.

4.7 Energy Resources

Proposed Action. No increase in the use of fossil fuels is expected to occur as a result of the Proposed Action.

Biogas--a by-product of manure processing--would be used to generate electricity for the site. It is expected that the site would be energy self-sufficient and that excess electricity from the cogeneration unit would be sold. Recycling of waste heat from the cogeneration unit would reduce overall energy demand of the facility. If successful, the proposed facility could serve as a model for addressing the problem of how to convert waste from large scale dairy, cattle, swine and poultry operations into a useful product while creating an energy self-sufficient facility. The facility could improve the position of U.S. industries to compete abroad--offering waste disposal and new energy technologies as well as planning, engineering and other services.

No Action Alternative. Under this alterative DOE would not assist in the construction of the facility and the potential energy and environmental benefits of constructing the project would be bypassed.

4.8 Noise

Proposed Action. Executive Order 12088 requires conformance with applicable state and local noise standards. No such impacts are expected to occur, as Fresno County will require BTI to conduct a noise study once the facility is constructed. Following its review of that study, the County would require that BTI implement noise control measures, as necessary, to ensure and demonstrate compliance with the County noise ordinance. As a condition attached to the Conditional Use Permit, BTI would be required to use mufflers on construction and equipment and heavy equipment and engines used in facility operations. The Fresno County Health Services found that the "potential noise impacts are expected to be insignificant" (see letter in Appendix C-II).

No Action Alternative. Implementation of this alternative would avoid an increase in noise within the project site and vicinity.

4.9 Transportation

Proposed Action. No measurable increased traffic volumes on Federal, state or County roads, based on the analysis of project traffic conducted by the Fresno County Transportation Design Division (see communication found in Appendix C-II), are expected to occur. The proposed site is approximately one mile from the existing landfill, which uses the same road that would be used to access the plant site. Therefore, some trucks hauling green waste to the landfill would simply be diverted to the proposed plant. Because the facility would not be open to the public as a waste disposal site, this potential source of traffic would be avoided. The County has determined that the increase in traffic would be within existing road service levels (see Appendix B).

No Action Alternative. Implementation of this alternative is not expected to have any measurable effect on traffic levels, road conditions, or accident rates or service levels of Federal, state or County roads or highways. Improvements to the existing road used to reach the project area would not be made if the project were abandoned.

4.10 Land Use

Proposed Action. The County has approved a Conditional Use Permit for the project which found that the project is compatible with an agricultural zone. The County's Site Plan Review would ensure compliance with the conditions of the Conditional Use Permit and County Code.

No Action Alternative. Lack of DOE funding could jeopardize construction of the project and conversion of the abandoned winery to a productive facility which would serve local agriculture.

4.11 Public Health and Safety

Proposed Action. No significant impacts to public health and safety are expected to occur for the following reasons (see Appendix B for more details):

- The entire facility is surrounded by a tall fence and gates, which would be repaired and used to control access into the facility.
- No communities or occupied residences are found in the vicinity of the proposed facility.
- A caretaker would be hired and would reside in a currently uninhabited residence which would be refurbished. The caretaker would help ensure after-hours security at the site.
- Exterior lighting, fencing and the presence of an on-site caretaker would discourage illegal entry or illegal dumping.
- The facility would be equipped with an emergency flare which could be used to burn biogas in the event the digester and/or cogeneration unit have to be shut down.
- Two existing tanks found on site would be used to hold water for a fire suppression system.
- A potable water supply well would be required to meet County health standards and applicable Federal-state drinking water standards.
- No raw manure would be stored on site or used in composting.
- The proposed process is a high temperature, anaerobic process which destroys pathogens that could be found in dairy and other manure sources.
- BTI would submit a hazardous waste plan to the County, detailing waste quantities and storage methods for any such materials found on site.
- Quality of manure and green waste feed stock would be monitored to ensure that improper materials are not mixed with the waste.
- Operations and maintenance personnel would receive training in facility operations, hazardous materials, and plant safety.
- BTI would be required to conduct groundwater and soil monitoring where required by the Regional Water Quality Control Board.

In the past, the abandoned winery and caretaker's house have been illegally occupied by transients and have been the site of vandalism and firearms use. Renovation and occupation of the facility would eliminate these negative impacts on public safety.

No Action Alternative. Implementation of this alternative would avoid a slight increase in the risk of an adverse impact to public health and safety associated with facility construction and operations.

4.12 Wildlife and Federally-Listed Threatened, Endangered or Candidate Species

Proposed Action. Given the lack of natural vegetation or wildlife habitat within the project site or vicinity (see Figure 2-1), no adverse impacts to wildlife populations are likely to occur. No potential for such impacts was identified during review of the project by the California Department of Fish & Game required under CEQA (see Appendix a and C-II).

Section 7(a) of the Endangered Species Act obligates DOE to ensure that actions which it authorizes or permits are not likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of critical habitat for such species. Inspections of the project site by a qualified biologist and a wetlands specialist (see Appendix C-I), found no potential for impacts on wildlife or native plant species. Approximately 10 acres of the proposed project site is paved, and the remaining 30 acres has been farmed and now has a sparse cover of Mediterranean grasses (see Figure 2-1). Due to the lack of natural habitat of any kind, implementation of the Proposed Action at the site is not likely to adversely affect Federally listed or proposed threatened or endangered species or any candidate species or critical habitat for such species. No critical habitat for such species would be affected. The Proposed Action is not likely to reduce the reproduction, number or distribution of a Federally-listed species such that it would appreciably reduce the likelihood of the survival and recovery of that species in the wild (50 CFR 420.02).

No Action Alternative. Implementation of this alternative would have no impact, positive or negative, on wildlife or on Federally or State-listed threatened, endangered or candidate species or critical habitats for those species.

CHAPTER FIVE
CUMULATIVE IMPACTS

NEPA requires consideration of cumulative impacts that could occur from existing and reasonably foreseeable human activities in the project area and vicinity, taken in combination with the proposed project. Federal regulations define a cumulative impact as the impact on the environment which results from the incremental impact of the Proposed Action when added to other past, present and reasonably foreseeable future actions, regardless of what agency (Federal or non-Federal) or persons undertake such actions (40 CFR 1508.7). Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. No other projects are known to be proposed for the project site or adjacent lands. The project site and adjacent lands have been completely altered from their natural state by past and current agricultural operations. The project site itself is an abandoned winery which still has tanks and a substantial quantity of usable buildings and materials on site (see Figure 2-1). The project would not increase existing levels of surface disturbance, but would merely convert an existing facility and surface disturbance to a more productive end. Accordingly, construction of the proposed facility would not alter existing levels of cumulative impacts or introduce new impacts substantially different in quality or quantity from those associated with current, adjacent land uses.

REFERENCES

Bass, R., A. Herson and K. Bogdan. 1996. CEQA Deskbook. Solano Press Books, Point Arena, California.

APPENDIX A

Mitigated Negative Declaration and Findings: No Significant Impact

APPENDIX B

Project Description and CEQA Environmental Assessment

I. Project Description: Pages 1-35
II. CEQA Environmental Assessment: Pages 36-51
III. Supplemental Project Description

APPENDIX C
AGENCY REVIEW AND PUBLIC INVOLVEMENT

I. Wetland Delineation and Wildlife Survey
II. Comments Received From Regional, State and Local Agencies
III. Public Hearing Notice and Property Owners in the Vicinity

I. Wetland Delineation and Wildlife Survey

II. Comments Received From Regional, State and Local Agencies

III. Public Hearing Notice and Property Owners in the Vicinity

APPENDIX A

Mitigated Negative Declaration and Findings: No Significant Impact

File original and one copy with:

Fresno County Clerk
Room 401, Courthouse
1100 Van Ness
Fresno, California 93721
Mailing Address:
P.O. Box 1628
Fresno, California 93717

Space Below For County Clerk Only

FILED
JUL 15 1997
FRESNO COUNTY CLERK
By Marsha Allen DEPUTY

CLK-2046.00 E04-73 R00-00

Agency File No:	LOCAL AGENCY NOTICE OF DETERMINATION	County Clerk File No: (Enter if Negative Declaration has been filed)
EA 4330		E- 19971000078

Responsible Agency (Name):	Address (Street and P.O. Box):	City:	Zip Code:
Fresno County	2220 Tulare St. Sixth Floor	Fresno	93721

Agency Contact Person (Name and Title):	Area Code:	Telephone Number:	Extension:
Margie McHenry, Staff Analyst	209	262-4055	-0-

Applicant (Name):	Project Title:
Biorecycling Technologies Inc	CU 2798

Project Description (Omit if Negative Declaration has been filed):

Justification for Determination (Omit if EIR Not Required and See Negative Declaration):

Negative Declaration Published Date: 6/20/97 [ ] Not Applicable	Notice of Completion Filed with State: Date: [X] Not Applicable
Decision: 7/10/97 Project [X] Approved [ ] Disapproved	Determination: Impact [ ] Significant [X] Not Significant
Environmental Impact Report: [ ] Required [X] Not Required	Environmental Impact Report: [ ] Prepared [X] Not Prepared
Copy of Environmental Impact Report Available at (Address): [X] Not Applicable	

Date:	Type or Print Signature:	Submitted by (Signature):
7/10/97	Jeff Tweedie, Senior Staff Analyst	Jeff Tweedie

LOCAL AGENCY
NOTICE OF DETERMINATION
(not to exceed one page)

County Clerk File No. E-_____

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File original and one copy with:

Fresno County Clerk
Room 401, Courthouse
1100 Van Ness
Fresno, California 93721
Mailing Address:
P.O. Box 1628
Fresno, California 93717

Space Below For County Clerk Only.

FILED
JUL 15 1997
FRESNO COUNTY CLERK
By Marsha Allen DEPUTY

CLK-2046.00 E04-73 R00-00

Agency File No:	LOCAL AGENCY MITIGATED NEGATIVE DECLARATION	County Clerk File No:
EA 4330		E- 19971000078

Responsible Agency (Name):	Address (Street and P.O. Box):	City:	Zip Code:
Fresno County	2220 Tulare St. Sixth Floor	Fresno	93721

Agency Contact Person (Name and Title):	Area Code:	Telephone Number:	Extension:
Margie McHenry, Staff Analyst	209	262-4055	-0-

Applicant (Name):	Project Title:
Biorecycling Technologies, Inc.	CUP 2798

Project Description:
Allow a commercial fertilizer processing facility with an associated composting operation, biomass-fueled electrical power cogeneration plant, and commercial worm farm on a 40-acre parcel located on the east side of the Humboldt Avenue alignment and approximately one mile south of American Avenue, in Fresno County.

Justification for Negative Declaration: Environmental Assessment Application No. 4330 indicates there is no evidence in the record that demonstrates that the project will have a significant effect on the environment. The San Joaquin Valley Unified Air Pollution Control District stated that this project would not have a significant effect on air quality. During the construction phase, the project will be subject to certain aspects of District Regulation VIII. The project will also be subject to permitting requirements of the the District. Potential impacts related to the creation of objectionable odors, water quality, and utility impacts were determined to not be significant because of operational/management practices and mandatory permit requirements. Potential noise impacts have been reduced to a level of insignificance by noise calculations and mitigation measures to which the applicant has agreed. Potential plant and animal life and transportation impacts were determined to not be significant based upon wetlands information verified by the USDA-Natural Resource Conservation Service, and traffic index calculations and a left-turn analysis reviewed by the Design Division. A Mitigated Negative Declaration is recommended and is subject to approval by the decision-making body. The Environmental Assessment is available for review at 2220 Tulare Street, Ste. "A", Fresno, CA.

FINDING:
The proposed project will not have a significant impact on the environment.

Newspaper and Date of Publication:	Review Date Deadline:
Fresno Business Journal - 6/20/97	July 10, 1997

Date:	Type or Print Signature:	Submitted by (Signature):
6/1797	Jeff Tweedie, Senior Staff Analyst	Jeff Tweedie

State 15083, 15085

LOCAL AGENCY MITIGATED NEGATIVE DECLARATION
(not to exceed one page)

County Clerk File No. _____

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CALIFORNIA DEPARTMENT OF FISH AND GAME
CERTIFICATE OF FEE EXEMPTION
De Minimis Impact Finding

Project Title/Location (Include County):

Conditional Use Permit No. 2798; Environmental Assessment Application No. 4330. The project location is the west side of the Humboldt Avenue alignment, one mile south of American Avenue, between Lake and Madera Avenues, in Fresno County.

Project Description:

The project requests to allow commercial fertilizer processing facility (conversion of an existing winery). The project will include an associated composting operation, bio-mass fueled electrical power cogeneration plant and commercial worm farm on a 40-acre parcel in the AE-20 Zone District.

Findings of Exemption (attach as necessary):

Environmental Assessment No. 4330 has been prepared for the project and a negative declaration has been recommended. The parcel is developed with a winery, residence, and is planted in vines. The Environmental Assessment prepared for the project did not identify any plant or animal resources that would be impacted by the proposed project.

Certification:

I hereby certify that the public agency has made the above finding and that the project will not individually or cumulatively have an adverse effect on wildlife resources, as defined in Section 711.2 of the Fish and Game Code.

Title: Development Services Manager

Lead Agency: Fresno County

Date: 5/20/97

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County of FRESNO

Inter Office Memo

DATE: July 10, 1997

TO: Board of Supervisors

FROM: Planning Commission

SUBJECT: RESOLUTION NO. 11241 - ENVIRONMENTAL ASSESSMENT APPLICATION NO. 4330, UNCLASSIFIED CONDITIONAL USE PERMIT APPLICATION NO. 2798

APPLICANT: Biorecycling Technologies, Inc.

REQUEST: Allow a composting facility to compost agricultural green waste, cattle manure, and municipal green waste into soil amendments and fertilizer, with related biomass-fueled co-generation plant and a commercial worm farm.

LOCATION: The southwest corner of the Lincoln and Humboldt Avenue alignments approximately one mile south of W. American Avenue. (18559 W. Lincoln Avenue) (SUP. DIST.: 1) (030-040-20s)

PLANNING COMMISSION ACTION:

At its hearing of July 10, 1997, the Commission considered the Staff Report and testimony (summarized on Exhibit "A"), approved the Mitigated Negative Declaration prepared for the project, adopted the recommended findings of fact in the Staff Report, and approved Unclassified Conditional Use Permit Application No. 2798 subject to the following conditions:

1. Development and operation of the facility shall be in substantial conformance with the site plan, and operational statement approved by the Planning Commission.

2. Prior to the issuance of any permits, a Site Plan Review shall be submitted to and approved by the Director of the Public Works & Development Services Department in

accordance with the provisions of Section 874 of the Fresno County Zoning Ordinance. Conditions of the Site Plan Review may include, but are not limited to, parking design and circulation, grading and drainage, on-site fire protection facilities, outdoor lighting, and access road improvements.

3. The facility shall be operated in such a manner as to avoid creating an odor, vector, dust, litter, or noise nuisance to adjacent properties.

4. All outdoor lighting shall be hooded in such a manner so as not to produce glare upon adjacent properties.

5. On-site water retention of all stormwater run-off generated by newly constructed surfaces shall be required. A Grading and Drainage Plan shall be submitted for review and approval by the Fresno County Public Works & Development Services Department. For information on submitting a Grading and Drainage Plan, contact the Development Engineering Section of this Department at 262-4022.

6. The applicant's engineer shall submit a report acceptable to the County detailing the condition of the access road and the improvements needed to insure that the road will be adequate to accommodate the traffic generated by the use described in the operational report. The road shall be improved in accordance with the recommendations of the report accepted by the County.

   NOTE: Access road improvements will also be subject to Fresno Fire Protection District Standards, and an Encroachment Permit from the County for the required driveway approach at American Avenue. Call (209) 485-7500 for more information.

7. Approved fire hydrants shall be located not less than 50 feet or more than 150 feet of travel distance from all exterior building points or as approved by The Fresno County Fire Protection District. Contact the District at (209) 485-7500 for more information.

8. Installation of UL listed portable fire extinguishers with a minimum 2-A:10-B,C rating shall be located within 75 feet of travel distance from all interior building points. Contact The Fresno County Fire District at (209) 485-7500 for more information.

NOTE: For any inspections performed by the fire department, an appointment must scheduled allowing 14 to 21 days for the process to be completed.

*9. Within 30 days of the start of operation, an acoustical consultant selected by the applicant and approved by the Fresno County Community Health Department, shall conduct an acoustical analysis of the facility to prove conformance with the Fresno County Noise Ordinance. The acoustical analysis shall be submitted to the Department for review and acceptance.

*10. If the acoustical analysis indicates that noise levels exceed the limits of the Fresno County Noise Ordinance, additional mitigation measures, as recommended by the acoustical consultant and approved by the Fresno County Community Health Department, shall be added to the project within 60 days of acceptance of the analysis to ensure conformance with the Fresno County Noise Ordinance.

*11. During the construction phase, all noise generating equipment shall be maintained according to the manufacturer's specifications, and shall be equipped with mufflers. This latter requirement shall also apply to all mechanical equipment utilized as a part of the daily operation of the facility.

*12. The hours of operation of the facility, including truck travel, shall be limited to 7:00 a.m. to 5:00 p.m., with the exception of the operation of the primary digester, which shall be allowed to operate 24 hours a day provided it is fully enclosed.

*MITIGATION MEASURE - A measure specifically applied to the project to mitigate potential adverse environmental effect identified in the environmental document. A change in the condition may affect the validity of the current environmental document, and a new or amended environmental document may be required.

VOTING: Yes: Commissioners King, Eaton, Peters, Tokmakian, Wilcox, Molen

No: None

Absent: Commissioners Abrahamian, Cucuk, Laub

CAROLINA JIMENEZ-HOGG, Director
Public Works & Development Services Department
Secretary-Fresno County Planning Commission

By _____
Kerry L. McCants, Manager
Development Services Division

NOTES:
1. The Planning Commission action is final unless appealed to the Board of Supervisors within 15 days of the Commission's action.

2. The approval of this project will expire two years from the date of approval unless substantial development has occurred.

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EXHIBIT "A"

Staff: The Fresno County Planning Commission accepted the Staff Report dated July 10, 1997, without a presentation.

Applicant: The applicant's representative presented information in support of the project as summarized below:

- The applicant is proposing to compost green waste and cattle manure.
- The facility will produce compost and liquid and pelletized fertilizers.
- A small portion of the site will be used for vermi-composting where earthworms are introduced into the composting process.
- The site was vacated approximately five years ago.
- The digestion system will be used to process the manure into liquid and pellet fertilizer, as well as fiber for composting.
- Biogas from the manure will be captured to produce electrical power for the facility. If excess power is generated it may be sold.
- We believe the findings can be made.
- The site is adequate in size. Thirty acres will be used for composting. We propose 72 parking spaces for 35 employees.
- The roads which require improvement will be certified by an engineer. The County Traffic Engineer determined that traffic

generated by the facility will not be excessive.

- The site is located in an agricultural area. The nearest residence is approximately one mile from the site. Business hours will be from 7:00 a.m. to 5:00 p.m. The composting plant will operate 24 hours a day, but trucks will only be received during business hours. An extensive Environmental Assessment was completed and through the mitigation measures and other conditions it was determined that the project will not have an adverse effect

- The area is designated Agriculture in the General Plan and meets the County's siting requirements for waste facilities.

- BTI has been working closely with the Department of Agriculture as well as the Department of Energy.

- We concur with the Staff recommendations and the conditions of approval.

- The windrows will probably not be as large as shown on the elevation drawing.

- A Waste Discharge Permit will be required which will address groundwater quality concerns. The soil will be tested to avoid contamination.

- Agricultural green waste, including rice hulls, will be processed.

- The facility will only receive materials from commercial haulers. The general public will not be able to deliver waste to the site.

- Some landscape/tree service operators will be permitted to bring waste to the site. These operators would be considered commercial haulers.

- Manure odor will be controlled by processing the manure in an enclosed environment.

- Traffic figures for the worst case scenario were given. It will take several years before traffic levels get close to the figures stated in the operational report.

Others: The City Manager of Kerman and representative of the I-5 Business Development Corridor presented information in support of the project as summarized below:

- We sent several letters in support of the project.

- This project will have positive aspects related to jobs, agriculture, and the environment.

- Fifteen to nineteen percent of household waste is green waste. The American Avenue Landfill cannot handle this green waste.

- We feel this is an outstanding project and should be supported.

A representative of Shubin Farms presented information in support of the project as summarized below:

- I am here representing Shubin Farms which operates a farm south of this site.

- This is an ideal location for this business.

Correspondence: Correspondence from the City of Kerman was received expressing support for the project.

WK:so
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County of FRESNO

Public Works & Development Services Department
Carolina Jimenez-Hogg
Director

AGENDA ITEM NO. 4
STAFF REPORT
TO
THE FRESNO COUNTY PLANNING COMMISSION
Environmental Assessment Application No. 4330
Unclassified Conditional Use Permit Application No. 2798
July 10, 1997

Applicant: Biorecycling Technologies Inc.

Request: Allow a composting facility to compost agricultural green waste, cattle manure, and municipal green waste into soil amendments and fertilizer, with related biomass-fueled co-generation plant and a commercial worm farm.

Location: The southwest corner of the Lincoln and Humboldt Avenue alignments approximately one mile south of W. American Avenue.

Present Zoning: AE-20 (Exclusive Agriculture, 20-acre minimum parcel size) District.

A. AREA, EXISTING LAND USE, SURROUNDING ZONING, AND PUBLIC NOTICING

1.	Approximate Area:	40.00-acre portion of a 480.00-acre parcel
2.	Use of Subject Property:	Industrial (Vacant Winery)
3.	Use of Surrounding Area:	Vineyard, orchard, field-crops, residences (see Existing Land Use Map, Exhibit 1).
4.	Surrounding Zoning:	AE-20 (see Existing Zoning Map, Exhibit 2).

5.	City Limits:	The City of San Joaquin is located approximately three and one-half miles southwest of the subject property.
6.	Noticing:	Notices were sent to seven property owners within one-quarter mile of the subject property.

B. **BACKGROUND**

The subject property is the site of the old Noble Winery. County records indicate that permits were approved to authorize the expansion of the winery in the 1970's (DRA Nos. 1152 & 1157, and CUP No. 1612). According to the applicant, the Noble Winery facility was vacated approximately five years ago. The current proposal is to authorize a composting operation to compost agricultural green waste, cattle manure, and municipal green waste into soil amendments and fertilizers. A related co-generation plant, and a commercial worm farm are also proposed. The proposed operation will utilize new improvements and various existing winery facilities.

In addition to the requirement for a conditional use permit, the proposed project requires a Solid Waste Facilities Permit from the Fresno County Community Health Department to address the solid waste processing operation. The requirement for a "Facilities Permit" makes the project subject to State law which requires that the siting of this facility undergo a review process commonly referred to as the "GAP" process. This process is separate from the conditional use permit process, and, in this case, requires review and comment by the Integrated Waste Management Local Task Force. The Task Force met on June 12, 1997, and considered the proposed project. The Task Force concluded that the proposed project is consistent with the County Solid Waste Management Plan, that it addresses the diversion mandates incorporated into the Integrated Waste Management Act of 1989, that it provides a means to save space in the County-owned and operated American Avenue Landfill, and that

it provides for the efficient use of the currently unused winery facilities that are situated on the site.

C. **OPERATIONAL STATEMENT**

The Operational Statement submitted by the applicant is included as Exhibit 3.

D. **SITE PLAN**

The site plan (Exhibit 4) submitted by the applicant shows the following major features:

1. The 40.00-acre project site located on the southwest corner of the Lincoln and Humboldt Avenue Alignments.

2. Existing improvements including numerous storage tanks ranging from 30,000 to 130,000 gallons in size to be used for digestion, fire suppression, and storage; a number of existing structures to be removed or converted, a caretakers residence, an existing surfaced access road along the Humboldt Avenue Alignment, a surfaced on-site circulation system, and landscaping located along the north, west and east property lines.

3. Proposed improvements including the co-generation plant, four greenhouses, a visitors center, material storage bunkers, control room, two feedstock preparation tanks, receiving tanks, a 30-foot high fluidic flare, a gravel access road, a 72-stall parking lot, a drainage basin.

The applicant also submitted floor plans and elevation drawings of the proposed structures and windrow details, (see Exhibit 5).

E. **ENVIRONMENTAL ANALYSIS**

An Environmental Assessment/Initial Study (Environmental Assessment Application No. 4330) was prepared for the project under the provisions of the California Environmental Quality Act. Based on this assessment, the Environmental Analysis Staff has concluded that preparation of an

Environmental Impact Report (EIR) is not required. As required by State Law when an agency's Environmental Assessment has concluded that an EIR is not required, a Notice of Intent of Mitigated Negative Declaration was published on June 20, 1997. This notifies the public that at the hearing the Commission will also be considering whether a Mitigated Negative Declaration is appropriate, or if an EIR should be prepared.

A discussion of the potential environmental impacts identified in the Environmental Assessment is contained in Exhibit "6".

F. STAFF ANALYSIS/RECOMMENDED FINDINGS OF FACT

A conditional use permit may be approved only if the following four findings specified in the Zoning Ordinance are made by the Planning Commission.

Finding 1: *That the site for the proposed use is adequate in size and shape to accommodate said use and all yards, spaces, walls and fences, parking, loading, landscaping and other features required by the Zoning Ordinance, to adjust said use with land and uses in the neighborhood.*

The project site is a 40-acre portion of a 480.00-acre parcel. According to the operational statement, the vacant Noble Winery facilities, which will be utilized by the proposed composting operation, occupy approximately 10 acres of land. The remaining 30 acres is proposed for compost windrows, receiving, staging and storage activities.

Various existing improvements are to be utilized by the proposed operation. The numerous existing storage tanks will be used as digesters, product storage, and fire suppression storage tanks. Some of the existing buildings will remain or be converted to accommodate the needs of the operation. In addition, a number of new structures are proposed including those related to the co-generation plant, the greenhouses, material storage bunkers, control room, and visitor center.

Approximately 25 acres of the 40-acre site will be used for composting. Compost windrows, approximately 12 feet wide by five feet high, will be established on the west half of the site. Approximately two acres of windrows will be used for vermi-composting and vermi-culture activities (worm farming). The southeast corner of the site will be used for material receiving, sorting, mixing, and finished product storage.

According to the site plan, on-site circulation areas are surfaced with asphalt/concrete and gravel, and areas around the tanks and the proposed co-generation plant are surfaced with concrete. The proposed 72-space parking lot is proposed to be surfaced with asphalt/concrete paving. The proposed 72-space parking lot should be adequate to accommodate the employee parking needs and other vehicles associated with the proposed operation. In addition, it appears from the site plan submitted by the applicant that there is sufficient area for retention of on-site storm water drainage, and for on-site circulation and parking of vehicles for the loading and unloading, processing, and stockpiling/storage of the composting materials. There also appears to be adequate area to meet the required building setbacks of the AE-20 Zone District.

Based upon the above considerations, Staff believes that the subject parcel will be adequate in size and shape to accommodate the proposed use.

Finding 2: *That the site for the proposed use relates to streets and highways adequate in width and pavement type to carry the quantity and kind of traffic generated by the proposed use.*

The subject site does not have frontage on a public road. It is located on the Humboldt Avenue Alignment approximately one-mile south of W. American Avenue. The site plan submitted with the application indicates that the Humboldt Avenue Alignment is improved with asphalt concrete paving.

The proposed operation will generate an estimated 119 total vehicle and light truck trips per day and between 96 and 152 total daily truck trips. Initially, the Design Division of

the Fresno County Public Works & Development Services Department identified potential impacts to County roads and safety concerns related to movement of left-turn traffic onto the Humboldt Avenue alignment to the project site. During the Environmental Assessment, the applicant provided Traffic Index calculations and a left turn analysis for traffic traveling from American Avenue onto the Humboldt Avenue alignment. Based upon the traffic information provided, the Design Division determined that truck traffic generated by this project would not have a significant impact on County roadways.

The condition of the Humboldt Avenue alignment to accommodate the traffic generated by the proposed operation was also addressed. An inspection of the alignment was performed by the Fresno County Development Engineering Department. The inspection revealed that the one-mile road leading to the subject site is paved with an approximate width of 18 feet. However, there are numerous potholes throughout the entire length of the road, but especially on the southern half near the subject site. A condition requiring improvement of the road is therefore recommended by Development Engineering. The recommended condition requires that the applicant's engineer submit an analysis, acceptable to the County, detailing the existing condition of the road and the improvements needed to ensure the road will be adequate to accommodate the anticipated traffic. Based on the above considerations, and provided that the recommended road improvement condition is imposed, Staff believes that Finding 2 can be made.

Finding 3: *That the proposed use will have no adverse impact on the abutting property and surrounding neighborhood or permitted use thereof.*

The subject property is located in an agricultural area with scattered homesites. Surrounding parcels range in size from 160.00 to 635.07 acres. The vast majority of the surrounding parcels are currently under Williamson Act Agricultural Preservation Contracts. According to Assessor's records, surrounding land uses include vineyards, orchards, and field crops. Information provided by the

applicant indicates that there are no residences within 1,000 feet of the proposed facility.

The composting facility, co-generation plant, and worm farm will accept agricultural waste from surrounding farm operations including manure from surrounding dairies, and green waste from the Fresno/Clovis Metropolitan area. The method of composting that is used is an aerated windrow process which decomposes the materials into nutrient rich organic fertilizers and soil amendments
According to the applicant's operational statement, the composting operation will have a maximum capacity to receive and process 1000 tons of clean green material and manure per day, with an average daily processing capacity of 500 tons per day. Based on the facility receiving materials 300 days per year, the average capacity would be approximately 150,000 tons per year considering both the clean green material and manure.

The manure will be processed through a digestion system which results in manure "slurry" which is converted into biogas used to power the co-generation plant. The co-generation plant, in turn, produces the heat for the digestion process. The plant can produce a maximum of one megawatt or 1000 kilowatts of electricity. The digestion process will require approximately 500 kilowatts. Therefore, approximately 500 kilowatts will be available for sale to the local utility company. After the digestive process, the manure byproducts will either be added to the green waste for composting or piped to centrifuges for separation into liquid and cakes. The liquid is sold as an organic liquid fertilizer. The cake material is pelletized as a dry fertilizer and then bagged and shipped for sale off-site.

The operational statement indicates that the clean green material upon delivery to the site is processed through a grinder to reduce particle size and to create a uniform product. The processed material is then delivered to the compost pad and windrow area where it is blended with manure. The blended materials are laid in windrows that are 12 feet wide and five feet high with a triangular to trapezoid shape on the 25-acre composting pad, approximately

two acres of which will be utilized for vermi-composting and vermi-culture activites. The composting process will take approximately 90 days depending on weather conditions. The finished product will be marketed in bulk and bags. The product is then bagged, stored if necessary, and then shipped for sale.

The proposed vermi-culture operation will involve the use of earthworms and a variety of microorganisms which are necessary for the vermi-composting process. Vermi-composting will require approximately two acres of composting beds to be located on the northwest portion of the site. When the vermi-composting process is complete the earthworms are removed from the beds and the casting is cured and dried and then blended and bagged for sale or sold in bulk. The earthworms will then either be returned to the composting beds or harvested and sold to other vermi-composting facilities, home vermi-compost markets, or fishing bait markets.

According to the applicant's operational statement, the hours of operation are normally from 7:00 a.m. to 5:00 p.m., Monday through Saturday. The digesters will process the manure 24 hours a day. There will be a total of 35 employees on-site. Equipment used at the facility includes a tractor, grinder, windrow turners, hopper/conveyor, skip loader, screening machine, water truck, mixer feeder truck, and fork lift. Most of the existing structures and tanks will be used by the operation. Some of the existing structures will be converted to accommodate the needs of the facility, other structures will be removed. New structures are proposed including the co-generation plant, greenhouses, storage bunkers, bulk storage building, receiving and separation tanks, control center, and a visitors center.

Composting and other types of waste processing operations generally require careful siting considerations because of the potential for adverse impacts to surrounding properties. In this case the potential for conflicts is reduced because the subject property is in a fairly isolated location and has historically been devoted to an intensive winery operation. The site is located in an area of large agricultural parcels (vineyards) ranging in size from 160.00

to 635.07 acres. A buffer to neighboring properties is also provided on three sides because the 40-acre site is a lease portion of a 200.00-acre parcel. Additionally, the site is located approximately one-mile from the nearest public road and, according to the applicant, there are no residences within 1,000 feet of the facility.

A number of potential issues were addressed by the reviewers and during the Environmental Assessment/Initial Study. These included potential issues related to odors and vectors, air quality in relation to dust, noise, litter, groundwater quality degradation, drinking water quality degradation, transportation (traffic) and impacts to plant and animal life. The Environmental Assessment determined that impacts related to air quality (dust), litter, drinking water quality, transportation, and plant and animal life were not considered significant.

Odors and vectors could be generated from the composting materials and the processing of manure. During their review of the project, the San Joaquin Valley Unified Air Pollution Control District indicated that the project had the potential to generate objectional odors. The applicant has proposed a number of odor control measures, which the Health Department has indicated will address the potential for odors. These measures include frequent turning and aeration of the windrows, and manure processing in a sealed environment. The required Solid Waste Facilities Permit will include detailed provisions related to odor control. The Fresno County Health Department, after reviewing the operational characteristics of the facility, concluded that vectors should not be a concern. The Solid Waste Facilities Permit will also address vectors through mandatory regulations.

With respect to noise, the primary noise generators will be the grinder, tractor, loaders, and the windrow turner. As discussed previously, the lack of surrounding development should reduce potential noise impacts to neighboring parcels. To address potential noise impacts, the applicant has agreed to maintain all noise generating equipment per the manufacturer's specifications, to install muffler systems on all mechanical equipment, and to limit the hours

of operation and truck travel to the hours of 7:00 a.m. to 5:00 p.m. with the exception of the primary digester. These conditions have been incorporated into the project as mandatory mitigation measures. In order to ensure that the facility complies with the Fresno County Noise Ordinance, the applicant has agreed to perform an acoustical analysis and, depending on the results of the analysis, further mitigation measures may be added to the project. In addition, the applicant will also be required to adhere to the Fresno County Noise Ordinance.

The groundwater quality issue involved a concern regarding potential leachate contamination. The Fresno County Community Health Department has reviewed the proposed composting operation and indicated that the process and monitoring program identified in the applicant's "Report of Composting Site Information" attached as the operational statement, will adequately mitigate potential groundwater quality impacts. The process and monitoring program specifies frequent windrow turning, grading the site to prevent leachate runoff to neighboring parcels, leachate barriers, and soil samples performed on a regular basis to determine if soil contamination has occurred. It is also noted that the operator must obtain a Waste Discharge Permit from the California Regional Water Quality Control Board. Mandatory compliance with the District's discharge requirements will reduce the impact to ground water quality to a level of insignificance.

The Fresno County Fire Protection District reviewed the project and indicated that the access road to the site will need to be constructed to Fire Department improvement standards with adequate turn-around area for fire apparatus. The District also indicated that approved fire hydrant(s) must be located between 50 and 150 feet of travel distance from all exterior building points unless approved by the District and that UL listed portable fire extinguishers with a minimum 2-A:10-B,C rating must be installed within 75 feet of travel distance from all interior building points. In order to insure that the Fire District's requirements are met, as well as the requirements pertaining to parking design, circulation, grading and drainage, and lighting, the operator will be required to obtain approval of a Site Plan

Review Application prior to the issuance of building permits or occupancy of the facility.

Site security is typically a concern of a waste facility operation in order to prevent unauthorized access and illegal dumping. In this case, access to the facility will be fenced and gated and a caretaker will reside on-site in the existing residence located in the northwest corner of the site. This should prevent unauthorized dumping at the site and minimize litter concerns. The latter concern is further addressed by the operational statement which indicates incidental contaminants will be removed from incoming loads as they arrive and transported from the site via a private carrier.

Regarding dust concerns, the San Joaquin Valley Unified Air Pollution Control District indicated that though the cumulative impact of the project, and other like it, will reduce the air quality in the San Joaquin Valley, the project itself will not have a significant impact on air quality. The applicant has indicates that a water truck and surfaced roads will be used to control dust, and that windrow turners are covered to reduce dust during turning. To insure that the generation of dust is addressed, a condition has been included to require the operator to operate the facility in such a manner so as to avoid creating dust impacts on adjacent properties.

Provided that the use operates in accordance with the site plan, operational statement, and recommended conditions of approval, the composting facility should not have an adverse impact on surrounding properties.

Finding 4: *That the proposed development is consistent with the General Plan.*

The subject property and surrounding area is designated Agriculture on the Fresno County General Plan. The general objective of the Agricultural Policies is to encourage continued agricultural use of land and to minimize the amount of land converted to non-agricultural uses. The Agricultural Policies accommodate various agriculturally related commercial uses provided certain criteria are met.

These criteria are as follows:

a. The use shall provide a needed service to the surrounding agricultural area which cannot be provided more efficiently within urban centers, or requires location in a non-urban area because of unusual site requirements or operational characteristics.

b. The use should not be sited on productive agricultural lands as defined in 204-02:3.02a if less productive land is available in the vicinity.

c. The operational or physical characteristics of the use shall not have a detrimental impact on water resources or the use or management of surrounding properties within at least one-quarter mile radius.

d. A probable workforce should be located nearby or be readily available.

The proposed use meets these criteria. Criterion "a" can be met in that the primary intended use of the compost product is bulk application of organic fertilizer and soil amendment to agricultural land. In addition, due to the site requirements and operational characteristics of the use, it does not appear the use is appropriate in an urban area. Criterion "b" is met in that it is unlikely there is less productive agricultural land available within the vicinity of the site and because the proposed facility is proposed on an improved site. Criterion "c" is addressed in Finding 3. Criterion "d" is met in that there is a limited work force needed and that the site is located near the Cities of San Joaquin and Kerman as well as being within commuting distance from the Cities of Fresno and Clovis. Based on these factors, the use can be considered consistent with the General Plan.

The proposed project is also subject to the Solid Waste Facility Policy of the General Plan. This policy specifies siting criteria for composting facilities and other solid waste processing stations. The applicable criteria are as follows:

a. Sites shall be within the defined service area and located so as to mitigate air pollution, minimize road use and conserve energy. This does not preclude multiple sites within a service area.

b. Processing stations within a service area shall be located and be of proper capacity to serve that specified service area.

c. Sites shall be of adequate size to accommodate proposed processing station operations and vehicle storage; and should be of adequate size to provide for expansion to accommodate future shifts in resource recovery technology.

