SAN BERNARDINO COUNTY
INITIAL STUDY ENVIRONMENTAL CHECKLIST FORM

This form and the descriptive information in the application package constitute the contents of Initial Study pursuant to County Guidelines under Ordinance 3040 and Section 15063 of the State CEQA Guidelines.

APN:	**0492-021-24-0000**
APPLICANT:	NURSERY PRODUCTS LLC
PROPOSAL:	CONDITIONAL USE PERMIT TO ESTABLISH A SITE FOR CO-COMPOSTING OF BIO-SOLIDS AND GREENWASTE ON 160.00 ACRES
COMMUNITY:	1ST SUPERVISORIAL DISTRICT
LOCATION:	SOUTH OF State Route 58, APPROX. 12.3 MILES EAST OF KRAMER JUNCTION, 8 MILE WEST OF HINKLEY
JCS:	
STAFF:	Carrie Hyke, Supervising Planner
REP('S):	URS CORPORATION AMERICAS (DAVID MARX)

USGS Quad: TWELVE GAUGE LAKE
T,R, Section: T10NR5WS36, SE 1/4
Thomas Bros: Pg. 348, Grid L9
Planning Area: Barstow Sub Regional Planning Area (RSA32-A)
OLUD: RESOURCE CONSERVATION
Improvement Level: IL-4

PROJECT DESCRIPTION:

1. **Project Title: Nursery Products Compost Facility**

2. **Lead Agency Name and Address:** San Bernardino County, Land Use Services Department, Advance Planning Division, 385 North Arrowhead Avenue, San Bernardino, CA 92415

3. **Contact person and phone number:** Carrie Hyke, Supervising Planner 1-909-387-4147

4. **Project location:** The proposed project is located in the unincorporated area of the County of San Bernardino (County), south of State Route 58, eight miles west of the community of Hinkley. Entry to the site is from State Route 58, traveling south approximately 0.25 miles on an unnamed access road.

5. **Project sponsor's name and address:** Nursery Products LLC, 647 Camino De Los Mares #108-174, San Clemente, CA 92673

PROJECT SUMMARY:

Nursery Products LLC has submitted a proposal to the County for the development of a biosolids / green waste co-composting facility on a 160-acre parcel located south of State Route 58, approximately 12.3 miles east of Kramer Junction and 22 miles west of Barstow (see Figures 1 & 2). The facility will be known as the Nursery Products Co-Composting Facility (Project). The composting facility would produce agricultural grade compost. Intended usages of the proposed project site include an office space approximately up to 720 square feet in size, parking, scale, composting windrows, screening area, equipment / finished product storage area and a 2,000-gallon double-walled, above-ground diesel fuel tank. Limited signage is proposed.

The facility would store a maximum of 7 days of green waste feedstock on site (7,000 cubic yards). The facility is expected to operate 7 days a week, 24 hours a day with 8 employees. The maximum amount of biosolids feedstock that will be stored in the facility will also be limited to 2,000 cubic yards. The facility will process approximately 400,000 tons per year of compostable material.

The total amount of "active" compost is not expected to exceed 250,000 tons. The maximum number of truck trips per day is expected to be 522. The facility will be able to store approximately 350,000 tons of composted finished product. Given landscaping and agricultural demand and use of the finish product, storage is expected to peak during the winter months (mid-November until late February).

Equipment that will be used during the composting process includes a front-end loader, tub grinder, windrow turner, and screens.

Small storage sheds will be placed on-site. One of these storage sheds will be used for hand tools and basic supplies. A second storage shed will be used for solar panel equipment. The solar panels will be used as the basic energy source for the office trailer and ancillary power needs. Trash and non-recoverable or non-marketable residues will be placed in an enclosed trash receptacle for transport and disposal at a permitted solid waste landfill.

The site will receive a daily average of 1,100 tons of compostable material (biosolids and green waste) delivered to the site via truck. The maximum daily quantity will be 2000 tons. Typically, biosolids and green waste will be delivered to the site and dumped directly on the 'composting pad'. A front-end loader will mix the material together and form it into a windrow. The windrow will be approximately eight to twelve feet in height and approximately fifteen-feet wide. Settling will reduce the height to approximately six to eight feet.

After the composting process (typically 60 days), each windrow would be screened to remove wood pieces that are too large for a typical finished product use. The finished product will be transported by truck to agricultural and other users.

OTHER AGENCY PERMITS REQUIRED:

To implement this project, the Applicant will need to obtain the following permits/approvals:

1) Conditional Use Permit from County of San Bernardino;
2) Composting Facility Permit from the California Integrated Waste Management Board;
3) Waste discharge requirements (or waiver) issued by Lahontan Regional Water Quality Control Board; and
4) Permits to construct and operate issued by the Mojave Desert Air Quality Management District.
5) NPDES storm water discharge permit issued by Lahontan Regional Water Quality Control Board;

ENVIRONMENTAL/EXISTING SITE CONDITIONS:

The proposed Project is located approximately twenty-two miles west of Barstow, in the Desert Region of the County. The town of Hinkley is approximately 8 miles west of the project site. The project site, between Kramer Junction and Hinkley, is flat with an elevation of approximately 2,310 feet above sea level. Drainage is to the north and east. The Mojave River, located approximately 12 miles to the south, is the closest major waterway.

The abandoned Hawes Airfield, a former World War II training field, is situated approximately 0.5 mile northwest to the Project site. Contamination, primarily from diesel fuel used for the generators, has been documented on the southern half of the airfield site.

The land use designation and zoning of the project site is Resource Conservation (RC). The Development Code allows for the proposed co-composting use in this land use district, subject to review and approval of a Conditional Use Permit application under the "Additional Uses" section of the code.

SURROUNDING LAND USES:

	Existing Land Use	Official Land Use District	IL
Project Site	Vacant	Resource Conservation	4
Northwest	Vacant	Resource Conservation	4
South	Vacant	Resource Conservation	4
East	Vacant	Bureau of Land Management (BLM)	4

IL Infrastructure Improvement Level – Levels range from 1 to 5 and are tied to the availability of the basic infrastructure required for development (roads, water and wastewater). IL-1 represents the most intense urban areas. IL 5 is applied to very rural areas.

IL4 Improvement Level 4 – Level 4 is applied to area where only a limited amount of low-density development is planned or anticipated due to resource constraints and/or a desire to maintain a rural living environment. Required improvements are intended to protect the public health and safety and focus primarily on safe access and the availability of local or onsite water. These areas are not expected to convert to higher densities during the term of the County General Plan.

There are no residences for a distance of at least five miles to the north, west and south. The first developed area to the west is Kramer Junction at a distance of approximately 12.3 miles. The proposed Harper Lake development area is in excess of five miles to the north. The Harper Lake Wildlife Observation area is over eight miles to the northeast. There is a single residence 1.5 miles to the east. A second residence is 2.3 miles to the east. The community of Hinkley is approximately seven miles to the east.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agriculture Resources	☒ Air Quality
☒ Biological Resources	☐ Cultural Resources	☐ Geology/Soils
☒ Hazard & Hazardous Materials Planning	☒ Hydrology/Water Quality	☐ Land Use
☐ Mineral Resources	☐ Noise	☐ Population/Housing
☐ Public Services	☐ Recreation	☐ Transportation/Traffic
☐ Utilities/Service System	☒ Mandatory Findings of Significance	

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation, the following finding is made:

☐ The proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ Although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☒ The proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ The proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ Although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Prepared by: David Marx, URS  May 2, 2006

Prepared for: Randy Scott, Division Chief  May 2, 2006
For Director, Land Use Services Department

EVALUATION OF ENVIRONMENTAL IMPACTS

Pursuant to Section 15063 of CEQA Guidelines, an explanation is required for all "Potentially Significant Impact," "Potentially Significant Impact Unless Mitigation Incorporated," and "Less Than Significant Impact" answers, including a discussion of ways to mitigate the significant effects identified.

Issues & Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS - Would the project:				
a. Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c. Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d. Create a new source of light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

DISCUSSION:

The existing visual character or quality of the project site consists of desert open-space, disturbed by some development including roadways, transmission lines and other abandoned development within the project vicinity.

SUBSTANTIATION:

a. The project site is located within the Desert Planning Region of San Bernardino County (San Bernardino County General Plan [SBC 1999]). A “scenic area” is defined by the San Bernardino County General Plan as follows: Areas that provide a vista of undisturbed natural areas, including a unique or unusual feature that comprises an important or dominant portion of the viewshed, or an area that offers a distant vista that provides relief from less attractive views of nearby features. Although this area is comprised of relatively undisturbed natural areas, none of the area has been characterized by the San Bernardino County General Plan as “scenic”. Primary scenic concerns of County residents include the preservation of scenic views within the mountain communities and limits for development on ridge tops within the desert communities (San Bernardino County General Plan [SBC 1999]). Impacts from the project are considered to be less than significant.

b. Currently, only State Route 38 is officially designated by Caltrans as a State Scenic Highway within San Bernardino County (Caltrans Scenic Highways Program, 2005). State Route 38 is not within view of the proposed project. The project site is however, located off State Route 58, which has been designated by Caltrans as an Eligible State Scenic Highway. No trees, rock outcroppings or historic buildings are located along this Eligible State Scenic Highway or within the project vicinity. Consequently, no impacts are anticipated.

c. The project, including an office, parking, scale, composting windrows, screening area, equipment/finished product storage area, and a 2,000 gallon above ground fuel tank would change the existing visual character of the site. The project would include windrows up to 15 feet in height, stockpiles of feed stock and composted product up to 50 feet high. Visual impact however, is defined by Caltrans and the Federal Highway Administration (FHWA) as follows: resource change + viewer response = visual impact. Therefore, although the visual character of the area would change, a visual impact would only occur if the viewer response to this change is also considered significant. A review of existing views to the project site was conducted. The project site is located over approximately 12.3 miles from major residential developments (Barstow to the east, Kramer Junction to the west), none of which will have views to the project. There are no bike paths, parks, or recreational areas within the immediate project vicinity. Therefore, no recreational viewers will be affected by the project site. The only potential viewers to the project are from travelers along State Route 58 or the adjacent roadways (Harper Lake Road/Helendale Road). Although the visual resource change to the site would occur, the viewer response to this change is considered less than significant. Overall impacts to visual character are considered less than significant.

d. The project will create new sources of lighting as necessary for project safety. The County of San Bernardino currently maintains Ordinance 3900, known as the Night Sky Ordinance. This ordinance includes requirements related to glare and outdoor lighting, mountain and desert areas. The intent is: to encourage effective, non-detrimental lighting, maintain night-time safety, utility, security and productivity; and to encourage lighting practices and systems that will minimize light pollution, glare and light trespass, conserve energy and resources and curtail the degradation of the night time visual environment. The following standards are applicable to all structures and free-standing outdoor light to be used as part of the proposed project. (1) Any lighting for new construction shall be shielded to preclude light pollution or light trespass on adjacent property, on any other property within the line of sight (direct or reflected) of the light source, or to any member of the public who may be traveling on adjacent roadways or rights-of-way. (2) Any proposed lighting associated with the project will be in conformance with this ordinance, and therefore adverse affects to day or night views from lighting or glare will be less than significant.

