**APPENDIX A – RESPONSE TO COMMENTS - NOP** 

County of San Bernardino

# NOTICE OF PREPARATION



DATE: March 9, 2009

FROM: San Bernardino County Land Use Services Department, Advance Planning Division, 385 N. Arrowhead Avenue, First Floor, San Bernardino, CA 92415-0182

TO: Interested Agencies, Organizations, and Individuals

SUBJECT: Notice of Preparation of a Supplemental Environmental Impact Report

Project Title: Nursery Products Hawes Composting Facility

A supplemental environmental review of the project must be conducted under the California Environmental Quality Act ("CEQA"). Implementation of the project will require discretionary approvals from state and local agencies, and therefore, San Bernardino County ("County") has determined that this project is subject to the environmental review requirements of CEQA. As Lead Agency for CEQA for the preparation of the Supplemental Environmental Impact Report ("SEIR"), the County issues this Notice of Preparation ("NOP") for the proposed Nursery Products Hawes Composting Facility project ("Project") in unincorporated San Bernardino County, California.

In the SEIR, the County will only evaluate whether potentially significant environmental effects will result from the Project in three (3) specific areas. The SEIR will assess the effects of the Project on global climate change, assess the water supply and provide additional economic analysis of proposed alternatives, including an enclosed facility, identify potentially significant impacts, identify feasible mitigation measures to reduce or eliminate potentially significant environmental impacts, and discuss potentially feasible alternatives to the Project that may accomplish basic Project objectives, while lessening or eliminating any potentially significant Project impacts in these three areas.

This NOP provides a description of the Project and solicits comments from responsible agencies, trustee agencies, federal, state, and local agencies and the general public, on the scope and content of the SEIR, in these three (3) specific areas as described above. Comments received in response to this Notice will be reviewed and considered by the County in preparation of the SEIR.

Due to time limits, as defined by CEQA, responses should be sent at the earliest possible date, but no later than thirty (30) days after publication of this NOP. The County needs to know the views of interested agencies as to the environmental information that is germane to those agencies' statutory responsibilities in connection with the Project.

Comments and questions may be directed to Carrie Hyke, Principal Planner, Land Use Services Department, Advance Planning Division, 385 North Arrowhead Avenue, San Bernardino, CA 92415-0182. Please include in your response the name, phone number, and address of the contact person for the responding agency.

# PROJECT BACKGROUND

In December, 2005, Nursery Products LLC ("Nursery Products") filed a discretionary application with the County seeking approval of the Project. A Draft Environmental Impact Report was prepared for the Project and circulated in September, 2006 for public review. The public review period extended through November, 2006. A Final Environmental Impact Report ("FEIR") was issued November 21, 2006, and certified by the County Planning Commission on November 30, 2006. This approval of the Project was appealed to the County Board of Supervisors ("Board"), which denied the appeal, approved the Project, and certified the FEIR on February 27, 2007.

The Center for Biological Diversity and HelpHinkley.Org (jointly, "Petitioners") filed a lawsuit titled *Center for Biological Diversity, etc. et al. vs. County of San Bernardino (Nursery Products, LLC),* San Bernardino County Superior Court Case No. BCV 09950, alleging that the County had violated CEQA in certifying the FEIR. The Court heard the case on February 8, 2008. On April 11, 2008, the Court issued its Statement of Decision and Order Thereon, which identified five (5) issues for consideration. The first three (3) issues identified below were those on which the County prevailed; and the remaining two (2) were issues on which the Petitioners prevailed.

• Air Quality: The Court ruled that the County adequately analyzed the Project's air quality impacts, including greenhouse gas emissions.

• Endangered Species: The Petitioners alleged that the FEIR did not adequately address Project impact on endangered species, including the desert tortoise and the Mohave ground squirrel. The Court did not agree and found the analysis adequate under CEQA.

• **Recirculation**: As mitigation, the Board reduced the Project size from 160 acres to 80 acres. The Petitioners alleged that this change was so significant as to require re-analysis and recirculation of the FEIR. The Court disagreed.

• Economic Feasibility: The Petitioners challenged the adequacy of County's analysis of alternatives, including the analysis of an enclosed facility. The Court agreed and directed the County to further analyze the enclosed facility alternative

as mitigation to the Project as pertaining to economic feasibility and infrastructure availability.

• Water Supply: The Court directed that the County should have more completely analyzed Project water supply and directed the County to identify a single water source and conduct an assessment thereof.

Thus, consistent with the Court Statement of Decision and Order Thereon, the SEIR will analyze water supply and the economic feasibility of Project alternatives (including an enclosed facility). In addition, the SEIR will present analyses pertaining to Project greenhouse gas emissions and global climate change.