Staff believes the above criteria are met. Criterion "a" can be met in that the feedstock for the composting material

and co-generation plant comes from either the cow manure waste from nearby dairies and ranches within a 30-mile radius, or from agricultural green waste from surrounding agricultural operations, as well as clean green material (tree trimmings, untreated wood residues, grass, leaves, and shrub clippings) that originates in the Fresno-Clovis Metropolitan Area. Also, by providing a closer location for these materials, travel distance to disposal sites is reduced. In addition, having this site available for clean green material will help save space in the American Avenue Landfill and thereby lengthen its life. Criterion "b" and "c" are met in that the facility will have a maximum design capacity to accommodate 1,000 tons of green waste and manure per day. The facility will process an average of 500 tons per day. According to the applicant's operational statement, this exceeds projected volumes of both imported green waste material and manure.

The proposed project is also subject to the Solid Waste Management Plan, which has been adopted by the County but is not part of the Fresno County General Plan. As discussed above in the Background Section, the Integrated Waste Management Local Task Force concluded that the proposed project is consistent with the Solid Waste Management Plan.

G. STAFF RECOMMENDATION

Staff recommends approval of the Mitigated Negative Declaration prepared for this project.

Staff believes the required findings can be made and recommends approval of Unclassified Conditional Use Permit Application No. 2798, subject to the following conditions:

1. Development and operation of the facility shall be in substantial conformance with the site plan, and operational statement approved by the Planning Commission.

2. Prior to the issuance of any permits, a Site Plan Review shall be submitted to and approved by the Director of the Public Works & Development Services Department in accordance with the provisions of Section 874 of the Fresno County Zoning Ordinance. Conditions of the Site Plan Review may include, but are not

limited to, parking design and circulation, grading and drainage, on-site fire protection facilities, outdoor lighting, and access road improvements.

3. The facility shall be operated in such a manner as to avoid creating an odor, vector, dust, litter, or noise nuisance to adjacent properties.

4. All outdoor lighting shall be hooded in such a manner so as not to produce glare upon adjacent properties.

5. On-site water retention of all stormwater run-off generated by newly constructed surfaces shall be required. A Grading and Drainage Plan shall be submitted for review and approval by the Fresno County Public Works & Development Services Department. For information on submitting a Grading and Drainage Plan, contact the Development Engineering Section of this Department at 262-4022.

6. The applicant's engineer shall submit a report acceptable to the County detailing the condition of the access road and the improvements needed to insure that the road will be adequate to accommodate the traffic generated by the use described in the operational report. The road shall be improved in accordance with the recommendations of the report accepted by the County.

   NOTE: Access road improvements will also be subject to Fresno Fire Protection District Standards, and an Encroachment Permit from the County for the required driveway approach at American Avenue. Call (209) 485-7500 for more information.

7. Approved fire hydrants shall be located not less than 50 feet or more than 150 feet of travel distance from all exterior building points or as approved by The Fresno County Fire Protection District. Contact the District at (209) 485-7500 for more information.

8. Installation of UL listed portable fire extinguishers

with a minimum 2-A:10-B,C rating shall be located within 75 feet of travel distance from all interior building points. Contact The Fresno County Fire District at (209) 485-7500 for more information.

NOTE: For any inspections performed by the fire department, an appointment must scheduled allowing 14 to 21 days for the process to be completed.

*9. Within 30 days of the start of operation, an acoustical consultant selected by the applicant and approved by the Fresno County Community Health Department, shall conduct an acoustical analysis of the facility to prove conformance with the Fresno County Noise Ordinance. The acoustical analysis shall be submitted to the Department for review and acceptance.

*10. If the acoustical analysis indicates that noise levels exceed the limits of the Fresno County Noise Ordinance, additional mitigation measures, as recommended by the acoustical consultant and approved by the Fresno County Community Health Department, shall be added to the project within 60 days of acceptance of the analysis to ensure conformance with the Fresno County Noise Ordinance.

*11. During the construction phase, all noise generating equipment shall be maintained according to the manufacturer's specifications, and shall be equipped with mufflers. This latter requirement shall also apply to all mechanical equipment utilized as a part of the daily operation of the facility.

*12. The hours of operation of the facility, including truck travel, shall be limited to 7:00 a.m. to 5:00 p.m., with the exception of the operation of the primary digester, which shall be allowed to operate 24 hours a day provided it is fully enclosed.

*MITIGATION MEASURE - A measure specifically applied to the project to mitigate potential adverse environmental effect identified in the environmental document. A change in the condition may affect the validity of the current environmental document, and a new or amended environmental document may be required.

NOTES:

The following notes reference various mandatory requirements of Fresno County or other agencies and are provided as information to the project applicant.

1. The applicant must complete and submit either a Hazardous Materials Business Plan or a Business Plan Exemption form to the Fresno County Community Health Department, Environmental Health System. For further information, the applicant should contact the Hazardous Materials Disclosure/Registration Program at (209) 445-3271.

2. All hazardous waste must be handled in accordance with requirements set forth in the California Health and Safety Code, Chapter 6.5. This Chapter discusses proper labeling, storage, and handling of hazardous wastes.

3. The project applicant must obtain a Solid Waste Facilities Permit prior to operation. Pursuant to Public Resources Code, Section 44001, an application for a Solid Waste Facilities Permit must be filed with the Fresno County Community Health Department, Environmental Health System at least 150 days in advance of the date on which it is desired to commence operation. For further information, contact David Pomaville at (209) 445-3380.

4. The applicant may need to file a statement regarding any proposed aboveground petroleum storage tank with the State of California, Water Resource Control Board. For further information, contact the Division of Clean Water Programs at (916) 739-2670.

5. The applicant must submit four sets of complete plans and specifications regarding any proposed installation of underground storage tanks to the Fresno County Community Health Department, Environmental Health System. For further

information, contact the Underground Storage Tank Program, at (209) 445-3271.

6. The applicant must submit an application for a permit to operate a Public Water System and supporting information, in the form of a technical report, to the Fresno County Community Health Department, Environmental Health System for review. Approval for the permit must be obtained and all water quality results must be submitted prior to occupancy. For further information, contact Jim Brunton at (209) 445-3357.

   - Only one existing on-site well meets the construction requirements for a public water supply well (Well Driller's Report No. 148752 on the Department of Water Resources Log and Well Permit No. FCEH 1309 as identified in the Fresno County Community Health Department Records). Only this well can be considered for purposes of providing piped, potable water for the facility and is subject to compliance with all applicable water quality standards.

   - If the existing on-site well does not meet the water quality standards, a new well must be drilled prior to occupancy.

   - The applicant must apply for and obtain a Permit to Construct a Water Well from the Fresno County Community Health Department, Environmental Health System. Any new well to be utilized for domestic water purposes must meet **Public Water System** well construction standards. For further information, contact Jim Brunton at (209) 445-3357.

7. The proposed on-site lab may be subject to certification. For information, contact Bill Ray at the Environmental Laboratory Accreditation Program (ELAP), at (510) 540-2800.

8. The construction phase of this project will be subject to certain aspects of Regulation VIII of the San Joaquin Valley Unified Air Pollution Control District. Regulation VIII is a series of rules designed to reduce PM-10 emissions generated by human activity, and is required.

9. This project will be subject to the permitting requirements of the San Joaquin Valley Unified Air Pollution Control District. Any project subject to the District's Permit to Operate must also obtain an Authority to Construct (ATC) from the District. Construction of a project subject to the District's ATC cannot begin until this permit is obtained. For further information, contact the District's Small Business Assistance Office at (209) 497-1111, or the District's Services Section at (209) 497-1100.

10. An asbestos survey of the existing structure may be required, prior to any renovation or demolition activity, to identify the presence of any asbestos containing building material (ACBM). Any identified ACBM having the potential for disturbance must be removed by a certified asbestos contractor in accordance with CAL-OSHA requirements. For information, contact Bob Bashian at the District's office at (209) 497-1040 or CAL-OSHA at (209) 454-1295. (A synopsis of the District's Asbestos Compliance Assistance Bulletin is attached and should be made available to the applicant.)

11. This project must either comply with the requirements set forth in State Water Resources Control Board Order No's. 91-13-DWQ and 92-12-DWQ for discharge of storm water associated with industrial activities or provide documentation that National Pollutant Discharge Elimination System (NPDES) are not applicable to the composting facilities.

12. Contact the Permits Section of the Public Works & Development Services Department at (209) 262-4302

regarding requirements for submitting construction plans and obtaining building permits for the proposed structures, as well as the structures to be converted. In addition, contact the Permits Section regarding demolition permits required for the structures to be removed.

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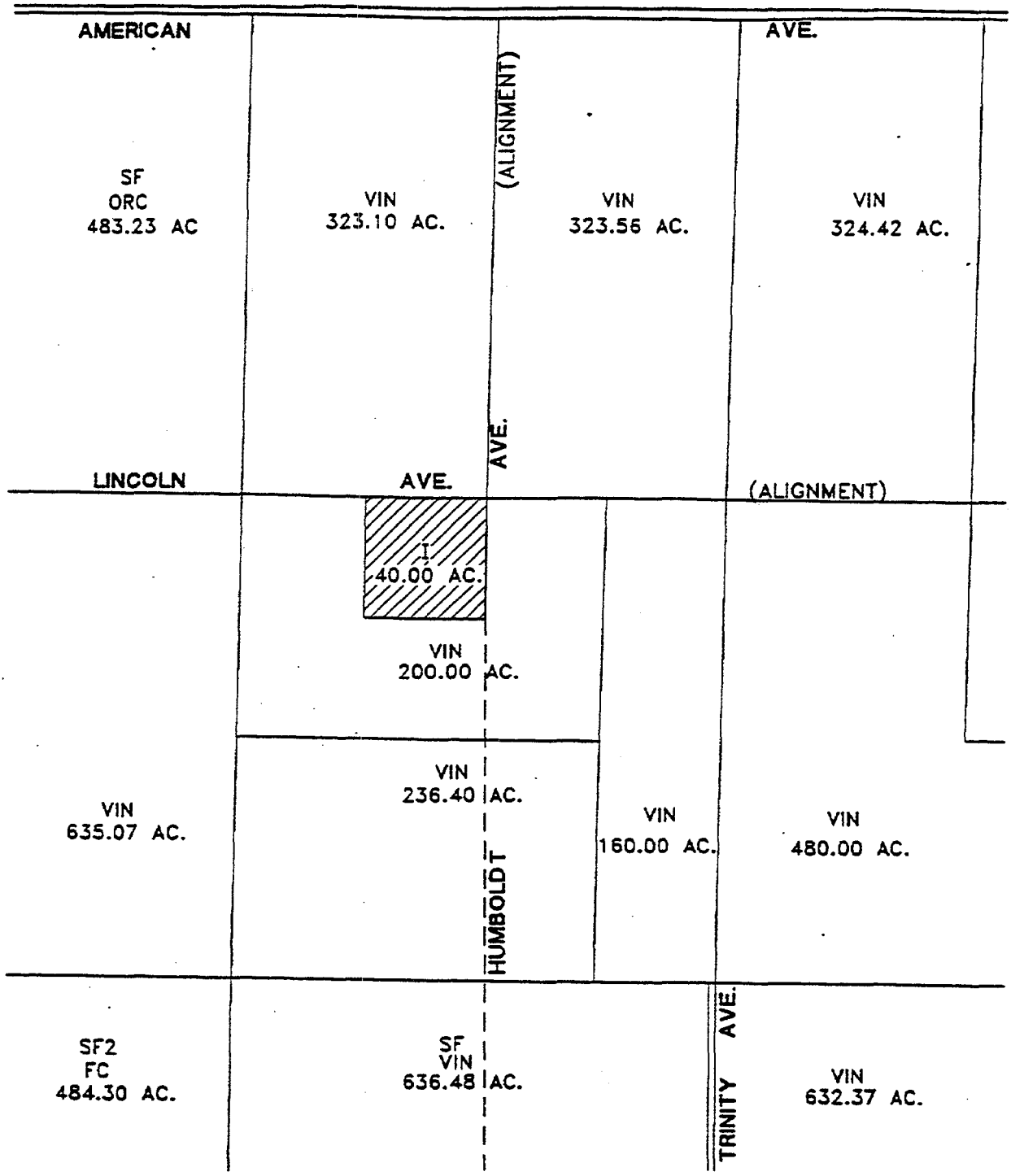
EXHIBIT "1"

EXISTING LAND USE

CUP 2798



LEGEND

SF — SINGLE FAMILY RESIDENTIAL
FC — FIELD CROP
ORC — ORCHARD
I. — INDUSTRIAL
VIN — VINEYARD
— NUMBER OF UNITS
▨ — SUBJECT PROPERTY

NORTH

EXISTING ZONING

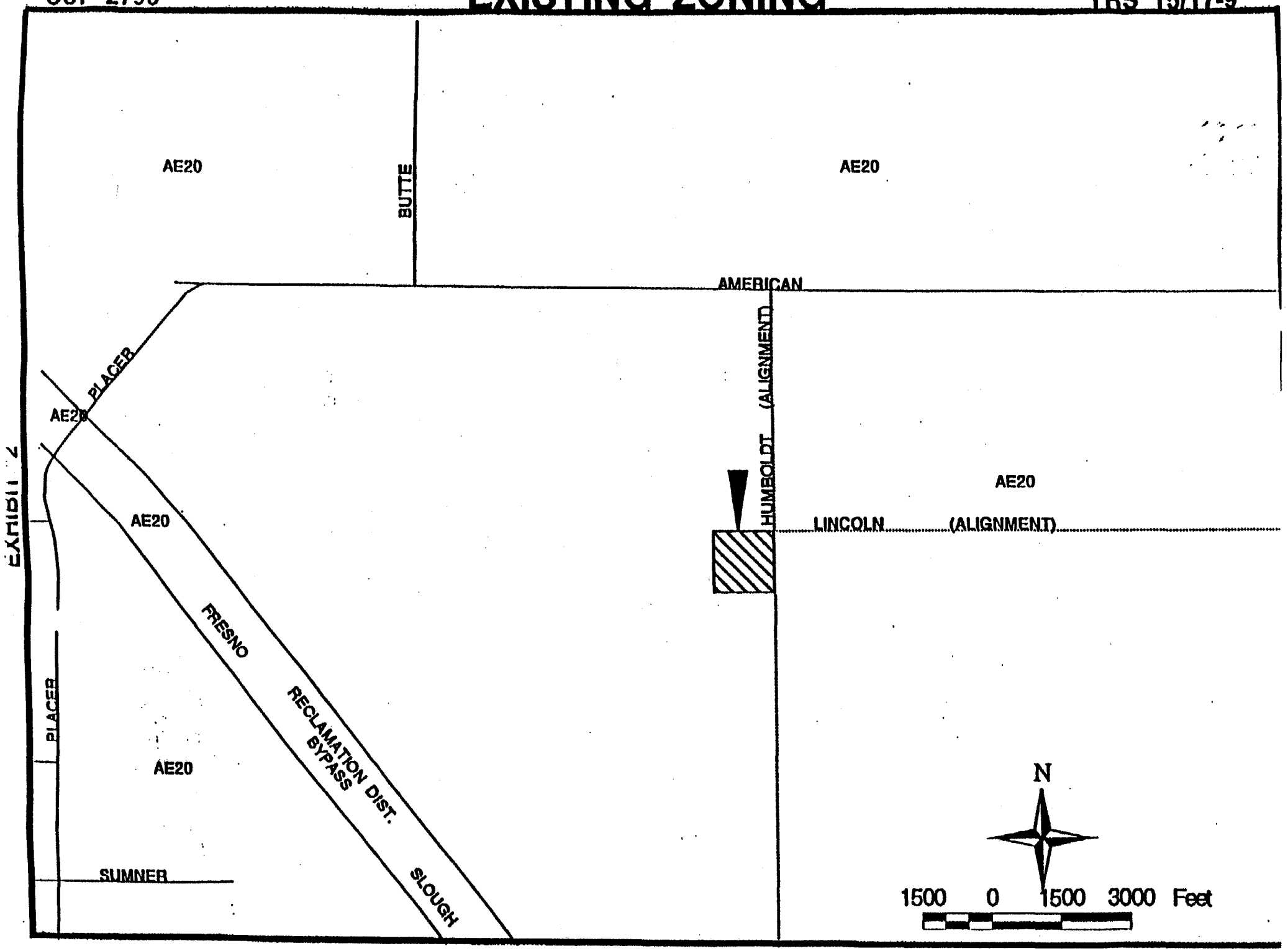


EXHIBIT 2

APPENDIX B

Project Description and CEQA Environmental Assessment

I. Project Description: Pages 1-35
II. CEQA Environmental Assessment: Pages 36-51
III. Supplemental Project Description

REPORT OF COMPOSTING SITE INFORMATION for Biorecycling Technologies, Inc. (BTI) Noble Fertilizers Site

Prepared for
Biorecycling Technologies, Inc. (BTI)
6101 Cherry Ave.
Fontana, CA 92336

Prepared by
Dirk Poeschel Land Development Services
2310 Tulare St., Ste. 105
Fresno, CA 93721

March 4, 1997

CUP 2798

EXISTING ZONING

TRS 15/17-9

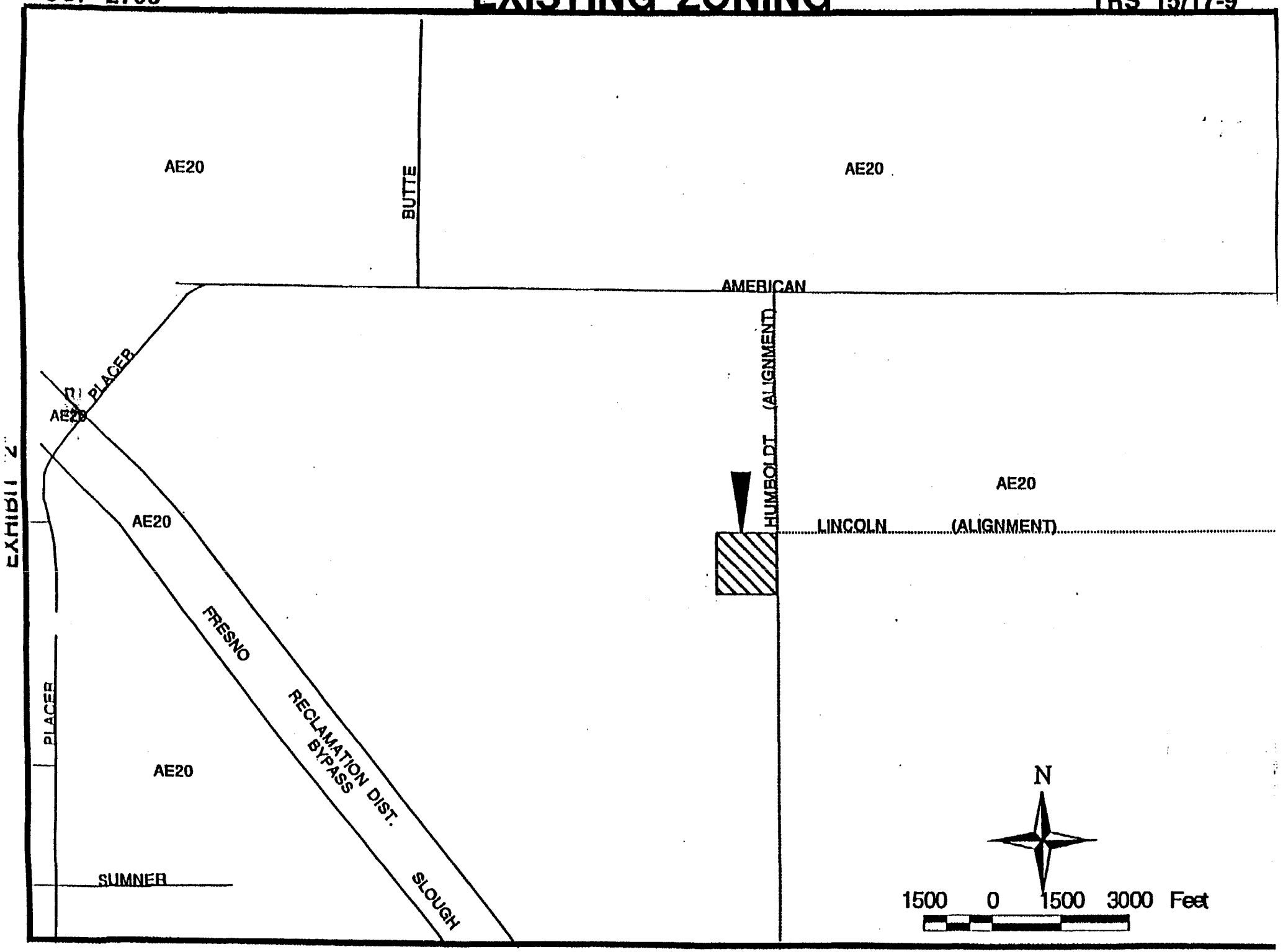


EXHIBIT 2

REPORT OF COMPOSTING SITE INFORMATION FOR BIORECYCLING TECHNOLOGIES, INC. (BTI)

TABLE OF CONTENTS

I. FACILITY OVERVIEW

A. Introduction

This Report of Composting Site Information (RCSI) describes the design and operation of the proposed Noble Fertilizers organic waste conversion facility (OWCF). Attached to this RCSI is an Environmental Assessment (EA) prepared for the proposed OWCF. The EA evaluates all potential impacts related to the project. The EA was prepared in accordance with the California Environmental Quality Act (CEQA). The OWCF will be owned and operated by Biorecycling Technologies, Inc. (BTI), 6101 Cherry Avenue, Fontana, CA 92336. The BTI facility will be located on a 39.7 acre portion of a 480 acre parcel of land owned by Mr. Mike Nury, et al. Said facility will utilize the existing improvements of the vacated Noble Winery which encompasses 10 acres located at 18559 W. Lincoln Avenue. The service area of the facility includes, but is not limited to, the cities of Fresno, Clovis and Kerman. The unincorporated areas of Fresno County within the vicinity of the BTI facility will also benefit from this operation.

Fresh cow manure collected from local dairy farms and green waste material within Fresno County will be delivered to the site by trucks. Technically, manure is classified as green waste. For purposes of this report, manure is discussed as a separate waste to simplify the project description, waste volume calculations and truck trips. Approximately 10 loads of fresh dairy cow manure will be trucked daily by third-party contractors to the BTI facility and dumped into a proposed steel feedstock receiving tank. Process water is added to the manure in the receiving tank. The manure is then pumped into sealed, existing steel tanks which are heated to undergo anaerobic digestion.

This digestion process produces a digested "slurry" and methane-rich biogas. The biogas is cleaned and then combusted in an internal combustion engine, which turns a generator to produce electrical energy sufficiently to supply all the BTI electrical energy needs, plus approximately five hundred kilowatts (500 kw) for sale to the local utility or other end users at market rates per applicable regulations. The heat generated during combustion of the biogas in the engine is used to heat water, which in turn is used to heat the "slurry" digestion tanks.

The digested "slurry" is separated into a fibrous solid fraction and a liquid fraction. The fibrous solid fraction is placed into windrows in an open-air maturation area and is processed aerobically into the sellable product *NutriTex*®, a high quality organic soil amendment (compost) that can replace, and is superior to, peat moss. The liquid fraction can be used in the organic process to fortify the compost produced on-site.

Some liquid fraction is further separated into a "cake" material and centrate (liquid). The "cake" material is used to produce pelletized fertilizer *NutriPellets*®. The liquid centrate is pumped into sealed tanks to undergo secondary anaerobic digestion. This secondary digestion process also produces methane-rich biogas which is also conveyed

to the combustion engine, and digested centrate (liquid). The digested centrate can be used as fertilizer in organic farming. Most digested centrate is transferred to sealed, steel tanks, where the digested centrate is stabilized by lowering the pH and, depending on the intended product market, the digested centrate may be fortified with chemicals to create the controlled-formula products *NutriPlus®*. The BTI solid and liquid products would be transported off-site in bulk and/or packaged on-site in retail containers for wholesale commercial distribution.

Various high value and useful resources are produced by the process. Those products are liquid and solid organic fertilizer, earthworm castings, peat moss substitutes, mulches and soil conditioners, blended professional planting soils, humus and live earthworms. Proprietary, continuous feed, anaerobic digestion and aerobic composting processes will be utilized.

B. Site Location

1. Site Location/Map

The BTI composting site is a 39.7 acre portion of a 480 acre site located on the south side of American Avenue between Madera Avenue and Lake Road, 18559 W. Lincoln Avenue, Kerman, CA,(Section 9, Township 15 South, Range 17 East, Mount Diablo Base and Meridian). The site is in the unincorporated area of Fresno County. The site is approximately 200 feet above the highest anticipated water table and is in a rural agricultural area. A vicinity map and site location/topographic map are shown on Exhibit "A" and Exhibit "B" attached to this document respectively.

2. Siting Considerations

The site was selected because of its location relative to various dairies in the area. Dairies are the primary source of manure for the facility. There are approximately 80 - 90 dairies within a 30 mile radius of the site. Also, consideration was given to the geographic location of the site in relation to the Cities of Fresno and Clovis as a source of green waste. Existing site improvements from the abandoned Noble Winery, i.e. tanks, buildings, etc., can be easily converted for use in fertilizer production thus making this site ideal for the proposed use. The site was also considered because the operation will not impact any surrounding properties due to its rural location. No significant odor, traffic, air quality, noise, etc., will be generated by the operation. With approval of a Conditional Use Permit, the proposed fertilizer/composting facility is consistent with Fresno County's General Plan and related zoning provisions relative to this proposed use. There are no residences within 1,000 feet of the proposed facility. There are no hospitals or schools

within miles of the site. The site is not located within a 100 year flood plain, wetland, vernal pool, riparian lands or existing natural springs. There will be a caretaker's residence located on-site. No composting will occur within 100 feet of this residence.

3. Landfill

The facility is not planned to be located on an existing or closed landfill. The composting will only occur on BTI land. However, the American Avenue landfill which is the designated regional landfill for Fresno County is located one mile north of the site and will not be impacted by the project. The site has been continuously farmed for the past 60+/- years.

C. Quantity of Wastes to Be Accepted

The facility will accept manure and green waste for composting. The manure will come primarily from dairies in the area. The green waste will come primarily from municipal green waste recycling programs and agricultural operations.

1. Maximum Daily Load Capacity

It is estimated that the maximum daily load capacity of the facility will be 1,000 tons per operating day. The following calculations were used to estimate this maximum capacity:

25 tons/truck X 24 trucks/day maximum = 600 tons/day/green waste

20 tons/truck X 20 trucks/day maximum = 400 tons/day/manure

Total maximum daily load capacity = 1,000 tons/day

2. Average Daily Throughput

It is estimated that the average daily throughput at the facility will be 500 tons per operating day. The following calculations were used to estimate this average daily throughput.

25 tons/truck X 12 trucks/day average = 300 tons/day/green waste

20 tons/truck X 10 trucks/day average = 200 tons/day/manure

Total average daily throughput = 500 tons/day

3. Average Load Capacity Next Five Years

It is estimated the facility will have an annual average load capacity of 150,000 tons per year over the first five years of operation. The following calculations were used to estimate this average load capacity for the first five years:

12 trucks/day X 25 tons/truck = 300 tons/day/green waste
10 trucks/day X 20 tons/truck = 200 tons/day/manure

500 tons/day X 300 days/year = 150,000 tons/year

4. Design Capacity

The estimated total daily design capacity of the facility will be 1,000 tons per day. The following calculations were used to estimate this design capacity:

25 tons/truck X 24 trucks/day maximum = 600 tons/day/green waste
20 tons/truck X 20 trucks/day maximum = 400 tons/day/manure

Maximum design capacity = 1,000 tons/day

5. Feedstock Material Types

The facility will accept cow manure and green waste as feedstock for composting. The green waste will comprise of typical yard waste including, but not limited to, lawn clippings, tree and shrub trimmings, leaves, stumps, etc. Agricultural green waste such as tree and vine trimmings, cotton gin by-product, produce residuals, etc., may also be composted. The cow manure will come from dairies and cattle ranches within approximately a 30-mile radius of the site. All feedstock material will be handled with tractor and mechanical equipment thus virtually eliminating the need for human contact.

D. Types and Number of Vehicles Anticipated to Enter the Facility

Green waste collection vehicles and other truck/trailer vehicles will deliver green waste to the facility. These vehicles are capable of handling a maximum of 10 - 25 tons of material per load. It is estimated that a daily average of 12 vehicles hauling green waste will make deliveries to the site. Typically, delivery vehicle trips will be evenly distributed throughout the day. Daily vehicle trips may vary depending on collection schedules for feedstock. Municipal green waste collection schedules may result in a maximum of 24 daily vehicle trips.

Manure delivery vehicles will make an average of 10 trips per day to the facility. Deliveries will typically be made 5 to 6 days per week. The vehicles will have a load capacity of up to 20 tons. Delivery trips to the site will be evenly distributed throughout the day and thus, typically only one vehicle at a time will be present at the site.

II. COMPOST PROCESSING SITE DESIGN, MONITORING AND SITE IMPROVEMENTS

A. Composting Site Design

1. Title Sheet

There is no title sheet for the project plans. The project Site Plan is attached as Exhibit "O" to this document and contains all plan information.

2. Site Plan

The project Site Plan prepared by Michael Sutherland and Associates of Madera, California is provided in Exhibit "O" attached to this document.

The Site Plan details the existing and proposed improvements for the BTI facility.

The site was operated as a winery for many years. Additions to the site were granted under Conditional Use Permit No.1612 that was issued by Fresno County in April of 1991. That permit allowed the addition of wine fermenting and storage facilities on a 39.7 acre portion of the subject property. A negative declaration was published for the aforementioned expansion on April 1, 1979. Said site was operated in accordance with that permit for many years. Approximately 5 years ago the subject site was vacated. Nonetheless, the winery equipment remains in generally good condition and can be rehabilitated for the proposed use. Existing site improvements are shown in the photos included in Exhibit "P" attached to this document.

The site's existing improvements include the following:

- Forty-four stainless steel tanks ranging in size from 30,000 to 130,000 gallons. Other smaller and relatively insignificant tanks also exist that are detailed on the project Site Plan.

- A paved access road, truck scale, parking area, four water wells and an office.

- Various metal buildings related to the winery and a caretakers residence located 700 feet northwest of the winery facility.

- Landscaping and fencing around the winery facility.

- Agricultural ground under various levels of production.

3. Design Details

The site design details are indicated on the project Site Plan in Exhibit "O" attached to this document.

4. Facility Construction

Various permanent improvements currently exist with new facilities also being proposed. A scale will be used to weigh incoming feedstock and outgoing compost and fertilizers. Green waste grinding, windrow turning and composting will occur on-site along with the production of liquid and pelletized fertilizers. Most of the existing improvements from the previous winery operation will be incorporated into the BTI operation. Those improvements include tanks, buildings, pipes, roads, electrical system, etc., as detailed on the project Site Plan. All appropriate building permits will be obtained through Fresno County for facility construction. All equipment used in the composting operation, i.e. windrow turner, tractors, trucks, etc., will be stored on-site. The existing and proposed improvements are detailed on the project Site Plan.

5. Grading Plan

The site has relatively flat topography and thus no major grading is proposed, particularly given the extensive improvements on the site. The composting area will be scraped with a tractor blade to accommodate the windrows. The composting area topography will not change. The site topography is indicated on the Site Location/Topographic Map, Exhibit "B" attached to this document. A small storm drain basin will be graded in the southwest corner of the compost area as detailed on the project Site Plan. No changes are contemplated to the site grading or drainage. Some insignificant improvements such as small stainless steel tanks will be removed from the site to accommodate the propose use. The proposed structures will utilize the established drainage and grading pattern of the site.

6. Pad Composition and Dimensions

Active composting areas will be managed and monitored to ensure the protection of soil and groundwater and surface waters from the effects of the composting operation. The green waste receiving area and compost windrow areas will have native soil pads. The composting area is approximately 25 acres and the green waste receiving area is approximately 5 acres. A 1 acre mixing/blending and storage area will also be provided which will have an asphalt pad. A Report of Waste Discharge will be prepared by a qualified engineer to evaluate potential impacts to soils and groundwater in the native soil pad areas. Soil monitoring and other mitigation measures will be further detailed in the Report of Waste Discharge which will be submitted to the California Regional Water Quality Control Board and Fresno County for review.

7. Surface Drainage Plans

A drainage basin to control any surface water runoff is proposed in the southwest corner of the compost area as indicated on the project Site Plan. According to the property owner, stormwater did not create any surface water flooding at the site during the 1994-1995 or 1996-1997 flood events. Therefore, it is not anticipated to be problem at the site. The drainage basin will be sized in accordance with county standards. According to the property owner, all existing storm drainage improvements work adequately and were built with appropriate permits.

8. Drainage Control

The subject site is within the Golden Plains District Federal Emergency Management Agency rate map 1150 B. That map details the areas of potential flooding on and around the subject site. The area of proposed use is outside of the FEMA 100 year flood event.

Improvements for the existing winery encompass approximately 10 acres of the subject site. Those improvements include grading, drainage and the construction of structures and other improvements to the site.

In the event that stormwater does create surface water runoff, the on-site drainage will direct and carry the water to the basin. This basin will capture runoff thus preventing stormwater from entering adjacent properties or running out of the compost area.

9. Leachate Control

a. Leachate Barriers

Because of vigorous monitoring and control of the moisture content of the green waste as it is composting, it is not anticipated that leachate will be generated. Relatively flat site topography and fleece windrow covers will also help to prevent leachate by shedding rain water.

b. Leachate Barrier Locations

Leachate is not anticipated to be generated at this facility. The thermophilic method of composting actually absorbs most available moisture and proper grading will eliminate any excell runoff. Because of the dry climate that is experienced most of the year, it will be necessary to add water to maintain correct moisture percentages. If it is determined that leachate barriers are required, they will be located in and around the compost operation area to ensure that leachate does not enter neighboring lands or impact soils or groundwater. Based upon BTI's experience in operating other similar projects, leachate is not anticipated to be a problem.

c. Monitoring and Sampling Procedures

Soil samples will be performed on a regular basis and the results will be submitted to the Fresno County Health Department and the California Regional Water Quality Control Board for the project. Soil samples and monitoring of the compost area will verify that no soil contamination occurs as a result of the operation. Any harmful soil constituents detected through sampling will be handled per an engineer's recommendation. Sampling and monitoring will be further detailed in the project Report of Waste Discharge currently being prepared. The Report of Waste Discharge will be submitted to Fresno County and the California Regional Water Quality Control Board for issuance of a Waste Discharge Permit.

d. Leachate Volume

Proper composting operations will ensure that no significant leachate will be generated from the process. The green waste will be processed through a grinder and arranged in windrows for composting. The windrows will be turned on a regular basis as

needed. Proper management of the site will eliminate leachate generation from the operation.

e. Treatment, Storage and Discharge

Very limited amount of leachate would be generated during windrow composting in the field. As a result, leachate will either be turned in the windrows, evaporate or enter the field soils. Ultimately, any limited leachate can be tilled into the field upon completion of composting and removal of material from the windrow. Leachate is not a problem at other BTI sites.

f. Landfill Sites

The project is not located on or near a landfill site. The compost operation is proposed on agricultural land that has been farmed for many years. The American Avenue Landfill is located one mile north of the project but will not be impacted by the BTI operation.

10. Site Access

The site will be accessed from American Avenue. A drive approach will be installed and maintained as required by Fresno County. The access road, gate location, etc., are indicated on the project Site Plan.

11. Development Stages

The project will not be developed in stages or phases. The entire facility will be constructed prior to the commencement of the cow manure operations. The construction of all permanent improvements and preparation of the compost area will be completed prior to accepting any green waste at the site. All equipment necessary for composting, i.e. windrow tuners, tractor, water truck, loader, grinder, screener, etc., will be available upon start-up of operations.

12. Engineering Report

A Report of Waste Discharge is being prepared by an engineering firm to evaluate potential soil and groundwater impacts related to the project. The Report of Waste Discharge will include a mitigation and monitoring program to insure no degradation of site soils or groundwater will occur. Any other engineering reports deemed necessary will be prepared for evaluation and approval of this project as may be required at a later date.

13. Amendments and Additives

The operation will involve the composting of green waste and cow manure. Rice hulls, hay/straw, redwood bark, liquid organic fertilizer, solid fraction of digested cow manure or similar amendments and additives may be introduced to facilitate the compost process. The liquid organic fertilizer provides some biological activity to get the compost process started. The rice hulls, redwood bark and hay/straw help to create a 3 dimensional structure to the rich compost. The solid fraction of digested cow manure is optional but helps to create a more nutrient rich compost. The following is a breakdown of the percentage of amendments, additives and feedstock by volume:

green waste	not less than 50% by volume
amendments and additives	up to 50% by volume
solid fraction of digested cow manure	up to 50% by volume

Note: When amendments or additives are used, the maximum amount of manure will be equal to 50% – the percentage of amendments and additives by volume.

14. Physical Site Conditions Report

The site is developed with improvements from the abandoned Noble Winery. A 25 acre vacant portion of the site will be used as the compost windrow area. The site represents typical agricultural land with an abandoned winery and has no unique physical characteristics. The project will not result in any permanent physical improvements to the site. The site soils are classified as Calhi loamy sand (CfB). The depth to groundwater is approximately 200 feet. The estimated maximum precipitation from a 25 year/24 hour rainstorm event is approximately 4 inches. The percolation rate of on-site soils will limit any runoff associated with a 24-hour storm event. This was demonstrated during the 1994-1995 and 1996-1997 storm events when no flooding occurred at the site. A stormwater basin is also proposed as part of the project design to control runoff.

B. Monitoring

All incoming loads of manure will be monitored to ensure the wastes meet BTI standards. Also, all incoming green waste will be visually inspected to ensure no non-permitted wastes are accepted. Any loads not meeting BTI standards will be rejected and handled off-site. Site soils and compost windrows will be monitored on a regular basis. Monitoring will be performed to determine soil conditions in the compost area. Windrows will be monitored for temperature

(150° is ideal), CO_2 content, pH and moisture content (60% initially, 50% at end of cycle). All monitoring results will be logged daily. If leachate is generated, it will be sampled from the feedstock or compost source. Leachate would be analyzed for organo phosphates and nitrates using EPA method 8140. Existing BTI operations at other sites generate no leachate and thus, it is assumed that no leachate will be generated at this proposed site. End-product compost will be sampled to ensure metal concentration and pathogen reduction meet health standards and to ensure the compost meets BTI standards.