SIGNIFICANCE:

Visual Impacts expected from the Project would be minor and not considered as significant.

Issues & Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
II. AGRICULTURAL RESOURCES - In determining whether impacts to agricultural resources are significant environmental effects, lead agencies could refer to the California Agricultural Land Evaluation and Site Assessment Model prepared by the California Department of Conservation as an optional model to use in assessing impacts on agricultural farmland. Would the project:				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program in the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c. Involve other changes in the existing environment which, due to their location or nature, could individually or cumulatively result in loss of Farmland, to non-agricultural use?	☐	☐	☐	☒

DISCUSSION:

The Project site is located in a rural area and has not been used for irrigated agricultural production. The Project site contains no vegetation suitable for livestock grazing and is classified as "non-designated" land on the San Bernardino County Important Farmland map prepared by the California Department of Conservation (2002). According to the County of San Bernardino Assessor's Office Staff, there are no Williamson Act contracts on any of the parcels associated with the Project.

SUBSTANTIATION:

a. The Project site is not in agricultural production, and there are no Prime, Unique Farmlands, or Farmlands of Statewide Importance on, or surrounding, the proposed project site. Therefore, the proposed Project does not have the potential to result in the loss or conversion of agricultural resources to non-agricultural use. No impacts are anticipated.

b. The Project site is not located in an area designated for agricultural production, and therefore does not conflict with any existing zoning for agricultural purposes. Additionally, there are no areas within or surrounding the Project region that comprise an agricultural preserve under a Williamson Act contract. No impacts are anticipated.

c. The implementation of the proposed Project would not displace agricultural production, cause the loss of agricultural land, or impair the agricultural productivity of Farmland that could individually or cumulatively influence or result in an impact to any agricultural resource as there is no current or proposed agricultural use of the project site. No impacts are anticipated.

SIGNIFICANCE:

No impacts to agricultural resources would occur.

Issues & Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
III. AIR QUALITY – Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	☒	☐	☐	☐
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☒	☐	☐	☐
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☒	☐	☐	☐
d. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☒
e. Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒

DISCUSSION:

The proposed project is located within the Mojave Desert Air Basin under the jurisdiction of the Mojave Desert Air Quality Management District (MDAQMD). The MDAQMD jurisdiction encompasses the desert portion of San Bernardino County. Currently, this area is in non-attainment status for particulate matter ten microns in diameter or less (PM_{10}) and Ozone (O_3). The proposed Project has the potential to produce additional PM_{10} and O_3 precursors as well as additional criteria pollutants during the construction and operational phases. These emissions will be created from mobile sources including worker commuter trips, truck trips for delivery of the biosolids and green waste, transport of the finished product to customers, off-road construction equipment, and equipment used in the operations. Additional emissions will be generated from the composting windrows. An environmental impact report is required to quantify these emissions and compare them to short-term and long-term MDAQMD significance thresholds, and propose suitable mitigation measures (if any).

SUBSTANTIATION (discuss conformity with the Mojave Desert Air Quality Management Plan, if applicable):

a-c) The MDAQMD adopted the "Mojave Desert Planning Area-Federal Particulate Matter Attainment Plan" in 1995 that covers the area of the project site. This Plan includes control measures to reduce dust emissions from construction type activities such as using water sprays on disturbed areas and roads, minimizing trackout, covering haul trucks, stabilizing surfaces, and preparing a dust control plan.

The MDAQMD adopted the "2004 Ozone Attainment Plan" that states that the current MDAQMD rules and regulations represent all feasible control measures for MDAQMD sources. The proposed project will be in compliance with the applicable rules and regulations.

Even with implementation of feasible measures to reduce project emissions, potential airborne emissions could result in a significant environmental impact to air quality from stationary and mobile emissions sources. These potential emissions shall be quantified in an environmental impact report.

d) There are no sensitive receptors (i.e. schools, hospitals, etc.) within 5 miles of the project site. The project location is within a sparsely populated area of the southeastern Mojave Desert. There are no residences for a distance of at least five miles to the north, west and south. The first developed area to the west is Kramer Junction at a distance of approximately 12.3 miles. There is a single residence 1.5 miles to the east. A second residence is 2.3 miles to the east. The community of Hinkley is approximately eight miles to the east.

e) The proposed composting facility has the potential to produce odors of varying degrees. Since the facility is located in a sparsely populated area, any potential odor produced by facility operations will not affect a substantial number of people.

SIGNIFICANCE:

The project has the potential to result in significant air quality impacts. Stationary and mobile source air emissions from the proposed operation shall be examined in an Environmental Impact Report.

MITIGATION:

To be proposed in an Environmental Impact Report.

Issues & Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES -Would the project:				
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☒	☐	☐	☐
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☒	☐	☐
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☒	☐	☐	☐
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

DISCUSSION:

The project site consists of low elevation open desert scrub with two apparent flood flow routes running through the middle of the site. A single vegetation type, Desert Saltbush Scrub is present throughout the project site. This vegetation community consists of typically flat areas of low-growing, grayish, microphyllous shrubs up to a meter in height, with some succulent species and low-growing annuals. Desert Saltbush Scrub is usually dominated by a single Atriplex species and very few other shrubs. The saltbush scrub on the project site is dominated by *Atriplex polycarpa*, with sparse creosote (*Larrea tridentate*), and occasional cotton-thorn (*Tetradymia spinosa*). The herbaceous understory included Mediterranean schizmus (*Schizmus barbatus*), Storke's bill (*Erodium* spp.) seedlings, and desert herb (*Chorizanthe rigida*). Cryptogamic crusts were interspersed throughout the site. Wildlife species that were detected included black-tailed jackrabbit (*Lepus californicus*), common raven (*Corvus corax*), black throated sparrow (*Amphispiza bilineata*), cactus wren (*Campylorhynchus brunneicapillus*), and red-tailed hawk (*Buteo jamaicenis*). Snake, lizard and rodent tracks and burrows were observed throughout the site.

No plant or animal species of special management concern were detected on the site at this time; however, forage plants for desert tortoise and Mohave ground squirrel are present on the property, and these species have been reported within the vicinity of the project site. The property is also located within Bureau of Land Management (BLM) Category I desert tortoise habitat, which receives the highest level of protection from BLM and is managed to maintain stable, viable tortoise populations, protect existing tortoise habitat values, and increase tortoise populations where possible (BLM 2001). Potential Mojave ground squirrel habitat exists on the project site.

SUBSTANTIATION:

a-b. The Project site is located within BLM Category I desert tortoise habitat. The desert tortoise (USFWS: Threatened; BLM: Sensitive; CDFG: Threatened), Mohave ground squirrel (USFWS: None; BLM: Sensitive; CDFG: Threatened), and Barstow woolly sunflower (USFWS: Sensitive; BLM: Species of Concern; CDFG: None; CNPS List 1B) have been recorded within the vicinity of the property. Protocol surveys will be conducted in April/May 2006 to determine presence or absence of these species. However, until the surveys are completed, it is assumed that the Project would have a potentially adverse impact by modification of habitat. Resource agencies have developed mitigation measures for these types of impacts that have been used for other projects and it is expected that incorporation of appropriate mitigation would reduce these impacts to less than significant. Site surveys were conducted by URS Corporation (URS) biologists on January 31, 2006. No riparian habitat or other sensitive communities exist on the project site; therefore no impacts would occur to this type of habitat.

c. Implementation of the project would not impact federally protected wetlands. The Project site is bisected in two areas by apparent flood flow paths that likely flow eventually into the Mojave River. Based on biological surveys conducted by URS biologists on January 31, 2006, the flow paths on the site lack an ordinary high water mark, well defined cut channels or wetland vegetation. The site is within a 500-year floodplain, which suggests that only rare flood flows pass through the site.

d. Project would disturb 160 acres in an area with little development. Potential impacts to wildlife movement will be examined and analyzed in the EIR.

e. The project is located within the planning area of the West Mojave Plan. The West Mojave Plan is a multi-agency, multi-species plan for the desert that designates certain areas for habitat, multiple uses, and development. It is designed to conserve habitat, foster economic development, and streamline the permitting process for development. Implementation of the proposed project would be in accordance with mitigation as recommended by this plan and impacts would be less than significant.

f. The project is located within the planning area of the West Mojave Plan. Implementation of the proposed project would not conflict with this plan.

SIGNIFICANCE:

The Project has the potential to significantly impact biological resources and these impacts shall be evaluated in an Environmental Impact Report.

MITIGATION:

Mitigation to biological resources impacts will be proposed in an Environmental Impact Report.

Issues & Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES -Would the project:				
a. Cause a substantial adverse change in the significance of a historical resources as defined in §15064.5?	☐	☐	☐	☒
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒
d. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

DISCUSSION:

Although no archaeological sites were identified by the cultural resources investigations performed for this study, the project is located near two playa lakes which historically held more water than present, prior to damming and diversion of tributary washes. Under modern climatic conditions water levels in playa lakes are generally very low, or entirely dry, with the lakes filling after rainstorms or during spring runoff. However, during wetter periods in prehistory these lakes would have contained water during much of the winter season, which would have supported a much wider variety of plants and animals than today. In the Mojave Desert, prehistoric archaeological sites are commonly associated with ancient shorelines of now dry playa lakes. Similarly, resource procurement sites and temporary campsites are more common within a few miles of these ancient lakes. The proposed project is located within a few miles of an ancient playa lake (Harper Lake) and roughly ten miles from a second playa lake (Rogers Lake) and as a result there is a possibility that the remains of a prehistoric archaeological site may be encountered within the project area below the present ground surface.