# PROJECT DESCRIPTION

# Environmental Setting

The Project site occupies 80 acres of a 160 acre vacant parcel that was evaluated in the FEIR. The site is located one (1) mile south of State Route 58 and one (1) mile west of Helendale Road, approximately 12.3 miles east of Kramer Junction and eight (8) miles west of Hinkley, in unincorporated San Bernardino County (reference Figure 1, Project Location Map).

The Project includes compost and feedstock storage areas, retention basins (impoundments), drainage features, composting windrows, screening area, finished product storage area, equipment storage area, scale, office space (approximately 720 square feet), parking, and a 2,000 gallon double-walled, above-ground diesel fuel tank. In addition, Project development will include signage, including a sign at the entrance to the composting facility that will contain the facility name, operator name, facility hours of operation, emergency telephone number, and a list of accepted materials. Equipment that will be used at the Project will include the following: four (4) front end loaders each with capacity of three (3) to eight (8) cubic yards; one (1) tub grinder with 75 tons per hour capacity; one (1) windrow turner with 10,000 feet per day capacity, one (1) screen with 70 tons per hour capacity; and, one (1) water truck with 2,000 gallons per day capacity.

# Design and Operations

The Project will receive an average of 1,100 wet tons of biosolids and green material daily (approximately 400,000 wet tons yearly). This material will be delivered via 48 daily truck loads, on average. The maximum material quantity the Project will receive on any day is 2,000 wet tons, which equates to 87 truck loads.

Clean soil or other inert materials, such as gypsum or sawdust, will be used as a bulking agent or amendment and delivery will not exceed 200 tons or up to 10 truck loads per day. Compost and soil amendments provide a source of organic matter (humus), nitrogen, phosphate and potassium, as well as calcium, Notice of Preparation 3 March 9, 2009 Nursery Products LLC Composting Facility magnesium, sulfur and other important trace elements. Finished compost is manufactured specifically for each customer and the technical requirements for each individual application. Golf courses, agriculture, nurseries and homeowners require different blends of finished compost. Soil treated with compost increases retention and conservation of nutrients and water, is more capable of resisting pests and diseases, and produces healthier crops and increased yields. In addition, adding humus-rich compost improves soil structure and texture, enhances moisture retention and drainage, and reduces soil compaction.

The Project will produce a maximum annual volume of 400,000) cubic yards of finished compost. Non-recoverable or non-marketable residues are placed in a trash receptacle for transport and disposal at a permitted solid waste landfill. Finished compost will be stored temporarily on the Project site and will be used on site for erosion control or further processing, or will be transported off site via trucks.

# Hours of Operation/Staffing

The Project will operate daily, year-round. Normal delivery and sales operations will occur between 6:00 a.m. and 8:00 p.m. A 24-hour contact telephone number will be posted at the Project site prior to its operation.

# Potential Environmental Impacts

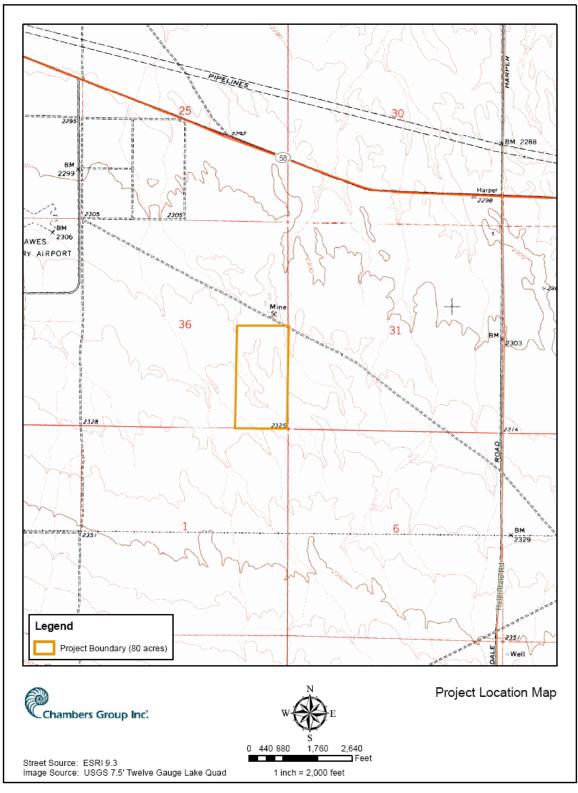
The County, as CEQA Lead Agency, has determined, after review of the Court's Statement of Decision, that this project could result in significant environmental impacts and/or have a significant impact on the environment. As such, preparation of a SEIR is required to address the Court's findings of the FEIR related to the following:

- Water Supply
- Economic Feasibility of an Enclosed Facility

In addition, the County has determined that because of significant developments in this area of the law, that it would be prudent to provide additional analysis of:

• Global Climate Change





# **Comment Due Date**

Due to the time limits mandated by State law, your response must be sent at the earliest possible date but not later than **April 13, 2009.** 

Comments should be sent to:

Carrie Hyke, Principal Planner San Bernardino County Land Use Services Department Advance Planning Division 385 N. Arrowhead Avenue, First Floor San Bernardino, CA 92415-0182

Please be advised that the 2006 Draft and Final EIRs are available for reference on the County's website at <u>www.sbcounty.gov/landuseservices</u>. Click on "Draft /Final EIRs/EISs" and then scroll down to Nursery Products Hawes Composting Facility.

Sincerely,

Carrie Uyke

Carrie Hyke, AICP, Principal Planner Environmental & Mining Section Advance Planning Division Land Use Services Department County of San Bernardino

# Introduction

The following are comments received from agencies and the public regarding the Notice of Preparation (NOP) of a Supplemental Environmental Impact Report for the Nursery Products Hawes Composting Facility. The following table organizes the comments by number and author and provides the page number where the comment letter is located within this appendix. County responses follow each comment letter.

## COMMENT

# AUTHOR

# PAGE

NC1	Author Unknown	3
NC2	Joan Bird	
NC3	Patricia Adair	8
NC4	Louie and Margaret Aviles	12
NC5	Victor Rodriguez	14
NC6	Native American Heritage Commission	16
NC7	Beverly June Kramer	
NC8	Charles A. Moore, Sr.	21
NC9	Edward Riddle and Miriam Shulman	23
NC10	Jessie Orr	25
NC11	Mark Orr	34
NC12	Department of Fish and Game	61
NC13	Peg Diaz	
NC14	California Integrated Waste Management Board	75
NC15	Department of Toxic Substances Control	78
NC16	Raymond S. Mallory	83
NC17	Robert D. Conway	85
NC18	Robert D. & Jacquese L. Conaway	91
NC19	Mojave Water Agency	99
NC20	California Regional Water Quality Control Board1	01
NC21	D. Norman Diaz 1	
NC22	National Parks Conservation Association1	16
NC23	Wayne L, Snively, P. E 1	18
NC24	Edward Riddle and Miriam Shulman 1	20
NC25	Center on Race, Poverty & the Environment 1	23
	NC2 NC3 NC4 NC5 NC6 NC7 NC8 NC9 NC10 NC11 NC12 NC13 NC14 NC15 NC16 NC17 NC16 NC17 NC18 NC19 NC20 NC21 NC22 NC23 NC24	NC2Joan BirdNC3Patricia AdairNC4Louie and Margaret Aviles.NC5Victor RodriguezNC6Native American Heritage Commission.NC7Beverly June KramerNC8Charles A. Moore, Sr.NC9Edward Riddle and Miriam ShulmanNC10Jessie OrrNC11Mark OrrNC12Department of Fish and GameNC13Peg DiazNC14California Integrated Waste Management BoardNC15Department of Toxic Substances ControlNC16Raymond S. MalloryNC17Robert D. ConwayNC18Robert D. & Jacquese L. ConawayNC19Mojave Water AgencyNC20California Regional Water Quality Control BoardNC21D. Norman Diaz1NC22National Parks Conservation Association1NC23Wayne L, Snively, P. E.1NC24Edward Riddle and Miriam Shulman1

The County reviewed all comments submitted by agencies and the public regarding the Notice of Preparation (NOP) of a Supplemental Environmental Impact Report for the Nursery Products Hawes Composting Facility. The following Table summarizes the comments by environmental topics addressed in the comment letters.