C. Composting Site Improvements

1. Identification Signs

An identification sign will be located on American Avenue near the site entrance. The sign will indicate the name of the operation (BTI, Biorecycling Technologies, Inc. Noble Fertilizers Plant), the site address (18559 W. Lincoln Avenue), the hours of operation (7:00 a.m. - 5:00 p.m. Monday - Saturday) and business phone number (not yet assigned). The sign will be two-sided thus being visible to traffic traveling both directions on American Avenue.

2. Entry Signs

The entry sign will be incorporated into the identification sign on American Avenue and will indicate site "Entrance". An arrow pointing to the entrance road will also be included on the sign.

3. Facility Security

A caretaker will live on-site to provide security when the plant is closed. A gate will be installed at the site entrance as detailed on the Site Plan. The gate will be locked to provide security during non-business hours. Lighting will also be provided for security during evening hours.

4. Roads

The site will be accessed from American Avenue. A drive approach, constructed to county standards, will be installed leading into the site. The entrance road will extend from American Avenue to the BTI facility. The road is indicated on the project Site Plan. It will be constructed and surfaced as required by Fresno County.

5. Visual Screening

The facility will be located approximately one mile south of American Avenue and is completely surrounded by vineyards. The operation will visually blend with surrounding agricultural activities. The remote location of the site will make it virtually unnoticeable. As a result, no visual screening is proposed.

III. COMPOSTING FACILITY OPERATIONS

A. Introduction

The applicant, BTI, proposes to develop an organic waste facility (OWCF). The operation will include the composting of green waste and cow manure. The green waste will be brought to the site, ground and stockpiled for composting. Manure will be brought to the site and processed through a primary digestion system for production of liquid and pelletized fertilizers. Remaining manure fiber will be mixed with green waste in windrows for two to three months where the composting will occur. When the composting process is complete, the material will remain in the windrow or the material storage areas until it is hauled off-site for use. The facility will operate from 7:00 a.m. to 5:00 p.m. Monday through Saturday. These hours and the nature of the operation will not create a nuisance to neighboring agricultural properties. The primary digesters will operate 24 hours per day as required in the production of fertilizer.

B. Facility Personnel

1. Availability

The hours of operation will be from 7:00 a.m. to 5:00 p.m. Monday through Saturday. The facility personnel will be available in accordance with these hours of operation. The number of personnel required to operate the BTI facility is estimated to be 35. Facility personnel will always be on-site as required for daily operations. Those operations include receiving and processing feedstock, operating the primary facility which produces liquid and pelletized fertilizers, bagging pelletized fertilizers, turning windrows, maintenance of the site and equipment and sales of compost material. A caretaker will be on-site 24 hours a day and will live in the caretaker's residence.

2. Training

All employees will be trained in accordance with their specific job duties. All training will be conducted by the facility operator and/or manager. The training will pertain to all aspects of the operation. That training will

focus on the operation, maintenance and repair of heavy equipment, the composting process, primary digester operations, the sale of composting material, windrow turning and monitoring, management of the facility, record keeping, etc. Employees will also be trained to handle chemical bulking agents in accordance with the "Material Safety Data Sheets" provided by the chemical manufacturers.

3. Supervision

a. Level of Supervision

All employees will be supervised by the facility manager. The facility manager will be hired by the operator, BTI. The facility manager will be trained in accordance with the best management practices for the composting industry. The facility manager will be responsible for supervision of all on-site employees. In the event that the facility manager is not available to supervise employees, it will be the responsibility of the operator, BTI, to provide employee supervision.

b. Emergency Contact List

In the event of an operational emergency at the site, the operator, BTI, and/or appropriate agencies will be notified to take necessary action. Those members of BTI that will be notified will be Mr. Mark Brownton, Manager, Production and Plant Operations, BTI and the site manager who has not yet been hired. They can be reached at the following mailing addresses and phone numbers:

1) Mr. Mark Brownton, Manager
Production and Plant Operations
Biorecycling Technologies, Inc.
1601 Cherry Ave.
Fontana, CA 92336
a. Day Phone - 909/899-2982
b. Evening Phone - 909/880-0015

2) BTI Site Manager (not yet hired)
18559 W. Lincoln
Kerman, CA 93630
a. Day Phone - not yet assigned
b. Evening Phone - not yet assigned

Local agency contacts for emergencies are as follows:

1) Fresno County Department of Health
Environmental Health Services
P. O. Box 11867
Fresno, CA 93775
Phone - 209/445-3271

2) Fresno County Fire Department
25101 Morten
Tranquility, CA 93668
Phone - 209/485-7500
Emergency - 911

4. Attendant

It will be the responsibility of BTI to appoint an attendant/manager to oversee the daily operations of the facility. The attendant will be on duty during all hours of operation and will visually inspect the operation on a regular basis. Supervision of employees will also be the responsibility of the site attendant/manager.

5. Operator

Biorecycling Technologies, Inc. (BTI) will be the operator of the facility. BTI will retain a full-time attendant/manager to oversee the daily operations of the facility. BTI will also be the owner of the operation. BTI has years of experience in the composting and fertilizer production industry. All employees will be trained in the operation of the facility relative to their specific duties. All record keeping will be the responsibility of BTI and the site attendant/manager. Existing BTI operations at other facilities demonstrate their ability to operate the plant in a quality manner with regard for safety, health and the environment.

C. Facility Equipment

1. Type, Capacity and Number of Units

Various equipment will be used at the BTI facility. The incoming green waste and manure will be weighed on a vehicle scale. After inspecting the incoming green waste, it will be placed into a hopper/conveyor which feeds the material into a tub grinder with a skip loader type tractor. The grinder will reduce feedstock to a size and consistency necessary for composting. A screen will further reduce the size of material by separating larger materials for reprocessing or disposal.

After being ground and screened, the green waste will be placed in the windrow areas with either a skip loader tractor or a dump truck. Additives or bulking agents may be added to windrows to facilitate the compost process and generate a higher quality end-product. A windrow turner will be used to mix/turn the windrows on a regular basis. A water truck will be used to control dust and to add moisture to windrows as needed. Covers are available, if necessary, to shed excess water from the windrows in the winter while keeping compost from drying out in the summer. This process will also control dust. Half as much water is used on covered windrows.

Once the composting process is complete, the material will remain in windrows or material storage area until being hauled off-site. Typical windrow section and material storage bunkers are shown on Exhibit "C" attached to this document. Once the compost is removed, the windrow areas can be tilled or cleaned prior to new windrows being created. The material can also be further screened to create finer compost. Solids can be disposed of or screened from the finished product, reground and introduced back into the next composting cycle. Initially, only one of each piece of equipment will be used at the facility. Additional and larger capacity equipment may be required as the operation grows in relation to product demand.

The following is a summary of the equipment that will be used in the composting process:

1) Tractor - for tilling and moving compost equipment.

2) Hopper/Conveyor - for feeding the grinder and picking out non-permitted material.

3) Grinder - for processing feedstock.

4) Windrow Turner - for turning/mixing compost in windrows.

5) Skip Loader - for loading and moving compost material.

6) Screening machine - for screening solids from compost.

7) Water truck - for controlling dust and adding moisture to windrows.

8) Scale - for weighing feedstock, compost and fertilizer.

9) Mixer Feeder Truck - for mixing and feeding feedstock material.

10) Fork Lift - for loading and unloading product.

2. Equipment Maintenance

Basic equipment repairs and maintenance will be the responsibility of the facility employees. The operator will hire a private equipment repair firm as required for the maintenance and repair of equipment that employees cannot perform. The reliability of the equipment will not require the operator to use a private maintenance firm on a regular basis. General equipment maintenance will be performed on a regular basis by BTI to ensure proper and safe operation of the facility and equipment.

3. Standby Equipment

Initially, BTI will not have any standby equipment at the site. In the event of a major equipment malfunction or failure for an extended period, rental equipment will be used until the equipment is repaired and brought back on-line. All phases of the operation can temporarily stop until an equipment failure is corrected without impacting the operation or neighboring properties. Additional equipment may be added to the operation in the future if demand dictates.

4. Housekeeping

The facility equipment will be cleaned on a regular basis as part of the operation of the facility. The cleaning of the equipment and compost areas will be the responsibility of employees. Equipment parts will be kept at the site as necessary for equipment repairs. Housekeeping will be managed by the facility attendant/manager and the operator/owner, BTI.

D. Materials Handling Activities

1. Confined Unloading

The green waste will be unloaded at the materials receiving area adjacent to the active windrows. The green waste will be placed into a hopper/conveyor which feeds a grinder prior to being placed into the adjacent windrow area for composting. Green waste will be placed into windrows as soon as possible to eliminate the need for large volumes of stockpiling at the unloading area. Manure will be unloaded in the receiving tanks at the site for processing upon arrival to the site. The green waste material receiving area and manure receiving tanks are indicated on the project Site Plan.

2. Material Preparation

After visual inspection, the green waste will be dumped in the receiving area. It will then be transferred by loader to a hopper/conveyor system which feeds the raw material into a picking station manned by workers to remove unacceptable material from the conveyor. The green waste will be screened to remove fines prior to being placed into the tub grinder to reduce material size. After being ground, the material will go through a conveyor with magnets to remove any metals. From there the material will be placed in adjacent windrows for composting. The green waste preparation area will be confined within the material receiving area adjacent to active composting to ensure that activities will be conducted in a safe and controlled manner and will be integrated with other aspects of the operation.

The manure will be inspected and tested in the on-site laboratory upon arrival at the facility to ensure it meets all applicable standards and BTI specifications.

3. Cleaning

The machinery used in the daily composting operation will be cleaned on a regular basis. Any excess green waste or manure cleaned from the machinery will be introduced into the composting cycle. The cleaning of the machinery will be the responsibility of the facility employees and it will be supervised by the facility attendant/manager. Any loose debris or litter will be cleaned up daily to prevent an unsightly appearance at the site. Litter and waste will be hauled off on a regular basis by a private waste hauler.

E. Processing Operations

1. Development Stages

All improvements will be made to the site prior to commencement of operations. The site will be developed in stages. Upon completion of improvements, feedstock can be brought to the site and delivered to the appropriate areas for processing. The development of compost and fertilizers includes the inspection of incoming feedstock, screening and grinding of green waste and processing of manure through anaerobic digesters. The development stages in the production of product generate end-products of liquid fertilizer, pelletized fertilizer and compost. The material will ultimately be hauled off-site for use by agricultural and other interests.

2. Type of Operation

To understand the type of operation proposed by BTI, the OWCF can be separated into **primary** and **secondary** functions and related process areas. The primary process area is to process the dairy cow manure and the secondary process will co-process the green waste material with products of the primary process. Both the primary and the secondary process areas are identified on the project Site Plan prepared for the project. In addition, a project flow diagram entitled, *The BTI Process-General Flow Diagram* is provided as Exhibit "D" attached to this document.

The BTI **primary** plant production is based upon the daily delivery of fresh cow manure produced by about 10,000 dairy cows. Third-party contractors under contract to the BTI facility will collect the required quantity of manure daily from dairy farms in the vicinity of the BTI site. On average, approximately 10 truck loads of fresh cow manure would be entering the plant each day over a 10-hour period between 7:00 a.m. and 5:00 p.m. Monday - Saturday.

The subject site is in an area very popular for dairy cattle ranches. It is estimated that approximately 80 to 90 dairies exist within a 30 mile radius of the site.

Trucks carrying manure enter the BTI facility and proceed to the scale, where the trucks will be weighed. The manure is then tested for quality prior to being delivered to one of the proposed steel manure receiving tanks. Manure deliveries will be scheduled throughout the 10-hour day. The delivery tanks are sized to receive and hold the daily quantity of manure, which can be processed by the BTI facility, with both some redundant and surplus capacity. This will ensure that no manure will be discharged or stockpiled outside of the enclosed, covered receiving tanks.

The manure feedstock in the receiving tanks is diluted and homogenized with water and is then pumped via pipes to the enclosed, stainless steel primary digesters. The purpose of the primary digesters is to convert the manure into a "slurry" which is converted into biogas through a continuous anaerobic digestion process.

The manure "slurry" in the digester is heated with water to approximately 131°F. Heating the material as proposed will accelerate the digestion process and will ensure pathogen destruction. The heat for the

aforementioned primary digestion process is produced from waste heat from the BTI biogas cogeneration process.

As fresh cow manure is added to each primary digester, digested "slurry" (after a certain hydraulic retention time) is discharged and collected in the "slurry" tank. From the "slurry" tank, the digested "slurry" is pumped through pipes to the separation building.

In the separation building, the digested "slurry" primary separators divert the solid fibrous fraction and the liquid fraction. The solid fibrous fraction is loaded into small trailers and transported to the processing area in the secondary process area of the site where it is mixed with green waste in windrows for further processing through aerobic maturation to attain certain specifications for its intended end-product.

The windrows that are no more than 12 feet wide at the base and no taller than 5 feet. The windrows allow aerobic processing to occur. Each windrow is covered with a fleece-like material. This material allows the windrows to breathe, prevents particulate matter emissions and leaching.

The windrows are constantly monitored to assure proper maturation. After completion of maturation, the composted material is either hauled off-site or loaded by small front-end loaders back into trailers and transported to the material storage area or the bagging and shipping building for packaging of the final product known as *NutriTex*®, a high quality organic soil amendment.

As detailed above, after separation, the primary digesters create a liquid fraction which can be co-processed with green waste or piped to centrifuges for further separation. The centrifuges will produce a liquid called "centrate" and a solid material called "cake." The centrifuged "cake" is loaded into small trailers and transported to the pelletizing process building to be blended with other products and manufactured into *NutriPellets*®. *NutriPellets*® is a dry high grade fertilizer about the size of a very small ball bearings. The resulting dry pelletized product is then sent to the bagging and shipping building for final packaging.

No retail sales will occur on-site. Bagging will range in size from 25 pounds to 1,000 pounds. Bagging material will be cloth.

As for the liquid centrate, it is pumped from the centrifuges via pipeline to the secondary digesters, where the liquid is further digested into biogas and a final digested liquid through a second stage continuous anaerobic digestion process conducted at a lower temperature than the

primary digestion. The digested liquid from the secondary digesters can be shipped for use as liquid organic fertilizer.

Some of the digested centrate is piped to the centrate LOF stabilization tanks. There, the centrate is stabilized by lowering the pH through the addition of one or more mineral acids, and may be fortified to create a controlled formula family of products called *NutriPlus®*. The final *NutriPlus®* product is collected in the finished product tanks located at the back of the facility prior to shipment to wholesalers.

The biogas generated by the digestion process from the primary digesters, the slurry tank and the secondary digesters is combined and piped to the cogeneration equipment building. In this building, the biogas is filtered, compressed and piped to the cogeneration engine. The cogeneration engine is an internal combustion engine which burns the biogas, turning the engine's mechanical energy into electricity through a generator for use primarily by the BTI facility. That portion of electric energy that is not used on-site will be sold to the local utility or nearby property owners for use at market rates or to other end uses.

A waste heat recovery system which is integrated into the exhaust system of the internal combustion cogeneration unit recovers the heat from the engines for use within the BTI facility, principally to heat the manure feedstock and the primary digesters. A pressurized tank located in the area of the secondary digesters will be able to store a small quantity of compressed biogas. A flare, located in the southwest corner of the primary processing area, would be used to burn off produced biogas if a malfunction in the cogeneration system temporarily prevents the gas from being combusted in the engines. A flare detail is indicated in Exhibit "E" attached to this report.

The BTI equipment and process operation are monitored and controlled from the control room. Maintenance of equipment would be conducted in and from the maintenance shop. Maintenance of the tractors and other mobile equipment would be restricted to light maintenance of the vehicles. Major repairs to that equipment would be performed either on-site or off-site by qualified professionals at permitted facilities for that maintenance.

The secondary process area will consist of windrow composting, as shown in the project Site Plan prepared by Michael Sutherland and Associates.

BTI's green waste material co-composting and vermicomposting (natural worms) system encompasses an array of methods which combine

physical and biological processes in order to totally convert unprocessed green waste into valuable and marketable products by co-composting with products of the primary process. All operations are controlled to make the best use possible of all the raw material input.

No significant quantities of waste products are generated by the facility and no wastes are discharged to land or water. The system is a *zero* discharge process.

The benefits of the BTI system include diversion from the landfill, co-management of multiple waste streams, development of renewable resources, achievement of legislative goals, enhancement of environmental quality, creation of new revenue streams, creation of new industry and expansion of employment base. When fully operational, this facility's production operation is expected to employ approximately 35 workers.

The facility production is based upon the daily delivery of approximately 300 tons of green waste material from many different sources, ranging from commercial hauling companies and landscapers to homeowners. On average, approximately 12 truck loads (25 tons/load) of green material would be entering the facility each day over a 10-hour period, six (6) days per week (an average of approximately 1 truck per hour). During peak periods, as many as 24 trucks per day may be delivering green waste material on-site.

All materials arriving at and leaving the facility will go through the manned truck scale and each incoming waste stream will be identified according to its type and origin before being permitted to unload for inspection at the receiving area. Any visible impurities and oversized or unacceptable materials such as plastic, dirt, rocks, glass, metals, etc., will be placed into a trash container for periodic transport off-site by a private waste hauler.

It has been the past experience of similar facilities in California that contamination levels in source separated materials are less than 1% by weight or volume. Nonetheless, a hazardous waste load checking program will be established. Any hazardous wastes found, i.e. batteries, paint, used oil, etc., will either be stored until shipped off-site to a permitted facility or returned to the hauler. A record of such wastes will be recorded by the site personnel and be available to any regulatory agency upon request.

After inspection and manual separation, the materials are moved with a front-end loader into the appropriate raw material stockpiles for

immediate processing. There will likely be 3 piles, consisting of wet greens, branches and leaves, and dry wood wastes. If, for any reason, the material is not processed immediately, the stockpiles will be monitored, watered, and turned to prevent fire and to avoid anaerobic decomposition conditions and environmental pollution.

Using a front-end loader with a 7-yard bucket, the stockpiled raw materials are moved to a horizontal infeed hopper/conveyor system which feeds the raw materials into a wood/green waste grinder capable of grinding 30 to 50 tons an hour in order to decrease material particle size, therefore increasing total surface area. The wood/green waste grinder is large enough to handle higher loads during the spring and summer seasons.

The material is then conveyed by belt feeder to a picking station manned by approximately 6 workers who will remove impurities and unacceptable materials from the picking station. The picking station works exactly like a grading station in an agricultural use. The acceptable material is allowed to continue through the conveyor system, with the unacceptable material being picked by the workers and removed for reprocessing or disposal.

Depending on quality and size of the material, the green waste may be screened in a trommel to separate out the fines before grinding. If not, these smaller materials may also be processed through the grinder as feedstock for both composting and vermicomposting.

The ground materials processed from the grinder will either be deposited onto a conveyor and moved to a trommel screen equipped with screen sections of 1-1/2 inches or taken directly to windrows. Impurities and unacceptable materials that were not removed prior to grinding will be removed at the conveyor belt at the discharge of the grinder. Magnets located at the conveyor will remove any metal contaminants (scraps, nails, etc.) which will be sold to metal recyclers. The fines will be transported to windrows for composting.

At any one time, as much as 40,000 to 60,000 cubic yards of active composting material will be on-site. The facility contains enough space to handle this quantity of material and more, if needed. The oversized particles can be used as mulch, blended with wood products for cogeneration fuel markets, or reground to create more fines for composting. The grinding and screening is used to produce conveniently sized particles and remove the nonconforming particles for reprocessing.

The windrows will be managed according to a standard monitoring protocol including the monitoring of moisture level, temperature, pH, O_2 and CO_2 level, electrical conductivity and eventually other parameters as may be required for precise management of the end-product. The compost will be turned with a windrow turner as many as 30 times in the standard 90 day production period. The windrows will also be watered to maintain a moisture level of approximately 50-60%. The end-product will be high quality potting soil components and soil amendment products.

The windrows will attain an internal temperature of 130° - 150° that will insure incapacitation of weed seeds and pathogen destruction. Each windrow will be covered with a special fleece material which can control windrow's water and heat content, prevent contamination, particulate matter emissions and loss of product, while still maintaining gases exchange and aerobic conditions. Seepage, nutrient leaching and groundwater contamination are practically prevented.

Additives and amendments such as water, liquid fraction from primary process, microorganisms inoculum, rice hulls, rice straw, redwood bark, gypsum, and other amendments will be added at different stages of production to provide proper moisture level, carbon to nitrogen ratio, texture, nutrient content, bulk density, pH, physical texture, and other characteristics appropriate to different specialty markets. As mentioned above, liquid fraction is the liquid from dairy cow manure "slurry" that has gone through thermophilic anaerobic digestion in the primary process.

After stabilization and before marketing, the compound composted material called *Altex*® will be screened to the size needed for each specific market. The products will be marketed in bulk and bags, and in order to manage year-round production and accommodate local seasonal demand, on-site storage space will be provided.

To prepare the most appropriate vermicomposting feedstock, it is intensely managed through periodic watering and turning to avoid anaerobic conditions, while maintaining a high moisture content of 50-60%. This process allows the feedstock to reach the temperature necessary for weed seed destruction, feedstock volume reduction, and pathogen and vector attraction control. After pathogen reduction, the feedstock will be loaded, using a front-end loader, into a mobile mixer-feeder unit for continual blending and mobile application on the vermicomposting beds.

Initially, the vermicomposting beds will be 8 feet wide with initial feedstock and bedding depths of 6 inches, and after multiple applications and processing, finished bed depth may reach 40 inches or more. Permanent irrigation systems will be installed to provide the needed moisture. The first stage of the vermicomposting operation is rapid breeding of the worm herds and splitting of the worm beds into more beds. After this stage, normal vermicomposting will continue with emphasis on harvesting the castings.

Earthworms and a wide variety of microorganisms are components of the vermicomposting process. The windrow vermicomposting process will utilize mainly the earthworm species, Eisenia foetida and Eisenia andrei, commonly known as red worms. Earthworm population and feedstock sampling will be performed regularly to quantify the success of different feed mixes, configurations, and application rates. Prior to harvesting, irrigation is discontinued to dry the bed materials to 50 to 60% moisture content. Harvesting may be done in 30-day increments but actual harvesting frequency will be driven by market demands.

During harvesting, the earthworms which are on top of the beds are removed and the well stabilized casting is diverted for curing and drying. It is then blended and sold in bags or bulk. The undigested materials and earthworms will generally be reused by re-application to the vermicomposting beds. If desired, earthworms may be harvested for use in external markets rather than reapplying them to the beds. Such markets include sales or transfers for seeding new vermicomposting facilities, selling to the home vermicompost market, selling to the fishing bait market, or selling to protein supplement and feed markets. The primary and secondary processes are further illustrated in Exhibit "F" and Exhibit "G" attached to this document.

a. Waste Handling and Separation

Virtually all the waste will be handled by tractors and other equipment. There will be limited human contact with waste. Contact will be limited to the separating of unacceptable waste that might be mixed with feedstock brought onto the site. Any non-permitted waste brought to the site will either be rejected or separated by hand or machine prior to processing. Non-permitted waste will be disposed of in an on-site trash receptacle. These non-permitted wastes will ultimately be hauled off-site by a private waste hauler. Any hazardous waste will be hauled off by a hazardous waste hauler. All windrows will be turned by windrow turning machinery. The windrows will be monitored regularly to ensure optimum conditions for composting.

b. Quench or Process Water

Limited amounts of water will be used in the operation at the compost facility. Water will be used on an infrequent basis as required for dust control. Water will also be used for adding moisture to the compost windrows as required to facilitate the organic composting process. Liquid fertilizer will also be used to add moisture to the windrows thus reducing water demand. Water will also be used in the primary digester process. Limited amounts of water for washing down the equipment and facility will be used as needed. Water will be supplied by a private well(s). It is estimated that up to 55,000 gallons of water will be required daily to operate the facility. Water usage in windrow composting will vary depending on climatic and seasonal changes.

c. Pre-Processing Procedures

Prior to the feedstock being accepted into the facility, a pre-processing procedure will be conducted. Initially, the green waste material will be brought to the site and visually inspected as required to determine that no non-permitted material is included in the feedstock being delivered to the site. Incoming loads with non-permitted materials will either be rejected or removed prior to the green waste being processed. Impurities from green waste will also be removed by hand and magnet at the conveyor prior to being processed in windrows. This preprocessing of material will reduce the likelihood of heavy metals and other harmful constituents contaminating the end-product.

Manure will also be inspected and tested in the facility laboratory prior to being accepted for processing. Any unacceptable loads will be rejected.

Once the feedstock is determined to meet BTI standards, it will be accepted for processing.

d. Process Time

The BTI operation is a continuous process. The anaerobic digesters are continuously fed with feedstock. The digesters operate 24 hours a day. Once the green waste is arranged in windrows, the composting cycle typically takes 10 to 12 weeks to complete. Variations in composting time is anticipated due to

seasonal weather fluctuations. It is estimated that 350 tons of compost will be produced daily at the facility. On average, the compost and fertilizers will be kept on-site for approximately two months prior to being hauled off-site.

e. Chemical or Bulking Agents

The BTI process utilizes several chemicals, principally as centrate stabilizing agents and as fortification agents in the formulation of individual liquid fertilizer products. Exhibit "H," attached to this document, identifies each of the chemicals which may be used and stored at the BTI site. For each chemical listed, the following information is provided: The maximum amounts which may be used daily and which may be stored on the site at any one time, the form or delivery and means of storage, and hazards information.

Material Safety Data Sheets (MSDSs) for all of the listed chemicals will be provided in the Hazardous Materials Business Plan for the project. Exhibit "I" attached to this document represents a simplified version of the project flow diagram with emphasis on the storage and preparation of various chemicals used in the BTI process.

Delivery and storage of the chemicals will be in accordance with the applicable federal, state and local regulations concerning hazardous materials storage and use. All chemicals will be stored inside secondary containment basins designed to contain any spillage or accidental discharge and prevent spills and/or leaks from mixing with incompatible chemicals, discharging to surface waters or seeping into ground waters, or contaminating property soil. The liquid chemicals will be stored individually in above-ground tanks inside appropriately sized individual secondary containment basins. Liquid chemicals will be piped directly to the stabilization tanks for mixing with the centrate.

Dry chemicals received in bulk will be stored in individual silos or tanks, while dry chemicals received in bags will be stored inside a chemical storage shed. Bulk chemicals will be loaded into the silos or tanks and delivered to the mixing area by closed delivery systems. All dry chemicals will be delivered individually to the preliminary mixing tank for mixing with small quantities of centrate to ensure complete dissolving and mixing prior to mixing with the centrate in the main stabilization tanks.

All employees handling stabilization and fortification agents will be trained to minimize any spillage or leaks. BTI will install required emergency response equipment on-site (e.g. chemical showers, eye-wash stations, neutralization agents, etc.) as required by OSHA Standards and the County of Fresno Department of Health.

BTI will prepare, in accordance with the California Health and Safety Code (CH&SC) Chapter 6.95, Section 25501(K), a Hazardous Materials Business Plan which will be filed with the Hazardous Materials Management Division of the County of Fresno Department of Environmental Health. The Business Plan will specify the procedures which will be used to minimize the effects and extent of a release of any of the hazardous materials stored on-site.

Two (2) of the listed chemicals, nitric acid and sulfuric acid, are classified as acutely hazardous materials (AHMs) by the State of California. The AHMs are subject to additional regulation with regard to storage individually in above-ground tanks inside individual secondary containment basins designed to contain any spillage or discharge and prevent spills and/or leaks from discharging to surface waters or seeping into ground waters or contaminating property soil. Since the quantities of the AHMs proposed to be stored on-site at the BTI facility do not exceed regulatory thresholds, BTI is not required to prepare a Risk Management and Prevention Program (RMPP), as outlined in CH&SC Chapter 6.95, Section 25534. Because they are non-volatile liquids, neither of these AHMs have any significant potential to result in an off-site release.

In addition to chemicals, other bulking agents will be used to facilitate the composting process. Along with green waste and manure, rice hulls, redwood bark, hay/straw, liquid fertilizer, fibrous fraction of digested cow manure and water may be added to the windrows to facilitate the organic composting process. The liquid fertilizer provides some biological activity to get the compost process started. The hay/straw, redwood bark and rice hulls add structure to the rich compost. Fibrous fraction of digested cow manure add nutrients. Liquid fertilizer and water keep the moisture content up in the windrows as required for composting. These bulking agents will be added to the windrows by tractor, dump truck, mixer feeder truck and water truck and mixed in with a windrow turner.

The following is a breakdown of the percentage of amendments, additives and feedstock by volume:

green waste	not less than 50% by volume
fibrous fraction of digested cow manure	up to 50% by volume
amendments and additives	up to 50% by volume

Note: When amendments or additives are used, the maximum amount of digested manure will be equal to 50% - the percentage of amendments and additives by volume.

3. Climatic Conditions

The site experiences relatively mild climatic conditions throughout the year. Temperatures typically range from the low 30's in the winter months to 95 to 105 degrees during the summer months. The average annual rainfall is 10.6 inches. These climatic conditions are considered favorable for composting activities. No adverse climatic conditions exist in the area of the site that would negatively impact the operation.

4. End Use

The end use for the fertilizers will be for general consumer and agricultural purposes. The fertilizers will be sold to various agricultural operations throughout the area. Fertilizer will also be sold to general consumer markets. No sales to the public will occur on-site. Using fertilizers and compost can enhance the physical, chemical and biological properties of soil, resulting in reduced soil erosion, improved crop yields and quality, and higher resistance to weeds, parasites and disease. Compost also reduces harmful agricultural runoff by cutting the use of chemical-based pesticides, herbicides and chemical fertilizers. This also lowers worker exposure to chemicals. The compost will also save water by increasing the soil's water holding capacity, therefore decreasing percolation, evaporation and run-off. Energy would also be saved by reducing the need for irrigation water.

5. End-Products

The end-product from this process will be high quality fertilizers and compost derived from green waste and cow manure. BTI produces various products for market. Four distinct products are *Altex*®, *Vermitex*®, *NutriPellets*® and *NutriPlus*®. Specifications for these products are detailed in Exhibit "J" attached to this document. General flowchart diagrams for each of these products are detailed in Exhibits

"K," "L," and "M" attached to this document. The primary use for the fertilizers will be for agricultural purposes. The end-products can also be valuable for yard, landscape compost and horticulture use.

Visual inspections, sorting, screening and testing of feedstock brought to the site will ensure that the feedstock is innocuous and free of sharp edged particles or other non-desired waste that have the potential to be harmful to human health and safety or degrade the end-products. All end-products will be sampled on a regular basis in the facility lab to ensure the products do not exceed the Soluble Threshold Limit Concentration or the Total Threshold Limit Concentration specified in Section 66261.24, Title 22, CCR, or the maximum concentration of contaminants specified in Part 261.24, Title 40, Code of Federal Regulations. Testing is also conducted to ensure all end-products meet BTI's specifications. A sample of product monitoring is indicated on Exhibit "N" attached to this document. The end-products will be sold in bulk or small quantities. It will not be sold directly to the public from the site.

6. Environmental Health Standards

The project operation and facility will be designed in accordance with all county and state environmental health standards. The applicant agrees to comply with all environmental health department conditions as well as conditions deemed appropriate by the Integrated Solid Waste Management Board, California Regional Water Quality Control Board, etc. BTI will comply with all environmental health standards and conditions to ensure end-products meet the standards for maximum metal concentration, pathogen reduction, etc.

7. Compliance Monitoring Program

The facility will be monitored in compliance with all local and state regulations. All incoming feedstock and outgoing end-products will be monitored and tested to ensure all applicable standards are met. All monitoring results will be made available to all agencies requesting the results to demonstrate compliance with all environmental health standards. A monitoring program will also be employed to test site soils to ensure that no soil or ground water contamination occur as a result of the project. This soil and ground water monitoring program will be detailed in the project Report of Waste Discharge. The California Regional Water Quality Control Board will also issue a Waste Discharge Permit for the project indicating the monitoring requirements.

F. Composting Facility Controls

1. Vector and Bird Control

Vectors will be controlled by keeping the facility clean on a continuous basis. The high temperature and constant aeration (windrow turning) will eliminate the characteristics that attract rodents, flies and other vectors. Material processing areas at the facility will also be cleaned on a regular basis as required to control vectors.

If flies become a problem during warm summer and fall months, they will be controlled through the use of non-toxic insecticides and perimeter fly traps. If rodents are a problem, non-poisoning methods to control rodents will be utilized.

Birds are not anticipated to cause problems or be a nuisance at the facility. Measures will be implemented, if necessary, to control any abnormal migration of birds to the site. The remote agricultural nature of the site does not lend itself to an abnormal bird population in the area.

2. Odor Control

Odors will be controlled by keeping the facility clean. All machinery will be cleaned on a regular basis as needed and all trash will be collected and disposed of in trash receptacles. Those receptacles will be hauled off-site by a private waste hauler on a regular basis. Also, turning the windrows on a regular basis will prevent any anaerobic decomposition which might cause odors.

A well made windrow should not smell bad. If it does smell foul, something is wrong. Monitoring and turning the windrows will ensure they are composting properly and avoid any foul odors.

Once the composting cycle is complete, the compost material will either remain in the area or be moved to the material storage bunkers until it is ultimately hauled off-site. The end-products are not odorous. The remote location of the site and proper management of the operation will ensure no significant adverse odor impacts occur as a result of the project.

3. Noise Control

All gas powered engines will be equipped with the manufacturer's muffler systems. Noise would be controlled using enclosures or other appropriate methods to comply with applicable standards for workers.

As much as possible, process equipment will be electrically powered to reduce noise. The site is located in a remote agricultural area and there are no residences, other than the caretaker's residence, located within one mile of the proposed operation. As a result, there will be no significant noise impacts to surrounding properties associated with the operation. Noise levels will be consistent with typical agricultural operations in the area thus not creating any human health hazards. Hearing protection will be provided to employees working at the facility. A list of the equipment and related noise levels are detailed below:

BIORECYCLING TECHNOLOGIES, INC. PRIMARY PROCESS EQUIPMENT LIST AND REFERENCE NOISE LEVELS

ITEM	EQUIPMENT	NO.	LOCATION	LEVEL (dBA)
1	Receiving Pit Pump	4	Outside	95 @ 3'
2	Feed Pump	2	Outside	87 @ 3'
3	Grit Cyclone	2	Outside	74 @ 3'
4	Digester Feed Pump	2	Outside	84 @ 10'
5	Digester Circulation Pump	2	Outside	84 @ 10'
6	Centrifuge Feed Pump	1	Outside	87 @ 3'
7	Centrifuge	2	Outside	88 @ 3'
8	2nd Digester Feed Pump	1	Outside	87 @ 3'
9	LOF Pump	1	Outside	87 @ 3'
10	LOF Stabilization Pump	1	Outside	81 @ 3'
11	Chemical Pump	3	Outside	87 @ 3'
12	Mixed Chemical Pump	1	Outside	87 @ 3'
13	Digester Gas Blower	1	Inside	90 @ 6'
14	Digester Gas Compressor	1	Inside	75 @ 4'
15	Generator Package	1	Inside	88 @ 6'
16	Air Compressor Package	1	Inside	99 @ 7'
17	Boiler Feedwater Pump	2	Inside	87 @ 3'
18	Combustion Air Blower	3	Inside	90 @ 6'

4. Dust Control

A water truck will be used at the facility to help control any dust generated from the operation. Roads will be surfaced in a manner acceptable to Fresno County for dust control. Because of the remote agricultural location of the facility, dust will not significantly impact the area. The windrows will be watered on a regular basis, 3-4 times per week, to facilitate composting and control dust. The windrow turners are also covered to reduce dust during turning. Any dust generated by the operation will be similar to typical agricultural operations in the area.

5. Litter Control

Any litter will be picked up by the facility employees and disposed of in a trash receptacle located on-site. The litter will be collected as needed to ensure that the facility is kept clean. Trash receptacles will be hauled off on a regular basis by a private waste hauler. In no event will the site be left in a condition where litter is scattered about creating an unsightly appearance or nuisance to the area.

6. Pollution Control

The BTI fertilizer production process will not create a significant amount of pollution. Typically, the material remains in windrows for 10 - 12 weeks and is turned regularly as needed to facilitate the composting process. A water supply system and water truck will be used to water windrows and control any abnormal amounts of dust that may be created by the operation. Only limited amounts of pollution will be generated from the on-site equipment. Much of the plant equipment motors will be electric, thus further reducing overall emissions and pollutants. Diesel equipment will not generate any more pollution than would otherwise be created through normal agricultural practices at the site. As a result, no significant pollution/air quality impacts will occur as a result of this operation. Also, no waste or pollutants are discharged to land or water.

7. Nuisance Control

Because of the remote rural agricultural location of the facility, it will not be a nuisance to surrounding properties. Measures will be implemented to ensure that any litter, dust, noise, odors, vectors, etc., are controlled to the extent practical. There are no residences located near the site. As a result, the operation will not create a nuisance in the area.

8. Traffic Control

Traffic is not anticipated to be significant from this project. The operation will employ a staff of approximately 35 to facilitate the daily operations at the site. Truck trips are anticipated to average approximately 76 trips (152 trip ends) per day. These trips are consistent with the previous Noble Winery operation at the site. Adequate roads exist to accommodate this traffic.

9. Aspergillus

Aspergillus will be controlled by keeping the facility clean on a regular basis. Also, fungicides, etc., can be used, if needed, to control any

aspergillus if necessary. Turning windrows on a regular basis will also help reduce this potential problem.

IV. MAINTENANCE PROGRAM

A. Facility Maintenance Program

The facility will be maintained on a regular basis to ensure a safe working environment and a clean operation that is not a nuisance to the surrounding properties. All equipment will be cleaned at least once a week or more often as needed. Equipment will also be maintained per the manufacturers recommendation to ensure employee safety. The compost windrows will be turned on a regular basis to ensure that the facility is kept clean, to facilitate the composting process and prevent adverse impacts from the operation.

V. HEALTH AND SAFETY PROGRAM

A. Sanitary Facilities

Sanitation facilities will be available at the site. The sanitary facilities will be served by a septic system. All sanitary facilities will be constructed to meet all applicable Fresno County Health Department and Uniform Building and Plumbing Code Requirements.