SUBSTANTIATION:

a) Based on a review of site records at the San Bernardino Archaeological Information Center (SBAIC), databases for the National Register of Historic Places (NRHP) and California Historical Landmarks (CHL), and a pedestrian survey of the project area there are no historical resources located within or immediately adjacent to the project area. Therefore, the project will not have any direct or indirect (visual, noise/vibration, dust)

impacts on a significant historical resource as defined in CEQA (Appendix 1 PRC 5024.1).

b) Based on a review of site records at the SBAIC and a pedestrian survey of the project area conducted by URS on January 25, 2006, there are no archaeological sites located on the surface of the project area. However, due to the proximity of the project area to playa lakes there is a possibility cultural materials are present below the modern ground surface. If there is a discovery of a potentially significant archaeological resource during construction, work should stop in the immediate vicinity of the new discovery and a qualified archaeologist should evaluate the resource to determine whether data recovery or other mitigation would be required.

c) The Department of Agriculture's Soil Conservation Service (SCS) State Soil Geographic (SATATSGO) GIS data layer contains units mapped at the series level or contains transitions of two or three soil series lumped together. According to the SATATSGO GIS layer, the Project site has Cajon-Bryman-Halloran soil type. Because the surface soil was deposited in 'recent' times, and periodic flooding would erode or deposit material from higher slopes, no significant fossil records would be expected to be present in this type of soil environment. Also, preserved paleontological materials in this type of soil horizon are not anticipated to be found. Therefore, the Project site's soil classification is not expected to have paleontologically sensitive materials.

d) A literature review conducted at the SBAIC and a pedestrian survey did not identify known cemeteries or archaeological sites with human remains within the project area. Thus, the project will not disturb any known human remains. If unexpected human remains are encountered during construction, work in the vicinity should halt and the County Coroner should be notified immediately. If the remains are determined to be Native American, the coroner will contact the Native American Heritage Commission (NAHC), which will contact the Most Likely Descendant (MLD). Protocol outlined by the NAHC (1991) and in accordance with Section 7050.5 of the Health and Safety Code, Section 5097.98 of the Public Resources Code (Chapter 1492, Statutes of 1982, Senate Bill 297), and SB 447 (Chapter 44, Statutes of 1987) will guide treatment of the human remains and NAHC and MLD notification.

SIGNIFICANCE:

With monitoring and mitigation (if necessary), less than significant impacts to Cultural Resources would result from the proposed Project.

MITIGATION:

Construction monitoring and emergency discovery plan requirements will be proposed in the Environmental Impact Report.

Issues & Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
V. GEOLOGY AND SOILS -Would the project:				
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☐	☒

Issues & Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☐	☒
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒
d. Be located on expansive soil, as defined in Table 18 1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☒
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

DISCUSSION

Soils on the proposed Project site are comprised of very rocky, desert alluvium. URS has reviewed maps of the local active fault areas developed in compliance with the Alquist-Priolo Earthquake Fault Zoning Act (Hart and Bryant 1997). The Site is not located on or near an identified fault zone, as defined by the California Geologic Survey (CGS) as earthquake fault zones (EFZs).

The Kramer Hills Fault, located approximately 17 miles northwest of the site (Hart et al. 1987), has a low to moderate probability of rupturing within the next 100 years. The Kramer Hills Fault is an oblique right-lateral normal fault with a length of approximately 8 miles. The most recent surface rupture on the fault was during the late Quaternary Period. Based on official maps of EFZs, the proposed Project site is located within a large area defined as having a 0.8 to 0.9 probability of experiencing an earthquake of magnitude 5 or greater within the next 50 years. An earthquake of magnitude 5.0 to 5.9 can cause major damage to poorly constructed buildings over small regions. At most, slight damage will be experienced by well-designed buildings. Since the property is not intended for permanent occupancy or residential use, and only temporary structures are planned for construction, the extent of damage will likely be slight.

SUBSTANTIATION:

a) The proposed project site is not located within an Alquist-Priolo special studies zone. No major faults exist near the project site. The State Mining and Geology Board established policies and criteria in accordance with the Alquist-Priolo Special Studies Zones Act and defined an "active fault" as a fault that has had surface displacement within the Holocene time period (the last 11,000 years). The closest fault, the Kramer Hill Fault, is located approximately 17 miles northwest of the project site. This fault does not pose a threat to the project area.

Soils in the project area are gravelly sands with good drainage capabilities. The site has not been mapped as an area of potential liquefaction and the ancient flood plain nature of the site contains no topography that would be associated with landslides due to seismic shaking. The Project site and surrounding area is essentially flat and no landslide potential is present.

b) The Soil Survey of San Bernardino County, California, Mojave River Area, indicates that soils in the project area are not susceptible to sheet and rill erosion by water and their erodibility by wind is slight. Erosion, if it occurs would be minor.

c-d) Engineering classifications presented in the Soil Survey show that soils in the project vicinity are mainly sandy and gravelly, exhibiting a high bearing strength, no plasticity, and a low shrink or swell potential. These characteristics relieve concerns related to unstable soils. In addition, only several small structures would be constructed for office and storage functions, limiting the dangers posed to persons by unstable geologic units. The low shrink or swell potential in site soils precludes the presence of expansive soils, which could damage structures placed upon these types of soils. No impact is anticipated due to expansive or unstable soils.

e) No septic tanks would be used on-site. Portable sanitation units would be implemented for sewage disposal with an approved sewage hauler contracted for sanitary disposal.

SIGNIFICANCE:

Due to site geologic and soil conditions, the low-impact nature of the development on-site (limited to modest grading), the absence of any habitable structures, and relatively low population density, only minor impacts would occur from an active earthquake. No other soil or geology related impacts would occur.

Issues & Supporting Information Sources	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
VII. HAZARDS AND HAZARDOUS MATERIALS -Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☒	☐	☐	☐
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☒	☐	☐	☐

Issues & Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d. Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g. Impair implementation or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☒	☐	☐

DISCUSSION:

The project site is located in an undeveloped area, where the nearest residence is over approximately one mile away. The site is not located within a close proximity to sensitive receptors such as a school or hospital, nor is it within an airport land use plan. Operations will include the use of front-end loaders, windrow forming machine, rotary screen, pugmill, and associated truck and automobile traffic. The project will require the use of petroleum-based products such as oils, diesel fuel, and lubricants.

SUBSTANTIATION:

a-b) Hazardous materials that will be used or stored on-site would be asphalt oils, waste oils, diesel fuel, and lubricants. These materials would be stored in 55-gallon drums, 35-gallon storage drums, and a proposed above ground 2,000 gallon fuel storage tank with required containment structures. All used oils would be recycled or disposed of at a proper receiving facility. Deliveries of hazardous materials would be by approved shippers under proper manifests. A Spill Prevention, Control, and Countermeasure Plan (SPCC), is required for the Project. Measures contained within the SPCC Plan would include: containment, clean-up, and reporting of spilled liquids containing petroleum products or hazardous materials, the use of absorbent pads near the sources of leaks, sand and gravel dikes to contain spills, daily inspections of dispensers and fueling areas, employee awareness and training, and secondary containment areas. The SPCC Program also refers employees to Material Safety Data Sheets (MSDS) that explain the proper response for clean up of spills and emphasizes the use of personal protection

equipment. An Environmental Impact Report shall quantify the risk from the use of hazardous materials on the site and propose mitigation measures to reduce these impacts.

c-d) The project site is not within ¼ mile of an existing or proposed school. The project site is not listed as a hazardous materials site.

e) The nearest operating airport is the Sun Hill Ranch Airport, located 13 miles to the southwest. The site is not located within an airport land use plan.

f) The proposed project site is not located within an Airport Safety Review Area. The AR designation refers to those areas within low altitude / high speed corridors designated for military aircraft use. Composting activities would not result in significant impacts to aircraft flying overhead.

g) A Business Emergency/Contingency Plan (Business Plan) will be required for the composting facility. The Business Plan will provide information such as emergency contact persons and numbers, the types of hazardous materials stored on-site, the correct emergency responders to contact for specific emergencies, and evacuation procedures and routes to use during an emergency event. No area-specific emergency response plan exists for the area, therefore the proposed project will not interfere with one.

h) The site is located in a sparsely populated area of the desert with sparse vegetation of low density consisting of various species of cacti, creosote bush, and smoke trees. The composting operation will require the biosolids and green waste to reach certain high temperatures adequate for composting and there is the possibility that fire could result in the materials being composted. The applicant will be required to develop various control plans as part of the Solid Waste Facility Permit required. One of the control plans will be a fire control plan including water storage and vegetation clearing requirements. An environmental impact report shall further examine the possibility of combustion in the windrows and identify mitigation measures necessary to minimize potential impacts from a fire. .

SIGNIFICANCE:

The project has the potential to result in hazards to the environment through a release of hazardous materials or from the combustion of the composting materials. The significance of this risk and appropriate measures to address it shall be analyzed in an environmental impact report.

MITIGATION:

Mitigation measures will be identified and proposed in the Environmental Impact Report.

Issues & Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. HYDROLOGY AND WATER QUALITY -Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☒	☐	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☒	☐	☐	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☒	☐	☐	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☒	☐	☐	☐
f) Otherwise substantially degrade water quality?	☒	☐	☐	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

DISCUSSION:

The Project is located in an arid area that typically receives less than 4 inches of rain per year. The composting facility would be located within an area of flat topography sloping at less than 2 degrees to the north.

The proposed facility is not located within FEMA's 100-year flood hazard area. In order to deflect potential runoff flows around composting areas and back to the original drainage courses, a berm is proposed to be constructed along the perimeters of active compost areas.

On-site water from precipitation that originates from within the site would be directed to settling basins for evaporation and percolation. Areas for storage of toxic substances for use in daily operations such as fueling stations, equipment maintenance areas, and above-ground storage tanks would be constructed to divert water flows away from the storage area, or would trap runoff for disposal.

The groundwater level below the composting area is approximately 300 feet below the surface. No water is added to the biosolids or greenwaste during the composting process; however, they contain of large amounts of moisture at the beginning of the composting process. This moisture evaporates as part of the composting process. The Project will likely include construction of an on-site water well primarily for dust control water. Water may also be brought to the facility by tanker. The expected consumptive water usage for the entire site will be less than 1,000 gallons per day.