B. Water Supply

Process water and fire protection water will be supplied to the facility by an on-site water well that produces 150 gpm. Two storage tanks with a combined 260,000 gallon capacity and an underground hydrant system will provide adequate water for the project. Daily water demand for the project is 35,000 gallons for the primary process and 20,000 gallons for the secondary process. A well, meeting all applicable domestic standards, will also be provided.

C. Communications Facilities

Telephone or radio communications will be available at the facility as required for daily operations and emergency communications. Traditional line telephone, cellular telephone and two-way radios are options available for communications. There will be no outdoor sound amplification system used at the site.

D. Lighting

Lighting will be provided on-site for security purposes. Lighting will be limited to the primary fertilizer plant. No lighting will be provided at the compost area.

All lighting will be hooded and directed in a manner to reduce impacts to neighboring lands.

E. Fire Fighting Equipment

The operation will be equipped with a fire suppression system and equipment as required by Fresno County Fire. A water well capable of producing 150 gpm and two (2) storage tanks of 260,000 gallons combined capacity and an underground hydrant system, will be required to provide water for facility processing and fire protection requirements. There are no structures on adjacent properties that would be threatened by a fire at the BTI facility.

F. Protection of Users

All employees using the equipment required in the operation will be trained by BTI management. All employees will be required to wear appropriate protective clothing, hard hats, gloves, hearing protection, etc., when working with or in the vicinity of heavy equipment. Virtually all feedstock material will be handled by machinery to help protect users. Visual inspections and routine maintenance per the manufacturers recommendations will also help protect equipment users. All incoming feedstock loads will be inspected to ensure no non-permitted material is delivered to the site that might be hazardous to employees.

G. Safety Equipment

First aid kits, fire fighting equipment, hard hats, gloves, hearing protection, etc., will be provided to ensure employees are protected during operations. Any additional safety equipment, as recommended by the machinery manufacturers, Fresno County, etc., will also be provided at the site to ensure employee safety.

H. Power Failure

All of the equipment on-site will be powered by gasoline or diesel fuel. The cogeneration unit will be powered by biogas generated from the primary digestion process. Power will also be available through P G & E in the event that the cogeneration unit is inoperable for a short time during maintenance and repairs. Natural gas will also be provided by either P G & E or an on-site storage tank.

VI. POST-OPERATIONAL USE

In the event that the operation is abandoned in the future, the site improvements would remain. The windrow area would be tilled and converted back to its pre-composting use of agricultural. Any remaining fertilizer material would be hauled off-site for use. All mobile equipment would be removed or converted for agricultural use prior to the

post-operational agriculture being established. Agriculture would be established on the site within one year of abandoning the operation.

VII. FACILITY RECORDS AND REPORTING PROCEDURES

A. Weight Volume Records

All weight volume records related to feedstock delivered to the site and fertilizer hauled off-site will be the responsibility of the facility manager. Weight volume records will be made available upon request to Fresno County, the State Integrated Solid Waste Management Board, California Regional Water Quality Control Board, etc., to ensure that the facility is not operating above its permitted capacity. The end-products will be sold by the cubic yard and/or by weight. One ton of end-product compost will equal approximately 2 cubic yards. Records will be kept by the facility manager indicating the total cubic yards and/or tons of compost produced at the facility.

B. Special Occurrences

Any special occurrences relative to non-permitted material being delivered to the site, the breakdown of on-site equipment, injury to employees, etc., will be recorded by the facility operator and kept on file at the BTI site office. The delivery of any non-permitted hazardous waste to the site will be reported to the Fresno County Health Department for review and appropriate action. Any hazardous waste accidentally delivered to the site will be stored in appropriate containers and removed by a permitted hazardous waste hauler.

C. Inspection of Records

The facility records will be made available for inspection by state and local agencies. Records will be kept to determine compliance of the operation with respect to state and local conditions, criteria and requirements. All records will be available during normal business hours.

VIII. CONDITIONS, CRITERIA AND REQUIREMENTS

Conditions of approval and operating criteria for the BTI project will be imposed through the Conditional Use Permit issued by Fresno County. Also, the Regional Water Quality Control Board will issue a Waste Discharge Permit which will include Waste Discharge Requirements for the project. The conditions of approval and Waste Discharge Requirements will be provided under separate cover.

ENVIRONMENTAL ASSESSMENT
for
Biorecycling Technology, Inc.
Organic Waste Conversion Facility

Introduction

This Environmental Assessment was prepared to assist in the evaluation of the potential impacts of the proposed organic waste conversion facility (OWCF). The OWCF will be owned and operated by Biorecycling Technologies, Inc. (BTI), 6101 Cherry Avenue, Fontana, CA 92336. The BTI facility will be located on a 40 acre portion of a 480 acre parcel of land located at 18559 W. Lincoln Avenue. The facility will utilize existing improvements from the vacated Noble Winery on-site. The service area of the facility includes, but is not limited to, the Cities of Fresno, Clovis and Kerman. The unincorporated areas of Fresno County within the vicinity of the BTI facility will also benefit from this operation.

The site was selected because of its location relative to various dairies in the area and the existing Noble Winery improvements on-site. Dairies are the primary source of manure for the facility. There are approximately 80-90 dairies within a 30 mile radius of the site. Also, consideration was given to the geographic location of the site in relation to the Cities of Fresno and Clovis as a source of green waste. Existing site improvements from the abandoned Noble Winery, i.e. tanks, buildings, etc., can be easily converted for use in fertilizer production thus making this site ideal for the proposed use. The site was also considered because the operation will not impact any surrounding properties due to its rural location. No significant odor, traffic, air quality, noise, etc., will be generated by the operation. The proposed BTI facility is consistent with Fresno County's zoning provisions relative to this proposed use. There are no residences or hospitals within 1,000 feet of the proposed facility and it is not located within a 100 year flood plain, wetland, vernal pool, riparian lands or existing natural springs. An existing residence on-site will be converted to a caretaker's residence. No composting will occur within 100 feet of this residence.

Project Summary

Fresh cow manure collected from local dairy farms and green waste material within Fresno County will be delivered to the site by trucks. An average of 10 loads of fresh dairy cow manure will be trucked daily by third-party contractors to the BTI facility and dumped into a proposed steel feedstock receiving tank. Process water is added to the manure in the receiving tank and transferred into one of two covered homogenization tanks. The manure is then pumped into sealed, existing steel tanks which are heated to begin anaerobic digestion.

This digestion process produces a digested "slurry" and methane-rich biogas. The biogas is cleaned and then combusted in an internal combustion engine, which turns a generator to produce electrical energy sufficiently to supply all of the BTI facility electrical energy needs, plus approximately five hundred kilowatts (500 kw) for sale to the local utility or other end

users. The heat generated during combustion of the biogas in the engine is used to heat water, which in turn is used to heat the "slurry" digestion tanks.

The digested "slurry" is separated into a fibrous solid fraction and a liquid fraction called liquid organic fertilizer (LOF). The fibrous solid fraction is placed into windrows in an open-air maturation area and is processed aerobically into the sellable product *NutriTex*®, a high quality organic soil amendment (compost) that can replace, and is superior to, peat moss. The LOF can be used in the organic process to fortify the green waste compost produced on-site or sold as organic fertilizer.

The liquid fraction (LOF) is further separated into a "cake" material and centrate (liquid). The "cake" material is used to produce pelletized fertilizer *NutriPellets*®. The liquid centrate is pumped into sealed tanks to undergo secondary anaerobic digestion. This secondary digestion process also produces methane-rich biogas, which is also conveyed to the combustion engine, and a liquid digested centrate. Most digested centrate is transferred to sealed, steel tanks for sale as more refined organic fertilizer and some will be stabilized by lowering the pH and, depending on the intended product market, digested centrate may be fortified with chemicals to create the controlled-formula product *NutriPlus*®. The BTI facility solid and liquid products would be transported off-site in bulk and/or packaged on-site in retail containers for wholesale commercial distribution.

Various high value and useful resources are produced by the process. Those products are liquid and solid organic fertilizer, earthworm castings, peat moss substitutes, mulches and soil conditioners, blended professional planting soils, humus and live earthworms. Proprietary, continuous feed, anaerobic and aerobic digestion processes will be utilized.

Consistency with General Plan

The site is designated "Agriculture" in the Fresno County General Plan and is zoned "AE-20" (Exclusive Agriculture, 20 acre minimum). The proposed BTI project is consistent with all of the objectives of the Fresno County General Plan related to agriculture. The "AE" zone district is intended to be an exclusive district for agriculture and for those uses which are necessary and an integral part of the agricultural operation. This zone district is intended to protect the general welfare of the agricultural community from encroachments of non-related agricultural uses which, by their nature, would be injurious to the physical and economic well-being of the agricultural district. Given the nature of the proposed use, it is consistent with the requirements of the "AE" zone district for such uses and may be permitted subject to approval of a Conditional Use Permit (CUP).

Compliance with CEQA

This Initial Study has been prepared in accordance with the provisions of the California Environmental Quality Act (CEQA) and the Fresno County local implementation guidelines. This document includes an analysis of potential impacts, supporting data and constitutes the

Initial Study on the proposed project. This Initial Study provides the basis for determining whether the project may have a significant effect on the physical environment.

ENVIRONMENTAL DISCUSSION

1. LAND USE AND PLANNING

The project site is 480 acres located in a rural agricultural area at the southwest corner of Lincoln and Humboldt Avenue alignments (18559 W. Lincoln Section 9, Township 15 South, Range 17 East, Mount Diablo Base and Meridian). Approximately 10 acres of the site was previously operated by Noble Winery, as a winery, with the remaining acreage being farmed continuously for many years. The site is located on relatively flat topography. It is not located within a 100 year flood plain. Groundwater is located at approximately 200 feet. There are no wetlands, vernal pools, riparian lands or existing natural springs located on or near the site. There are no irrigation ditches located within or adjacent to the project site and there are no existing or closed landfills located on-site. The existing American Avenue Landfill is located approximately one mile north of the subject property. There are structures located on the site that were developed for the Noble Winery which was vacated years ago. Most of those improvements will be incorporated into the proposed BTI facility. There will be no significant impacts to existing or planned land use in the vicinity.

2. POPULATION AND HOUSING

The project will not have an impact on housing or population, either directly or indirectly, due to the remote rural location of the site and that no housing is proposed. The proposal will not cumulatively exceed official regional or local population projections. It will not induce growth or displace housing due to its remote location and agricultural surroundings. One existing residence on-site will be retained for the caretaker of the site.

3. GEOLOGIC PROBLEMS

The project site is currently developed with an abandoned winery which encompasses approximately 10 acres of the 480 acres. The remainder of the site is planted in vineyards with a portion also being vacant. The site consists of relatively flat terrain and is not subject to significant erosion or subsidence of the land. The project's impact to erosion and any changes in topography would be less than significant given that the site is already improved with winery improvements. No known unique geologic or physical features are located on or near the subject site. According to the EIR prepared for the American Avenue Landfill which is located one mile north of the subject site, no active or historical faults are known on or near the project site. Fault movement and ground rupture are not anticipated to create an on-site geologic hazard. According to the EIR prepared for the American Avenue Landfill, the area is subject to ground shaking from activity along faults such as the San Andreas and Owens Valley Faults. Any ground shaking would have a less than significant impact on the proposed project. All new site improvements will meet seismic safety standards.

4. WATER

There will be no changes in absorption rates, drainage patterns or surface water runoff nor will there be exposure of people or property to water hazards resulting from the project. The project will not discharge into or alter surface water quality. It will not change the amount of surface water, currents or source/direction of any body of water. It is estimated that the proposed use will require approximately 55,000 gallons of water per day for processing and 1,000 gallons per day for potable purposes. The quantity of groundwater will not significantly change as a result of the project nor will the direction or rate of flow of this groundwater be impacted. In fact, even though this is a "closed" processing process and there is no discharge of wastewater, a Report of Waste Discharge (RWD) is being prepared to identify mitigation and monitoring measures to ensure that no significant impacts occur to groundwater resources. The RWD will be submitted to the California Regional Water Quality Control Board (CRWQCB) and Fresno County for review. A Waste Discharge Permit will be obtained from the CRWQCB. The project will not impact water available for public supply. A domestic well will be provided for potable water. The well will meet all regulatory standards. The 4 existing on-site agriculture wells may also be used for non-domestic purposes, such as windrow watering, irrigation, facility cleaning and dust control.

5. AIR QUALITY

The project will not alter air movement, moisture or temperature, or cause any change in climate. The emissions generated during the operation of the proposed project will originate from the exhaust of on-site equipment and vehicles frequenting the site. Limited amounts of fugitive dust will be generated as a result of the project. An access road will be provided on-site leading to the compost area. The road is paved or graveled to minimize the occurrence of fugitive dust. The following analysis is a reasonable worst case scenario representing a maximum amount of on-site activity. It is estimated that the operation of the proposed project would result in various emission sources. These sources are as follows:

1. Dumping, grinding, windrow turning and compost screening will generate fugitive dust.

2. Gas fired cogeneration unit used to power and heat the facility will generate exhaust emissions.

3. Feedstock delivery and end-product transport vehicles will generate exhaust emissions.

4. Employee and visitor vehicles frequenting the site will generate air emissions.

These emissions sources are further detailed below:

a. Processing. The green waste will be dumped (unloaded) and processed through a tub grinder to reduce the material to a composting size and consistency. After being

ground, the green waste will be placed in windrows with fibrous solid fraction or manure where composting will occur. A windrow turner will be used to mix the fibrous solid fraction of digested manure and green waste in the windrows on a regular basis. The compost will be screened to obtain desired compost end-product size prior to marketing.

b. On-Site Vehicles and Equipment. Vehicles used to move and process materials at the project site would consist of a tractor and related windrow turner, a skip loader for loading and moving feedstock, a water truck for controlling dust and adding moisture to windrows, a screening machine for separating the end-product, tub grinder for grinding green waste, mixer feeder truck for adding additives or amendments, forklift for loading/unloading and a hopper/conveyor for feeding the grinder. A gas fired cogeneration unit will also be used to power the facility. Operational characteristics of the project equipment are provided below in Table 1.

Table 1: Proposed Mobile Equipment Operation Characteristics

Equipment Type	No. of Equipment	Fuel Source	Daily Hrs. of Operation
Skip Loader	1	Diesel	5
Tractor	1	Diesel	5
Water Truck	1	Diesel	5
Screening Machine	1	Diesel	5
Windrow Turner	1	Diesel	5
Mixer Feeder Truck	1	Diesel	5
Tub Grinder	1	Diesel	5
Fork Lift	1	Diesel	5
Cogeneration Power Unit	1	Biogas (Methane)	24

c. Material Transfer. Vehicles used to transport feedstock and fertilizer to and from the site will emit exhaust emissions. For analysis purposes, it is estimated that the maximum daily load capacity of the facility will be 1,000 tons per operating day. The transport vehicles are capable of carrying a maximum of 25 tons of green waste and 20 tons of manure. The vehicles transporting liquid organic fertilizer, pelletized fertilizer and end-product compost will not exceed 25 tons per vehicle.

It is estimated that a daily average of 12 green waste trucks will make deliveries to the site for a total of 24 trip ends. Municipal green waste collection schedules, however, may result in a maximum of 24 daily vehicle trips or 48 trip ends. Manure delivery vehicles will make an average of 10 trips per day (20 trip ends) with a maximum of 20 trips per day for a maximum of 40 trip ends. Tonnages and traffic count estimates are based upon other BTI operations.

d. Composting. The purpose of composting is to produce soil amendments or similar useful products. Composting is proposed to be performed in an aerobic environment

and will not produce pollutant gases, such as methane, that are associated with the project's primary anaerobic digesters. In addition, plastics, solvents and other hazardous wastes that may produce toxic emissions would be excluded from the proposed composting operation. The only materials to be composted at the proposed project are typical green wastes (i.e., lawn clippings, tree and shrub cuttings, leaves, stumps, etc.) and digested cow manure that will come from the primary process facility.

Dust, odor and vector control mitigation measures are detailed below:

1. Dust Control. A water truck will be used at the site for dust control. Roads will be surfaced in a manner acceptable to Fresno County for dust control. Because the site is located in a remote rural location, any fugitive dust generated by the project will not have a significant impact to surrounding properties. With appropriate watering of the site, any dust generated by the operation will not be significant. The water and liquid organic fertilizer added to the compost windrows will also help to reduce dust impacts to an insignificant level. Dust will not exceed that amount typically associated with normal agricultural operations in the area.

2. Odor Control. The windrows, if made and maintained properly, will not create obnoxious odors. An obnoxious odor represents a problem in the composting process. Monitoring and regular turning of the windrows will ensure they are composting properly to avoid any obnoxious odors. The manure is processed through a sealed anaerobic environment which will help to contain odors. Keeping the site clean will also help to reduce odor impacts. Furthermore, the remote location and size of the site will also avoid any potential odor impacts to surrounding properties.

3. Vector Control. A vector control program will be implemented to control any vector problems generated by the project. Rodents can be controlled with traps or poisons. The site can be sprayed to control flies and/or other insects that may create a problem. Vectors will have a less than significant impact on surrounding properties due to the remote location and size of the site.

Conclusion. Air emissions associated with the proposed project would result in a net increase in emissions levels in Fresno County, however, the impact, although unavoidable, would be less than significant. All equipment to be used in conjunction with the composting operation will use diesel fuels similar to on-site agriculture. Fugitive dust shall be controlled and maintained at minimal levels with the application of water and construction of appropriate road surfaces. The cogeneration unit is fueled by methane which is a clean burning energy source generated from the processing of manure. Odor and vector impacts will be less than significant through implementation of the proposed mitigation measures.

6. TRANSPORTATION/CIRCULATION

Regional access to the proposed project would be provided by American Avenue, Manning Avenue, Madera Avenue (SR 145), Whitesbridge Avenue (SR 180) and Lincoln Avenue. Direct access would be from American Avenue. American Avenue, Whitesbridge Avenue and Madera Avenue (SR 145) are two-lane roads in good condition.

Vehicle trips associated with the project may be segregated as follows: trucks delivering material to the site for processing, trucks exporting processed material from the site, employee and incidental traffic associated with refuse collection and deliveries of supplies to the project, and occasional visitors.

For purposes of clarity, this narrative will use "trip ends" to identify vehicular traffic. A "trip end" is operationally defined as a vehicular trip beginning at one location and ending at another. In other words, one "trip" to the site would convert to 2 trip ends, the trip to the site and the trip back to beginning point of the trip.

Incoming trips

Green waste will be collected at various locations within the Fresno/Clovis area from permitted sources. The green waste collection trucks will have a maximum capacity of 25 tons and will be commercial carriers. The general public will not be permitted to make deliveries of any processing or processed material to the site.

An average of 300 tons of green waste will be delivered to the site daily. However, a maximum of 500 tons of material may be delivered to the site at full capacity or under periods of high plant productivity. Therefore, between 12 and 24 truck trips (24 and 48 trip ends) will be generated by the site for the collection of green waste. In addition, an average of 200 tons and a maximum of 400 tons of manure will be collected daily at dairies typically within a 30 mile radius of the project and delivered to the site for processing. Said manure will be collected in trucks with a capacity of 20 tons. Therefore, between 10 and 20 truck trips (20 to 40 trip ends) will be generated by the site for the collection of manure.

It is anticipated the project will have a maximum of 35 employees. Those employees will travel to the site via conventional automobiles or light trucks. It is estimated that the employees will generate 3 trips per employee, for a total of 105 trip ends per day.

Incidental deliveries of supplies will also occur. Those deliveries will occur in automobiles and light trucks. It is estimated that those deliveries will total 2 deliveries per day for a total of 4 trips ends per day. It is also estimated that there will be an average of 5 visitors per day at the facility. Therefore, the visitors will generate approximately 10 vehicle trip ends.

Outgoing trips

In simple categories, the project will produce liquid fertilizer, compost and pelletized fertilizer. The trips associated with employees and deliveries of supplies was discussed directly above. All of the project materials will be transported off-site to wholesalers and commercial dealers of such products. No sale of any kind will occur to the general public on the site.

The plant will produce approximately 250 tons of liquid fertilizer per day of which approximately 200 tons per day will be transported off-site. The difference in the amount of liquid fertilizer produced on-site and the amount transported off-site is due to the fact the liquid fertilizer is used in the production of various products on-site. Therefore, assuming the trucks that transport the liquid fertilizer have capacity of 20 tons, off-site liquid fertilizer deliveries would generate approximately 10 truck trips per day (20 trip ends).

The plant will produce approximately 350 tons of compost per day which will be transported off-site for sale. Therefore, assuming that the trucks that transport the compost have a capacity of 25 tons and approximately 350 tons per day of compost are produced, off-site compost deliveries would generate approximately 14 truck trips per day (28 trip ends).

The plant will produce approximately 50 tons of pelletized fertilizer per day which will be transported off-site. Therefore, assuming that the trucks that transport the pelletized fertilizer have capacity of 25 tons, off-site pelletized fertilizer deliveries would generate approximately 2 trips per day (4 trip ends).

Based on the aforementioned information, the project will generate 119 automobile and light truck total trip ends and between 44 and 88 truck trip ends for daily deliveries of material *to* the site. As for exporting material *from* the site, 52 daily truck trip ends are estimated to occur. Therefore, between 96 and 152 *total* daily truck trip ends are estimated to occur as a result of the project.

It is noted that the aforementioned calculations of tuck traffic are considerably overstated. Said calculations are overstated because the products that are used in the BTI process such as manure and green waste are produced in general proximity to the BTI site and are already using county roads to collect and dispose of those materials. Therefore, while the traffic calculations provided above provide a worst case description of the project traffic, such profile counts a predominant portion of the project truck traffic twice.

Table 2 illustrates maximum daily trips (ADT) based on the above information. American Avenue the main road to the facility will, therefore, carry all vehicle ADTs entering and exiting the facility site. For purposes of estimating worst case traffic impacts, it is estimated that 50 percent of all project trips will simultaneously use Manning Avenue, Madera Avenue (SR 145) and Whitesbridge Avenue (SR 180). It is estimated that 20 percent of all project traffic will use Lincoln Avenue.

Table 2: Projected Maximum Traffic Conditions

Access Road	Segment Road	1997 ADT	Project ADT (Trucks)	Project ADT (Cars)	% Trucks	% Cars
American Ave.	w/o Manning Ave.	1,455	152	119	10	8
Manning Ave.	w/o Jameson Rd.	1,102	76	60	7	5
Madera Ave. (SR 145)	n/o Manning Ave.	5,208	76	60	1	1
Whitesbridge (SR 180)	e/o West Ave.	7,082	76	60	1	.01
Lincoln Ave.	e/o Madera Ave.	397	30	24	8	6

*Buildout ADT based on a growth factor of 3.00% per year (SOURCE: Fresno County)

Given the small number of ADT generated by the project at full buildout, overall traffic impacts will be less than significant. This impact is calculated according to Levels Of Service (LOS). In rating roadway operating conditions, the following LOS ratings are used, as defined in Table 3.

Table 3: Level of Service Definitions

LOS	Definition
A	Low volumes, primarily free flow operations. Density is low and vehicles can freely maneuver within traffic stream. Drivers can maintain their desired speed with little or no delay.
B	Stable flow with potential for some restriction of operating speeds due to traffic conditions. Maneuvering is only slightly restricted. The stopped delays are not bothersome and drivers are not subject to appreciable tension.
C	Stable operations, however, the ability to maneuver is more restricted by the increase in traffic volumes. Relatively satisfactory operating speeds prevail but adverse signed coordination or longer queues cause delays.
D	Approaching unstable traffic flow where small increase in volume could cause substantial delays. Most drivers are restricted in their ability to maneuver and their selection of travel speeds. Comfort and convenience are low but tolerable.
E	Operations characterized by significant approach delays and average travel speeds of one-half to one-third the free flow speed. Flow is unstable and potential for stoppages of brief duration. High signal density, extensive queuing, or signal progression/timing are the typical causes of delay.
F	Forced flow operations with high approach delays at critical signalized intersections. Speeds are reduced substantially and stoppages may occur for short or long periods of time because of downstream congestion.

Levels of Service (LOS) for these roads are currently at LOS "A." Therefore, based on the information provided in Table 2, the LOS will not be impacted by the project and will remain at LOS "A" at project buildout, as illustrated in Table 4.

Table 4: Projected Levels of Service

Access Road	Segment	1997 ADT	1997 LOS	Total ADT w/Project (2083)	2083 LOS
American Ave.	w/o Manning Ave.	1,455	A	1,909	A
Manning Ave.	w/o Jameson Rd.	1,102	A	1,376	A
Madera Ave. (SR 145)	n/o Manning Ave.	5,208	A	5,998	A
Whitesbridge (SR 180)	e/o West Ave.	7,082	A	8,107	A
Lincoln Ave.	e/o Madera	397	A	501	A

According to Table 4, baseline traffic volumes on American Avenue with maximum project related ADT, at time of project buildout, are projected to be 1,909 vehicles. This projection was calculated based on a 3.0 percent traffic increase per year, as described by the Fresno County Public Works and Development Services Department Design Division. These traffic conditions would not result in a change in LOS for American Avenue or any other roads used to serve this project. It is noted that 3 percent traffic growth overstates historic traffic growth but was used to develop a worst case scenario.

Adequate parking area will be provided for employees at the site. There will be no impacts to rail, waterborne or air traffic given that those types of transportation facilities are not used by the project.

7. BIOLOGICAL RESOURCES

The property has been continuously farmed for many years. That portion of the site that is improved includes the aforementioned 10 acres of winery equipment. There are no known biological resources including endangered, threatened or rare species, their habitats, plant life, wetlands or migration corridors located on or associated with this site due to the historic activities that have occurred on the site. Furthermore, no known off-site biological resources will be impacted by the proposed operation.

8. ENERGY AND MINERAL RESOURCES

The property has been continuously farmed for many years. There are no known energy and mineral resources of any significance located on or associated with this site. Furthermore, no known energy and mineral resources will be impacted by the proposed operation nor will there be a conflict with any adopted energy conservation plans. In fact, the processing of manure will generate biogas (methane) which will be used to operate a gas fired cogeneration unit which will practically eliminate the need for outside energy. However, a natural gas line is contemplated for a back-up fuel source to the cogeneration process. The cogeneration element of the project will reduce energy consumption and excess energy will be available for sale to nearby neighbors at market rates in accordance with applicable regulations.

9. SAFETY AND HAZARDS

The operation will include accepting cow manure and green waste for processing. After the green waste has been ground and fiber has been obtained from manure processing, these materials will be arranged in windrows for composting. Risk of combustion, explosion or release of hazardous substances will be less than significant. Any potential health hazard impacts associated with this operation will be reduced to a less than significant level with material being handled by equipment versus by hand. The applicant will comply with all applicable worker safety regulations.

Operation of the machinery always introduces the possibility for risk if handled incorrectly or if the equipment is poorly maintained. All machinery will be maintained according to regular maintenance and service schedules. All employees will be trained by BTI management in the operation of any machinery associated with this project.

There will be no interference with emergency response or evacuation plans or with emergency response vehicles due to the remote location of the project site. There will be no significant increase in fire hazard given mandatory materials handling and storage requirements. The operation will contain a fire protection system designed to Fresno County standards.

10. NOISE

The area surrounding the project site is dominated by agricultural uses. No rural residential uses are located within a mile of the outermost limits of the proposed site. Existing sources of environmental noise in the vicinity of the project site include farming operations on surrounding agricultural properties, a fertilizer plant east of the subject site and the American Avenue Landfill north of the subject site.

It should be noted that noise levels are representative of a worst-case condition where all equipment noise is measured at the source versus at the nearest sensitive noise receptor. Noise levels would be much less than those shown in the following table since the nearest noise receptor, the Britz Chemical plant, is 1/2 mile east of the site. The nearest residential noise receptor is at least one mile from the site. Sound level measurements for various equipment used in the BTI process are detailed below.

All equipment engines will be fitted with the manufacturer's specified muffler systems. The site is located in a remote agricultural area and there are no residences located near the proposed operation. As a result, there will be no significant noise impacts to surrounding properties. Any noise associated with the operation will be consistent with typical agricultural operations in the area. Hours of operation of the equipment will also be consistent with typical agricultural activities in the area. There will be no equipment operations at night except for the cogeneration power unit which will operate 24 hours per day. The cogeneration unit will be located inside its own specially designed building to reduce noise to a less than significant level.

BIORECYCLING TECHNOLOGIES, INC.
PRIMARY PROCESS EQUIPMENT LIST AND REFERENCE NOISE LEVELS

ITEM	EQUIPMENT	NO.	LOCATION	LEVEL (dBA)
1	Receiving Pit Pump	4	Outside	95 @ 3'
2	Feed Pump	2	Outside	87 @ 3'
3	Grit Cyclone	2	Outside	74 @ 3'
4	Digester Feed Pump	2	Outside	84 @ 10'
5	Digester Circulation Pump	2	Outside	84 @ 10'
6	Centrifuge Feed Pump	1	Outside	87 @ 3'
7	Centrifuge	2	Outside	88 @ 3'
8	2nd Digester Feed Pump	1	Outside	87 @ 3'
9	LOF Pump	1	Outside	87 @ 3'
10	LOF Stabilization Pump	1	Outside	81 @ 3'
11	Chemical Pump	3	Outside	87 @ 3'
12	Mixed Chemical Pump	1	Outside	87 @ 3'
13	Digester Gas Blower	1	Inside	90 @ 6'
14	Digester Gas Compressor	1	Inside	75 @ 4'
15	Generator Package	1	Inside	88 @ 6'
16	Air Compressor Package	1	Inside	99 @ 7'
17	Boiler Feedwater Pump	2	Inside	87 @ 3'
18	Combustion Air Blower	3	Inside	90 @ 6'

Noise will also be generated by trucks traveling to the site to deliver waste. According to the EIR prepared for the American Avenue Landfill, noise levels from existing volumes of traffic on roadways, including American Avenue, in the vicinity were evaluated using the FHWA Highway Traffic Noise Prediction Model and traffic data obtained from the County of Fresno and TJKM Transportation Consultants. The FHWA Model is the analytical method presently favored by most state and local agencies, including CalTrans and the County of Fresno, for the prediction of traffic noise levels. The model was developed to predict hourly L_{dn} values for free-flowing traffic conditions with an accuracy of +1.5 dB, but may be used to predict L_{dn} values based upon an equivalent hourly traffic volume determined from the hourly distribution of traffic for a typical day.

Roadways of concern relative to potential noise impacts in the project area include American Avenue and Madera Avenue given that those roads will carry a majority of the project traffic. Virtually all vehicles traveling to the facility will use these roadways. Truck traffic noise would not exceed that noise profile produced by the trucks hauling waste to the American Avenue Landfill. Said profile is not unlike the type of vehicles using those roads now for agricultural purposes.

Farming operations in the vicinity of the operation will result in intermittent noise levels when tractors or other heavy equipment are in use. Noise levels from such activities are similar to the vehicular traffic and the proposed fertilizer manufacturing activities associated with the proposed project.

Potential Noise Related Impacts

Noise impacts from the proposed project would result from the operation of equipment at the facility, and from project-related increases in truck traffic along the haul routes to the site. Normal hours of operation would be 7:00 a.m. to 5:00 p.m. unless emergency conditions warrant later operations. Truck related noise impacts would be confined to these hours. Equipment used during these hours include tractors, screeners, grinders, windrow turners and a water truck. The primary digester process is continuous and operated 24 hours a day. With the nearest residence being at least one mile from the facility, noise from the primary process is not anticipated to be significant.

The determination of whether or not a particular noise impact is significant is generally based upon comparisons with applicable state and local standards and to recognized public health criteria. The adopted policies of the *Fresno County Noise Element* state that in order to maintain an acceptable noise environment, noise levels should not exceed L_{dn} 60 dB in areas containing noise-sensitive land uses. The Noise Element recommends that proposed developments minimize adverse noise impacts on surrounding sensitive land uses by incorporating effective mitigation measures into project design. The *Fresno County Noise Ordinance* contains exterior noise level standards for noise sources not preempted by State or Federal regulations which are based upon the statistical distribution of noise over time. The maximum levels permitted by the County ordinance are 70 dBA during the daytime hours (7:00 a.m.-10:00 p.m.) and 65 dBA during the nighttime hours (10:00 p.m.-7:00 a.m.), when measured at an existing sensitive receiver location. As defined by the ordinance, sensitive receivers include churches, hospitals, schools, libraries and residential uses. There are no churches, hospitals, schools or libraries in the area. The nearest residence is at least mile from the site and thus noise levels would not be expected to exceed applicable standards at that location.

Proposed Noise Mitigation Measures

a. All equipment in use at the site shall be fitted with appropriate mufflers.

b. Hours of operation and truck travel be limited to between 7:00 a.m. and 5:00 p.m. (except that the primary digester operations may be 24 hours per day).

c. To the extent feasible, truck routes shall be limited to traveling on American, Manning, Madera, Whitesbridge and Lincoln Avenues to reduce noise impacts to rural residences.

11. PUBLIC SERVICES

Emergency response to the project would be provided by the Fresno County Fire Department, Station No. 15, located in the community of Tranquility, approximately 13 miles to the west from the site. The operation will be equipped with fire fighting equipment per the requirements of the Fresno County Fire Department. All improvements of on-site structures will meet Fresno County fire protection standards. The windrows will not pose a significant fire hazard due to

the nature of that material and the proposed monitoring. There are no structures on adjacent parcels that would be impacted by a fire that might occur on-site given the distance to those structures.

Impacts to local law enforcement would be similar to those related to agriculture and will be less than significant.. The site will be gated and fenced to prevent unlawful entry during non-business hours. A caretaker 's residence and outdoor lighting is also proposed. The project would not have an impact on schools given the nature of the use.

General maintenance of public facilities in the vicinity, such as roads, will be provided by Fresno County. The county adopts a budget annually for the maintenance of those services. That process assures that all necessary improvement and maintenance matters are addressed appropriately. No adverse impacts associated with public facilities maintenance will occur from this project. Therefore, no mitigation measures are proposed.

12. UTILITIES AND SERVICE SYSTEMS

Power or Gas. The operation will generate its own methane (biogas) which will be used to power a gas fired cogeneration unit. The cogeneration unit will generate electricity to power the facility. All mobile equipment used on-site will be gas powered. Although the anaerobic digestion system will operate 24 hours per day, there will be no equipment operations at night. Electricity is also available from P G & E as a back-up or supplementary source of power. An extension of natural gas to the site or a large gas storage tank may be installed to supplement the methane produced at the site. The nearest P G & E gas line is located near the community of Tranquility at Siskiyou and Lincoln Avenues, 1.5 miles west of the Noble site.

Communications Systems. All communications will be available by line phone, cellular telephone and/or two-way radio, as required for daily operations and emergency communications. There will be no outdoor sound amplification system at the site.

Sewer Service. There is no municipal sewer system available in the area. The proposed operation will not require connection to a municipal sewer system. Restroom facilities will be provided at the site and will be served by a septic system designed to Fresno County standards.

Stormwater Drainage. There is no municipal stormwater drainage available in the area. The site has relatively flat topography. A drainage basin to control any stormwater run-off generated from the site is proposed as part of the project and will meet all applicable standards. Stormwater is not anticipated to create a problem given the site is already graded. Any run-off generated from the compost area will percolate into the soils on-site and not impact adjacent properties.

Solid Waste Disposal. Limited amounts of solid waste will be produced as a result of the operation. The waste will be generated primarily from incoming loads and employees. Waste will be disposed of in an appropriate trash container and hauled off on a regular basis as needed

to a permitted landfill. All incoming loads will be inspected to ensure no non-permitted waste is delivered to the site.

Local or Regional Water Supplies. Water will be supplied by a private water well(s). All applicable water quality standards will be met as required by the Fresno County Health Department. Well water will be used for composting, facility and equipment cleaning, and dust control and domestic and sanitary purposes.

13. AESTHETICS

The facility improvements and composting area will be located approximately one mile south of American Avenue. The composting portion of the project will visually blend with surrounding agricultural properties. All of the major components necessary for the proposed project exist from the previous winery operation. The existing landscaping and the remote location of the site will reduce project visual impacts. The project will not have an affect on a scenic vista or scenic highway and it will not create any light or glare that might impact surrounding properties. As a result, there will be no aesthetic impacts associated with this project.

14. CULTURAL RESOURCES

The historical use of the property has been agriculture. Because the site has been continuously farmed for many years, there is no information to suggest that the site contains any cultural resources. Also, there are no known cultural resources of any significance located near the property. Therefore, cultural resources will not be impacted by the proposed project.

15. RECREATION

The site is located in an area that is predominantly agriculture/farming. Recreational resources will not be impacted by the proposed operation, nor will the operation create any need for additional recreational facilities. An education center will be provided at the facility to accommodate school field trips and demonstrations of the facility technology.

16. MANDATORY FINDINGS OF SIGNIFICANCE

a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory? No.

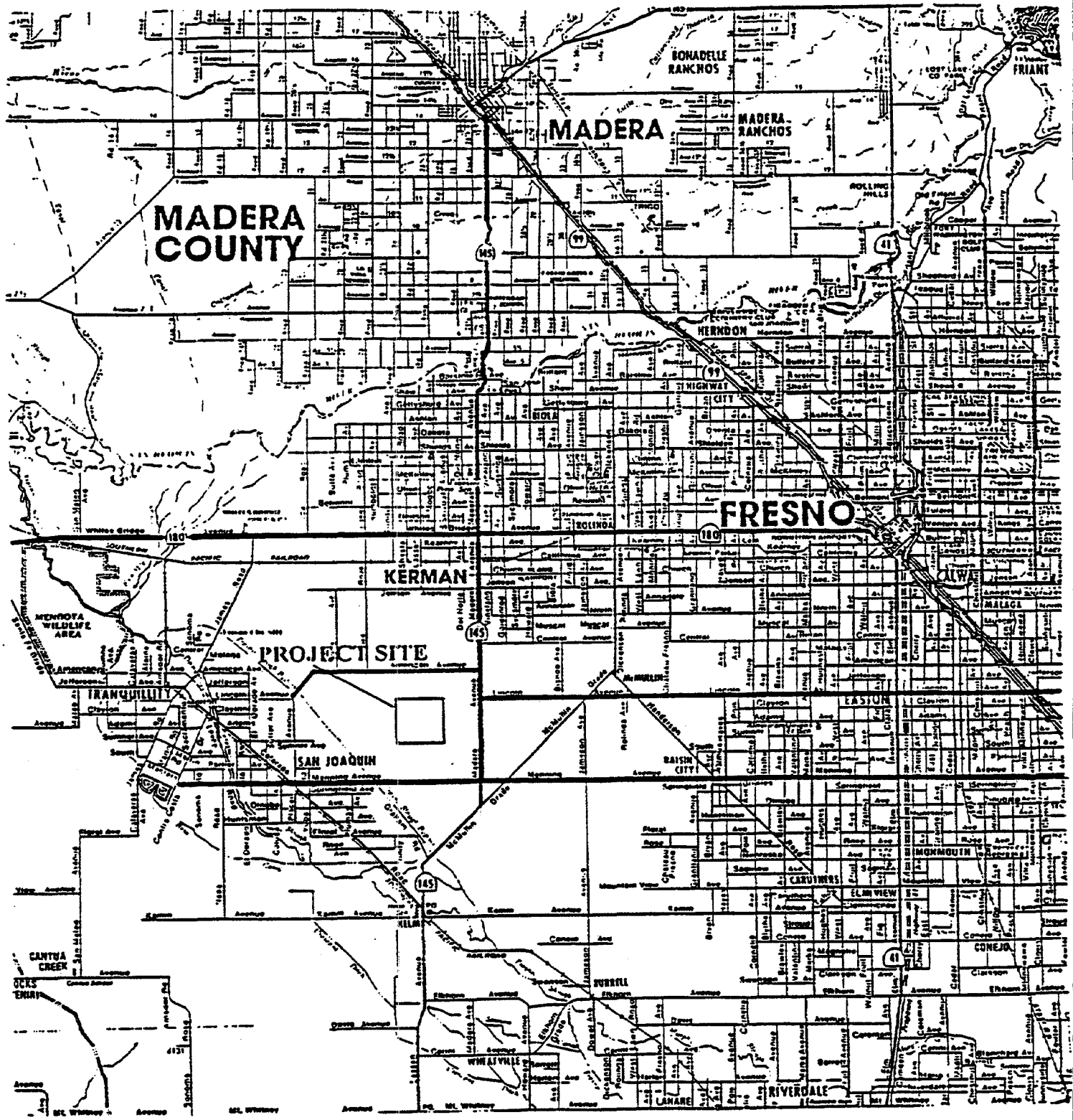
b. Does the project have the potential to achieve short-term, to the disadvantage of long-term environmental goals? No.

c. Does the project have the impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)? No.

d. Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly? No.

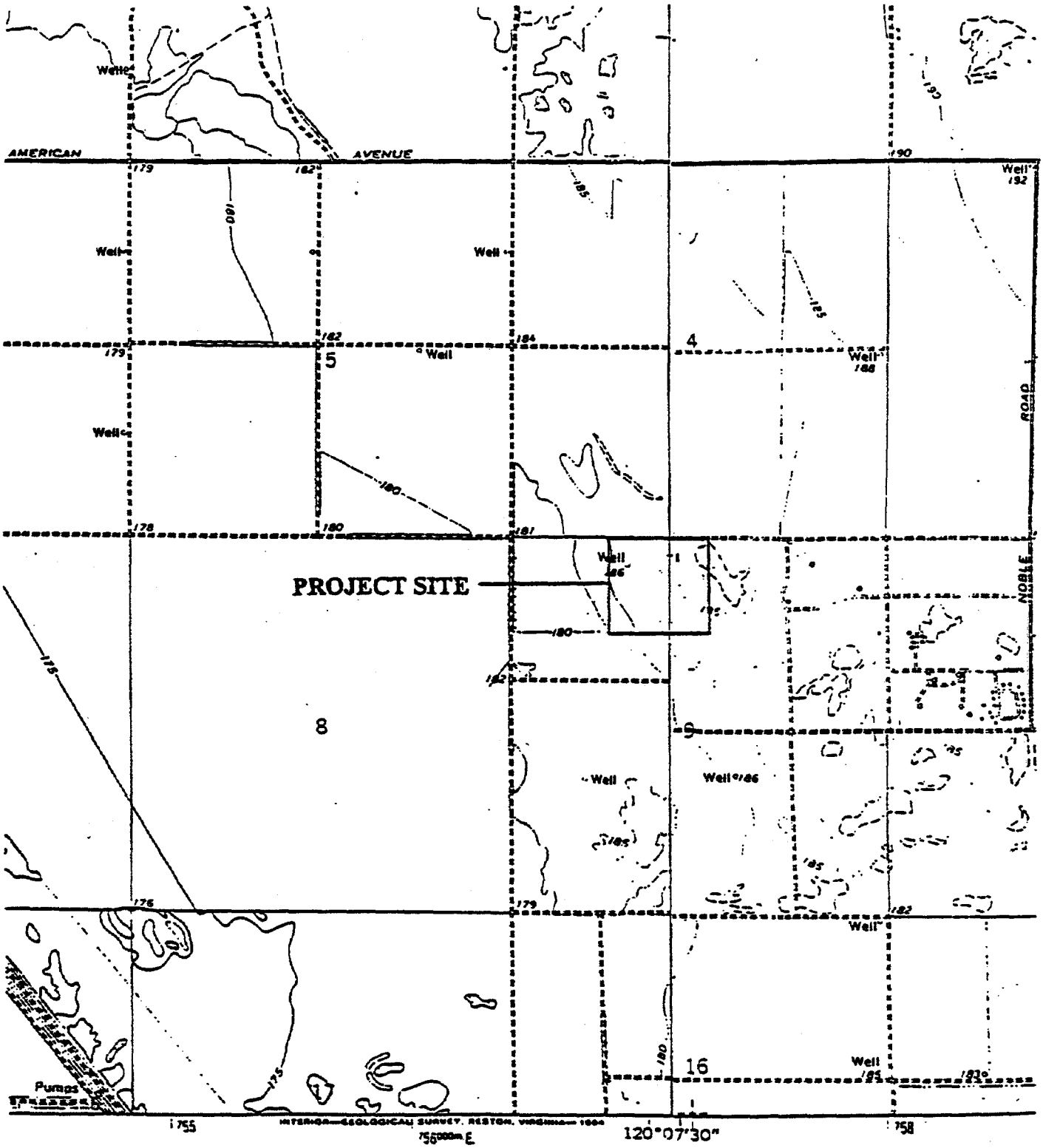
BTI/Applications/RCSI

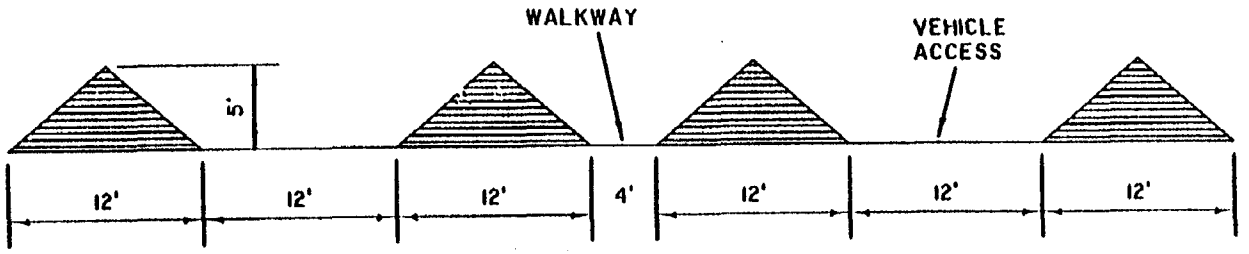
EXHIBIT "A"
VICINITY MAP



— TRUCK ROUTE

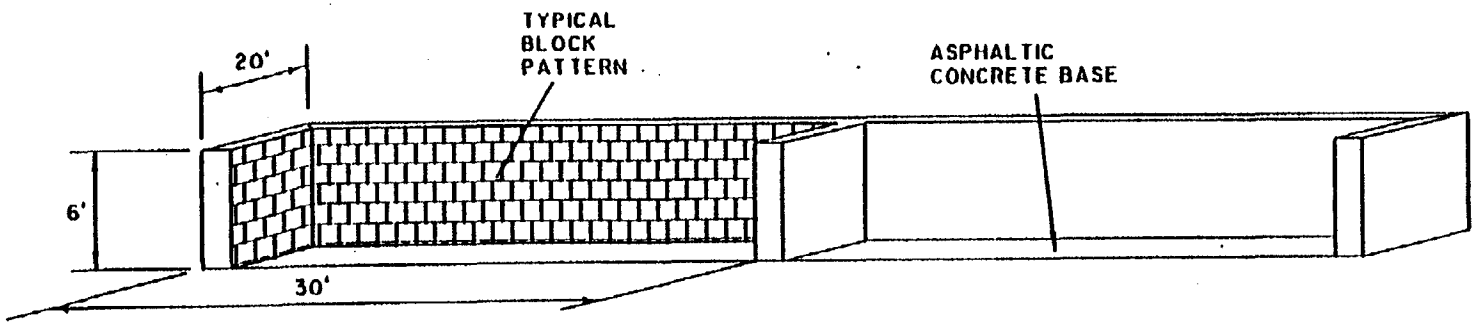
EXHIBIT "B"
SITE LOCATION/TOPOGRAPHIC MAP





TYPICAL WINDROW SECTION

NO SCALE

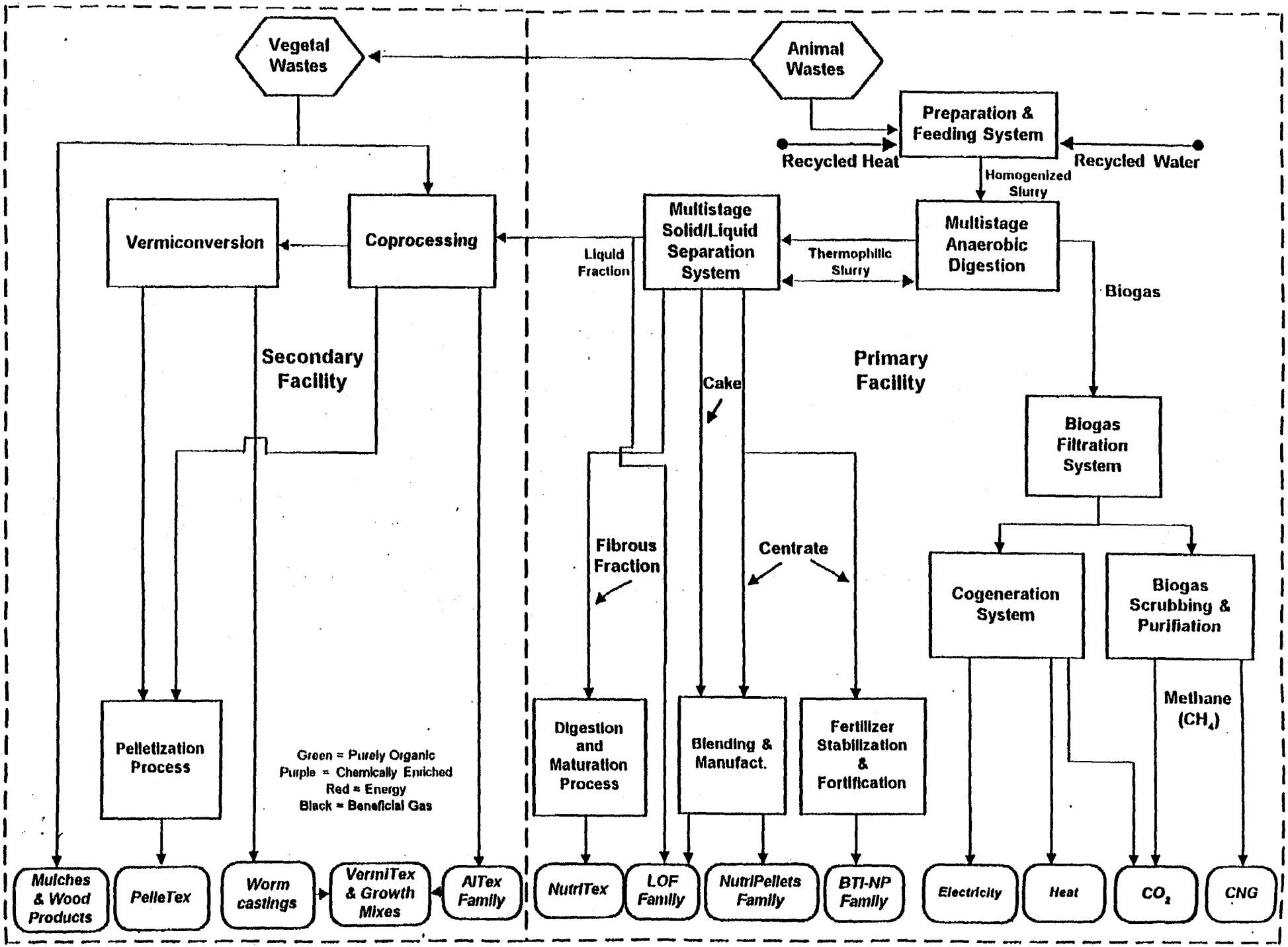


MATERIAL STORAGE BUNKERS

NO SCALE

EXHIBIT "C"

The BTI Process - General Flow Diagram



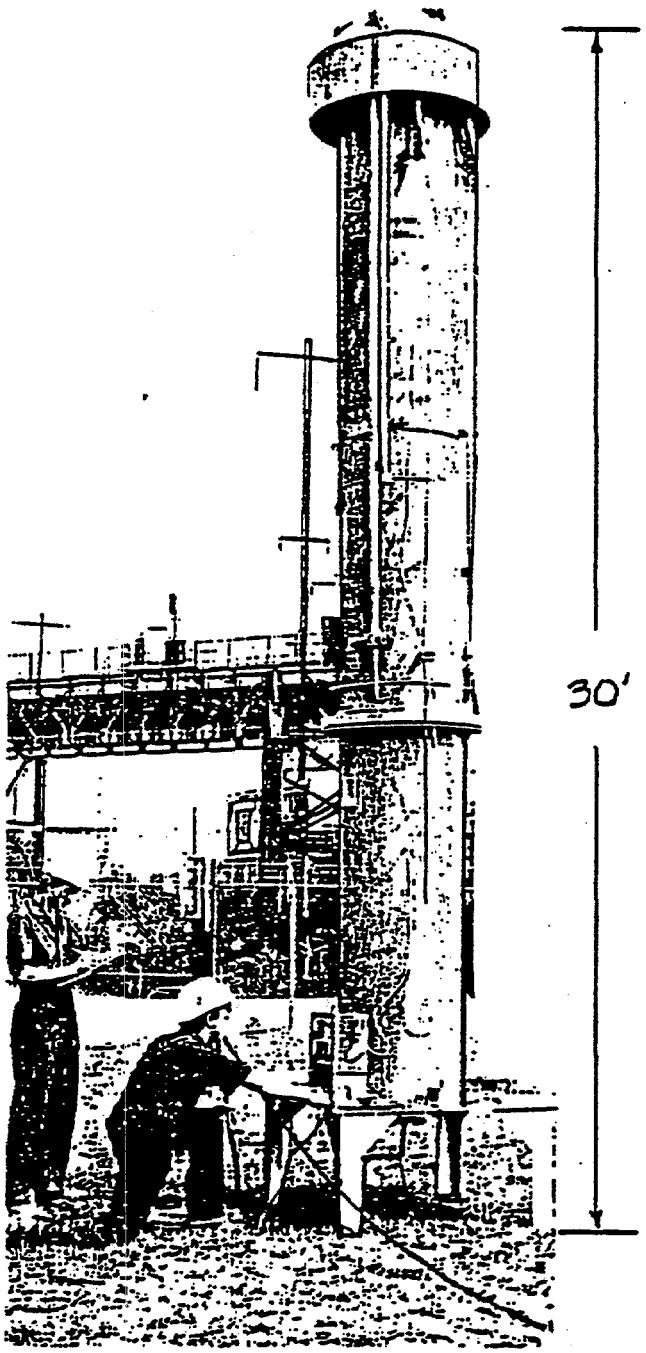
(CNG = COMPRESSED NATURAL GAS)

EXHIBIT "D"

EXHIBIT "E"

Fluidic Flares

- Eliminate troublesome refractory linings
- reduce flame lick, flame tilt and radiation at grade level



• NOT TO SCALE

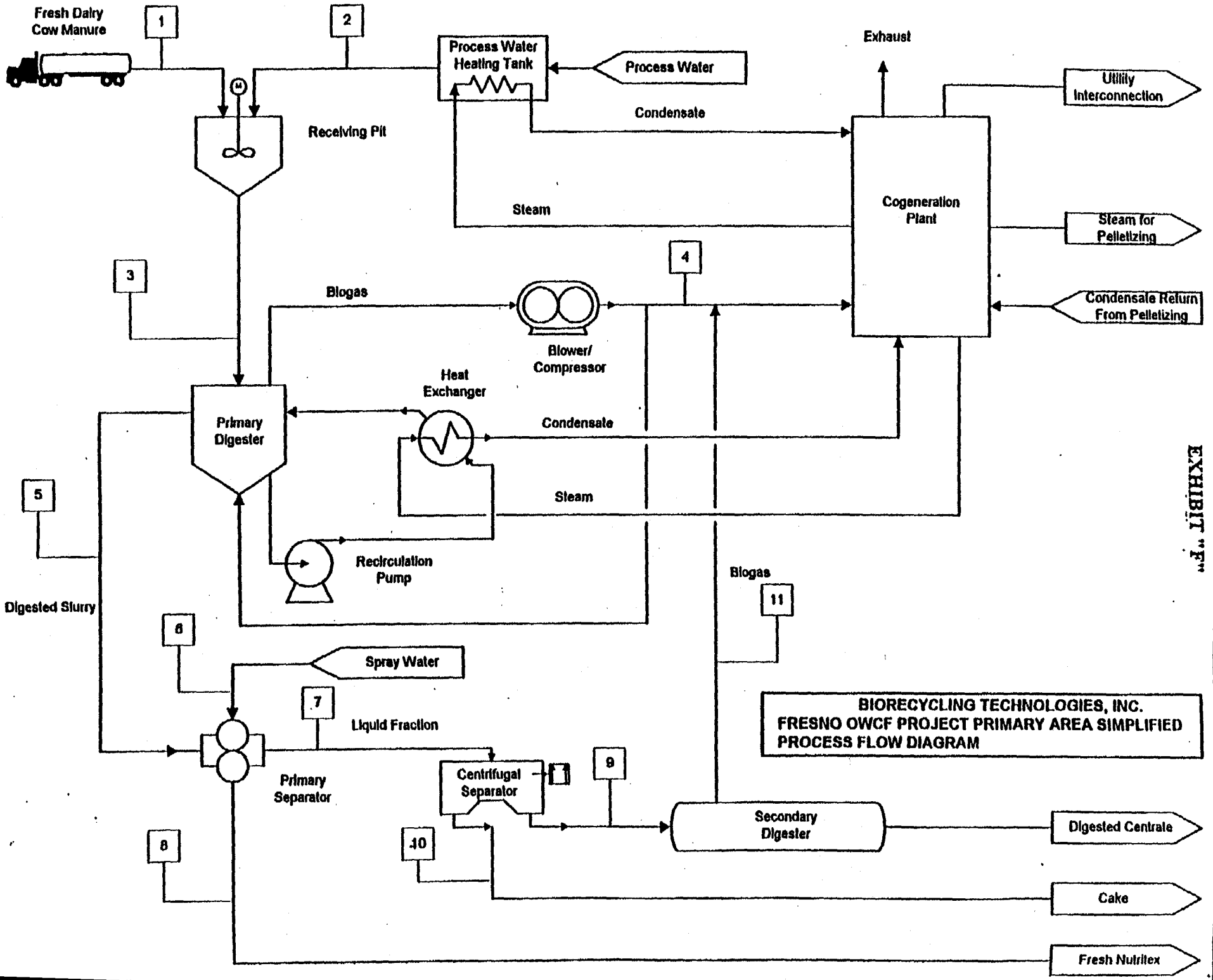
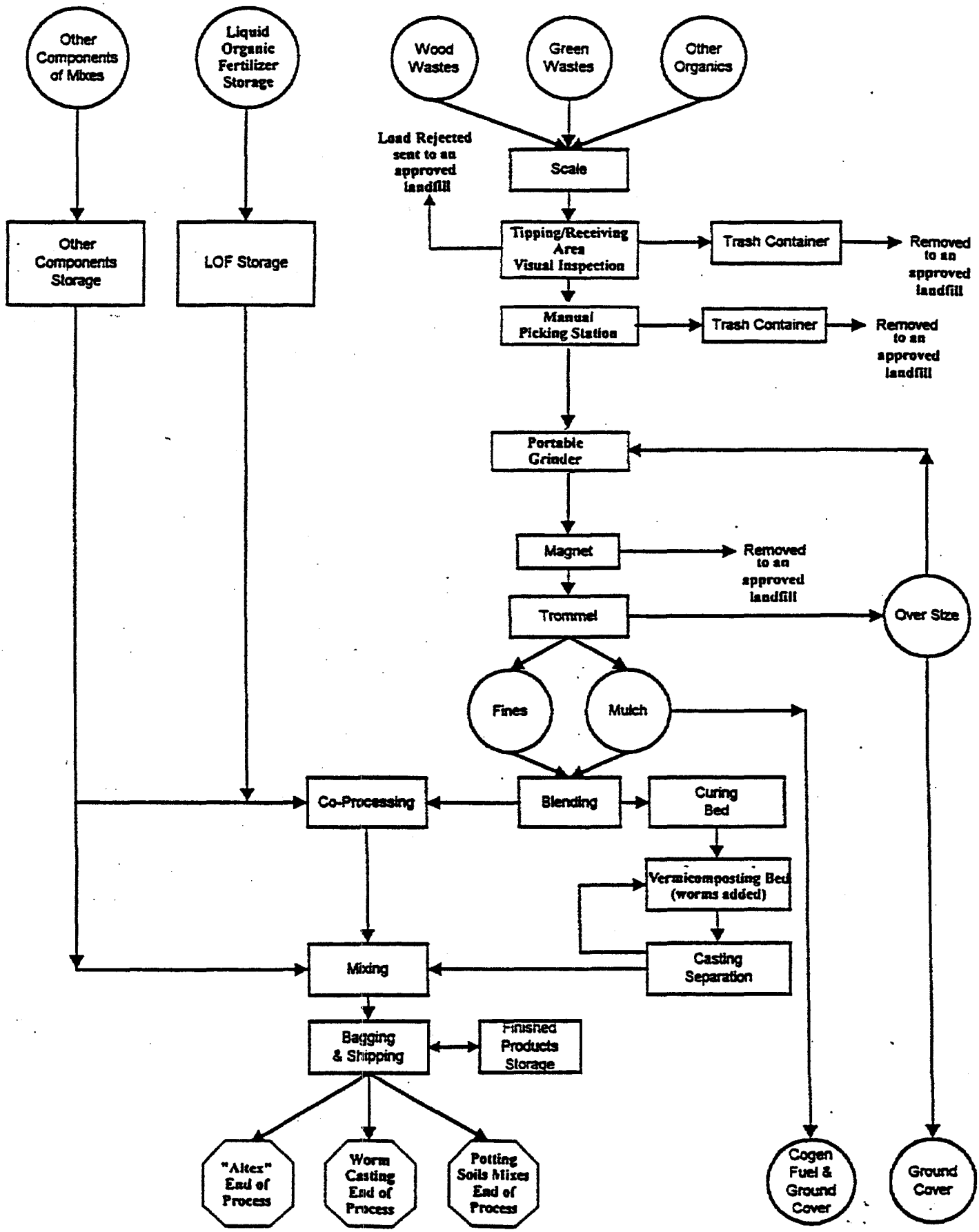

Fresh Dairy Cow Manure
1
2
Process Water Heating Tank
Process Water
Exhaust
Utility Interconnection
Condensate
Receiving Pit
Steam
Cogeneration Plant
Steam for Pelletizing
3
4
Biogas
Blower/ Compressor
Condensate Return From Pelletizing
Heat Exchanger
Primary Digester
Condensate
5
Steam
Recirculation Pump
Biogas
11
Digested Slurry
6
Spray Water
7
Liquid Fraction
BIORECYCLING TECHNOLOGIES, INC.
FRESNO OWCF PROJECT PRIMARY AREA SIMPLIFIED PROCESS FLOW DIAGRAM
Primary Separator
Centrifugal Separator
9
Secondary Digester
Digested Centrate
8
10
Cake
Fresh Nutritex
EXHIBIT "F"

EXHIBIT "G"

GREEN MATERIAL CO-COMPOSTING AND VERMICOMPOSTING FACILITY IN FRESNO
SIMPLIFIED PROCESS FLOW DIAGRAM



February 18, 1997

FRESNO OWCF PROJECT CHEMICAL USE AND STORAGE

Chemical	AHM[1] (Y/N)	Maximums				Form	Form of Delivery	Individual Secondary Containment (Y/N)	Means of Storage	NFPA Hazard Indices[2]				BTI Chemical(s) Which Should/Must be Stored Separately
		Days/Yr On-Site	Daily Use	Stored On-Site	Units					Health	Fire	React	Specific Hazard	
Ammonium Nitrate	N	365	3	20	tons	Solid	Bulk	N	Tank	2	0	3	OX	Nitric Acid, Sulfuric Acid
Ammonium Phosphate	N	365	1,000	8,000	gals	Liquid	Bulk	Y	Tank	1	0	0	-	None
Ammonium Sulfate	N	365	1,200	8,000	lbs	Solid	Bulk	N	Bags	1	0	0	-	None
Ferrous Sulfate	N	365	400	3,000	lbs	Solid	Bags	N	Bags	1	0	0	-	Ammonium Nitrate, Nitric Acid, Sulfuric Acid
Manganese Sulfate	N	365	60	500	lbs	Solid	Bags	N	Bags	2	0	1	-	None
Nitric Acid (68%)	Y	365	150	1,200	gals	Liquid	Bulk	Y	Tank	3	0	0	OX	Ammonium Nitrate, Ferrous Sulfate, Sulfuric Acid
Potassium Chloride	N	365	2	15	tons	Solid	Bulk	N	Tank	1	0	0	-	Sulfuric Acid
Potassium Sulfate	N	365	600	5,000	lbs	Solid	Bags	N	Bags	1	0	0	-	None
Sulfuric Acid (66BE-93)	Y	365	100	900	gals	Liquid	Bulk	Y	Tank	3	0	2	W	Nitric Acid, Ammonium Nitrate
Urea	N	365	4	25	tons	Solid	Bulk	N	Tank	1	0	0	-	None
Zinc Sulfate	N	365	75	600	lbs	Solid	Bulk	N	Tank	3	0	0	-	None

[1] Acutely Hazardous Material (AHM), as defined in the California Health and Safety Code, Chapter 6.95, Section 25532(a)

[2] National Fire Protection Association Hazard Indices:

Health Hazards: 4 = Extreme 3 = High 2 = Moderate 1 = Slight 0 = None
Fire Hazards: 4 = Extreme 3 = Severe 2 = Moderate 1 = Minor 0 = None
Reactivity Hazards: 4 = Extreme 3 = Severe 2 = Moderate 1 = Minor 0 = None
Specific Hazards: OX = Oxidizer W = Reacts Violently with Water ACID = Acid ALK = Alkali COR = Corrosive Y = Radioactive

EXHIBIT "H"

FRESNO OWCF SIMPLIFIED FLOW DIAGRAM - CHEMICAL STORAGE AND PREPARATION

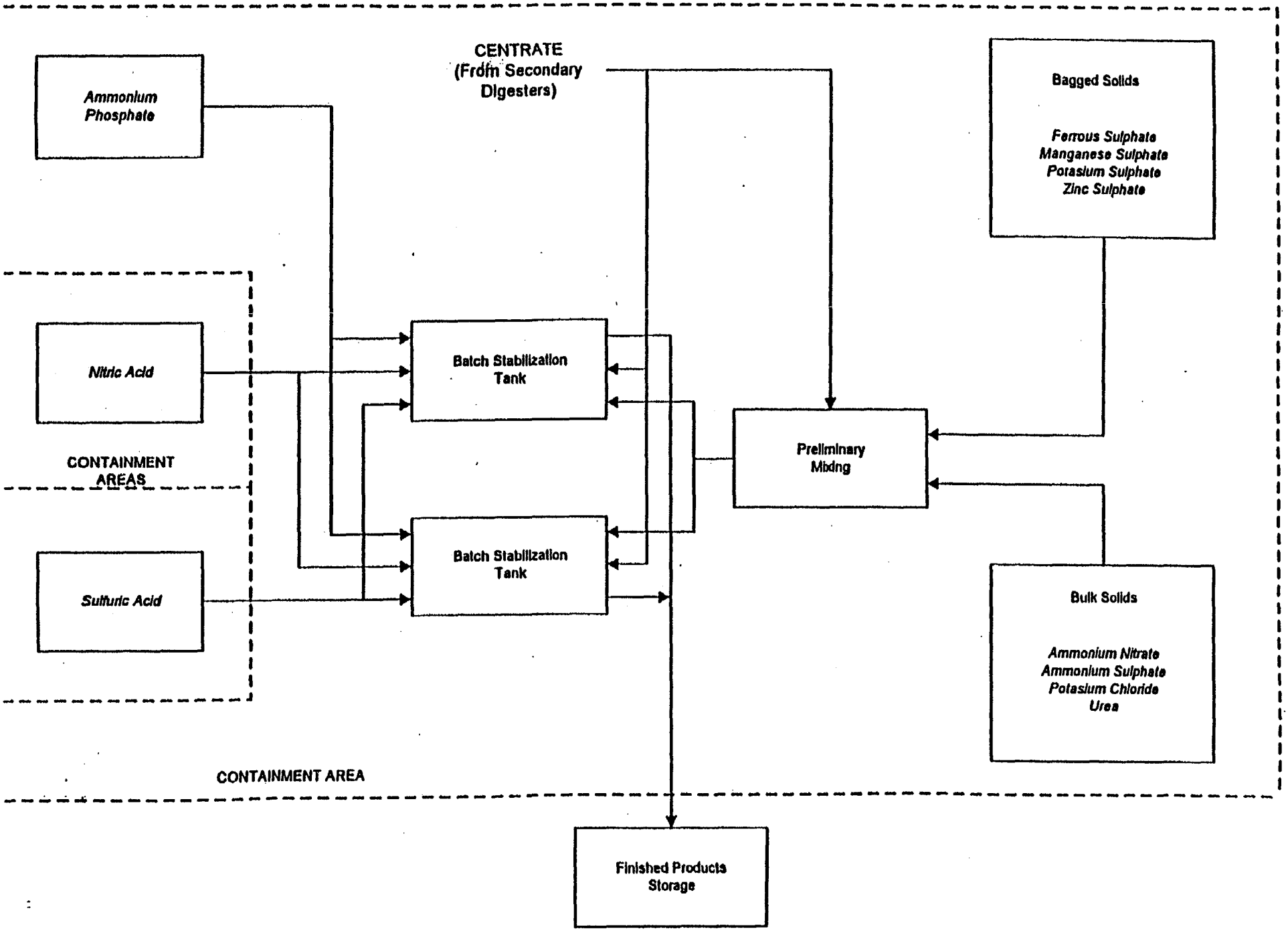


EXHIBIT "I"

EXHIBIT "J"

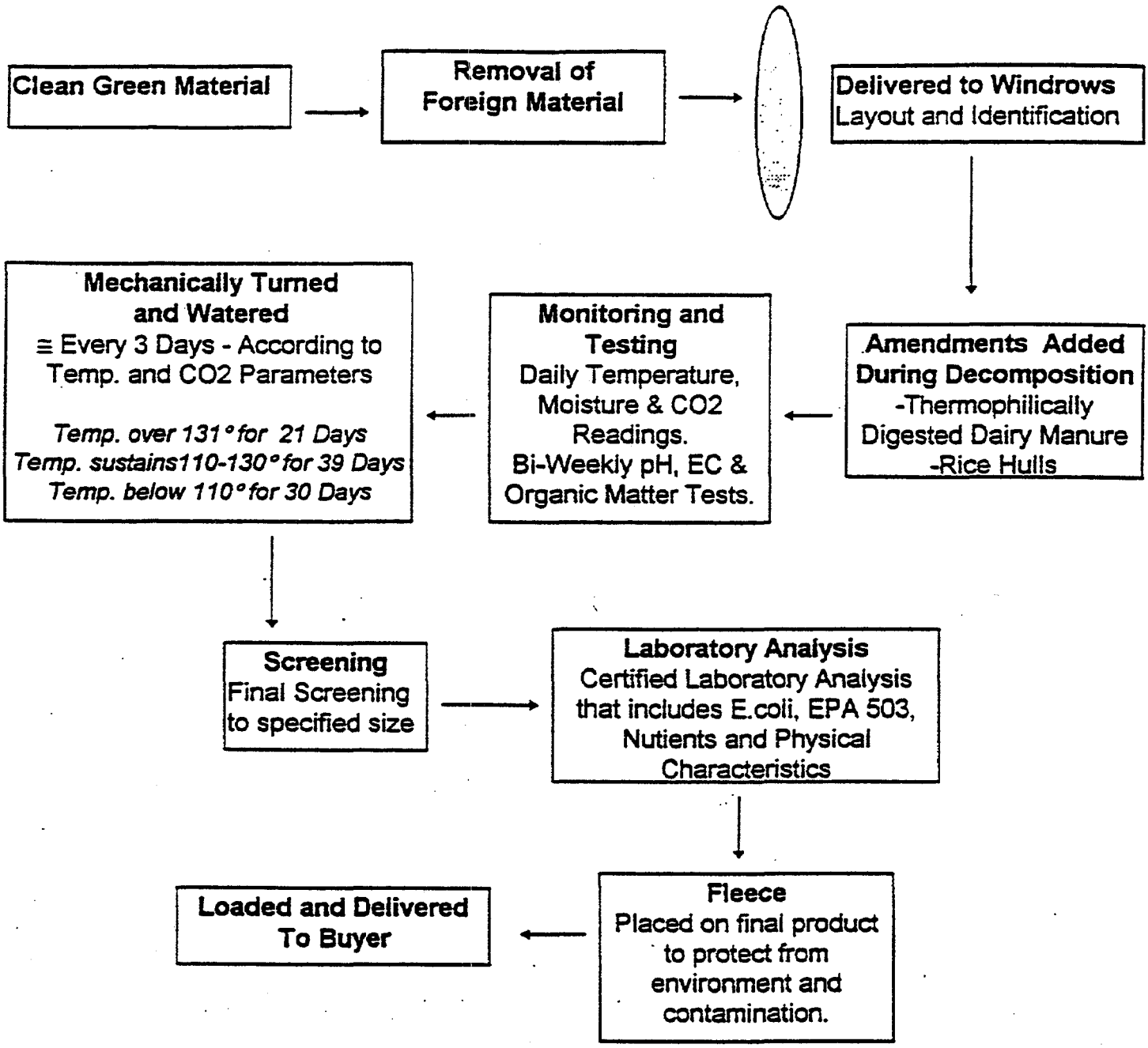
BIORECYCLING TECHNOLOGIES, INC.

PRODUCT SPECIFICATIONS*
ALTEX® VERMITEX® NUTRIPELLETS®

	ALTEX®	VERMITEX®	NUTRIPELLETS®
Feedstock	Residential and Agricultural Green Waste "Clean Green"		
pH	7.0 - 8.0	7.0 - 8.0	7.0 - 8.0
Soluble Salt Content	3-8 mhos/cm	8-12 mhos/cm	8-12 mhos/cm
N-P-K (%)	1.5 - 0. 7- 1.2	1.5 - 0. 7- 1.2	1.5 - 0. 7- 1.2
Particle Size	1/4"	1/4"	
Moisture Content	40%	40%	< 15%
Bulk Density	Approx. 1,200 lb/yd	Approx. 1,200 lb/yd	Appox. 1,800 lb/yd
Pathogen/Weed Seed Destruction	Pathogen Reduction and Weed Seed Destruction Process: 21 Days at or above 131°F		

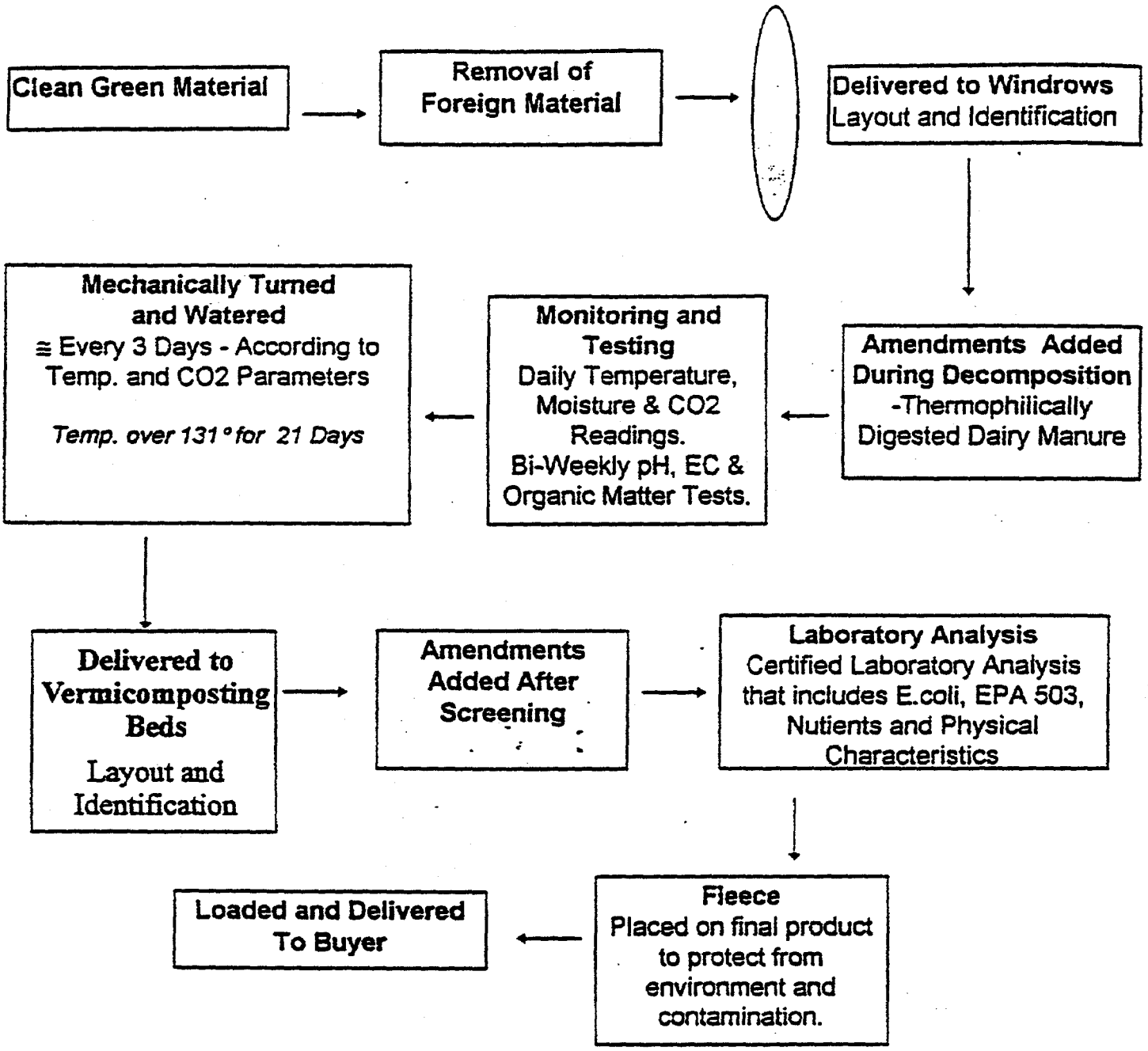
***Copies of certified laboratory analysis available upon request.**

EXHIBIT "K"



ALTEX
by
Biorecycling Technologies, Inc.