SUBSTANTIATION:

a) According to Lahontan Regional Water Quality Control Board (LRWQCB), the project deals with a non-sewage discharge to land and will need to be regulated by the Regional Board. The LRWQCB did not anticipate that the project would violate water quality standards or waste discharge requirements. The facility will conduct operations on a pad constructed of native soils that will be surrounded by a berm. The purpose of the berm will be to passively direct storm water away from the composting pads. Because the composting materials to be used have the capability of containing pathogens, there is the possibility that water discharge could occur that violates standards. This potential will be examined in an Environmental Impact Report.

b) Water for daily operations (< 1,000 gallons daily) is not expected to deplete groundwater supplies or interfere with recharge.

c-f) The US Department of Agriculture's National Cooperative Soil Survey, rate the Project site's propensity for erosion as "Slight", indicating that erosion is unlikely under ordinary climatic conditions (USDA, 2006). Drainage patterns of the site have the potential to be altered with creation of the composting windrows and leveling of the site. Additionally, rain water that contacts uncomposted biosolids and/or newly created windrows has the potential to become polluted runoff. On-site water from precipitation that originates from within the site would be directed to settling basins for evaporation and percolation. Areas for storage of toxic substances for use in daily operations such as fueling stations, equipment maintenance areas, and above-ground storage tanks would be constructed to divert water flows away from the storage area, or would trap runoff for disposal. An environmental impact report shall discuss amounts of runoff anticipated and the potential to carry unacceptable concentrations of pollutants. An environmental impact report shall also characterize the underlying hydrogeologic substructure of the site, the depth and quality of groundwater, and potential for contamination of that resource. The drainage patterns of the site have the potential to be altered with creation of the composting windrows and leveling of the site. An environmental impact report shall determine the adequacy of the berm proposed to be placed around the composting pads to ascertain whether it would effectively control stormwater runoff.

g-h) No housing is proposed with the project. The site is not located within an area designated as a 100 year flood zone.

i-j) No dams or significant levees exist above the proposed project site. Flash floods would not be capable of producing mudflows. The berm will minimize impacts from mudflows.

SIGNIFICANCE:

The project has the potential to result in significant impacts to surface water drainage and groundwater. The significance of potential impacts to hydrology and water quality that could result shall be examined in an Environmental Impact Report.

MITIGATION:

Mitigation measures for potential hydrology and water quality impacts will be proposed in an Environmental Impact Report.

Issues & Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. LAND USE AND PLANNING -Would the project:				
a. Physically divide an established community?	☐	☐	☐	☒
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

DISCUSSION:

The Project site and areas to the north, south, east and west are undeveloped vacant land. The nearest residential development is over 1.5 miles away.

The General Plan guides all aspects of land use within the County. The current General Plan was revised in the June of 1989 and established land use policies for a 20-year planning horizon. The General Plan is currently being updated with an anticipated adoption in the Summer 2006.

The San Bernardino County Development Code implements the regulations of land uses within the unincorporated areas of the County. Each property is assigned a "zone" or "land use district" which describes the rules under which that land may be used. The proposed project site is located in a Resource Conservation (RC) land use district. The San Bernardino County Development Code Section 84.0625 (j) allows for co-composting to be proposed in any land use district subject to review and approval of a Conditional Use Permit application under the Additional Uses section of the code.

SUBSTANTIATION:

a) The proposed composting site is currently situated in an undeveloped, vacant desert land. The closest residential area is 1.5 miles to the east of the proposed project site. A second residence is approximately 2.3 miles to the east. There are no residences for a distance of five miles area of to the north, west and south. The Project site is not located in an established community. Additionally, the proposed project does not include structures or features that could result in a physical barrier dividing an established

community.

b) The project includes a Conditional Use Permit to allow development of the composting facility. Proposed size of the project is approximately 160 acres. The proposed land use does not conflict with surrounding land uses, which are predominantly vacant desert. The proposed project will not conflict with either the existing County of San Bernardino General Plan or the proposed Draft General Plan.

c) The Project site is located within the boundaries of the West Mojave Plan. The West Mojave Plan, one of the largest habitat conservation plans (HCP) developed in the United States, encompasses 9.4 million acres in San Bernardino, Kern, Los Angeles, and Inyo counties. The West Mojave Plan is a joint document released by the U.S. Bureau of Land Management (BLM), the County of San Bernardino, and the City of Barstow. The Plan consists of two components: a Federal component that amends the existing 1980 California Desert Conservation Area Plan, and a Habitat Conservation Plan (HCP) that covers development on private lands.

The West Mojave Plan defines a regional strategy for conserving plant, animal species and their habitats in an efficient, equitable, and cost-effective process. The Plan addresses the management of the desert tortoise and a number of special status plants and animals found within the 9.4 million acre West Mojave Planning Area in the proposed West Mojave Habitat Conservation Plan. The goal is to provide conservation solutions for all the plants and animals in a single plan, while allowing development to occur "in a responsible manner." Projects within the West Mojave Plan area are required to comply with threatened and endangered species laws. The existing County General Plan conservation objective is consistent with the West Mojave Plan. Since Conditional Use Permit discretionary approval complies with the West Mojave Plan, the project will be developed consistent with West Mojave Plan land use goals and policies.

SIGNIFICANCE:

There no potential impacts related to land use.

Issues & Supporting Information Sources	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
X. MINERAL RESOURCES -Would the project:				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

DISCUSSION:

The proposed project is not located in a Mineral Resource Zone or area designated as an area that may contain a significant aggregate deposit. An abandoned mine is located north of the Project site. No mining operations currently exist on site. The proposed project is not located within the Mineral Resource Zone Overlay.

SUBSTANTIATION

a-b) The proposed Project includes no permanent facilities. Temporary compost windrows and finished product stockpiles will occupy most of the site. No activities will occur on this site that would impact future development of any mineral resources.

SIGNIFICANCE:

There are no potential impacts related to mineral resources.

Issues & Supporting Information Sources	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
XI. NOISE -Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☒
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

DISCUSSION:

The Project site and adjacent area are undeveloped vacant land. The County Noise Ordinance and Noise Element of the General Plan provide the regulatory framework for allowable noise in the area.

SUBSTANTIATION

a) The estimated sound level at the residences 1.5 and 2.3 miles to the east from project operations was estimated to be 41 A-weighted Decibel (dBA) Equivalent Sound Level (L_{eq}) (47 dBA Community Noise Equivalent Level [CNEL]) and 37 dBA L_{eq} (43 dBA CNEL), respectively (URS, 2006). The proposed facility operations would be in compliance with the County Noise Ordinance requirement of 45 dBA L_{eq} nighttime/55 dBA L_{eq} daytime for stationary noise sources and the County Noise Element requirement of 60 dBA CNEL at residential land uses. Sound levels along State Highway 58 would increase by less than 1 dBA CNEL as a result of project traffic. Sound levels along Helendale Road and Hawes Auxiliary Airport Road would increase from Project traffic, due to the low level of traffic currently utilizing the roadways. However, sound levels at a distance of 50 feet from these roadways are calculated to be 55 dBA CNEL. There are no residential uses within 50 feet of the roadways and, no residential land uses would be exposed to traffic levels exceeding the 60 dBA CNEL requirement in the County Noise Element. No persons would be exposed to and noise levels would not be generated in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. Therefore, no significant impacts would occur.

b) The noise and vibration sources to be used by the project include heavy equipment vehicles and a portable tub grinder. This equipment will not produce excessive groundborne vibration or excessive groundborne noise levels. As a comparison, underground subways typically do not generate groundborne noise or vibration for more than approximately 100 feet. Therefore there is no potential exposure of persons to a generation of excessive groundborne vibration or groundborne noise levels.

c-d) There would not be a substantial temporary or permanent increase in ambient noise levels in the project vicinity above levels existing without the project. Noise on the site during initial construction and operation will be generated by operating trucks, loaders and other heavy equipment. Onsite sound levels would have some permanent increase as a result of the project operations. However, the project will comply with the Noise Element of the General Plan and with the noise ordinance at sensitive receptors and the increase in ambient noise levels in the project vicinity is not considered significant.

e) The project site is not located within two miles of a public airport or public use airport.

f) The project site is not located within the vicinity of a private airstrip.

SIGNIFICANCE:

Potential impacts from the Project would be less than significant.

Issues & Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. POPULATION -Would the project:				
a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

DISCUSSION:

The project site is located in the unincorporated area of the Desert region in the County. Predicted population growth in the County suggests that conversion of significant amounts of vacant land to residential, commercial and industrial development will occur. While the proposed project will be converting resource conservation area into an industrial usage, via a Conditional Use Permit consistent with General Plan policies, the project is not expected to induce growth directly or indirectly. The project will employ approximately eight staff members from the local area. No induced population growth is expected as a result of the proposed Project.

SUBSTANTIATION:

a) The project is located in a sparsely populated area of San Bernardino County situated approximately eight miles west of Hinkley. The employees needed for this operation will be from the surrounding market area. The project would not induce growth for the surrounding area.

b. There is no existing housing on the proposed project site. Therefore, no displacement of housing would occur.

c. There are no residents living on the proposed project site or in the immediate vicinity. Therefore, no displacement of substantial numbers of people would occur.

SIGNIFICANCE:

The Project would have no impacts related to population and housing.

Issues & Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. PUBLIC SERVICES				
a. Would the project result in substantial adverse physical impacts associated with the provisions of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire Protection ?	☐	☐	☒	☐
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

DISCUSSION:

Public services are defined as governmental services including sheriff and fire protection, healthcare, recreation and education programs that the County provides, encourages or supports. Public facilities are defined as the basic physical structures and infrastructure including roads, water distribution and storage systems, sewage collection and treatment facilities, and flood control and storm drain systems.

Local area services are expected to be adequate and appropriate for the proposed composting facility. This type of land use typically does not require extensive public services support.

The San Bernardino County Fire District's North Desert Division serves a population of 150,000 within an area of 10,884 square miles. There are 24 fire stations in this division. The proposed project is within the service area of the North County Hinkley Station, located at 37284 Flower, Hinkley, CA. The Hinkley Station provides assistance to the City of Barstow, responds to the I-15 corridor north and south of Barstow, as well as the vast unincorporated areas west of the County line near Boron. The station is staffed on an on-call basis with paid-call firefighters who live in the local community. Apparatus consists of one Type 1 structure engine, one Type 4 brush patrol with 4 wheel drive, one water tender providing additional water for rural areas, and a squad containing specialized support equipment.