EXHIBIT "L"

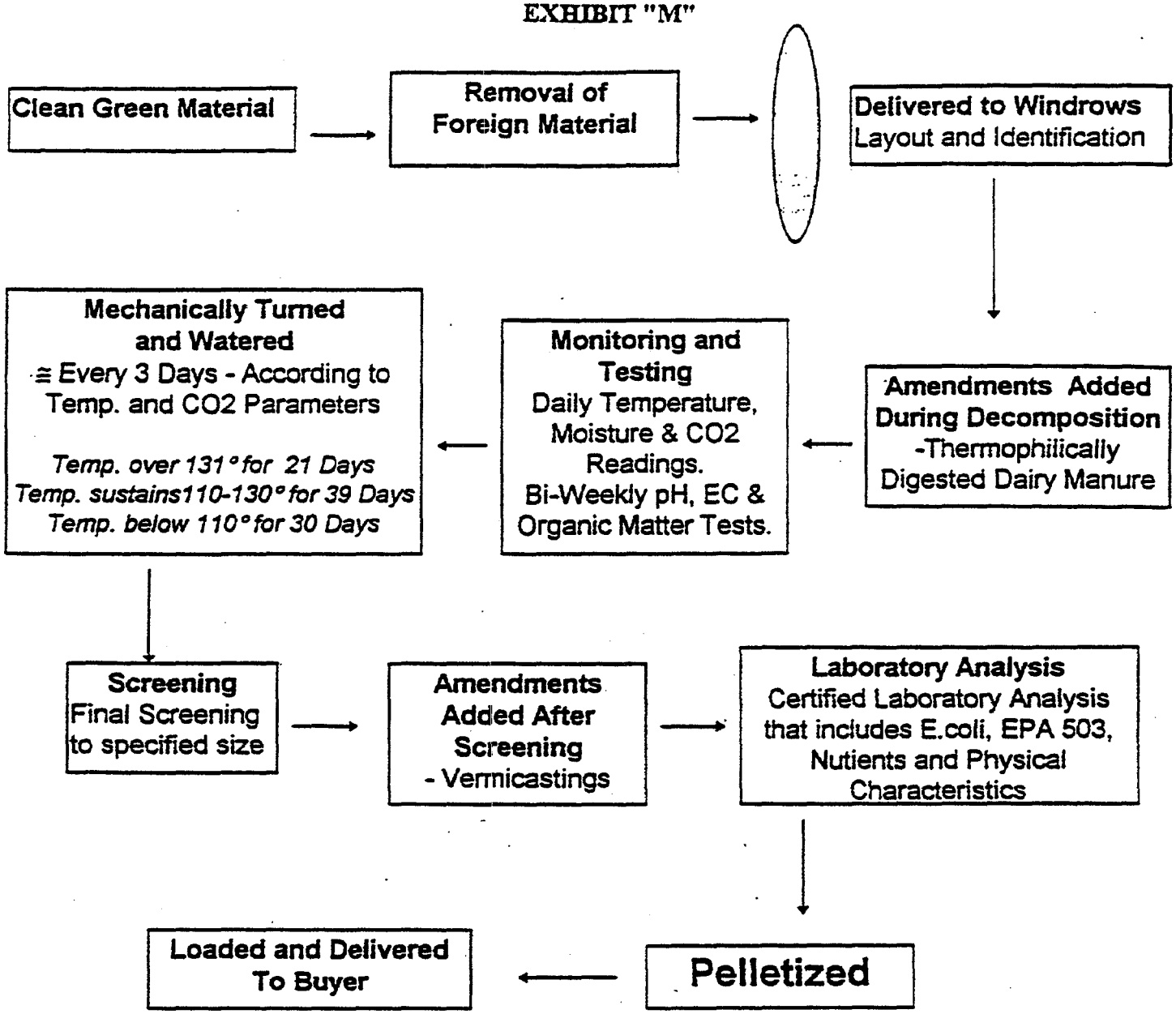


VERMITEX

by

Biorecycling Technologies, Inc.

EXHIBIT "M"



NUTRIPELLETS

by

Biorecycling Technologies, Inc.

EXHIBIT "N"

Biorecycling Technologies Inc

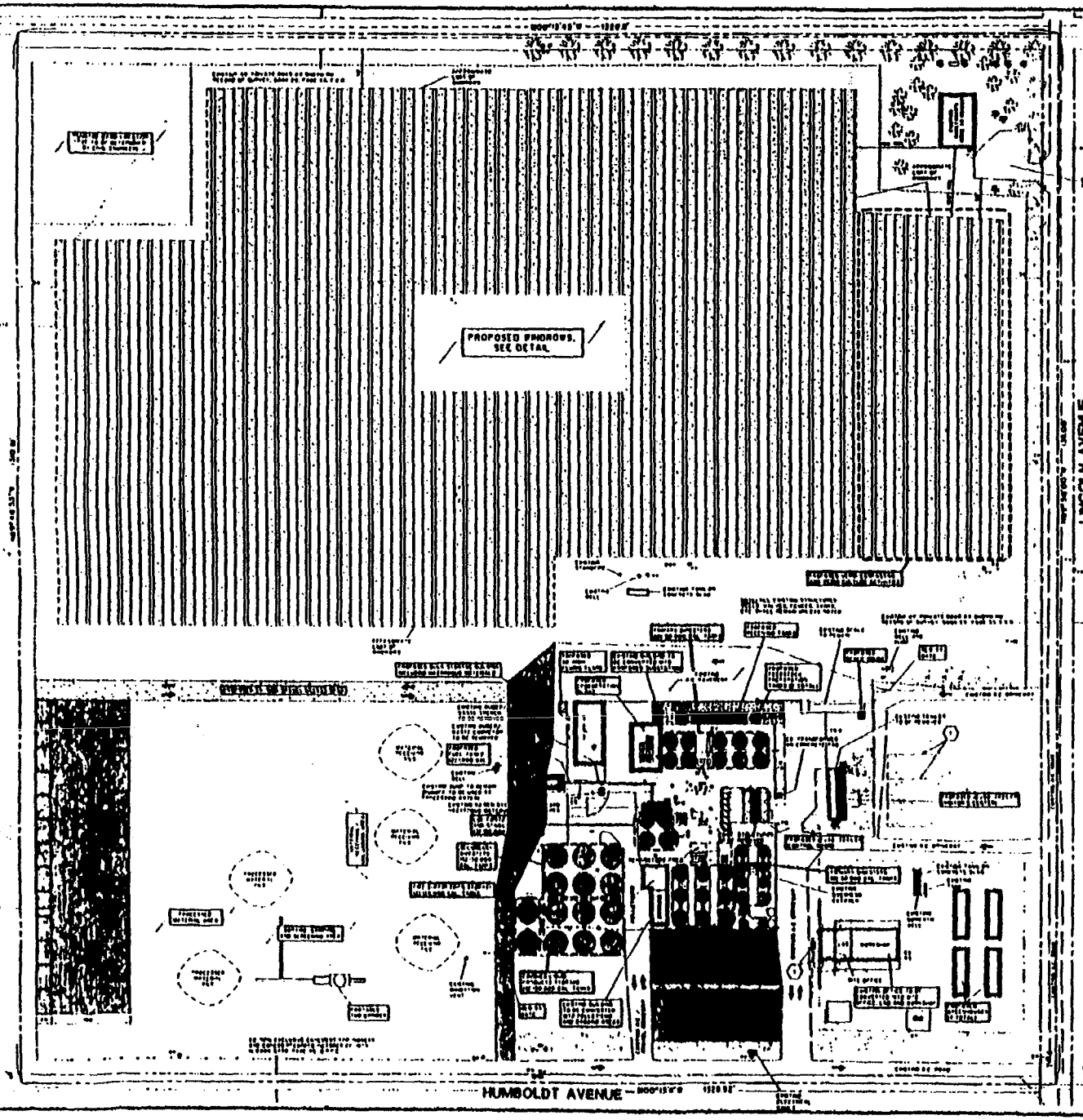
Pile ID: 510629-M

Category ID: Finished Produts Product Name: Altex

Location : A3n Units In Stock: 655

Date	Turn	CO2-1	CO2-2	Temperatures				pH	EC	TS	OM	Keyword	Details
23-Jul-96		4	9	152	148	143	140						
02-Dec-96		1	1	98	100	104	114						
13-Nov-96				124	120	124	122						
16-Sep-96		20	20	152	162	150	154						
15-Nov-96													
18-Nov-96				120	120	124	130						
19-Nov-96		6	8	124	122	122	124						
20-Nov-96				120	126	124	110						
21-Nov-96		2	3	136	132	128	120						
25-Nov-96		4	2	102	94	118	120						
20-Sep-96		20	20	146	138	146	144						
27-Nov-96				90	104	118	122						
12-Nov-96		6	3	122	132	136	132						
26-Aug-96													LOF X1
04-Sep-96													LOF X2
16-Sep-96													Combined 510626-1, 5106
05-Aug-96								6.9	3.1	73			
16-Aug-96								7.2	5	72			
21-Aug-96								6.9	3.3	69			
27-Aug-96											47.8		
28-Aug-96								7.5	2.5	66			
04-Sep-96								7.7	2.7	52			
12-Sep-96								7.8	3.9	58			
26-Nov-96		2	1	112	120	120	114						
21-Oct-96		12	10	124	120	122	120						
07-Oct-96				110	120	122	136						
08-Oct-96	1	6	20	94	104	122	128						
09-Oct-96		17	20	100	120	130	128						
10-Oct-96		20	20	130	138	136	128						
11-Oct-96		20	20	124	130	132	130						
14-Oct-96	1	18	15	138	130	134	130						
15-Oct-96				130	130	134	130						
16-Oct-96		19	20	138	140	128	130						
14-Nov-96		7	4	120	124	116	120						
18-Oct-96	1	20	20	132	130	126	130						
11-Nov-96		9	4	120	124	124	130						
22-Oct-96		11	10	124	122	130	130						
23-Oct-96				100	124	122	120						
24-Oct-96		20	20	130	132	140	136						
25-Oct-96		14	18	130	132	134	140						
28-Oct-96				120	122	110	124						
30-Oct-96	1			110	112	114	94						
01-Nov-96				122	92	114	128						
05-Nov-96		3	4	120	100	122	130						
06-Nov-96				120	124	110	122						

EXHIBIT "4"



SITE PLAN
CUP 2798 / SPR 6782

PREPARED FOR:

BIORECYCLING TECHNOLOGIES INC.

SCALE: 1" = 60'

NORTH

BASIS OF BEARINGS

LEGEND

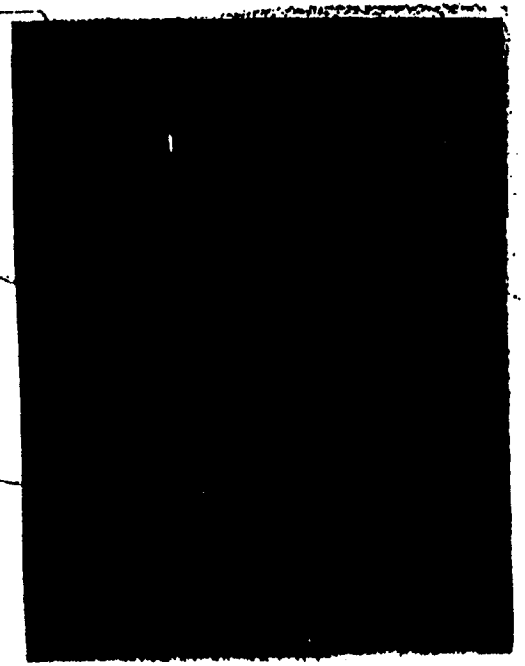
PRELIMINARY

EQUIPMENT SCHEDULE

Michael Sutherland and Associates
LAND SURVEYING & CIVIL ENGINEERING SERVICES

EXHIBIT C

VICINITY MAP



REV	DATE	DESCRIPTION	APPROVED

CUP NO. 2798
SPR NO. 6782

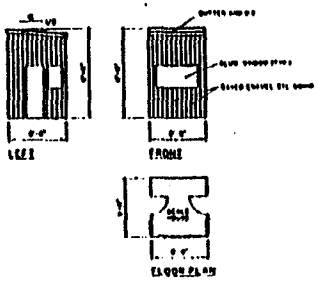
PREPARED FOR:

BIORECYCLING TECHNOLOGIES INC.

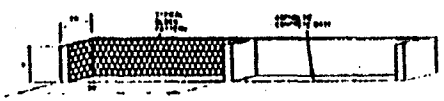
GENERAL NOTES

TYPICAL WINDROW SECTION

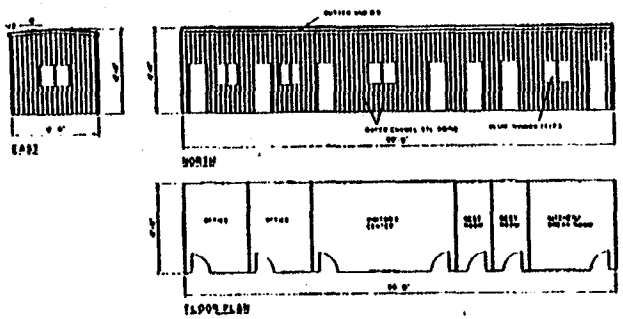
PROPOSED SCALE HOUSE



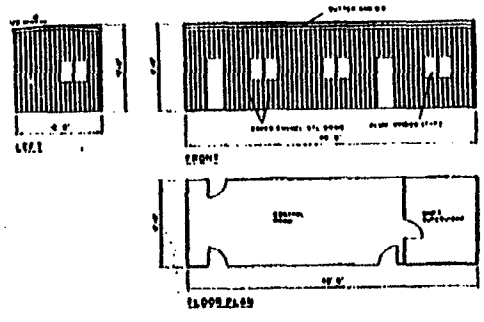
MATERIAL STORAGE BUNKERS



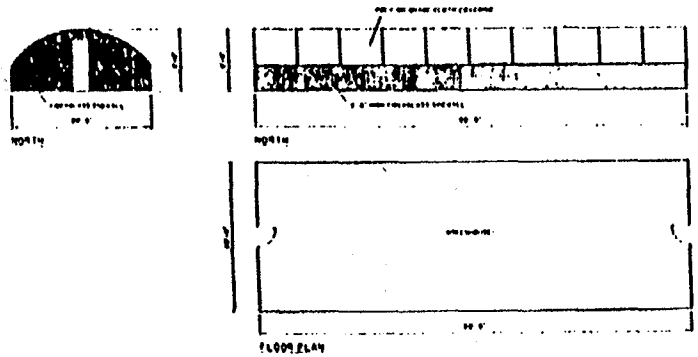
PROPOSED VISITOR'S CENTER



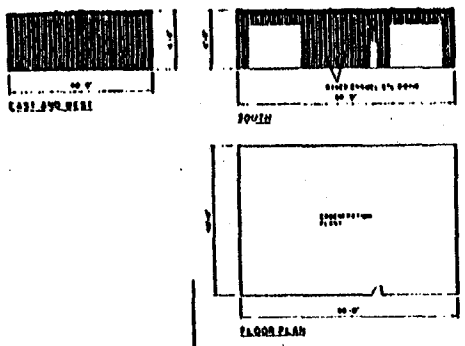
PROPOSED CONTROL ROOM



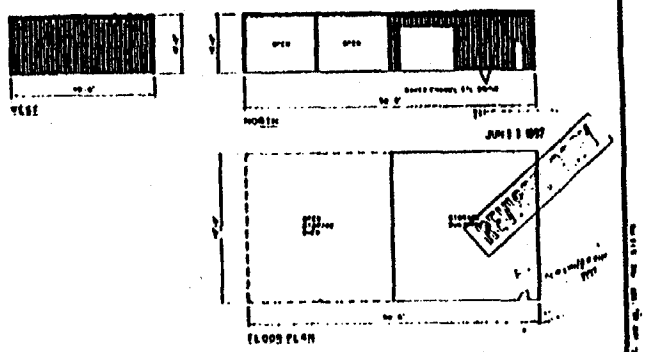
PROPOSED GREENHOUSE



PROPOSED COGENERATION PLANT



PROPOSED SOLID PRODUCTS STORAGE BUILDING



Michael Sutherland and Associates
LAND SURVEYING & CIVIL ENGINEERING SERVICES

EXHIBIT "6"

Environmental Assessment/Initial Study
Environmental Assessment Application No. 4330
Conditional Use Permit Application No. 2798
(Biorecycling Technologies, Inc.)

This discussion is keyed to the attached Environmental Checklist Form prepared for this project and based on the comments received during the Environmental Assessment process.

Project Description

The project proposes to allow a commercial fertilizer processing facility (conversion of an existing winery) including an associated composting operation, biomass-fueled electrical power cogeneration plant and commercial worm farm on a 40-acre parcel in the AE-20 Zone District, located on the west side of the Humboldt Avenue alignment, one mile south of American Avenue, between Lake and Madera Avenues in Fresno County.

2. a. Air Quality

The San Joaquin Valley Unified Air Pollution Control District stated the entire San Joaquin Valley is nonattainment for ozone and fine particulate matter (PM-10) and, although this project alone would not generate significant air emissions, the increase in emissions from this project and others like it, would cumulatively reduce the air quality in the San Joaquin Valley. Thus, the project would make it more difficult to meet mandated emissions reductions and air quality standards. The District noted that the development phase of the project will be subject to certain aspects of District Regulation VIII, a series of rules designed to reduce PM-10 emissions resulting from human activity. With adherence to the District's Regulation VIII, permitting requirements, and measures related to handling of asbestos, no signifcant impacts are anticipated. The District stated that the project would not have a significant adverse impact on air quality.

2. b. Odors

The San Joaquin Valley Unified Air Pollution Control District requested the County to consider the potential for this project to generate objectionable odors if not operated properly.

The Fresno County Community Health Department has indicated that the potential for objectionable odors generated by the composting operation will be adequately addressed by criteria and operational/management methods identified by the applicant in the Report of Compost Site Information. These criteria will be incorporated into the required Solid Waste Facilities Permit.

3. j. Water Quality

The Fresno County Community Health Department has determined that the criteria and operational/management methods outlined in the required Report of Compost Site Information will adequately mitigate potential impacts relating to water quality. The information provided in the Report will also ensure that the Environmental Health Standards found in Title 14, California Code of Regulations, Division 7, Chapter 3.1 are implemented.

Based upon the Report of Waste Discharge which has been submitted to the California Regional Water Quality Control Board, Waste Discharge Requirements may be required through the District's mandatory permitting process. Mandatory compliance with those Waste Discharge Requirements will reduce potential water quality impacts to a level of insignificance.

4. a./5 a. and d. Plant Life/Animal Life

The California Department of Fish and Game (DFG) identified the potential for impacts to wetlands and related wildlife resources on the project site. The applicant provided additional information verified by the USDA-Natural Resources Conservation Service indicating that no wetlands exist on the property.

6. a. Noise

The Fresno County Community Health Department identified the potential for an increase in noise levels resulting from this project. The applicant submitted reference noise level information which was based upon occupational noise level standards. Based upon calculations derived from this information, the Department anticipates that potential noise impacts will not be significant. However, in order to ensure that the operation of the facility complies with the Fresno County Noise Ordinance, the applicant has agreed to mitigation measures requiring acoustical testing; additional mitigation as approved by the Department; maintenance of equipment per the manufacturer's specifications; installation of mufflers on all noise generating equipment during the construction phase; installation of mufflers on all mechanical equipment associated with the daily operation; and limits on the hours of operation.

13. c. Transporation/Circulation

The Design Division of the Fresno County Public Works & Development Services Department identified potential impacts related to an increase in truck traffic on County roadways and left-turn movements into the project site. The applicant provided Traffic Index calculations and a left-turn analysis from American Avenue to the Humboldt Avenue alignment which is the proposed entrance to the project. Based upon this additional information, the County's Design Division determined that the truck traffic that would be generated from this project would not have a significant impact on County roadways.

16. c. Utilities/Water

The Fresno County Community Health Department identified a potential impact related to the quality of drinking water. This concern has been addressed with the mandatory requirement that a permit to operate a Public Water System be obtained from the Department and water quality results meeting all applicable standards be submitted to the Department prior to occupancy of the facility.

16. f. Utilities/Solid Waste and Disposal

Impacts related to the composting of waste have been addressed under 2.a. and b., (Air Quality) and 3.j. (Water Quality), above. The Fresno County Community Health Department has determined that the project is subject to the Gap review process, pursuant to Section 50000(a) of the Public Resources Code.

Conclusion

Based on this assessment, the Environmental Analysis Staff has concluded that preparation of an Environmental Impact Report is not required. A Notice of Intent of Mitigated Negative Declaration was published on June 20, 1997. Approval of the Mitigated Negative Declaration is recommended and is subject to approval by the decision-making body.

MM:mm
G:\DEVS&PLN\EA\WRITE-UP\EA4330.WUP

MITIGATION MEASURES
Environmental Assessment Application No. 4330
Conditional Use Permit Application No. 2798
(Applicant: Biorecycling Technologies, Inc.)

The following mitigation measures have been specifically applied to mitigate potential adverse environmental effects identified in the above environmental document. A change in these conditions may affect the validity of the current environmental document, and a new or amended environmental document may be required. These mitigation measures must be included as project conditions and must be identified with an asterisk (*) so they can be readily identified as mitigation measures for this Negative Declaration.

*1. Within 30 days of the start of operation, an acoustical consultant selected by the applicant and approved by the Fresno County Community Health Department, shall conduct an acoustical analysis of the facility to prove conformance with the Fresno County Noise Ordinance. The acoustical analysis shall be submitted to the Department for review and acceptance.

*2. If the acoustical analysis indicates that noise levels exceed the limits of the Fresno County Noise Ordinance, additional mitigation measures, as recommended by the acoustical consultant and approved by the Fresno County Community Health Department, shall be added to the project within 60 days of acceptance of the analysis to ensure conformance with the Fresno County Noise Ordinance.

*3. During the construction phase, all noise generating equipment shall be maintained according to the manufacturer's specifications, and shall be equipped with mufflers. This latter requirement shall also apply to all mechanical equipment utilized as a part of the daily operation of the facility.

*4. The hours of operation of the facility, including truck travel, shall be limited to 7:00 a.m. to 5:00 p.m., with the exception of the operation of the primary digester, which shall be allowed to operate 24 hours a day provided it is fully enclosed.

ENVIRONMENTAL CHECKLIST FORM
(To Be Completed By Lead Agency)

I. Background

1. Name of Proponent Biorecycling Technologies, Inc.

II. Environmental Impacts

(Explanations of all "yes" and "maybe" answers are required on attached sheets.)

	Yes	Maybe	No
1. Earth. Will the proposal result in:			
a. Unstable earth conditions or in changes in geologic substructures?	____	____	/
b. Disruptions, displacements, compaction or overcovering of the soil?	____	____	/
c. Change in topography or ground surface relief features?	____	____	/
d. The destruction, covering or modification of any unique geologic or physical features?	____	____	/
e. Any increase in wind or water erosion of soils, either on or off the site?	____	____	/
f. Changes in deposition or erosion of beach sands, or changes in siltation, deposition or erosion which may modify the channel of a river or stream or the bed of the ocean or any bay, inlet or lake?	____	____	/

	Yes	Maybe	No	
g. Exposure of people or property to geologic hazards such as earthquakes, landslides, mud-slides, ground failure, or similar hazards?	___	___	✓	
2. Air. Will the proposal result in:				
a. Substantial air emissions or deterioration of ambient air quality?	___	___	✓	*
b. The creation of objectionable odors?	___	___	✓	*
c. Alteration of air movement, moisture, or temperature, or any change in climate, either locally or regionally?	___	___	✓	
3. Water. Will the proposal result in:				
a. Changes in currents, or the course of direction of water movements, in either marine or fresh waters?	___	___	✓	
b. Changes in absorption rates, drainage patterns, or the rate and amount of surface runoff?	___	___	✓	
c. Alterations to the course or flow of flood waters?	___	___	✓	
d. Change in the amount of surface water in any water body?	___	___	✓	

* See attached discussion

	Yes	Maybe	No
e. Discharge into surface waters, or in any alteration of surface water quality, including but not limited to temperature, dissolved oxygen or turbidity?	____	____	____
f. Alteration of the direction or rate of flow of ground waters?	____	____	✓
g. Change in the quantity of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations?	____	____	✓
h. Substantial reduction in the amount of water otherwise available for public water supplies?	____	____	✓
I. Exposure of people or property to water related hazards such as flooding or tidal waves?	____	____	✓
j. Change in the quality of ground water?	____	____	✓ *

4. Plant Life. Will the proposal result in:

a. Change in the diversity of species, or number of any species of plants (including trees, shrubs, grass, crops, and aquatic plants)?	____	____	✓ *
b. Reduction of the numbers of any unique, rare or endangered species of plants?	____	____	✓

* See attached discussion

	Yes	Maybe	No
c. Introduction of new species of plants into an area, or in a barrier to the normal replenishment of existing species?	____	____	✓
d. Reduction in acreage of any agricultural crop?	____	____	✓ ____
5. Animal Life. Will the proposal result in:			
a. Change in the diversity of species, or numbers of any species of animals (birds, land animals including reptiles, fish and shellfish, benthic organisms or insects)?	____	____	✓ *
b. Reduction of the numbers of any unique, rare or endangered species of animals?	____	____	✓
c. Introduction of new species of animals into an area, or result in a barrier to the migration or movement of animals?	____	____	✓ ____
d. Deterioration to existing fish or wildlife habitat?	____	____	✓ *
6. Noise. Will the proposal result in:			
a. Increases in existing noise levels?	____	____	✓ *
b. Exposure of people to severe noise levels?	____	____	✓

* See attached discussion

	Yes	Maybe	No
7. **Light and Glare.** Will the proposal produce new light or glare?	____	____	✓
8. **Land Use.** Will the proposal result in a substantial alteration of the present or planned land use of an area?	____	____	✓
9. **Natural Resources.** Will the proposal result in:			
a. Increase in the rate of use of any natural resources?	____	____	✓
10. **Risk of Upset.** Will the proposal involve:			
a. A risk of an explosion or the release of hazardous substances (including, but not limited to, oil, pesticides, chemicals or radiation) in the event of an accident or upset conditions?	____	____	✓
b. Possible interference with an emergency response plan or an emergency evacuation plan?	____	____	✓
11. **Population.** Will the proposal alter the location, distribution, density, or growth rate of the human population of an area?	____	____	✓
12. **Housing.** Will the proposal affect existing housing, or create a demand for additional housing?	____	____	✓

	Yes	Maybe	No
13. **Transportation/Circulation.** Will the proposal result in:			
a. Generation of substantial additional vehicular movement?	___	___	✓
b. Effects on existing parking facilities, or demand for new parking?	___	___	✓
c. Substantial impact upon existing transportation systems?	___	___	✓ *
d. Alterations to present patterns of circulation or movement of people and/or goods?	___	___	___
e. Alterations to waterborne, rail or air traffic?	___	___	✓
f. Increase in traffic hazards to motor vehicles, bicyclists or pedestrians?	___	___	___
14. **Public Services.** Will the proposal have an effect upon, or result in a need for new or altered governmental services in any of the following areas:			
a. Fire protection?	___	___	✓
b. Police protection?	___	___	✓
c. Schools?	___	___	✓
d. Parks or other recreational facilities?	___	___	/

* See attached discussion

	Yes	Maybe	No
e. Maintenance of public facilities, including roads?	____	____	✓
f. Other governmental services?	____	____	✓
15. Energy. Will the proposal result in:			
a. Use of substantial amounts of fuel or energy?	____	____	✓
b. Substantial increase in demand upon existing sources or energy, or require the development of new sources of energy?	____	____	✓
16. Utilities. Will the proposal result in a need for new systems, or substantial alterations to the following utilities:			
a. Power or natural gas?	____	____	✓
b. Communication systems?	____	____	✓
c. Water?	____	____	✓ *
d. Sewer or septic tanks?	____	____	✓
e. Storm water drainage?	____	____	✓
f. Solid waste and disposal?	____	____	✓ *

* See attached discussion

	Yes	Maybe	No
17. **Human Health.** Will the proposal result in:			
a. Creation of any health hazard or potential health hazard (excluding mental health)?	____	____	✓
b. Exposure of people to potential health hazards?	____	____	✓
18. **Aesthetics.** Will the proposal result in the obstruction of any scenic vista or view open to the public, or will the proposal result in the creation of an aesthetically offensive site open to public view?	____	____	✓
19. **Recreation.** Will the proposal result in an impact upon the quality or quantity of existing recreational opportunities?	____	____	✓
20. **Cultural Resources.**			
a. Will the proposal result in the alteration of or the destruction of a prehistoric or historic archaeological site?	____	____	✓
b. Will the proposal result in adverse physical or aesthetic effects to a prehistoric or historic building, structure or object?	____	____	✓

	Yes	Maybe	No
c. Does the proposal have the potential to cause a physical change which would affect unique ethnic cultural values?	____	____	✓
d. Will the proposal restrict existing religious or sacred uses within the potential impact area?	____	____	✓

21. **Mandatory Findings of Significance.**

a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	____	____	✓
b. Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals? (A short-term impact on the environment is one which occurs in a relatively brief, definitive period of time while long-term impacts will endure well into the future.)	____	____	✓

	Yes	Maybe	No
c. Does the project have impacts which are individually limited, but cumulatively considerable? (A project may impact on two or more separate resources where the impact on each resource is relatively small, but where the effect of the total of those impacts on the environment is significant.)	____	____	____ /
d. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	____	____	____ /

DESCRIPTION OF THE PROPOSED ACTION: SUPPLEMENTAL INFORMATION

DIRK POESCHEL
Land Development Services
2310 Tulare Street, Suite 105 • Fresno, California 93721
209/445-0374 • FAX: 209/445-0551

April 28, 1997

Ms. Margie McHenry, Staff Analyst
Fresno County
Public Works & Development Services Department
2220 Tulare Street
Fresno, CA 93721

SUBJECT: Biorecycling Technologies, Inc. (BTI); EA No. 4330, CUP No. 2798 and SPR No. 6782

Dear Ms. McHenry:

Reference is made to your recent correspondences to me regarding the subject applications for my client, BTI. Said correspondences are dated March 25, April 3, April 4 and April 9, 1997. For ease of reference, I will discuss each correspondence separately.

March 25, 1997

- BTI has conditionally agreed to install a left-turn lane on the American Avenue entrance to the project at the Humboldt Avenue alignment. Therefore, a left-turn analysis will no longer be necessary.

- On April 8, 1997, I met with Mr. Stan Nakagawa from your design division. Mr. Nakagawa calculated the Traffic Index (TI) with and without the subject project. Enclosed for your review (Sheet 1) are Mr. Nakagawa's TI calculations for said project. He stated that the project TI is less than .1. With said turn lane improvements, no further analysis is necessary.

- Also discussed at the aforementioned meeting with Mr. Nakagawa, was the clarification for the traffic on American Avenue. The project Operational Statement (pg. 45) should refer to the traffic *west* of Humboldt Avenue instead of Manning Avenue.

April 3, 1997

- Per the request by the California Department of Fish and Game, Mr. Bob Winter has reviewed the site to determine if any biological or botanical resources exist on the property. Mr. Winter has determined that no such biological or botanical resources exist on the property. A letter indicating Mr. Winter's findings was recently submitted to Fresno County. Mr. Winter also met with Ms. Donna

Daniels of the Department of Fish and Game on April 10, 1997, regarding this matter.

- BTIs operation will be continuous and year-round. As indicated on page 12 of the project Operational Statement, the hours of operation relative to *receiving materials* will be from 7:00 a.m. to 5:00 p.m. Monday through Saturday. Said receiving will occur approximately 300 days per year.

- The proposed sign referred to on page 11 of the project Operational Statement is planned to be located at various locations on the property as required by state and local ordinance. Said sign is to provide contact/operational information regarding the site. In addition, a sign at the entrance to the project will be constructed which will be no greater than 40 square feet. All signs will be as permitted in the Fresno County Zoning Ordinance.

- As indicated on page 1 of the project Operational Statement, Mr. Massud (Mike) S. Nury is the current property owner of the site. Enclosed for your reference is a letter from Mr. Nury stating that he is the current property owner of the subject property. Said letter also authorizes BTI to apply for the subject request on the site.

- As requested by the California Energy Commission, the maximum power that will be produced at the site, as a result of the subject application, will be approximately 1 megawatt (mw). At this maximum production of 1 mw, the facility will use approximately 500 kilowatts (kw) of power, and the facility will therefore have approximately 500 kw available for sale to the local utility company.

  On average, the site will produce approximately 650 kw, the facility will use approximately 500 kw, and the facility will therefore have approximately 150 kw on average for sale to the local utility company. It is also worth noting the California Energy Commission has invested in the subject proposal under the ETAP program. Mr. Dara Salour is the contact person for the California Energy Commission and can be reached at (916) 653-2922.

<u>April 4, 1997</u>

- The following calculations demonstrate that the facility can handle a maximum of 1,000 tons per day of incoming feedstock.

  Greenwaste: Maximum of 600 tons per day @ 10 hours per day = 60 tons per hour to grind.

The tubgrinder can process 600 tons per day or 60 tons per hour. Any excess greenwaste will be processed during the following day(s) when average volumes of greenwaste (300 tons per day) are received. Although the tubgrinders can process up to 60 tons per hour, it is unlikely that this volume of greenwaste will ever be produced in one day.

Manure: 400 tons per day @ 24 hours per day
= 16.6 tons per hour

The manure is processed through an anaerobic digester system which operates 24 hours per day. Manure is delivered to a receiving tank upon arrival to the site. The tank feeds the digesters and related equipment which can handle these maximum loads.

- The proposed hours and days of operation for each part of the project are as follows:

  - **Receipt of Materials:** 7:00 a.m. to 5:00 p.m. Monday through Saturday
  - **Primary Plant Process:** 24 hours per day
  - **Secondary Plant Process:** 7:00 a.m. to 5:00 p.m. Monday through Saturday
  - **Composting Operations:** 7:00 a.m. to 5:00 p.m. Monday through Saturday
  - **Handling of Finished Products:** 7:00 a.m. to 5:00 p.m. Monday through Saturday
  - **Vermiculture Activities:** 7:00 a.m. to 5:00 p.m. Monday through Saturday
  - **Composting Fertilizer Operation:** 7:00 a.m. to 5:00 p.m. Monday through Saturday
  - **Liquid and Pellitized Fertilizer Operations:** 24 hours per day.

  For ease of reference, the primary and secondary plant processes are more particularly defined in the project Operational Statement as Exhibits "F" and "G," respectively. Exhibit "D" illustrates the general flow diagram of the BTI process.

- BTI proposes that it will take no more than one (1) day for backup equipment to arrive at the site for all types of the equipment.

- The approximate length of operating time per day at the full capacity of 1,000 tons per day will be 7:00 a.m. to 5:00 p.m. Monday through Saturday for the secondary process and 24 hours per day for the primary process.

- Various measures are available to prevent upsets within the vermicomposting and vermiculture activities. For instance, if the feeder truck breaks down, the worms may be fed by other on-site equipment such as the front-end loader or the bob cat. The worms are monitored on a regular basis to ensure that they are healthy. The health of the worms is exhibited in their reproduction rate. In the instance that the worms die suddenly, the cause will be determined and the situation remedied. If necessary, new worms will be purchased and added to the culture.

- The vermicomposting and vermiculture activities will be located in the first 4 ½ pairs of windrows. These rows are directly west of the caretakers residence and are depicted on the enclosed revised site plans.

- Enclosed for your review are two (2) Water Well Drillers Reports that were obtained from the Department of Water Resources. As indicated on page 5 of the project Operational Statement, there are four water wells on the site. However, there are only two (2) Water Well Drillers Reports on record with the Department of Water Resources. BTI is in the process of completing a water study at the subject site. When it is complete, I will forward it to the appropriate agency.

- The Community Health Department, requested information relative to the potential noise impacts for the grinder, skip loader, screening machine, hopper/conveyor, tractor and windrow turner. Said information is directly below.

EQUIPMENT	LEVEL (Dba)
Grinder	105 dB @ 10'
Skip Loader	108 dB @ 10'
Screening Machine	95 dB @ 10'
Hopper/Conveyer	85 dB @ 10'
Tractor	88 dB @ 10'
Windrow Turner	107 dB @ 10'

Please see the proposed mitigation measures relative to noise impacts below. It is noted that most of the aforementioned equipment is designed with a glass cab enclosure to protect the workers from potential noise related impacts. In addition, the workers will be wearing protective ear wear as required by applicable regulations.

April 9, 1997

- As requested by the California Regional Water Quality Control Board, BSK & Associates is in the process of completing a Report of Waste Discharge (RWD) in order to evaluate the potential impacts to groundwater resources. Said RWD

should be completed by May 2, 1997, at which time it will be forward to the appropriate agency.