SUBSTANTIATION:

a) Fire: The project would not result in the need for additional fire protection services. The applicant will be required to develop various control plans as part of the Solid Waste Facility Permit required. Though fires from the composting of biosolids/biosolids and green waste are extremely rare, a fire control plan including water storage and vegetation clearing requirements will be prepared for the Project. Consequently it is expected that impacts to Fire Protection Services would be less than significant. (See Section VII above). Due to the desert environment, and lack of vegetation around the windrows, wildland fires are not expected as a hazard to the project area.

Police: No additional residents would be generated by the project requiring increased protection from Sheriff personnel.

Schools: No local population growth would be generated by the project due to increased employment opportunities or the construction of homes. The need for additional school facilities would not occur.

Parks: The need for additional recreation facilities would not occur. The surrounding environment provides many recreational opportunities and the project would not generate population growth requiring additional park land. No impact to parks is foreseen.

Other Public Facilities: No other local government services or community services would be impacted.

SIGNIFICANCE:

The potential impacts related to public services are less than significant.

Issues & Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. RECREATION				
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

SUBSTANTIATION:

a) The project site is located in a rural area. No population growth would be induced by Project approval. The project is expected to have approximately 8 staff at the project site. No increase in the demand for recreation facilities will result from the operation of the proposed Nursery Products Composting Facility. No impact to recreational facilities is expected.

b) The surrounding environment includes vast amounts of open space and available recreational access. The project does not propose construction of new recreational facilities or expansion of the existing recreational facilities. No impacts are anticipated.

SIGNIFICANCE:

No impacts to recreational facilities will result from the Project.

Issues & Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. TRANSPORTATION / TRAFFIC				
a. Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☐	☐	☒	☐
b. Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐

Issues & Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e. Result in inadequate emergency access?	☐	☐	☐	☒
f. Result in inadequate parking capacity?	☐	☐	☐	☒
g. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☒

DISCUSSION:

The San Bernardino Associated Governments (SANBAG) is the designated Congestion Management Agency (CMA) as defined in the California Government Code Section 65089(a). The CMA is designated by the County Board of Supervisors and the City Councils of a majority of the cities representing a majority of the population within the County.

A Traffic Impact Analysis (TIA) was conducted for the proposed Project in accordance with the guidelines set forth in the San Bernardino County Congestion Management Program (CMP) 2003 Update (URS b, 2006). The TIA was prepared to identify potential project-related traffic impacts and potential mitigation measures to maintain the traffic level in the CMP network.

The CMP contains level of service (LOS) standards for the Project area that apply to AM and PM weekday peak-hours. LOS levels range from LOS A (free flowing traffic) to LOS F (serious traffic congestion). The County of San Bernardino strives to maintain LOS C or better operating conditions. The CMP specifies that in general, roadway system level of service standard shall be E for all segments and intersections.

SUBSTANTIATION:

a-b) The TIA conducted for the proposed Project, determined that the proposed Project will not create significant traffic impacts to the surrounding roadway circulation system according to the traffic impact analysis procedures, guidelines and threshold of significance specified by San Bernardino County CMP. Traffic conditions on roadway segments and intersections during both the Project Opening Year (2006) and the Horizon Year (2016) are projected to be LOS C or better during peak Project traffic operations (2000 tons per day).

c) The proposed Project will have no effect on air traffic patterns. The operation of the proposed project is not dependent upon air transport related materials, manpower and services and would therefore not result in increases of air traffic levels. There is no project design feature that will obstruct air traffic patterns.

d) The proposed Project will be located on a land parcel to the south of Highway 58 and directly served via a northwesterly trending roadway connecting to Helendale Road and Hawes Auxiliary Airport Road. The proposed project will not introduce project design features such as sharp curves or dangerous intersections within the vicinity of the project site.

e) The proposed project will have adequate emergency access for both fire and medical emergency vehicles. Very low existing baseline traffic and projected operational traffic volume will not hinder emergency response times.

f) The proposed Project's extensive site footprint will provide adequate parking for operational staff as well as for visitors and deliveries.

g) The proposed project is anticipated to not contribute to conflicts with adopted policies, plans, or programs supporting alternative transportation. Within the vicinity of the project site there are no bus turnouts, bicycle racks and other alternative transportation facilities currently in place.

SIGNIFICANCE:

Project related traffic impacts would be less than significant.

Issues & Supporting Information Sources	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
XVI. UTILITIES -Would the project:				
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐
e. Result in a determination by the wastewater treatment provider who serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒

Issues & Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
f. Be served by a landfill (s) with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g. Comply with federal, state, and local statues and regulations to solid waste?	☐	☐	☐	☒

DISCUSSION:

The proposed Project would not affect or cause an increased need for any public services. Chemical toilets will be provided by a licensed supplier for employee use; domestic water will be provided by an on-site well or be purchased and stored. Telephone service will be cellular. Electricity will be supplied by either a portable diesel-fueled generator or by solar equipment.

A maximum of eight employees are anticipated at any one time, generating only a small amount of solid waste each month. A bin would be provided on site for solid waste disposal, including non-recoverable, non-marketable residue, The bin would be emptied weekly, or on an as-needed basis, and transported to the Barstow Sanitary Landfill. The Barstow Sanitary Landfill is about three miles south of Barstow, at 32553 Barstow Road.

There are no utility corridors on or adjacent to the project site. The project will not result in an increase in the demand for additional services.

SUBSTANTIATION:

a-b,e) The Nursery Products Hawes Airport Composting Facility would not require the services of a wastewater treatment provider. All on-site wastewater would be contained within Portable Sanitation Units and when the units are full, an approved and licensed sanitation hauler would dispose of wastewater at an approved facility. Wastewater treatment providers or capacity would not be affected by the proposed project.

c) Run-off from area rainfall will be directed into catch basins and allowed to percolate into soils. The main source of water for the surrounding area is groundwater from the underlying aquifer and percolation of the limited rainfall within the Mojave Desert aids in the recharge of this groundwater. The site would be designed with adequate stormwater protection structures to protect both on-site operations, the surrounding property owners, and to minimize any environmental effects.

d) Water will be used on-site for dust control and personal use. No water is added during the composting process. All water needed would be obtained from a well to be constructed on site or by trucked in water. The expected daily water usage for the project will be less than 1,000 gallons per day.

f-g) With eight employees and no process waste typically generated as part of the composting operation, the Project site would generate only small quantities of solid waste requiring disposal. The Project will operate in compliance with all federal, state, and local statutes. Impacts to the solid waste disposal system would not be significant.

SIGNIFICANCE:

The potential impacts related to utilities and infrastructure are less than significant.

Issues & Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII MANDATORY FINDINGS OF SIGNIFICANCE Would the project:				
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 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)?	☒	☐	☐	☐
c. Does the project have environmental effects which will cause Substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

SUBSTANTIATION:

a) The Project has the potential to adversely impact endangered species as described in Section IV- Biological Resources.

b-c) The Project has the potential to result in cumulative air quality impacts, and these impacts may cause adverse effects on human beings.

SIGNIFICANCE

An Environmental Impact Report is required to evaluate these impacts and propose mitigation to minimize the potential impacts to a level below significant.

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REPORT

NOISE ANALYSIS FOR THE NURSERY PRODUCTS LLC COMPOSTING FACILITY, SAN BERNARDINO COUNTY, CALIFORNIA

PREPARED FOR:

COUNTY OF SAN BERNARDINO

URS PROJECT NO. 27655137.00100

MARCH 22, 2006

REPORT

NOISE ANALYSIS FOR THE NURSERY PRODUCTS LLC COMPOSTING FACILITY, SAN BERNARDINO COUNTY, CALIFORNIA

Prepared for:

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Advance Planning Division
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SECTION 1 INTRODUCTION

This technical report assesses the potential noise impacts from the proposed Nursery Products Hawes Airport Composting Facility (Facility). Intended usages of the proposed project site include an office space approximately up to 720 square feet in size, parking, scale, composting windrows, screening area, equipment finished product storage area and a 2,000 gallon (7'x15') above ground fuel tank. The composting facility would be used to produce agricultural grade compost.

The following details the existing noise environment, the applicable noise control criteria, acoustical calculations, and recommendations on noise mitigation measures for the Facility.

1.1 PROJECT DESCRIPTION

The composting facility will be situated in San Bernardino County, California, and will be owned, operated and maintained by Nursery Products LLC. The project will be located approximately 2 miles south of Highway 58 west of Helendale Road, 11.5 miles east of Kramer Junction. The site is located in the south-west ¼ of Section 36, Range 5W, and Township 10N (Figures 1 and 2). The site is within the planning area of the West Mojave Coordinated Management Plan (West Mojave Plan).

1.2 NOISE OVERVIEW

Noise is generally defined as loud, unpleasant, unexpected, or undesired sound that is typically associated with human activity, and that interferes with or disrupts normal activities. Although exposure to high noise levels has been demonstrated to cause hearing loss, the principal human response to environmental noise is annoyance. The response of individuals to similar noise events is diverse and influenced by the type of noise, the perceived importance of the noise and its appropriateness in the setting, the time of day and the type of activity during which the noise occurs, and the sensitivity of the individual.

Sound is a physical phenomenon consisting of minute vibrations that travel through a medium, such as air, and are sensed by the human ear. Sound is generally characterized by several variables, including frequency and amplitude. Frequency describes the sound's pitch and is measured in Hertz (Hz), while amplitude describes the sound's loudness and is measured in decibels (dB). Decibels are measured using a logarithmic scale. A sound level of 0 dB is approximately the threshold of human hearing and is barely audible under extremely quiet listening conditions. Normal speech has a sound level of approximately 60 dB. Sound levels above about 120 dB begin to be felt inside the human ear as discomfort and eventually pain at still higher levels. The minimum change in the sound level of individual events that an average human ear can detect is about one to two dB. A three to five dB change is readily perceived. A change in sound level of about 10 dB is usually perceived by the average person as a doubling (or halving) of the sound's loudness.

Because of the logarithmic nature of the decibel unit, sound levels cannot be added or subtracted directly and are somewhat cumbersome to handle mathematically. However, some simple rules are useful in dealing with sound levels. First, if a sound's intensity is doubled, the sound level increases by 3 dB, regardless of the initial sound level. Thus, for example: 60 dB + 60 dB = 63 dB, and 80 dB + 80 dB = 83 dB.

Sound level is usually expressed by reference to a known standard. This report refers to two measurements: (1) sound pressure level, and (2) sound power level. In expressing sound pressure on a logarithmic scale, the sound pressure is compared to a reference value of 20 micropascals (μPa). In expressing sound power level, the standard reference sound power is 1 picowatt. These terms are different and should not be confused. Sound pressure level depends not only on the power of the source, but also on the distance from the source and on the acoustical characteristics of the space surrounding the source; while sound power level is a measure of the acoustic power radiated by the source.

Hertz is a measure of how many times each second the crest of a sound pressure wave passes a fixed point. For example, when a drummer beats a drum, the skin of the drum vibrates a number of times per second. When the drum skin vibrates 100 times per second it generates a sound pressure wave that is oscillating at 100 Hz, and this pressure oscillation is perceived by the ear/brain as a tonal pitch of 100 Hz. Sound frequencies between 20 and 20,000 Hz are within the range of sensitivity of the best human ear.

Sound from a tuning fork contains a single frequency (a pure tone), but most sounds one hears in the environment do not consist of a single frequency but rather a broad band of frequencies differing in sound level. The method commonly used to quantify environmental sounds consists of evaluating all frequencies of a sound according to a weighting system that reflects that human hearing is less sensitive at low frequencies and extremely high frequencies than at the mid-range frequencies. This is called "A" weighting, and the decibel level measured is called the A weighted sound level (dBA). In practice, the level of a noise source is conveniently measured using a sound level meter that includes a filter corresponding to the dBA curve.

Although the A-weighted sound level may adequately indicate the level of environmental noise at any instant in time, community noise levels vary continuously. Most environmental noise includes a mixture of noise from distant sources that creates a relatively steady background noise in which no particular source is identifiable. A single descriptor called the equivalent sound level (L_{eq}) may be used to describe sound that is changing in level. L_{eq} is the energy-mean A-weighted sound level during a measured time interval. It is the "equivalent" constant sound level that would have to be produced by a given source to equal the acoustic energy contained in the fluctuating sound level measured. In addition to the energy-average level, it is often desirable to know the acoustic range of the noise source being measured. This is accomplished through the maximum L_{eq} (L_{max}) and minimum L_{eq} (L_{min}) indicators that represent the root-mean-square (RMS) maximum and minimum noise levels measured during the monitoring interval. The L_{min} value obtained for a particular monitoring location is often called the acoustic floor for that location.

To describe time-varying character of environmental noise, the statistical noise descriptors L_{10}, L_{50}, and L_{90} are commonly used. They are the noise levels equaled or exceeded during 10 percent, 50 percent, and 90 percent of the measured time interval. Sound levels associated with the L_{10} typically describe transient or short-term events, half of the sounds during the measurement interval are softer than L_{50} and half are louder, while levels associated with the L_{90} describe the background noise conditions.

Finally, another sound measure known as the Community Noise Equivalent Level (CNEL) is defined as the A-weighted average sound level for a 24-hour day. It is calculated by adding a 5 decibel penalty to sound levels during the evening period (7:00 p.m. to 10:00 p.m.) and a 10-decibel penalty to sound levels during the night period (10:00 p.m. to 7:00 a.m.) to compensate for the increased sensitivity to noise during the quieter evening and nighttime hours. The Day-Night Average Sound Level (L_{dn} or DNL) also

represents the average sound level for a 24-hour day and is calculated by adding a 10-decibel penalty only to sound levels during the night period (10:00 p.m. to 7:00 a.m.). The CNEL and L_{dn} are used by the State of California and San Bernardino County (County) to define acceptable land use compatibility with respect to noise. Because of the time-of-day penalties associated with the CNEL and L_{dn} descriptors, the L_{eq} for a continuously operating sound source during a 24-hour period will be numerically less. Thus, for equipment operating continuously for periods of 24 hours, the L_{eq} will be 6 dB lower than the L_{dn} value and 7 dB lower than the CNEL value. Sound levels of typical noise sources and environments are provided in Table 1-Sound Levels of Typical Noise Sources and Noise Environments, to provide a frame of reference.

Table 1
Sound Levels of Typical Noise Sources and Noise Environments

Noise Source (at a Given Distance)	Scale of A-Weighted Sound Level in Decibels	Noise Environment	Human Judgment of Noise Loudness (Relative to a Reference Loudness of 70 Decibels*)
Military Jet Take-off with After-burner (50 ft) Civil Defense Siren (100 ft)	140 130	Aircraft Carrier Flight Deck	
Commercial Jet Take-off (200 ft)	120		Threshold of Pain *32 times as loud
Pile Driver (50 ft)	110	Rock Music Concert	*16 times as loud
Ambulance Siren (100 ft) Newspaper Press (5 ft) Power Lawn Mower (3 ft)	100		Very Loud *8 times as loud
Motorcycle (25 ft) Propeller Plane Flyover (1,000 ft) Diesel Truck, 40 mph (50 ft)	90	Boiler Room Printing Press Plant	*4 times as loud
Garbage Disposal (3 ft)	80	High Urban Ambient Sound	*2 times as loud
Passenger Car, 65 mph (25 ft) Vacuum Cleaner (10 ft)	70		Moderately Loud *70 decibels (Reference Loudness)
Normal Conversation (5 ft) Air Conditioning Unit (100 ft)	60	Data Processing Center Department Store	*1/2 as loud
Light Traffic (100 ft)	50	Private Business Office	*1/4 as loud
Bird Calls (distant)	40	Lower Limit of Urban Ambient Sound	Quiet *1/8 as loud
Soft Whisper (5 ft)	30	Quiet Bedroom	
	20	Recording Studio	Very Quiet
	10		
	0		Threshold of Hearing

1.3 APPLICABLE NOISE CONTROL CRITERIA

Noise Element

The Noise Element of the San Bernardino County General Plan (1989) has established maximum noise levels for various receiving land uses, as follows and summarized in Tables 2 and 3, respectively:

(a) "Areas within San Bernardino County shall be designated as "noise impacted" if exposed to existing or projected future exterior noise levels from mobile or stationary sources exceeding the standards listed in Figures II-8 (Table 2) *and II-9* (Table 3*).*

(b) New development of residential or other noise-sensitive land uses will not be permitted in noise-impacted areas unless effective mitigation measures are incorporated into the project design to reduce noise levels to the standards of Figures II-8 (Table 2) *and II-9* (Table 3). *Noise-sensitive land uses include residential uses, schools, hospitals, nursing homes, churches and libraries.*

(c) When industrial, commercial or other land uses, including locally regulated noise sources, are proposed for areas containing noise sensitive land uses, noise levels generated by the proposed use shall not exceed the performance standards of Figure II-9 (Table 3) within outdoor activity areas. If outdoor activity areas have not yet been determined, noise levels shall not exceed the performance standards of Figure II-9 (Table 3) at the boundary of areas planned or zoned for residential or other noise-sensitive land uses."

Table 2
Interior/Exterior Noise Level Standards - Mobile Noise Sources

Land Use		Ldn (or CNEL), dB	
Categories	Uses	Interior*	Exterior**
Residential	Single and multi-family, duplex, mobile homes	45	60***
Commercial	Hotel, motel, transient lodging	45	60***
	Commercial retail, bank, restaurant	50	NA
	Office building, research and development, professional offices	45	65
	Amphitheater, concert hall, auditorium, movie theater	45	NA
Institutional/Public	Hospital, nursing home, school classroom, church, library	45	65
Open Space	Park	NA	65

* Indoor environment excluding: bathrooms, kitchens, toilets, closets and corridors.

** Outdoor environment limited to:
Private yard of single-family dwellings Park picnic areas
Multi-family private patios or balconies School playgrounds
Mobile home parks Hotel and motel recreation areas
Hospital/office building patios

*** An exterior noise level of up to 65 dB (or CNEL) will be allowed provided exterior noise levels have been substantially mitigated through a reasonable application of the best available noise reduction technology, and interior noise exposure does not exceed 45 dB (or CNEL) with windows and doors closed. Requiring that windows and doors remain closed to achieve an acceptable interior noise level will necessitate the use of air conditioning or mechanical ventilation.

Source: Figure II-8 in Noise Element of San Bernardino General Plan

Table 3
Hourly Noise Level Performance Standards - Locally-Regulated Sources*

Land Use Category	7 a.m. to 10 p.m.		10 p.m. to 7 a.m.	
	L_{eq}	Lmax	L_{eq}	Lmax
Residential or other noise-sensitive receivers	55 dBA	75 dBA	45 dBA	65 dBA

* Noise sources which are stationary and not pre-empted from local noise control. Preempted sources include vehicles operated on public roadways, railroad line operations and aircraft in flight.

Source: Figure II-9 in Noise Element of San Bernardino General Plan

Noise Ordinance

The San Bernardino County Development Code (Title 8 Development Code, Division 7: General Design Standards, Chapter 9: Performance Standards, Section 87.0905 Noise) has established guidelines for stationary noise sources at receiving land uses, summarized in Table 4. The Code also establishes guidelines for mobile sources affecting adjacent properties the same as in the Noise Element, summarized in Table 2.

The noise ordinance also states that temporary construction, repair, or demolition activities that occur between 7:00 a.m. and 7:00 p.m. except Sundays and Federal holidays are exempt from these noise requirements.

Table 4
Hourly Noise Level Standards – Stationary Noise Sources

Affected Land Uses (Receiving Noise)	7 a.m. to 10 p.m.	10 p.m. to 7 a.m.
Residential	55 dBA	45 dBA
Professional Services	55 dBA	55 dBA
Other Commercial	60 dBA	60 dBA
Industrial	70 dBA	70 dBA

Source: San Bernardino Noise Ordinance

SECTION 2 NOISE ANALYSIS

The proposed Nursery Products Hawes Airport Composting Facility is located eight miles east of the community of Hinkley. The town of Hinkley also lies to the east of Kramer Junction and to the west of Barstow along State Highway 58. The project site, between Kramer Junction and Hinkley, is flat with an elevation of approximately 2,310 feet above sea level and is currently vacant. The land use designation of this specific parcel is Resource Conservation. There are no residential developments currently planned for the area adjacent to the project. Existing noise sources consist of traffic on State Highway 58. Due to the rural nature of the area, the existing ambient noise levels would typically range from 40 to 50 dBA.

Some land uses are considered sensitive to noise. Noise-sensitive receptors are land uses associated with indoor and outdoor activities that may be subject to interference from noise. They often include residential dwellings, mobile homes, hotels, motels, hospitals, nursing homes, educational facilities, and libraries.