Proposed Mitigation Measures

The applicant offers the following mitigation measures relative to the subject project.

1. BTI shall install a left-turn lane on the American Avenue entrance to the project at the Humboldt Avenue alignment to allow stacking of one truck. Said stacking lane shall be constructed when 60 incoming one way truck trip ends per day are generated by the the project for 20 days per month for two consecutive months.

2. Prior to final occupancy, a noise study shall be performed by a qualified professional to assure that the subject project meets all applicable noise standards. If required, additional noise suppression measures will be installed on said project equipment to assure compliance with all applicable regulations.

3. Any mobile equipment with a manufacturers estimated noise level above 75 dB shall be limited to operating from 7:00 a.m. to 5:00 p.m. Monday through Saturday. All stationary equipment shall be shielded in such a way to reduce noise emissions to assure compliance with applicable standards.

I hope this information is of assistance to you. I believe that a negative declaration is now in order for the project. If you have any questions, please feel free to contact me.

Sincerely,

Dirk Poeschel

Dirk Poeschel

enclosures

cc: Mr. Chun F. Chin

/bci/applications/comments

PROJECT NO. 'EA No. 4330 - BIORECYCLING
LOCATION - American & Humboit

EXISTING ADT = 1767

No. of Axies	% of ADT	Commerical ADT	EWL Constant	Product
2 axie	13%	221	200	44175
3 axie	1%	23	690	15850
4 axie	4%	221	1070	71690
5 axie	2%	28	1700	48062
		Total Commercial		174555

EWL (10 Year)	2042294
EWL (20 Year)	4904996

Traffic Index (10 Year)	7.29
Traffic Index (20 Year)	8.10

SN:sn-ea4330Tl-disk:cd\stan .

PROJECT ADDENDUM LETTER Rec'd 6/9/97

DIRK POESCHEL
Land Development Services
2310 Tulare Street, Suite 105 • Fresno, California 93721
209/445-0374 • FAX: 209/445-0551

June 16, 1997

Mr. Will Kettler
Staff Analyst
Development Services Dept.
Fresno County
2220 Tulare Street
Fresno, CA 93721

SUBJECT: Biorecycling Technologies, Inc. (BTI); CUP No. 2798 & EA No. 4330

Dear Mr. Kettler:

Reference is made to the subject project currently being processed through the Development Services Department. Ms. Margie McHenry requested that I provide you with an addendum to the operational statement summarizing all of the additional information related to the project that was provided in response to various agency comments. That information is detailed below.

◊ BTI's operation will be continuous and year-round. As indicated on page 12 of the project Operational Statement, the hours of operation relative to *receiving materials* will be from 7:00 a.m. to 5:00 p.m. Monday through Saturday. Materials receiving will occur approximately 300 days per year.

◊ The proposed sign referred to on page 11 of the project Operational Statement is planned to be located at various locations on the property as required by state and local ordinance. The sign is required to provide contact/operational information regarding the site. In addition, a sign at the entrance to the project will be constructed which will be no greater than 40 square feet. All signs will be constructed as permitted in the Fresno County Zoning Ordinance.

◊ The maximum power that will be produced at the site from the cogeneration unit will be approximately 1 megawatt (mw) or 1000 kilowats (kw). At this maximum production of 1 mw, the facility will use approximately 500 kw of power, therefore making approximately 500 kw available for sale to the local utility company.

On average, the site will produce approximately 650 kw, the facility will use approximately 500 kw, therefore making on average approximately 150 kw for sale to the local utility company. It is also worth noting the California Energy

Commission has invested in the BTI project under ETAP (Energy Technologies Advancement Program). Mr. Dara Salour is the contact person for the California Energy Commission and can be reached at (916) 653-2922.

◊ The following calculations demonstrate that the facility can handle a maximum of 1,000 tons per day of incoming feedstock.

Greenwaste: Maximum of 600 tons per day @ 10 hours per day = 60 tons per hour to grind

The tubgrinder can process 600 tons per day or 60 tons per hour. Any excess greenwaste will be processed during the following day(s) when average volumes of greenwaste (300 tons per day) are received. Although the tubgrinders can process up to 60 tons per hour, it is unlikely that this volume of greenwaste will ever be produced in one day.

Manure: 400 tons per day @ 24 hours per day = 16.6 tons per hour

The manure is processed through an anaerobic digester system which operates 24 hours per day. Manure is delivered to a receiving tank upon arrival to the site. The tank feeds the digesters and related equipment which can handle these maximum loads.

◊ The proposed hours and days of operation for each element of the project are as follows:

- **Receipt of Materials:** 7:00 a.m. to 5:00 p.m. Monday through Saturday
- **Primary Plant Process:** 24 hours per day
- **Secondary Plant Process:** 7:00 a.m. to 5:00 p.m. Monday through Saturday
- **Composting Operations:** 7:00 a.m. to 5:00 p.m. Monday through Saturday
- **Handling of Finished Products:** 7:00 a.m. to 5:00 p.m. Monday through Saturday
- **Vermiculture Activities:** 7:00 a.m. to 5:00 p.m. Monday through Saturday

- **Composting Fertilizer Operation:** 7:00 a.m. to 5:00 p.m. Monday through Saturday
- **Liquid and Pellitized Fertilizer Operations:** 24 hours per day.

For ease of reference, the primary and secondary plant processes are more particularly defined in the project Operational Statement as Exhibits "F" and "G," respectively. Exhibit "D" illustrates the general flow diagram of the BTI process.

◊ In the event that back-up equipment is needed, BTI proposes that it will take no more than one (1) day for any needed equipment to arrive at the site.

◊ The approximate length of daily operating time at the full capacity of 1,000 tons per day will be 7:00 a.m. to 5:00 p.m. Monday through Saturday for the secondary (composting) process and 24 hours per day for the primary (manure) process.

◊ Various measures are available to prevent upsets within the vermicomposting and vermiculture activities. For instance, if the feeder truck breaks down, the worms may be fed by other on-site equipment such as the front-end loader or the bob cat. The worms are monitored on a regular basis to ensure that they are healthy. The health of the worms is exhibited in their reproduction rate. In the instance that the worms die suddenly, the cause will be determined and the situation remedied. If necessary, new worms will be purchased and added to the culture.

◊ The vermicomposting and vermiculture activities will be located in the first 4 ½ pairs of windrows. These rows are directly west of the caretakers residence and are depicted on the project site plan.

◊ There are four water wells on the site. BTI has tested the well proposed to be used for domestic purposes. The sample results indicate that the water meets the standards for a domestic system. The test results were forwarded to Development Services and the Health Department for their records.

◊ Information relative to the potential noise impacts from the grinder, skip loader, screening machine, hopper/conveyor, tractor and windrow turner is provided below.

EQUIPMENT	LEVEL (Dba)
Grinder	105 dB @ 10'
Skip Loader	108 dB @ 10'
Screening Machine	95 dB @ 10'
Hopper/Conveyer	85 dB @ 10'
Tractor	88 dB @ 10'
Windrow Turner	107 dB @ 10'

It is noted that most of the aforementioned equipment is designed with a glass cab enclosure to protect the workers from potential noise related impacts. In addition, the workers will be wearing protective ear wear as required by applicable regulations.

◊ A Report of Waste Discharge (RWD) has been prepared and submitted to the California Regional Water Quality Control Board (CRWQCB) to evaluate the potential impacts to groundwater resources. The CRWQCB will adopt waste discharge requirements for the project to ensure the protection of ground water.

◊ Groundwater is located at approximately 200 feet from the surface. The reference to 200 feet in the operational statement does not refer to the geographic elevation of the groundwater. The National Weather Service indicated that the annual average rainfall in the vicinity of the project is 10 inches. The prevailing winds in the area are northwest winds.

I hope this information is of assistance to you in preparing your staff report. If you have any questions or need any additional information, please feel free to contact me.

Sincerely,

Jeff Sorensen

cc: Mr. Chun Chin

bti/applications/kettler letter

DIRK POESCHEL
Land Development Services
2310 Tulare Street, Suite 105 • Fresno, California 93721
209/445-0374 • FAX: 209/445-0551

June 6, 1997

Ms. Marcia Kiesse
Environmental Review Section
Permit Branch
Permitting and Enforcement Division
California Integrated Waste Management Board
8800 M/S 24 Cal Center Drive
Sacramento, CA 95826

SUBJECT: SCH No. 97052074 Initial Study and Draft Negative Declaration for Biorecycling Technologies, Inc. (BTI), (10-AA-0184) located at 18559 W. Lincoln Avenue in Kerman, County of Fresno

Dear Ms. Kiesse:

Reference is made to your memorandum to Ms. Angel Howell of the State Clearinghouse and Ms. Margie McHenry of the County of Fresno regarding the subject BTI project. In your memorandum, you requested additional information related to the proposed project. The following information is provided in response to your comments.

- ☐ *In describing the geographic setting, it would be helpful if the final document: 1) clarified whether "Groundwater is located at approximately 200 feet" refers to the depth to groundwater or its elevation; and 2) Provided prevailing wind direction and rainfall data.*

The description of groundwater being located at approximately 200 feet refers to the depth to groundwater from the surface. It does not refer to the geographic elevation of the groundwater. I researched, through the National Weather Service, information related to area wind direction and rainfall data. The National Weather Service indicated that the annual average rainfall in the vicinity of the project is 10 inches. The prevailing winds in the area are northwest winds.

- ☐ *Please provide a scaled site plan which includes the locations of the entrance gate, windrow layout, location of emergency response equipment, etc.*

Enclosed with this packet, please find a copy of a scaled project site plan which provides you with the location of all existing and proposed improvements as required to develop the BTI site. The entrance gates, windrow layout, location of fire hydrants, water tanks, etc., are detailed on the enclosed site plan.

- *Public Resources Code Section 21081.6(b) requires the public agency to "provide that measures to mitigated or avoid significant effects on the environment are fully enforceable through permit conditions, agreements, or other measures." Please specify which mitigation measures must be placed in the SWFP. The Local Enforcement Agency representative for Fresno County, Mr. Steven Rhodes. He may be reached at (209) 445-3380.*

I spoke with Mr. Steven Rhodes, the Local Enforcement Agency Representative for Fresno County, regarding specifying the mitigation measures in the Solid Waste Facilities Permit. Mr. Rhodes indicated that the BTI project would require a standardized permit and that the mitigation measures for all projects qualifying for a Solid Waste Facilities Permit are the same and are included in the permit. It is our understanding that there is no latitude in deleting or adding mitigation measures or conditions of approval to a Standardized Solid Waste Facilities Permit. There will be mitigation measures and conditions of approval that will be required as part of the Conditional Use Permit approval. It is our understanding that these mitigation measures and conditions of approval will be provided for our review prior to the project being considered by the Fresno County Planning Commission. BTI will be required to comply with all project related mitigation measures and conditions which will be provided by Fresno County in the next few weeks.

We appreciate your expeditious response to the BTI project. If you have any further comments or questions in regard to the BTI proposal, please do not hesitate to call me. Again that you for consideration of this project.

Sincerely,

Jeff Sorensen

cc: Mr. Chun F. Chin
Ms. Margie McHenry
Ms. Angel Howell
Mr. Steve Rhodes

APPENDIX C
AGENCY REVIEW AND PUBLIC INVOLVEMENT

I. Wetland Delineation and Wildlife Survey
II. Comments Received From Regional, State and Local Agencies
III. Public Hearing Notice and Property Owners in the Vicinity

I. Wetland Delineation and Wildlife Survey

United States Department of Agriculture
Natural Resources Conservation Service
4974 E. Clinton Way, Ste. 114
Fresno, CA 93727
(209) 252-2191

May 13, 1997

Margie McHenry
Fresno County Public Works & Development Services Dept.
2220 Tulare Street, Sixth Floor
Fresno, CA 93721

RE: Environmental Assessment No. 4330
Biorecycling Technologies

Dear Ms. McHenry,

In response to a letter from the California Department of Fish and Game expressing concern regarding possible wetlands on the site referenced above, I conducted an on-site inspection to determine wetland status on May 9, 1997.

I was especially interested in the depressional area in the north half of Section 9, just south of Lincoln Ave. A portion of this depression extends into the project site as shown on Exhibit "B" of the Environmental Assessment application packet. This depression is mapped as an intermittent pond on the Kerman Quadrangle topographic map and as a playa in the Eastern Fresno Area Soil Survey. The Playa soil map unit is considered hydric.

I located the depressional area in the field and documented the dominant plant species occurring there according to the methodology outlined in the 1987 Army Corps of Engineers Wetlands Delineation Manual. Based on this information, I concluded that the area does not support hydrophytic vegetation, and therefore cannot be considered a wetland. Apparently, modification of the area's hydrology has occurred due to leveling of the surrounding land for vineyards and the winery and road construction.

I hope this information is helpful to you. If further information or documentation is needed, please contact me at the letterhead address or phone number.

Sincerely,

Karen L. Fullen
Biologist

cc: Mitch Hayden, Army Corps of Engineers
Frank Menezes, NRCS District Conservationist
Jeff Sorenson, Dirk Poeschel Land Development Services

DEPARTMENT OF FISH AND GAME
REGION 4
1234 East Shaw Avenue
Fresno, California 93710
(209) 243-4014

March 28, 1997

Ms. Margie McHenry
County of Fresno
2220 Tulare Street, Sixth Floor
Fresno, California 93721

Dear Ms. McHenry:

Environmental Assessment No. 4330
Biorecycling Technologies

We have reviewed the Project described in the Environmental Assessment referenced above. The Project includes development of a biorecycling facility on a 40-acre portion of a 480-acre parcel located at 18559 W. Lincoln Avenue. Fresh cow manure and green waste material from Fresno County will be converted to fertilizers, peat moss substitutes, mulches and soil conditioners. Earthworms will also be "farmed" at the site.

Though it is unlikely that significant wildlife resources exist on developed areas of the site, our records indicate that wetlands had been documented on the site as recently as 1982. We recommend that prior to making an environmental determination on this Project, the applicant should provide a wetland delineation of the site. Delineations may be obtained from the Natural Resource Conservation Service or from qualified private individuals. If appropriate, the delineation should be verified by the Army Corps of Engineers. We would also like to know how the remaining 440 acres will be used and we would like to review a copy of the site plan.

If you have any questions regarding these comments please contact Ms. Donna Daniels, Environmental Specialist III, at the address or telephone number provided on this letterhead.

Sincerely,

for George D. Nokes
Regional Manager

April 14, 1997

To: Dirk Poeschel Land Development Services

Attn: Jeff Sorenson

Concerning: Noble Winery Site San Joaquin, Calif.

I made two trips to the site April 7, 1997 in daylight and April 8, 1997 from 9pm to 11:30pm.

There is no evidence at this time of a wetlands. The approximately 30 acres, that are not paved, have been modified by discing etc. Most of the vegetation occurring now is introduced Mediterranean grasses. There are no native plants of biological significance.

The animal life observed was Jack rabbits, Cottontail rabbits, Gopher snakes, Side Blotched lizards, and a population of Kangaroo rats, Dipodomys heermani. Upon checking with Donna Daniels, C.F. & G.j there is no protection afforded this species.

The majority of the surrounding land is highly developed into vineyards. Further development of the site will not endanger rare wildlife or habitat.

Robert F. Winter
Field Biologist

II. Comments Received From Regional, State and Local Agencies

State of California

GOVERNOR'S OFFICE OF PLANNING AND RESEARCH

1400 TENTH STREET

SACRAMENTO 95814

PETE WILSON
GOVERNOR

LEE GRISSOM
DIRECTOR

June 11, 1997

MARGIE MCHENRY
FRESNO COUNTY
2220 TULARE STREET, 6TH FLOOR
FRESNO, CA 93721

Subject: EA NO. 4330, BIORECYCLING TECHNOLOGIES, INC. SCH #: 97052074

Dear MARGIE MCHENRY:

The State Clearinghouse has submitted the above named proposed Negative Declaration to selected state agencies for review. The review period is now closed and the comments from the responding agency(ies) is(are) enclosed. On the enclosed Notice of Completion form you will note that the Clearinghouse has checked the agencies that have commented. Please review the Notice of Completion to ensure that your comment package is complete. If the comment package is not in order, please notify the State Clearinghouse immediately. Remember to refer to the project's eight-digit State Clearinghouse number so that we may respond promptly.

Please note that Section 21104 of the California Public Resources Code required that:

> "a responsible agency or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency."

Commenting agencies are also required by this section to support their comments with specific documentation.

These comments are forwarded for your use in preparing your final EIR. Should you need more information or clarification, we recommend that you contact the commenting agency at your earliest convenience.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact Kristen Derscheid at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Antero A. Rivasplata

ANTERO A. RIVASPLATA
Chief, State Clearinghouse

Enclosures
cc: Resources Agency

PETE WILSON
GOVERNOR

State of California

GOVERNOR'S OFFICE OF PLANNING AND RESEARCH
1400 TENTH STREET
SACRAMENTO 95814

LEE GRISSOM
DIRECTOR

June 9, 1997

Ms. Margie McHenry
Fresno County
2220 Tulare Street, Sixth Floor
Fresno, CA 93721

TRANSMITTED BY FACSIMILE

RE: EA 433); Biorecycling Technologies, Inc.
SCH#: 97052074

Dear Ms. McHenry:

This is to inform you that the State Clearinghouse has circulated the proposed negative declaration for the referenced project to state agencies for their review and comment. As of this writing, two agencies have commented or indicated that they will comment. A comment was received from the California Integrated Waste Management Board. You already have a copy, so I am not including it in this transmittal. Late this afternoon, I received a telephone call from the Regional Water Quality Control Board informing me that they do have comments, but will need an extra day or two in order to put them into final form. I have asked them to fax a copy of the comments to you as soon as they are available.

If you have any questions on this, please a call me at (916) 445 0613.

Sincerely,

ANTERO A. RIVASPLATA
Chief, Planning and Clearinghouse Unit

ADDENDUM
Initial Study/Environmental Assessment Application No. 4330
Conditional Use Permit Application No. 2798
(Biorecycling Technologies, Inc.)
June 10, 1997

Background

Draft Environmental Assessment/Initial Study No. 4330, completed on May 16, 1997, concluded that the project does not warrant preparation of an EIR, and that a Mitigated Negative Declaration is appropriate. Because the project requires action by one or more State agencies, the Draft Environmental Assessment/Initial Study and Draft Negative Declaration were routed to the State Clearinghouse for review, together with a request for expedited review as requested by the applicant.

On May 19, 1997, review of the Initial Study and Draft Negative Declaration was initiated by the State Clearinghouse pursuant to Section 15205 of the California Environmental Quality Act Guidelines. Comments through the State Clearinghouse were received on June 10, 1997, from two State agencies, the California Integrated Waste Management Board (CIWMB) and the California Regional Water Quality Control Board (CRWQCB). The following discussion reflects those comments.

Discussion

The CIWMB requested that clarification be provided with respect to the geographic setting of the project, specifically, depth to groundwater, prevailing wind direction, and rainfall data. The CIWMB also stated that this project would be subject to the issuance of a Solid Waste Facilities Permit.

An addendum to the Operational Statement has been submitted which provides the information requested by the CIWMB.

The CRWQCB noted mandatory waste discharge and storm water discharge as permitting requirements to which this project would be subject.

Conclusion

Comments received during the State Clearinghouse review did not identify potentially significant impacts that would require preparation of an Environmental Impact Report.

13. c. Transporation/Circulation

The Design Division of the Fresno County Public Works & Development Services Department identified potential impacts related to an increase in truck traffic on County roadways and left-turn movements into the project site. The applicant provided Traffic Index calculations and a left-turn analysis from American Avenue to the Humboldt Avenue alignment which is the proposed entrance to the project. Based upon this additional information, the County's Design Division determined that the truck traffic that would be generated from this project would not have a significant impact on County roadways.

16. c. Utilities/Water

The Fresno County Community Health Department identified a potential impact related to the quality of drinking water. This concern has been addressed with the mandatory requirement that a permit to operate a Public Water System be obtained from the Department and water quality results meeting all applicable standards be submitted to the Department prior to occupancy of the facility.

16. f. Utilities/Solid Waste and Disposal

Impacts related to the composting of waste have been addressed under 2.a. and b., (Air Quality) and 3.j. (Water Quality), above. The Fresno County Community Health Department has determined that the project is subject to the Gap review process, pursuant to Section 50000(a) of the Public Resources Code.

Conclusion

Based on this assessment, the Environmental Analysis Staff has concluded that preparation of an Environmental Impact Report is not required. A Notice of Intent of Mitigated Negative Declaration will be published on . Approval of the Mitigated Negative Declaration is recommended and is subject to approval by the decision-making body.

MM:mm
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CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

3614 East Ashlan Ave
Fresno, CA 93726-3533
Phone (209) 445-5116
FAX (209) 455-5910

Cal/EPA

Pete Wilson, Governor

Post-it™ brand fax transmittal memo 7071	# of pages ▸ 2
To Margie McHenry	From Larry Lowe
Co.	Co. FWQCB
Dept	Phone # 445-5598
Fax # 262-4893	Fax #

10 June 1997

Margie McHenry, Staff Analyst
County of Fresno
Public Works & Development Services Department
2220 Tulare Street, Sixth Floor
Fresno, CA 93721

PROPOSED NEGATIVE DECLARATION, BIORECYCLING TECHNOLOGIES, INC., SCHEDULE NO. 97052074, FRESNO COUNTY

We have reviewed the subject proposed negative declaration (CUP No. 2789, EA No. 4330) for Biorecycling Technologies, Inc. (BTI) and provide the following comments related to water quality.

BTI proposes to compost green waste materials by the windrow method on a 39.7 acre portion of a 480 acre site on the south side of American Avenue between Madera Avenue and Lake Road, 18559 W. Lincoln Avenue, Kerman, CA (Section 9, Township 15 South, Range 17 East, Mount Diablo Base and Meridian). The operational plan for the compost operation indicates that the compost windrows will be monitored for temperature, CO_2, pH, and moisture content. The estimated total daily design capacity of the facility will be 1,000 tons of compost per day. Leachate that may be generated from the composting operation has the potential to migrate through the soil profile and adversely affect underlying ground water quality.

Because leachate is considered a waste, BTI is required to submit a Report of Waste Discharge (ROWD). BTI has submitted a ROWD for the proposed composting facility. Board staff will review the ROWD and determine whether the ROWD complies with Board Resolution No. 96-031 (Conditional Waiver of Waste Discharge Requirements for Composting Operations). If the ROWD satisfies requirements of Board Resolution No. 96-031, we will issue a waiver of WDRs. If not, we will prepare tentative WDRs for the composting facility and circulate the tentative WDRs to BTI, concerned agencies, and interested parties prior to consideration for adoption by the Regional Board at a scheduled meeting.

BTI is also required to comply with the requirements set forth in State Water Resources Control Board Order Nos. 91-13-DWQ and 92-12-DWQ for discharge of storm water associated with industrial activities or documentation that NPDES storm water permit requirements are not applicable to the discharger's composting facilities, together with the appropriate filing fee.

Should you have any questions concerning our comments please contact Larry Lowe at 445-5548.

Larry W. Beatty

LARRY W. BEATTY
Senior Engineer
RCE No. 15205

LML:lml/rac

cc: Mr. Brownton, Manager, Biorecycling Technologies, Inc., Fontana
Massud Nury, Fresno
Jeff Sorensen, Dirk Poeschel Land Development Services, Fresno
State Clearinghouse, Sacramento

STATE OF CALIFORNIA - Environmental Protectic Agency
PETE WILSON, Governa

CALIFORNIA REGIONAL WATE. QUALITY CONTROL BOARD
CENTRAL VALLEY REGION
3614 East Ashlan Ave.
Fresno, CA 93726
PHONE: (209) 445-5116
FAX: (209) 445-5910

9 April 1997

Ms. Margie McHenry
Fresno County Public Works and Development Services Department
Fresno County
2220 Tulare Street, Sixth Floor
Fresno, CA 93721

ENVIRONMENTAL ASSESSMENT (ES) NO. 4330 - BIORECYCLING TECHNOLOGIES

Your 13 March 1997 ES requests our comments on a proposed organic waste conversion facility to be owned and operated by Biorecycling Technologies, Inc. (BTI) at 18559 W. Lincoln Avenue. BTI proposes to use dairy waste mixed with green waste to produce commercial liquid organic fertilizer and aerobically digested compost.

Pursuant to Section 13260 of the Water Code, BTI must submit a Report of Waste Discharge (RWD) for its proposed composting operations. We are informing BTI of its responsibilities under the Water Code in a separate letter (copy attached). Once we receive a complete RWD, we will draft tentative waste discharge requirements (WDRs) for the facility for consideration of adoption by our Board at one of its regularly scheduled meetings. The WDRs will include measures to prevent nuisance conditions and adverse impacts to water quality associated with the composting operations.

If you have any questions about this matter, please call me at (209) 445-5919.

Jose L. Angel

JOSE L. ANGEL
Associate Engineer, RCE No. C52035

JLA:jla

Attachment

STATE OF CALIFORNIA - Environmental Protec. Agency PETE WILSON, Governor

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION
3614 East Ashlan Ave.
Fresno, CA 93726
PHONE: (209) 445-5116
FAX: (209) 445-5910

9 April 1997

Biorecycling Technologies, Inc.
c/o Mr. Dirk Poeschel Land Development Services
2310 Tulare Street, Suite 105
Fresno, CA 93721

ORGANIC WASTE CONVERSION FACILITY

Biorecycling Technologies, Inc. (BTI) is proposing an organic waste conversion facility to use dairy waste mixed with green waste to produce commercial liquid organic fertilizer and aerobically digested compost. The facility will be at 18559 W. Lincoln Avenue, on a 40-acre portion of a 480-acre parcel owned by a Mr. Mike Nury, et al.

Pursuant to Section 13260 of the Water Code, anyone discharging or proposing to discharge wastes that could affect the quality of the waters of the state must submit a Report of Waste Discharge (RWD) to the Board. By 10 May 1997, you must submit: (1) a RWD that documents compliance with Board Resolution No. 96-031 (copy enclosed); (2) a $750 fee for coverage under Resolution No. 96-031; and (3) either a Notice of Intent to comply with the storm water conditions set forth in SWRCB Order Nos. 91-13-DWQ and 92-12-DWQ (copy enclosed) and the associated $500 fee or documentation that National Pollutant Discharge Elimination System requirements for storm water are not applicable to the composting facility.

If you have any questions about this matter, please call me at (209) 445-5919.

Jose L. Angel

JOSE L. ANGEL
Associate Engineer, RCE No. C52035

JLA:jla

Enclosures

cc: Ms. Margie McHenry, Fresno County Development Services Department, Fresno
Mr. Mike Nury, Fresno

Cal/EPA

California
Environmental
Protection
Agency

*Integrated
Waste
Management
Board*

*8800 Cal Center Dr.
Sacramento CA 95826
(916) 255-2200*

Pete Wilson
Governor

James M. Strock
*Secretary for
Environmental
Protection*

March 28, 1997

Dirk Poeschel Land Development Services
2310 Tulare Street, Suite 105
Fresno, California 93721

RE: Early consultation phase for the proposed Biorecycling Technologies, Inc. organic waste conversion facility (10-AA-0184) located at 18559 West Lincoln Avenue in Kerman, County of Fresno

California Integrated Waste Management Board (CIWMB) staff thank the Fresno County Public Works & Development Department (Lead Agency) for the opportunity to comment on the scope and content of the draft environmental document.

The following represents CIWMB staff's understanding of the scope of the proposed project based on the project description provided in the Report of Composting Site Information (RCSI) dated March 4, 1997.

PROJECT DESCRIPTION

Background

The proposed project is the design and operation of the Noble Fertilizer organic waste conversion facility (OWCF), which will utilize the existing improvements of the vacated Noble Winery located at 18559 West Lincoln Avenue in Kerman, Fresno County. The OWCF will be owned and operated by Biorecycling Technologies, Incorporated (BTI). Proprietary, continuous feed, anaerobic digestion and aerobic composting processes will be utilized.

The BTI facility will be located on a 39.7-acre portion of a 480 acre parcel of land owned by Mr. Mike Nury, et al. The service area of the facility includes, but is not limited to, the cities of Fresno, Clovis , and Kerman, and the unincorporated areas of Fresno County. The site was selected because of its location relative to various dairies in the area and because the operation would not impact any surrounding properties due to its rural location. The site is approximately 200 feet above the highest anticipated water table.

Proposed Action

Fresh cow manure collected from local dairy farms and green waste material from within Fresno County will be delivered to the site by trucks. Approximately 10 loads daily of fresh dairy cow manure will be dumped into a proposed steel feedstock receiving tank. Process water is added to the manure in the receiving tank; the manure is then pumped into existing sealed steel tanks which are then heated to undergo anaerobic digestion. Biogas from this process will be combusted in an internal combustion engine to supply the site's electrical needs, plus approximately 500 kilowatts for sale to the local utility or other end users.

The fibrous solid fraction of the digested slurry will be placed into windrows in an open air maturation area and processed aerobically into the sellable product *NutriTex* ®, an organic soil amendment (compost). The liquid fraction can be used to fortify the compost produced on-site or be further separated into a cake material and centrate (liquid). The cake material is used to produce the pelletized fertilizer *NutriPellets*®, whereas the liquid centrate is pumped into sealed tanks to undergo secondary anaerobic digestion. This process also produces methane-rich biogas which is also conveyed to the combustion engine. The BTI solid and liquid products would be transported off-site in bulk and/or packaged on-site in retail containers for wholesale commercial distribution.

Co-composting and Vermicomposting Activities

Green waste grinding, windrow turning and composting will occur on-site along with the production of liquid and pelletized fertilizers. The proposed site is developed with improvements from the abandoned Noble Winery. The 25-acre vacant portion of the site will be used as the compost windrow area. It has relatively flat topography and thus no major grading is proposed. The composting area will be scraped with a tractor blade to accommodate the windrows. A small storm drain basin will be graded in the southwest corner of the compost area.

The facility will accept cow manure and green waste as feedstock for composting. Both the receiving area and compost windrow areas will have native soil pads. The green waste will include, but not be limited to, lawn clippings, tree and shrub trimmings, leaves, stumps, etc. Agricultural green waste such as tree and vine trimmings, cotton gin by-product, produce residuals, etc may also be composted. The cow manure will come from dairies and cattle ranches within approximately a 30-mile radius of the site. All feedstock will be handled with tractor and mechanical equipment. The OWCF facility will operate from 7:00 am to 5:00 pm Monday through Saturday; the primary digesters will operate 24 hours per day as required in the production of fertilizer.

The facility production is based upon the daily delivery of approximately 300 tons of green waste material from many different sources, ranging from commercial hauling companies and landscapers to homeowners. Green waste collection vehicles and other truck/trailer vehicles

which will deliver green waste to the facility are capable of handling a maximum of 10 to 25 tons of material per load. It is estimated that a daily average of 12 vehicles hauling green waste will make deliveries to the site. Municipal collection schedules may result in maximum of 24 daily vehicle trips. Manure delivery vehicles will make an average of 10 trips per day to the facility. Deliveries will typically be made 5 to 6 days per week. The vehicles will have a load capacity of up to 20 tons.

The green waste will be processed through a grinder and arranged in windrows that are no more than 12 feet wide at the base and no taller than 5 feet. The solid fibrous fraction of the digested cow manure will be loaded into small trailers and transported to the processing area where it is mixed with the green waste in windrows for further processing through aerobic maturation. Additives and amendments such as water, liquid fraction from primary process, microorganisms inoculum, rice hulls, rice straw, redwood bark, gypsum, and other amendments will be added at different stages of production. Each windrow is covered with a fleece-like material to allow the windrows to breathe yet prevent particulate matter emissions and leaching. The compost will be turned with a windrow turner as many as 30 times in the standard 90 day production period. As much as 40,000 to 60,000 cubic yards of active composting material will be on-site at any one time. After stabilization and before marketing, the compound composted material called *Alter*® will be screened to the size needed for each specific market. The products will be marketed in bulk and bags, and in order to manage year-round production and accommodate local seasonal demand, on-site storage space will be provided.

The vermicomposting beds will be 8 feet wide, with initial feedstock and bedding depths of 6 inches. After multiple applications and processing, finished bed depth may reach 40 inches or more. Permanent irrigation systems will be installed to provide the needed moisture. The windrow vermicomposting process will utilize primarily *Eisenia foetida* and *Eisenia andrei*, commonly known as red worms. During harvesting, the earthworms which are on top of the beds are removed and the well-stabilized castings are diverted for curing and drying, then blended and sold in bags or bulk.

GENERAL COMMENTS

Based on the information provided in the RCSI, the proposed project may require a Standardized Composting Permit (for facilities having greater than 10,000 cubic yards of feedstock and active compost on-site at any one time).

As a Responsible Agency, the California Integrated Waste Management Board is required to use the environmental document prepared by the Lead Agency in its permit approval or concurrence process (CEQA Guidelines, CCR Section 15096). The proposed project must be described in sufficient detail to allow estimation of the facility's ability to meet the standards to prevent environmental damage and to provide long-term protection of the environment, the primary consideration in issuing, modifying, or revising any permit (Title 14 Section 18201).

To assist in the preparation of the environmental document, a copy of the CIWMB COMPOST FACILITY OUTLINE (Revised 6/11/96) is enclosed. It is also suggested that the Lead Agency work closely with the Local Enforcement Agency representative for Fresno County, Mr. Steven Rhodes. He may be reached at (209)445-3380.

Again, CIWMB staff appreciate the opportunity to provide comments on the content and scope of the document. If there are any questions regarding these comments, or if we can be of further assistance, please call me at (916) 255-3880.

Sincerely,

Marcia Kiesse

Marcia Kiesse
Environmental Review Section
Permits Branch
Permitting & Enforcement Division

Attachment: CIWMB COMPOST FACILITY OUTLINE (Revised 6/11/96)

cc: Steven Rhodes, LEA for Fresno County
Virginia Rosales, CIWMB - Permits Section

State of California

California Environmental Protection Agency

MEMORANDUM

To: Angel Howell
State Clearinghouse
1400 Tenth Street
Sacramento, CA 95814
(916) 445-0613

Margie McHenry
County of Fresno
Public Works & Develop
2220 Tulare Street, S:
Fresno, CA 93721

Date: June 5, 1997

Post-it® Fax Note 7671	Date 6-6-97	# of pages ▶ 5
To Margie McHenry	From Marcia Kiesse	
Co./Dept.	Co. CIWMB	
Phone #	Phone # 916 255-3880	
Fax #	Fax #	

From:
Marcia Kiesse
Environmental Review Section
Permits Branch
Permitting and Enforcement Division
CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD

Subject: SCH# 97052074 - Initial Study and Draft Negative Declaration for Biorecycling Technology, Inc. Organic Waste Conversion Facility (10-AA-0184) located at 18559 West Lincoln Avenue in Kerman, County of Fresno

California Integrated Waste Management Board (CIWMB) staff thank the Fresno County Public Works & Development Department (Lead Agency) for the opportunity to comment on the Initial Study and proposed Negative Declaration.

The following represents CIWMB staff's understanding of the scope of the proposed project based on the project description provided by the Lead Agency. The Applicant, Biorecycling Technology, Inc. (BTI), is represented by Dirk Poeschel Land Development Services, 2310 Tulare Street, Fresno.

PROJECT DESCRIPTION

Background

The proposed project is the design and operation of the Noble Fertilizer organic waste conversion facility located at 18559 West Lincoln Avenue in Kerman, Fresno County. Biorecycling Technologies, Incorporated (BTI) will own and operate the facility located on a 40-acre portion of a 480 acre parcel of land owned by Mr. Mike Nury, et al. The facility will accept cow manure and green waste as feedstock for composting. The green waste will include, but not be limited to, lawn clippings, tree and shrub trimmings, leaves, stumps, etc. Agricultural green waste such as tree and vine trimmings, cotton gin by-product,

produce residuals, etc may also be composted. Proprietary, continuous feed, anaerobic digestion, and aerobic composting processes will be utilized. As much as 40,000 to 60,000 cubic yards of active composting material will be on-site at any one time.

The service area for the facility includes, but is not limited to, the cities of Fresno, Clovis, and Kerman, and unincorporated areas of Fresno County. The site was selected for its location relative to various dairies in the area and because the operation would not impact any surrounding properties due to its rural location. The nearest residence is at least one mile from the facility; the American Avenue Landfill is located approximately one mile north of the subject property. Ground water is located at approximately 200 feet.

Proposed Co-composting Activity

As noted earlier, the proposed site is developed with improvements from the abandoned Noble Winery. Green waste grinding, windrow turning and composting will occur on-site along with the production of liquid and pelletized fertilizers. A 25-acre vacant portion of the site will be used as the compost windrow area. It has relatively flat topography and thus no major grading is proposed. The composting area will be scraped with a tractor blade to accommodate the windrows. Both the receiving area and compost windrow areas will have native soil pads. A small storm drain basin will be graded in the southwest corner of the compost area.

An average of 300 tons to a maximum of 500 tons of green waste will be delivered to the site daily, generating between 12 and 21 truck trips (24 to 48 trip ends) for the collection of green waste. In addition, an average of 200 tons and a maximum of 400 tons of manure will be collected daily at dairies typically within a 30-mile radius of the project and delivered to the site for processing. Collected in 20-ton capacity trucks, the manure deliveries will generate an average of 10 trips per day (20 trip ends) and a maximum of 20 trips per day (40 trip ends).

The daily loads of fresh dairy cow manure will be dumped into a proposed steel feedstock receiving tank. Process water will be added to the manure in the receiving tank; the manure will then be pumped into existing sealed steel tanks which are heated to undergo anaerobic digestion. Processing in a sealed anaerobic environment will help to contain odors. The generated biogas will be combusted in an internal combustion engine to supply the site's electrical needs, plus approximately 500 kilowatts for sale to the local utility or other end users.

The fibrous solid fraction of the digested slurry will be placed into windrows in an open air maturation area and processed

aerobically into the sellable product *NutriTex* ©, an organic soil amendment (compost). The liquid fraction can be used in the compost produced on-site or be further separated into a cake material and centrate (liquid). The cake material is used to produce a pelletized fertilizer (*NutriPellets*®), whereas the liquid centrate is pumped into sealed tanks for secondary anaerobic digestion. This process produces methane-rich biogas which is conveyed to the combustion engine. The BTI solid and liquid products will be transported off-site in bulk and/or packaged on-site in retail containers for wholesale commercial distribution.