There is a single-family residence 1.5 miles and a single-family residence 2.3 miles to the east. There are no residences for a distance of at least five (5) miles to the north, west and south. The first developed area to the west is Kramer Junction at a distance of 10.5 miles. The proposed Harper Lake development area is in excess of five miles to the north. The Harper Lake Wildlife Observation area is over eight miles to the northeast.

Based on the Noise Element of the General Plan and Noise Ordinance, the Project's noise emission would be considered adverse if:

- Noise from Facility traffic operations exceeds 60 dBA CNEL exterior sound levels at residential uses.
- Noise from Facility equipment operations exceeds 45 dBA L_{eq} nighttime/55 dBA L_{eq} daytime sound levels at residential uses.

2.1 CONSTRUCTION NOISE

Construction activities at the project site would result in a short-term, temporary increase in the ambient noise level. Noise would result from the operation of construction equipment. The increase in noise level would be primarily experienced close to the noise source. The magnitude of the noise effects would depend on the type of construction activity, noise level generated by various construction equipment, duration of the construction phase, and distance between the noise source and receiver. Construction will require 1 to 2 months with completion anticipated to occur in fall 2006. Construction equipment will include two graders, one loader, and a water truck. Figure 3, Typical Construction Noise Generation Levels, shows maximum noise levels generated by typical construction equipment. Sound levels of typical construction equipment range from approximately 65 dBA to 95 dBA at 50 feet from the source, with an average level of 89 dBA at 50 feet during the noisiest activities (U.S. Environmental Protection Agency [USEPA] 1971). This analysis will use 89 dBA at 50 feet as the reference noise level for construction noise.

Acoustical calculations were performed to estimate noise from construction activities at the closest residences. Noise from the activity was assumed to have point source acoustical characteristics. Strictly speaking, a point source sound decays at a rate of 6 dB per doubling of distance from the source. This is a logarithmic relationship describing the acoustical spreading of a pure, undisturbed spherical wave in air. The rule applies to the propagation of sound waves with no ground interaction. The calculations are based on the formula below (Harris 1991):

$$SPL_2 = SPL_1 - 20\log\left(\frac{d_2}{d_1}\right), \text{ where:}$$

SPL_1 = known sound level,

SPL_2 = desired sound level,

d_1 = known distance, and

d_2 = desired distance.

Approximately one decibel per 1000 feet is also deducted for air absorption and anomalous excess attenuation.

There is a single-family residence 1.5 miles and a single-family residence 2.3 miles to the east. Based on the distance from the construction activities, sound levels at the residences to the east will average 45 and 41 dBA, respectively. Construction noise would likely be inaudible at the remaining residences due to the distance from the project.

The San Bernardino County Noise Ordinance permits construction between the hours of 7:00 a.m. and 7:00 p.m. Monday through Saturday. Therefore, because construction activities would occur between these hours, there would be no impact at residences as a result of construction activities.

2.2 OPERATION NOISE

Onsite Noise

The following pieces of equipment will be used during the composting process:

- 2 Front End Loaders
- 1 Tub Grinder
- 1 Windrow Turner
- Screen

A front-end loader mixes the material together and forms it into a windrow. The windrow would be from between eight and twelve feet in height and approximately fifteen feet wide. After the composting process occurs, the windrows would be screened to remove wood pieces that are too large for a typical product re-

use. The screened wood chunks are re-introduced into the next set of windrows formed. The compost is placed in the storage area for removal.

Acoustical calculations were performed to estimate the L_{eq} from the facility at the nearest sensitive land use. The calculations were based on the field sound level measurements taken at an Artesia Sawdust facility at 13434 Ontario Avenue, Ontario, California. This site contained similar equipment (one portable diesel-generated tub wood grinder, loaders, and windrow turners). From this site, it was determined that the diesel-powered generators associated with the portable tub wood grinders are the loudest noise source during the operation with a level of 90.5 dBA at 25 feet, and windrow turners operate at a source level of 80 dBA at 25 feet. Based on measurements conducted by URS at another site, Caterpillar 980 front-end loaders operate at a source level of 80 dBA at 25 feet. Noise from each piece of equipment was considered as a point source.

The calculations are considered worst-case because it was assumed that all equipment would operate continuously for one hour and that all equipment would be in direct line-of-sight to the nearest sensitive land use. The estimated sound level at the residence 1.5 miles to the east is 41 dBA L_{eq} (47 dBA CNEL) and 37 dBA L_{eq} (43 dBA CNEL) at the residence 2.3 miles to the east.

Based on these calculations, the proposed facility would be in compliance with the San Bernardino County Noise Ordinance requirement of 45 dBA L_{eq} nighttime/55 dBA L_{eq} daytime for stationary noise sources and the Noise Element requirement of 60 dBA CNEL at residential land uses. Therefore, no adverse impacts would occur.

Traffic Noise

The project site is located just south of Highway 58 between Hellendale Road to the east and the former access road of the now defunct Hawes Auxiliary Airport site to the west. Regional access to the project site is primarily provided by Highway 58 to the north, Interstate 15 to the east and Highway 395 to west. Material delivered to the site would be coming from Interstate 15 northbound, proceed westbound to Highway 58, then half would turn left (southbound) on either Hellendale Road or Hawes Auxiliary Airport Road to the project site.

The Federal Highway Administration (FHWA) Traffic Noise Model (TNM) was used to calculate existing, existing with project, future no project, and future with project traffic noise levels (year 2016). Traffic levels were obtained from the URS Traffic Impact Study (2006). The modeling effort considered the estimated average vehicle speed, average daily traffic (ADT) volume, and vehicle mix. The estimated average vehicle speed on State Highway 58 was 60 mph and Hellendale Road and Hawes Auxiliary Airport Road was 25 mph. The vehicle mix used for SH 58 was 85 percent autos, 10 percent medium trucks, and 5 percent heavy trucks. The vehicle mix for Hellendale Road and Hawes Auxiliary Airport Road was 85 percent autos, 5 percent medium trucks, and 10 percent heavy trucks. The model assumed "hard" site propagation conditions, which reflects a sound level loss of 3.0 dBA per doubling of distance from the source. This is a logarithmic relationship describing the acoustical spreading of a pure undisturbed cylindrical wave in air. This rule applies to the propagation of sound waves with no ground interaction or the interaction with a hard (hence the term) surface such as roadways, asphalt parking lots, or hard packed graded lots. Calculations were performed for a distance of 50 feet from each roadway segment for the purpose of estimating the change in sound level resulting from the proposed project. It

should be noted that the actual sound level at any receptor location is dependent on several factors such as the source to receptor distance and the presence of intervening structures, barriers, and topography.

Table 5 summarizes the results of the acoustical calculations. A review of the table shows that sound levels along State Highway 58 would increase by less than 1 dBA CNEL as a result of the project. Sound levels along Hellendale Road and Hawes Auxiliary Airport Road would increase substantially because there is little traffic currently utilizing the roadways. However, calculated sound levels with the project at a distance of 50 feet from these roadways were calculated to be 55 dBA CNEL. Therefore, because there are no residences within 50 feet of these roadways, no residential land uses would be exposed to the County threshold of 60 dBA CNEL from mobile sources. Hence, there would be no adverse impact as result of project traffic.

Table 5
Calculated Sound Levels at 50 Feet From Roadways

Roadway	Speed (mph)	Existing		Existing + Project		Delta[1]	Year 2016		Year 2016 + Project		Delta[2]
		ADT*	Calculated Sound Level (CNEL)	ADT	Calculated Sound Level (CNEL)		ADT	Calculated Sound Level (CNEL)	ADT	Calculated Sound Level (CNEL)	
Hwy 58	60	10,761	74.1	11,022	74.2	0.1	12,612	74.7	12,873	74.8	0.1
Hellendale Road	25	14	30.0	274	54.7	24.7	16	30.0	277	54.7	24.7
Hawes Airport Road	25	2	30.0	263	54.7	24.7	2	30.0	263	54.7	24.7

*ADT = Average Daily Traffic (obtained from URS 2006 Traffic Impact Analysis
Delta[1] = Difference between existing and existing plus project
Delta[2] = Difference between 2016 and 2016 plus project

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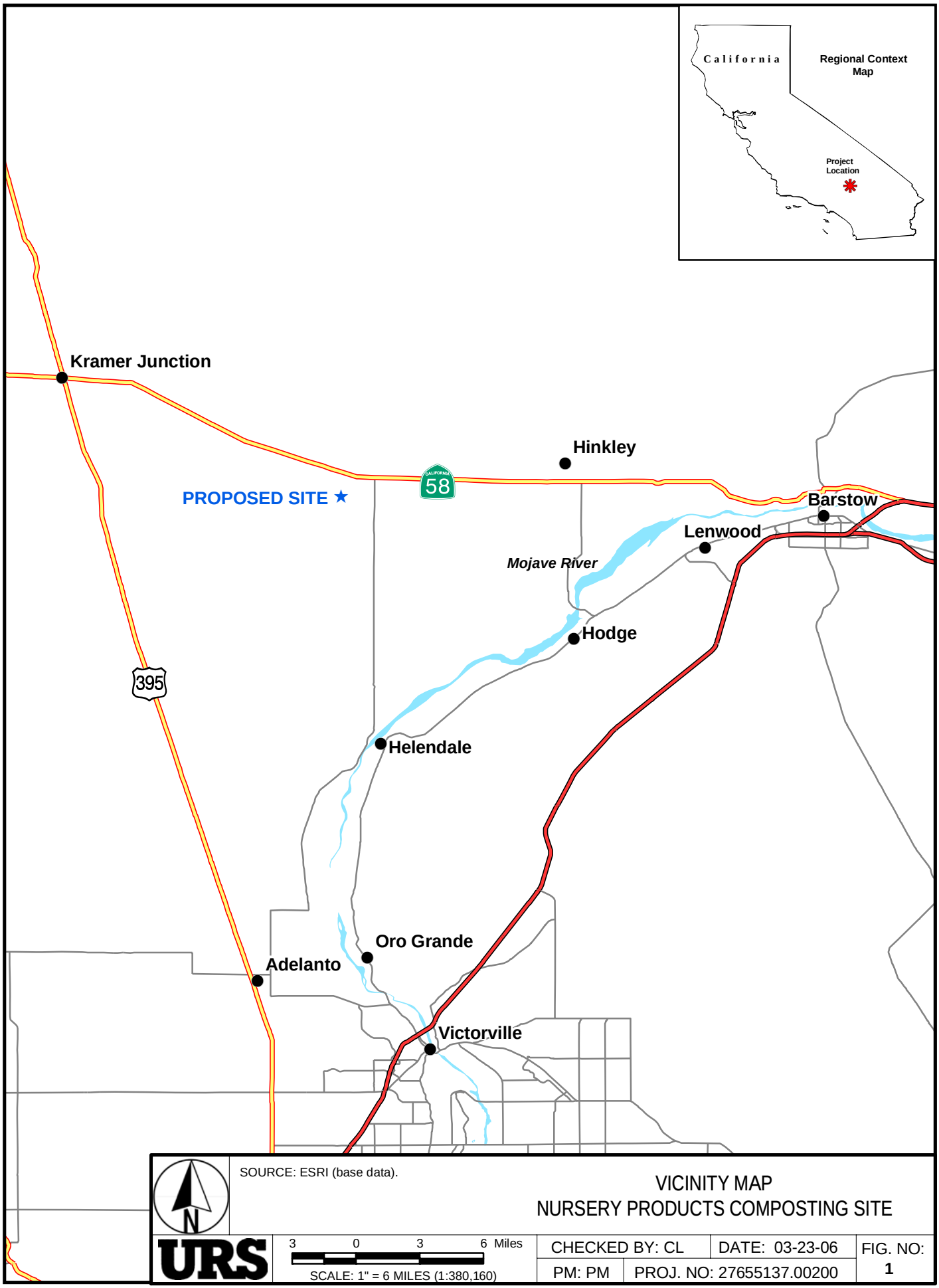