The green waste will be processed through a grinder and arranged in windrows approximately 12 feet wide at the base and 5 feet tall. The solid fibrous fraction of the digested cow manure will be loaded into small trailers and transported to the processing area to be mixed with the green waste in windrows for further processing through aerobic maturation. Additives and amendments such as water, liquid fraction from primary process, microorganisms inoculum, rice hulls, rice straw, redwood bark, gypsum, and other amendments will be added at different stages of production. Each windrow is covered with a fleece-like material to allow the windrows to breathe yet prevent particulate matter emissions and leaching. The compost will be turned with a windrow turner up to 30 times during the standard 90 day production period. After stabilization, the compound composted material (*Altex*®) will be screened to the size needed for each specific market.

The composting cycle will take 10-12 weeks to complete. Approximately 350 tons of compost will be produced daily at the facility. The products will be marketed in bulk and bags. In order to manage year-round production and accommodate local seasonal demand, on-site storage space will be provided. Compost and fertilizers will be kept on-site for approximately two months prior to being hauled off-site.

All feedstock will be handled with tractor and mechanical equipment. The BTI facility will operate from 7:00 am to 5:00 pm Monday through Saturday, however, the primary digesters will operate 24 hours per day as required in the production of fertilizer.

Proposed Vermicomposting Activity

The vermicomposting beds will be 8 feet wide, with initial feedstock and bedding depths of 6 inches. After multiple applications and processing, finished bed depth may reach 40 inches or more. Permanent irrigation systems will be installed to provide the needed moisture. The windrow vermicomposting process will utilize primarily *Eisenia fostida* and *Eisenia andrei*, commonly known as red worms. During harvesting, the

earthworms which are on top of the beds are removed and the stabilized castings are diverted for curing and drying, then blended and sold in bags or bulk.

Proposed Liquid Fertilizer Formulation

The BTI process utilizes the following chemicals, principally as concrete stabilizing agents and as fortification agents in the formulation of individual liquid fertilizer products:

Ammonium Nitrate	Potassium Chloride
Ammonium Phosphate	Potassium Sulfate
Ammonium Sulfate	Sulfuric Acid (66BE-83)
Ferrous Sulfate	Urea
Manganese Sulfate	Zinc Sulfate
Nitric Acid (69%)	

Material Safety Data Sheets (MSDS) for all of the listed chemicals will be provided in the Hazardous Materials Business Plan for the project. Delivery and storage of the chemicals will be in accordance with the applicable federal, state, and local regulations concerning hazardous materials storage and use. Nitric acid and sulfuric acid are classified as acutely hazardous materials (AHMs) by the State of California and are subject to additional regulation. Because they are non-volatile liquids, neither of the AHMs have any significant potential to result in an off-site release. All employees handling the stabilization and fortification agents will be trained to minimize any spillage or leaks. BTI will install required emergency response equipment on-site as required by OSHA Standards and the Fresno County Department of Health. The Fresno County Fire Department Station No. 15 is located approximately 13 miles to the west, in the community of Tranquility.

GENERAL COMMENTS

One purpose of CIWMB staff's review of an environmental document is to help decision-makers identify potential impacts from proposed projects, evaluate whether any such impacts are significant, and determine whether significant impacts can be mitigated to a level of insignificance in compliance with the CEQA statutes and guidelines.

In addition, since the Applicant will be seeking a Standardized Composting Permit, CIWMB staff must also ascertain that the subject environmental document is adequate for use in the permitting process. The proposed project must be described in sufficient detail to allow estimation of the facility's ability to meet the standards to prevent environmental damage and to provide long-term protection of the environment, the primary consideration in issuing, modifying, or revising any permit (See Title 14 Section 18201). To that end, CIWMB staff offer the following comments.

- ☐ In describing the geographic setting, it would be helpful if the final document: 1) clarified whether "Ground water is located at approximately 200 feet" refers to the depth to groundwater or its elevation; and 2) provided prevailing wind direction and rainfall data.

- ☐ Please provide a scaled site plan which includes the locations of the entrance gate, windrow layout, location of emergency response equipment, etc.

- ☐ Public Resources Code Section 21081.6(h) requires the public agency to "provide that measures to mitigate or avoid significant effects on the environment are fully enforceable through permit conditions, agreements, or other measures." Please specify which mitigations measures must be placed in the SWFP. The Local Enforcement Agency representative for Fresno County, Mr. Steven Rhodes. He may be reached at (209)445-3380.

CIWMB staff appreciate the opportunity to provide comments on the Initial Study and proposed environmental document. If there are any questions regarding these comments, or if we can be of further assistance, please call me at (916) 255-3880.

cc: Steven Rhodes, LEA for Fresno County

San Joaquin Valley
Unified Air Pollution Control District

March 25, 1997 970182

Margie McHenry
Development Services
County of Fresno
2220 Tulare Street, 6th Floor
Fresno CA 93721

Subject: EA 4330; CUP 2798 (Commercial Fertilizer Processing Facility with Associated Processes)

Dear Ms. McHenry:

The San Joaquin Valley Unified Air Pollution Control District (District) has reviewed the project referenced above and offers the following comments:

The entire San Joaquin Valley is nonattainment for ozone and fine particulate matter (PM-10). This project will contribute to the overall decline in air quality due to its operation (for permitted sources), increased traffic, operation of landscape maintenance equipment, and space and water heating if gas-fired appliances are used. Although this project alone will not generate significant air emissions, the increase in emissions from this project, and others like it, will cumulatively reduce the air quality in the San Joaquin Valley. Thus, the project will make it more difficult to meet mandated emission reductions and air quality standards.

It appears from the information provided that the project would not have a significant adverse impact on air quality. A Negative Declaration is appropriate for this project from an air quality standpoint. However, a concerted effort should still be made to reduce project related emissions, as outlined below:

The construction phase of this project will be subject to certain aspects of District Regulation VIII. Regulation VIII is a series of rules designed to reduce PM-10 emissions generated by human activity, and is required. A synopsis highlighting many

David L. Crow
Executive Director/Air Pollution Control Officer
1999 Tuolumne Street, Suite 200 • Fresno, CA 93721 • (209) 497-1000 • Fax (209) 233-2057

Northern Region
4230 Kiernan Avenue, Suite 130 • Modesto, CA 95356
(209) 545-7000 • Fax (209) 545-6852

Central Region
1999 Tuolumne Street, Suite 200 • Fresno, CA 93721
(209) 497-1000 • Fax (209) 233-2057

Southern Region
2700 M Street, Suite 275 • Bakersfield, CA 93301
(805) 862-5200 • Fax (805) 862-5201

of the requirements of this regulation has been enclosed and should be made available to the applicant.

There are a number of suggested mitigation measures which could be incorporated in the design and development of this project to reduce the project's overall level of emissions, but are not required by the District. (Note: Some of the mitigation measures may already exist as County development standards. All other measures should be implemented to the fullest extent possible.) This list should not be considered all-inclusive. The District encourages innovation in measures to reduce air quality impacts.

1. As many energy conserving features as possible should be included in the design/construction of the new buildings. Examples include (but are not limited to) increased wall and ceiling insulation (beyond building code requirements), energy efficient lighting, high efficiency appliances and solar-assisted water heating.

2. Any gas-fired appliances should be low nitrogen oxide (NO_x) emitting gas-fired appliances complying with California NO_x Emission Rule #1121.

3. Trees should be carefully selected and located to shade the building(s) during the hot summer months. This measure should be implemented on southern and western exposures. Deciduous trees should be considered since they provide shade in the summer and allow the sun to reach the building(s) during the cold winter months.

The proposed facility also has the capacity to generate odors if not operated properly. The County should carefully evaluate the potential for odors to be generated by this project and the impact which any odors could have on sensitive receptors in the area. The District encourages Fresno County to monitor the operation of the facility carefully to ensure that odors do not become a problem.

This project will be subject to the permitting requirements of the District. Any project subject to the District's Permit to Operate must also obtain an Authority to Construct (ATC) from the District. Construction of a project subject to the District's ATC cannot begin until this permit is obtained. This process can take up to 180 days. To avoid unnecessary delays, the applicant should contact the District's Small Business Assistance Office at 497-1111, or our Permit Services Section at 497-1100.

In addition, an asbestos survey of the existing structure may be required, prior to any renovation or demolition activity, to identify the presence of any asbestos containing building material (ACBM). Any identified ACBM having the potential for disturbance must be removed by a certified asbestos contractor in accordance with CAL-OSHA requirements. If you have any questions concerning asbestos related requirements, please contact Mr. Bob Bashian of this office at 497-1040, or contact CAL-OSHA at

454-1295. A synopsis of the District's Asbestos Compliance Assistance Bulletin has been enclosed for your review.

District staff is available to meet with you and/or the applicant to further discuss the regulatory requirements or suggested mitigation measures that are associated with this project. If you have any questions or require further information, please call me at 497-1075.

Sincerely,

Joan Merchen
Environmental Planner

Enclosure

EIR ISSUE COMMENTS

Rcld 6/97

STATE OF CALIFORNIA — PETE WILSON, Governor

DEPARTMENT OF FOOD AND AGRICULTURE

1220 N Street, Room A-472
Sacramento, CA 95814-5621
(916) 654-0574

April 8, 1997

Margie McHenry, Staff Analyst
County of Fresno
Public Works & Development Services Department
2220 Tulare Street, Sixth Floor
Fresno, CA 93721

Dear Ms. McHenry:

We have reviewed the document you sent, Environmental Assessment Application, Number 4330.

The applicant, Biorecycling Technologies Incorporated, has two locations licensed with this department for the manufacturing of fertilizing materials in California. We have been in communication with the firm regarding the labeling of the "end use" products. They have been informed about labeling requirements, and limitations as to product claims, and how products may be represented for sale. The California Fertilizing Materials Law and Regulations pertain only to the "end product," and we do not have any risk assessment standards to apply to the predicted products.

Thank you for the opportunity to comment, and if you have any questions, please call me at the number above.

Sincerely,

Steven D. Wong, Branch Chief
Agricultural Commodities and Regulatory Services

County of FRESNO

Inter Office Memo

DATE: June 13, 1997

TO: Stan Ediger, Senior Staff Analyst
Development Services Division

FROM: Harris Hays, Waste Management Coordinator
Resources Division

SUBJECT: INTEGRATED WASTE MANAGEMENT LOCAL TASK FORCE'S GAP LEGISLATION REVIEW AND COMMENT ON BIORECYCLING TECHNOLOGIES, INC.'S PROPOSED PROJECT (EA No. 4330, CUP No. 2798)

On June 12, 1997, the Integrated Waste Management Local Task Force, pursuant to the requirements of the Gap legislation (Assembly Bill 2296), reviewed and commented on Biorecycling Technologies, Inc.'s proposed project. The Local Task Force agreed with staff's assessment that the proposed project was consistent with the goals and objectives of the County Solid Waste Management Plan and the diversion mandates of the Integrated Waste Management Act of 1989. The Local Task Force also reached a consensus that the proposed project would provide much-needed jobs to the community, provide for the productive use of materials that otherwise would be deposited in the County-owned and -operated American Avenue Landfill, and provide for the efficient use of the currently unused facilities that are situated on the site. In summary, the Local Task Force directed staff to transmit its comments, in support of the proposed project, to the County Planning Commission.

HH:RSG:ef
ltfgapme
6/13/97

c: Steve Rhodes, County Community Health Department

FC-15 (1/82)

County of FRESNO

Public Works & Development Services Departmen
Carolina Jimenez-Hog
Directo

March 25, 1997

Ms. Keren Yowell
California Department of Conservation
801 K Street, MS-24-02
Sacramento, CA 95814

SUBJECT: Environmental Assessment Application No. 4330
Conditional Use Permit Application No. 2798

Dear Ms. Yowell:

Pursuant to our telephone conversation this afternoon, enclosed is a review and comment packet for the above-referenced project.

As you can see on our routing letter, the review deadline for this project is March 28, 1997. While we would appreciate your comments by that date, additional time can be provided. Please contact me if it is determined that additional time is required so we can establish a reasonable due date. As we discussed earlier, we will be requesting a shortened State Clearinghouse Review for the draft environmental documents; therefore, we are requesting that State agencies provide comments during this initial review period rather than later during the Clearinghouse review.

Thank you in advance for your cooperation. I can be contacted at (209) 262-4055.

Very truly yours,

Kerry L. McCants
Development Services Manager

Margie McHenry
Staff Analyst

MM:ss
C:\OFFICE\WPWIN\WPDOCS\LETTERS\CUP2798.RVL

Enclosure

County of FRESNO

Public Works & Development Services Department
Carolina Jimenez-Hog
Directo

April 7, 1997

Mr. Art Diamond
California Air Resources Board
2020 "L" Street
Sacramento, CA 95814

SUBJECT: Environmental Assessment Application No. 4330
Conditional Use Permit Application No. 2798

Dear Mr. Diamond:

Thank you for your telephone call this afternoon. Pursuant to our telephone conversation, enclosed is a review and comment packet for the above-referenced project.

As you can see from our original routing letter, the review deadline for this project was March 28, 1997. We would appreciate if you could provide your comments by April 10, 1997. If you determine that additional time is necessary to complete your review, please contact me as soon as possible so we can establish a reasonable due date. As we discussed, we will be requesting a shortened State Clearinghouse Review for the draft environmental documents; therefore, we are requesting that State agencies provide comments during this initial review period rather than later during the Clearinghouse review.

Thank you in advance for your cooperation. I can be contacted at (209) 262-4055.

Very truly yours,

Kerry L. McCants
Development Services Manager

Margie McHenry
Staff Analyst

MM:mm
C:\OFFICE\WPWIN\WPDOCS\LETTERS\CUP2798.RV4

Enclosure

2220 Tulare Street, Sixth Floor / Fresno, California 93721 / Phone (209) 262-4055 / 262-4029 / 262-4302 / 262-4022 / 262-4310 / FAX 262-4893

County of FRESNO

Inter Office Memo

DATE: April 30, 1997

TO: Margie McHenry, Development Services

FROM: Stan Nakagawa, Design Division

SUBJECT: EA 4330 - Biorecycling Technologies

Dirk Poeschel's office has sent me a left turn analysis for American and Humbolt Avenue.

After reviewing the analysis I have concluded that the intersection does not warrant a left turn pocket.

No additional information will be required by this Division for the above project.

SN:sn:dvmemo05doc:diskd:\letters

County of FRESNO

Inter Office Memo

DATE: May 1, 1997

TO: Margie McHenry, Development Services

FROM: Stan Nakagawa, Design Division

SUBJECT: EA 4330 - Biorecycling Technologies

After reviewing information supplied by the applicant, it has been determined that the truck traffic from the project will not significantly change the existing traffic index of the roadway.

SN:sn:dvmemo08.doc:diskd:\letters

County of FRESNO

Inter Office Memo

Date: 3/25/97

To: file

From: MM

Subject: BTI

Moses S. (CALTRANS) called + stated he had no comments on this project.

County of FRESNO

Inter Office Memo

Date: 5/15/97

To: file

From: MM

Subject: BTI

Spoke with Larry Lowe (RWQCB).
WDR can be written in such a manner as to reduce potential water quality impacts (leachate) to a level of insignificance (compliance w/ WDR).

County of FRESNO

Inter Office Memo

DATE: May 5, 1997

TO: Margie McHenry, Public Works & Development Services

FROM: Stephanie L. Kahl, Environmental Health System

SUBJECT: EA 4330, CUP 2798, Biorecycling Technologies, Inc., 18559 W. Lincoln

1. Is there sufficient information for you to evaluate the probable environmental impacts of this project?

   _X_ Yes ____ No, the following information is needed:

2. What potential adverse impacts will the project have on the vicinity or inhabitants of the project itself?

3. Are the potential impacts, identified in Question 2, significant enough to warrant the preparation of an EIR?
   ____ Yes _X_ No

4a. If the project is approved, what conditions of approval are necessary to implement County plans and policies or to protect the public health, safety, and general welfare?

4b. Please identify specific existing regulations, standards, or routine processing procedures which would mitigate the potential impacts identified in Question 2, or to implement the conditions identified in Question 4a.

5. Additional Comments:

   The reference noise level information provided by the applicant is based on occupational noise level standards. Typically, when providing noise level readings for the purposes of evaluating potential noise impacts to sensitive receivers, a reference distance of fifty or one hundred feet is requested. This greater distance would provide a truer noise level reading and thus a more accurate evaluation of the potential impacts. However, by utilizing the occupational reference noise distances, the calculations are actually an overestimation of the potential impacts. Therefore, based on calculations from the information provided by the applicant, potential noise impacts are expected to be insignificant.

   In order to ensure that the operation of the facility complies with the Fresno County Noise Ordinance, the following are conditions of approval that shall be incorporated as mitigation measures:

   1. Within thirty (30) days of the start of operation, an acoustical consultant selected by the applicant and approved by the Community Health Department, shall conduct an acoustical analysis of the facility to prove conformance with the Fresno County

Noise Ordinance. The results of the acoustical analysis shall be submitted to the Community Health Department for review and approval.

2. If the acoustical analysis indicates that noise levels exceed the limits of the Fresno County Noise Ordinance, additional mitigation measures, as recommended by the acoustical consultant and approved by the Community Health Department, shall be added to the project within sixty (60) days after the on-site measurements to insure conformance with the Fresno County Noise Ordinance.

3. Construction specifications for the project shall require that all construction equipment be maintained according to the manufacturer's specifications, and that noise generating construction equipment be equipped with mufflers. This condition shall also apply to all proposed mechanical equipment which will be utilized as a part of the daily operation of the facility.

4. The hours of operation of the facility, including truck travel, shall be limited to 7:00 a.m. to 5:00 p.m. with the exception of the operation of the primary digester.

5. To the extent feasible, truck routes shall be limited to traveling on American, Manning, Madera, Whitesbridge and Lincoln Avenues.

The following comments shall be included as project notes:

6. The applicant shall complete and submit either a Hazardous Materials Business Plan or a Business Plan Exemption form to the Fresno County Community Health Department, Environmental Health System. Contact the Hazardous Materials Disclosure/Registration Program at (209) 445-3271 for more information.

7. All hazardous waste shall be handled in accordance with requirements set forth in the California Health and Safety Code, Chapter 6.5. This chapter discusses proper labeling, storage and handling of hazardous wastes.

8. As per Public Resources Code, Section 44001, the applicant shall file an application with the Fresno County Community Health Department, Environmental Health System for a Solid Waste Facilities Permit at least one-hundred and fifty (150) days in advance of the date on which it is desired to commence operation. Prior to operation, the applicant shall obtain a Solid Waste Facilities permit. Contact David Pomaville at (209) 445-3380 for more information.

9. The applicant may have to file a statement regarding any proposed aboveground petroleum storage tank with the State of California, Water Resource Control Board.

Contact the Division of Clean Water Programs at (916) 739-2670 for more information.

10. The applicant shall submit four (4) sets of complete plans and specifications regarding any proposed installation of underground storage tanks to the Fresno County Community Health Department, Environmental Health System. Contact the Underground Storage Tank Program, at (209) 445-3271 for more information.

11. The applicant shall submit an application for a permit to operate a Public Water System and supporting information, in the form of a technical report, to the Fresno County Community Health Department, Environmental Health System for review. Approval for the permit shall be obtained prior to occupancy. Contact Jim Brunton at (209) 445-3357 for more information. and all water quality results shall be submitted

In reviewing the well driller's reports (well logs) submitted by the applicant for the subject property, there is only one well that meets the construction requirements for a public water supply well. This existing well, drilled by Myers Brothers, Inc., in September of 1976, is identified in Community Health Department records as well permit number FCEH 1309. The Department of Water Resources well drillers report number listed on the log for this well is #148752. This well would be the only existing well that can be considered for the purposes of providing piped, potable water for the subject facility and is subject to meeting all applicable water quality standards.

If this well does not meet the water quality standards, the applicant will be required to drill a new well.

12. The applicant will be required to apply for and obtain a Permit to Construct a Water Well from the Fresno County Community Health Department, Environmental Health System. Any new well to be utilized for domestic water purposes shall meet **Public Water System** well construction standards. Contact Jim Brunton at (209) 445-3357 for more information.

The applicant is advised to contact the Environmental Laboratory Accreditation Program (ELAP) regarding laboratory certification. For more information, contact Bill Ray at (510) 540-2800.

SLK

c: David Pomaville, Environmental Health System
Jim Brunton, Environmental Health System

c:\landcup2798.wri

III. Public Hearing Notice and Property Owners in the Vicinity

County of FRESNO

Public Works & Development Services Department
Carolina Jimenez-Hogg
Director

NOTICE OF PUBLIC HEARING
FRESNO COUNTY PLANNING COMMISSION

A public hearing will be held on **ENVIRONMENTAL ASSESSMENT APPLICATION NO. 4330** and **UNCLASSIFIED CONDITIONAL USE PERMIT APPLICATION NO. 2798** filed by **BIORECYCLING TECHNOLOGIES INC.** proposing to:

> **Allow a commercial fertilizer processing facility, composting operation, biomass-fueled co-generation plant and a commercial worm farm on a 40.00-acre portion of a 480.00-acre parcel of land in the AE-20 (Exclusive Agriculture, 20-acre minimum parcel size) District on the southwest corner of the Lincoln and Humboldt Avenue alignments approximately one mile south of W. American Avenue, approximately three and one-half miles northeast of the City of San Joaquin (18559 W. Lincoln Avenue).**

The Planning Commission hearing will be at 8:50 a.m. (or as soon thereafter as possible) on July 10, 1997, in Room 301, Hall of Records, Tulare & "M" Streets, Fresno, CA.

Prior to taking action on the project, the Planning Commission will determine whether a Negative Declaration, Mitigated Negative Declaration or an Environmental Impact Report is appropriate. The environmental document is available for review and comment at the Fresno County Public Works & Development Services Department until the date of the hearing.

Anyone may testify. For information contact Will Kettler, Public Works & Development Services Department, 2220 Tulare Street, (Corner of Tulare & "M" Streets, Suite A), Fresno, CA 93721, Phone: (209) 262-4055.

CAROLINA JIMENEZ-HOGG, Director
Public Works & Development Services Department
Secretary-Fresno County Planning Commission

NOTES:

> **Please share this notice with your neighbors or anyone you feel may be interested.**
>
> **The Planning Commission will also accept written testimony such as letters, petitions, and statements. In order to provide adequate review time for the Planning Commission, please submit these documents to the Department prior to the hearing date.**
>
> **If at some later date you challenge the final action on this matter in court, you may be limited to raising only those issues you or someone else raised at the public hearing described in this notice or in written correspondence delivered to the Planning Commission at, or prior to, the public hearing.**

S E E M A P O N R E V E R S E S I D E

CU2798
CU2798 CU2798
CU2798
CU2798

BAL HARBHAJAN S & BALBIR K
10500 E CONEJO AVE
KINGSBURG CA 93631 03004005S

DLM PARTNERS
P O BOX 9050
FRESNO CA 93790 03004027S

LAKE FARM
P O BOX 1336
WATSONVILLE CA 95077 03004029S

NURY MASSUD S
P O BOX 2896
FRESNO CA 93745 03004021S

RANU GURDEEP S & SHARAN K
6816 E LOWE
FRESNO CA 93727 03006004S

SHUBIN WILLIAM & MARTHA
7033 W RIALTO
FRESNO CA 93722 03006024S

TUT BROTHERS FARMS
P O BOX 900
CARUTHERS CA 93609 03004015S

April 7, 1997

Ms. Margie McHenry, Staff Analyst
Public Works & Development Services Department
Fresno County
2220 Tulare Street
Fresno, CA 93721

SUBJECT: Biorecycling Technologies, Inc. Project at the Noble Winery Site (18559 West Lincoln Avenue)

Dear Ms. McHenry:

Reference is made to Biorecycling Technologies, Inc. project proposed on the existing Noble Winery site. Reference is also made to Biorecycling Technologies, Inc. recent request of Fresno County to approve an organic waste conversion facility on the site.

Please accept this letter as confirmation that I am the current property owner and that I hereby authorize Biorecycling Technologies, Inc. to apply for the aforementioned request on the site. If you have any questions, please feel free to contact me at 834-2525.

Sincerely,

M.S. Nury

Department of Energy
Washington, DC 20585

TO: Distribution

FROM: Joseph J. Romm
Acting Assistant Secretary
Energy Efficiency and Renewable Energy

SUBJECT: Environmental Assessment and Finding of No Significant Impact: Biorecycling Technologies, Inc., Noble Biogas and Fertilizer Plant

The U.S. Department of Energy (DOE), through its Commercialization Ventures Program (CVP), has solicited applications from state energy offices, in partnership with private-sector organizations, for projects that will accelerate the commercialization of renewable energy technologies. The Program was established by the Renewable Energy and Energy Efficiency Technology Competitiveness Act of 1989 (P.L. 101-218), as amended by the Energy Policy Act of 1992 (P.L. 102-486). Under this program, the California Energy Commission (CEC), has filed an application with DOE that requests partial funding to assist in the construction of the proposed Biorecycling Technologies, Inc., Noble Biogas and Fertilizer Plant in Fresno County, California.

The Federal action triggering the preparation of this Environmental Assessment (EA) is the need for DOE to decide whether to release up to $ 1,500,000 in Federal funding to the California Energy Commission to support construction of the Noble Biogas and Fertilizer Plant. Before considering a decision to fund the project, DOE has a responsibility under the National Environmental Policy Act (NEPA) to assess the project's potential impacts. The project already has been subject to extensive review and comment during an impact assessment required under the California Environmental Quality Act (CEQA), and that process concluded with a decision that the project would not lead to significant impacts on the environment. This EA draws upon extensive documentation, agency review, and public comment developed during the CEQA process. Nonetheless, the attached EA is the result of DOE's independent evaluation of the impacts associated with the proposed project as required by NEPA.

By the attached letter dated August 26, 1997, the State of California waived its right to pre-approval review of the draft DOE Environmental Assessment under 10 C.F.R. 1021.301(d). DOE therefore is issuing the attached final Environmental Assessment and Finding of No Significant Impact.

For further information contact Stephen L. Sargent, Denver Support Office, U.S. Department of Energy, 1617 Cole Boulevard, Golden, Colorado 80401. Telephone 303-275-4820.

Attachments

Distribution List:

Margie McHenry, Staff Analyst
Public Works & Development Services
Fresno County
2220 Tulare Street
Fresno, CA 93721

Carolina Jimenez-Hogg, Dir.
Public Works & Development Services
Fresno County
2220 Tulare Street
Fresno, CA 93721

William Kettler
Public Works & Development Services
Fresno County
2220 Tulare Street
Fresno, CA 93721

U.S. Department of Agriculture
Natural Resources Conservation Service
4974 E. Clinton Way, Suite 114
Fresno, CA 93727

Governor's Office of Planning & Research
State Clearinghouse
1400 Tenth Street
Sacramento, CA 95814

San Joaquin Valley Unified Air Pollution
Control District
Central Region
1999 Tuolumne Street, Suite 200
Fresno, CA 93721

Harbhajan S. & Balbir K. Bal
10500 E. Conejo Ave
Kingsburg, CA 93631

DLM Partners
P.O. Box 9050
Fresno, CA 93790

Lake Farm
P.O. Box 1336
Watsonville, CA 95077

Massud S. Nury
P.O. Box 2896
Fresno, CA 93745

Gurdeep S. & Sharan K. Ranu
6816 East Lowe
Fresno, CA 93727

William & Martha Shubin
7033 W. Rialto
Fresno, CA 93722

Tut Brothers Farms
P.O. Box 900
Caruthers, CA 93609

U.S. Environmental Protection Agency
Region 9
75 Hawthorne Street
San Francisco, CA 94105

Dirk Poeschel
2310 Tulare Street, Suite 105
Fresno, CA 93721

Chun Chin
Biorecycling Technologies, Inc.
6101 Cherry Avenue
Fontana, CA 92336

Fresno County Health Services
1221 Fulton Mall
P.O. Box 11867
Fresno, CA 93775

Shahid Chaudhry
California Energy Commission
1516 9th Street, MS-43
Sacramento, CA 95814-5512

Judith Efhan
California Energy Commission
1516 9th Street
Sacramento, CA 95814-5512

Ron Manfredi
City Manager, City of Kerman
850 South Madera Ave.
Kerman, CA 93630

U.S. Fish & Wildlife Office
Endangered Species Program
3310 El Camino Avenue, Suite 120
Sacramento, CA 95821

FINDING OF NO SIGNIFICANT IMPACT FOR THE PROPOSED BIORECYCLING TECHNOLOGIES, INC., NOBLE BIOGAS AND FERTILIZER PLANT

DOE/EA 1223

AGENCY: U.S. Department of Energy, Denver Support Office, Golden, Colorado

ACTION: Finding of No Significant Impact

SUMMARY:

The U.S. Department of Energy (DOE) has conducted an environmental assessment of the Noble Biogas and Fertilizer Plant as proposed by Biorecycling Technologies, Inc. (BTI) for construction in Fresno County, California. The project site is an abandoned winery which contains tanks and other facilities that would be used by the proposed facility. The proposed plant would convert manure to methane that would fuel a cogeneration unit to produce heat and 500-600 kw of electricity for facility operations. Excess electricity would be sold. Various fertilizer and soil amendments would be produced from processed manure and "green" organic wastes. The purpose of the environmental assessment was to provide DOE with the basis to make an informed decision on the proposed project. The proposed Federal action is to provide funding to the California Energy Commission from the DOE Commercialization Ventures Program to support construction of a portion of the project.

The environmental assessment addresses the potential impacts of the project and proposed measures for avoiding or mitigating impacts. Based on the analysis in the environmental assessment, DOE has determined that the proposed action does not constitute a major Federal action significantly affecting the quality of the human environment within the meaning of the National Environmental Policy Act. Therefore, an environmental impact statement is not required.

COPIES OF THE ENVIRONMENTAL ASSESSMENT ARE AVAILABLE FROM:

Stephen L. Sargent
U.S. Department of Energy, Denver Support Office
1617 Cole Boulevard
Golden, Colorado 80401
Telephone 303-275-4820

SUMMARY OF THE PROJECT:

Background. DOE, through its Commercialization Ventures Program, has solicited applications from state energy offices for projects that will accelerate the commercialization of renewable energy technologies. The Commercialization Ventures Program was established by the Renewable Energy and Energy Efficiency Technology Competitiveness Act of 1989 (P.L. 101-218) as amended by the Energy Policy Act of 1992 (P.L. 102-486). Under this program, the California Energy Commission has filed an application with DOE that requests funding to aid in the construction of the Noble Biogas and Fertilizer Plant. The plant would be constructed and operated by BTI. Environmental impacts of the project have been reviewed under the California Environmental Quality Act, and the necessary state and local approvals under that act have been obtained. Copies of these documents were included as appendices to the environmental assessment prepared by DOE.

Proposed Action. BTI proposes to initiate construction of the project upon receiving funding approval from DOE. The site already has substantial improvements, such as roads, buildings, stainless steel tanks, utilities, fencing and water wells that would be incorporated into the new facility. The plant would employ approximately 35 full-time workers.

The plant would consist of two main processes: 1) the conversion of manure into biogas and liquid and solid fertilizer products, and 2) a composting operation to convert green waste such as lawn and vineyard clippings into compost and soil conditioners. Raw manure would be trucked to the site from local dairy farms and agricultural operations. Manure immediately would be placed in closed tanks where a high-temperature, anaerobic digestion process would be initiated to produce biogas (methane). No open storage of raw manure would occur. High-temperature, anaerobic digestion would effectively kill pathogens found in raw manure. Methane from the digesters would be collected and used to fuel a cogeneration unit that would supply the 500-600 kw of electricity needed to run the facility. Heat from the cogeneration unit would be captured and used to maintain the temperature of the digester tanks. Excess electricity could be sold to the local utility.

By-products of the digestion process would be processed into sterile, organic liquid and solid fertilizers. A ready, local market can readily be found for these products. The site is in one the country's most productive agricultural regions. The plant would also receive green waste from local municipalities and agricultural sources, diverting this waste stream from the County landfill. Green waste refers to lawn clippings, tree branches, vineyard prunings and other waste vegetation material. Green waste would be ground, mixed with sterile by-

products of the digestion process, and placed in covered windrows where composting would occur. Composted waste would be sold as soil conditioner.

The proposed site was found to possess the following qualities that would make it suitable for the proposed plant: it is in an agricultural area surrounded by vineyards and cultivated fields; a private access road and utilities serve the site; the private road into the site does not pass through any residential or commercial area; the abandoned winery facility has been paved and existing improvements (buildings, stainless steel tanks) can easily be converted to fertilizer production, thus reducing capital costs for the project; the integrity of the stainless steel tanks has been verified by an engineering firm; the cogeneration unit and all manure and fertilizer processing would take place on a paved area that includes a drain and containment sump; 80-90 dairies within 30 miles can provide manure; a local market for fertilizer exists; a local supply of green waste from agricultural and urban areas can feed the plant; the plant site is a mile from a county landfill which currently receives green waste but does not process that waste into usable products; land used for composting has been cultivated for decades but is no longer in production; the site includes water wells, including one that meets state potable water quality standards; a cultivated field can be used for composting operations; and, main roads leading to the site access road can support heavy traffic and the estimated maximum traffic levels into the site.

Environmental Impacts. No native vegetation is found on the site. Part of the site has been paved. The project site is not crossed by any streams, and the site is outside a 100-year floodplain. An on-site survey of the project site by a qualified wetland specialist has determined that there are no wetlands on the site or potentially affected by the project. A qualified biologist has determined that there are no wildlife values or potential wildlife habitat associated with the site. No potential for impacts to Federally-listed threatened or endangered species or their critical habitat was found.

Lands adjacent to and in the vicinity of the project site were converted to vineyards and agricultural production decades ago. The Fresno County Planning Commission has determined that the proposed plant is consistent with existing land uses and agricultural operations. No new surface or groundwater sources would be developed or affected. The environmental analysis prepared under the California Environmental Quality Act found that no significant historical, archaeological or cultural resources would be affected.

No raw manure would be stored on-site, thus avoiding a potential source of water contamination. In any case, the groundwater table below the site is estimated to be 200 feet or deeper. Composting windrows would be covered to

reduce runoff, and any surface runoff from the composting area would be directed to a stormwater retention pond. The facility would be operated in compliance with regulations and requirements of the California Integrated Solid Waste Management Board and the California Regional Water Quality Control Board intended to protect water quality. The site already has water wells sufficient for dust suppression and plant operations, as well as storage tanks that would be part of the fire suppression system.

There are no noise-sensitive areas (e.g., occupied residences, hospitals) in the vicinity of the proposed plant. Nonetheless, within 30 days of the start of operation, an acoustical consultant selected by BTI and approved by Fresno County would conduct an acoustical analysis of the facility to prove conformance with the Fresno County Noise Ordinance. The analysis and report must be submitted to the County for its review. If the acoustical analysis indicates noise levels that exceed the Fresno County Noise Ordinance, additional mitigation measures as approved by the County must be implemented within 60 days. Truck deliveries and facility operations (with the exception of the manure digester) must be limited to the hours of 7:00 A.M. and 5:00 P.M..

Traffic increases would be within the capabilities and service levels of existing roads as determined by Fresno County. BTI would submit a report acceptable to the County detailing required improvements that will be made to the existing access road into the site. Access road improvements would be subject to Fresno Fire Protection District Standards and County Road encroachment standards.

All manure processing would occur in closed, stainless steel tanks which would reduce the risk of nuisance odors. Processing would be conducted at sufficiently high temperature to kill pathogens found in manure. All composting and feedstock materials would be handled by machinery to minimize worker contact. Workers also would be provided with safety equipment to protect them from dust and high noise levels associated with heavy equipment. Approved fire hydrants would be not less than 50 feet and no more than 150 feet from all exterior building points or as approved by the local Fire District.

The cogeneration unit used to generate electricity would employ best available control technologies as stipulated by the regional air quality board. Dust control measures, such as watering and covering compost windrows, would ensure compliance with air quality standards and requirements of the San Joaquin Valley Unified Air Pollution Control District. The District has determined that no significant air quality impacts from the project are likely to occur.

BTI would be required to submit a hazardous materials plan to Fresno County

that includes spill response plans and material safety data sheets for all listed chemicals. The illegal delivery of any hazardous waste to the site would be reported to the Fresno County Health Department. Any hazardous waste accidentally delivered to the site would be stored in appropriate containers and removed by a permitted hazardous waste hauler.

As part of the Proposed Action, several additional measures would help ensure that impacts are avoided or minimized. For example, prior to constructing new facilities, BTI's building plans would be reviewed by Fresno County for conformity with County regulations and the Conditional Use Permit previously issued for the project. The site plan review would consider final design of parking and vehicle circulation, grading and drainage, on-site fire protection, outdoor lighting and access road improvements. County regulations require that the facility must be operated to avoid creating odor, vector, dust, litter or noise nuisance to adjacent properties. All outdoor lighting would be hooded so as not to produce glare upon adjacent properties.

The environmental assessment completed by DOE found that the project has the potential to create several positive environmental impacts. It would convert a locally abundant waste into energy. It would help to commercialize an energy production-waste disposal technology. It would offer a solution to the problem of manure disposal and its impact on local water quality. It would turn municipal green waste into a useful product, thereby extending the life of the County landfill. It would convert an abandoned facility into a source of local income, employment and tax revenue.

The project has been subject to extensive scrutiny and numerous opportunities for public involvement. Several hearings have been held on the project. Local governments and landowners have expressed their support for the project. Finally, the State of California, through its process under the California Environmental Quality Act, found that the "there is no evidence in the record that demonstrates that the project will have a significant effect on the environment."

Alternatives Considered. The environmental assessment considered the No Action Alternative in addition to the Proposed Action. Under this alternative, DOE would not authorize funding for the proposed project. The no-action alternative would not accelerate the commercial development of emerging renewable energy technologies.

DETERMINATION:

Based on the information found in the environmental assessment and its supporting appendices, DOE has determined that a decision on the part of DOE to provide funding to the California Energy Commission to fund a portion of the proposed Biorecycling Technologies, Inc., Noble Biogas and Fertilizer Plant under the DOE Commercialization Ventures Program does not constitute a major Federal action that would significantly affect the quality of the human environment within the meaning of the National Environmental Policy Act. Therefore, preparation of an environmental impact statement is not required.

Issued in Washington, D.C this 10th day of September, 1997.

Joseph J. Romm
Acting Assistant Secretary
Energy Efficiency and Renewable Energy