SOURCE: ESRI (base data).

N

URS

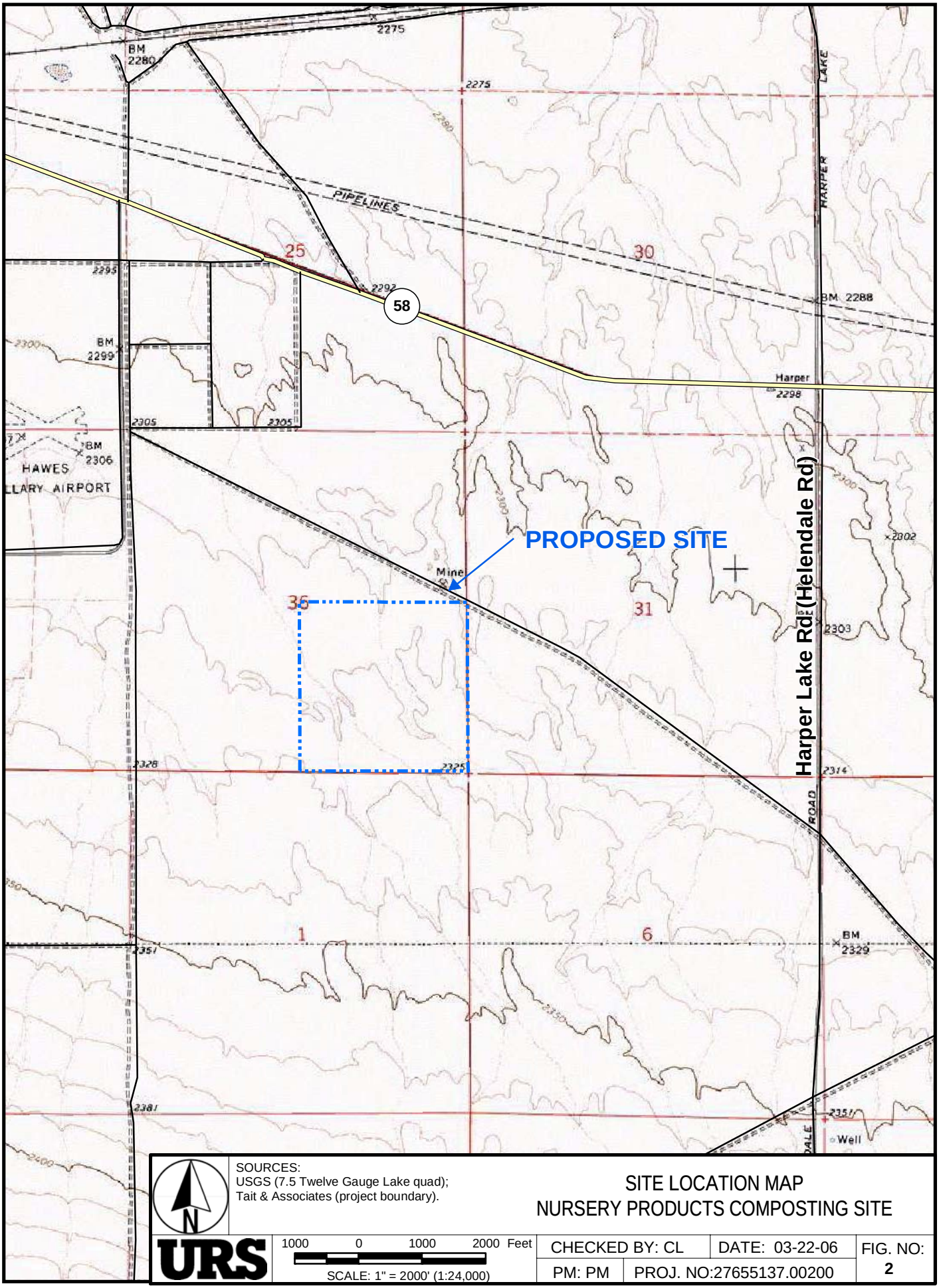
3 0 3 6 Miles

SCALE: 1" = 6 MILES (1:380,160)

VICINITY MAP
NURSERY PRODUCTS COMPOSTING SITE

CHECKED BY: CL	DATE: 03-23-06	FIG. NO: 1
PM: PM	PROJ. NO: 27655137.00200	

G:\gis\projects\1577\27655137\mxd\vicinity_map.mxd



SOURCES:
USGS (7.5 Twelve Gauge Lake quad);
Tait & Associates (project boundary).

SITE LOCATION MAP
NURSERY PRODUCTS COMPOSTING SITE

URS

1000 0 1000 2000 Feet

SCALE: 1" = 2000' (1:24,000)

CHECKED BY: CL	DATE: 03-22-06	FIG. NO:
PM: PM	PROJ. NO:27655137.00200	2

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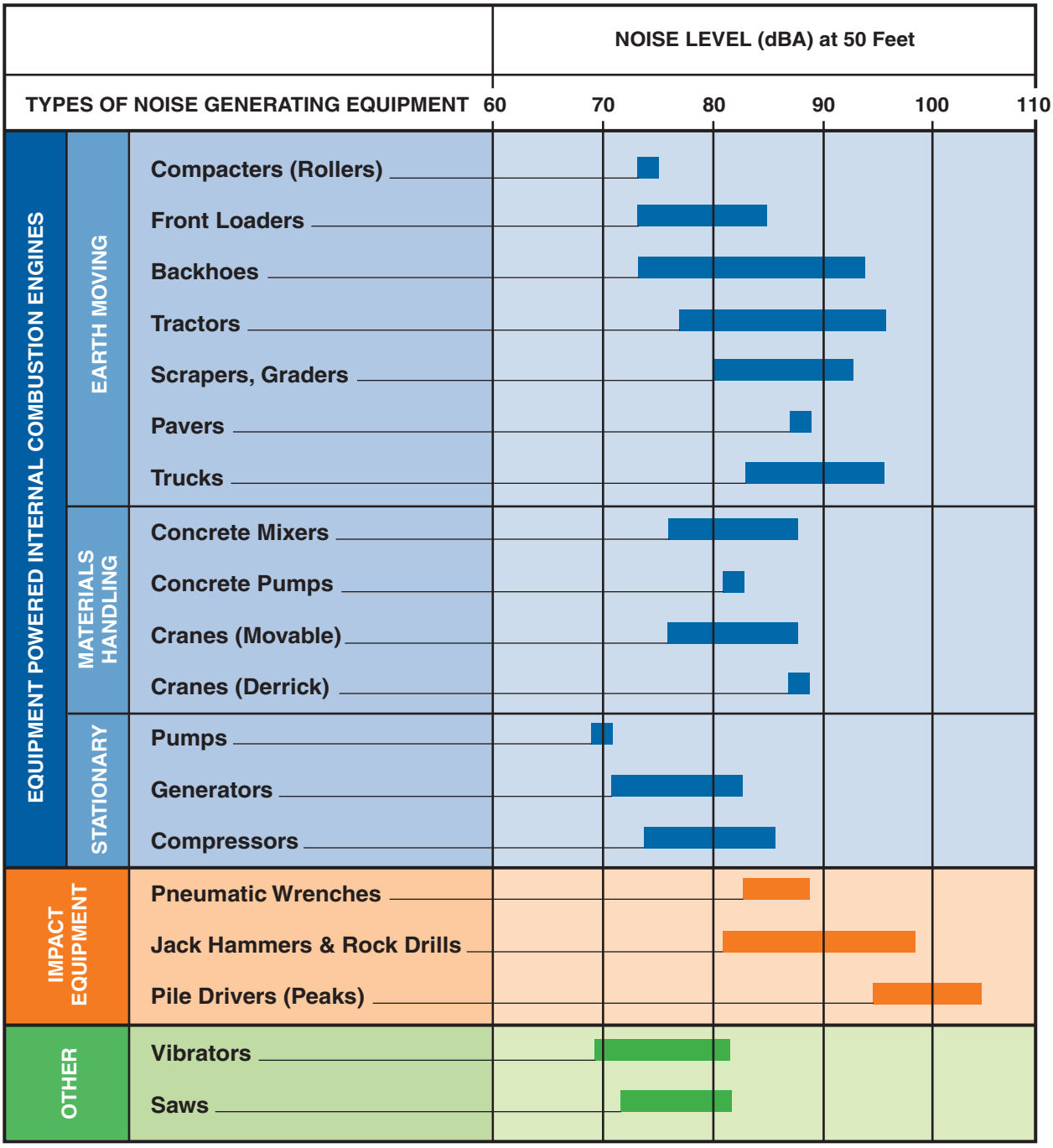
Typical Construction Equipment Noise Generation Levels



URS

Figure 3