# **GUIDE TO COMMENT RESPONSES BY TOPIC**

Agricultural:	NC15-8
Air Quality:	NC3-1, NC3-3, NC4-1, NC4-2, NC5-1, NC9-1, NC10-2, NC11-1, NC11-9, NC17-5, NC17-8, NC17-9, NC17-17, , NC18-5, NC18-8, NC18-9, NC18-17, NC21-7, NC21-15, NC21-22, NC21-24, NC22-1, NC23-1, NC24-2, NC25-4, NC25-7, NC25-10, NC25-11, and NC25-16
Alternatives Discussion:	NC4-4, NC10-4, NC19-1, NC21-27, NC21-29, NC21-31, NC23-1, NC24-5, NC24-6
Biological Resources:	NC3-5, NC9-2, NC11-10, NC11-11, NC12-1, NC17-15, NC18-15, NC21-25, NC25-13
Cultural Resources:	NC6-1
Economic Feasibility:	NC2-4, NC3-7, NC13-5, NC17-13, NC18-13, NC20-2, NC24-4
Environmental Justice:	NC21-26
Geology & Soils:	NC25-9
Global Climate Change:	NC3-2, NC11-8, NC11-12, NC20-3, NC25-8
Hazards & Hazardous Materials:	NC2-3, N3C3-6, NC3-8, NC9-2, NC10-1, NC11-3, NC11-4, NC11-5, NC11-6, NC13-2, NC13-8, NC13-9, , NC13-10, NC15-1, , NC15-5, NC15-6, NC15-7, NC16-1, NC17-3, NC17-6, NC17-10, NC17-11, NC17-14, NC17-16, NC18-3, NC18-6, NC18-10, NC18-11, NC18-14, NC18-15, NC18-16, NC21-2, NC21-4, NC21-6, NC21-9, NC21-11, NC21-12, NC21-13, NC21-14, NC21-16, NC21-18, NC21-19, NC21-20, NC21-21, NC23-1, NC25-2, NC25-3 NC25-5, NC25-6, NC25-8, NC25-14, NC25-15, NC25-18
Hydrology & Water Quality:	NC2-1, NC2-2, NC3-4, NC11-7, NC21-5, NC24-3, NC25- 12, NC25-17
Project Description and Operations:	NC13-1, NC13-1, NC13-4, NC13-6, NC13-7, NC15-3, NC17-7, NC18-7, NC21-17, NC21-30
Transportation & Traffic:	NC4-3, NC21-23

COMMENT NC1 AUTHOR UNKNOWN Wallmon unlawful AM 12: 29 San Bernardino NOTICE OF PREPARATION Unil 100Van attend had US DATE: mocherul of cher time, money and mitted Bernardino County Land Use Services Department, Advance Planning Division, Inistions FROM: 385 N. Arrowhead Avenue, First Floor, San Bernardino, CA 92415-0182 TO: Interested Agencies, Organizations, and Individuals SUBJECT: Notice of Preparation of a Supplemental Environmental Impact Report PROJECT TITLE: Nursery Products Hawes Composting Facility sending any more literature on this, you are A supplemental environmental review of the project must be conducted under the California Environmental Quality Act ("CEQA"). Implementation of the project will require discretionary approvals from state and local agencies, and therefore, San Bernardino County ("County") has determined that this project is subject to the environmental review requirements of CEQA. As Lead Agency for CEQA for the preparation of the Supplemental Environmental Impact Report ("SEIR"), the County issues this Notice of Preparation ("NOP") for the proposed Nursery Products Hawes Composting Facility project ("Project") in unincorporated San Bernardino County, California. Just wathing more signed and my tay men In the SEIR, the County will only evaluate whether potentially significant environmental effects my tar monel NC1-1 will result from the Project in three (3) specific areas. The SEIR will assess the effects of the Project on global climate change, assess the water supply and provide additional economic analysis of proposed alternatives, including an enclosed facility, identify potentially significant impacts, identify feasible mitigation measures to reduce or eliminate potentially significant environmental impacts, and discuss potentially feasible alternatives to the Project that may accomplish basic Project objectives, while lessening or eliminating any potentially significant Project impacts in these three areas. This NOP provides a description of the Project and solicits comments from responsible agencies, trustee agencies, federal, state, and local agencies and the general public, on the scope and content of the SEIR, in these three (3) specific areas as described above. Comments received in response to this Notice will be reviewed and considered by the County in preparation of the SEIR. Due to time limits, as defined by CEQA, responses should be sent at the earliest possible date, but no later than thirty (30) days after publication of this NOP. Notice of Preparation also stop thinking we are stupid !!!

If it was up to -would be removed. øld men

· Water Supply: The Court directed that the County should have more completely analyzed Project water supply and directed the County to identify a single water source and conduct an assessment thereof.

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upeniisor was scribbiling or Environmental Setting A Regime attention to the meeting. Not stopp repeat site occupies 80 acres of a 160 acre vacant parcel that was evaluated in the PEIR. The site is located one (1) mile south of State Route 58 and one (1) mile west of Helendale Road, approximately 12.3 miles east of Kramer Junction and eight (8) miles west of Hinkley, in unincorporated San Bergardino, County (reference Figure 1, Project Location Map). The Project includes compost and feedstock storage areas, retention basins (impoundments), drainage features, composting windrows, screening area, finished product storage area, equipment storage area, scale, office space (approximately 720 square feet), parking, and a 2,000 gallon double-walled, above-ground diesel fuel tank. In addition, Project development will include signage, including a sign at the entrance to the composting facility that will contain the facility name, operator name, facility hours of operation, emergency telephone number, and a list of accepted materials. Equipment that will be used at the Project will include the following: four (4) front end loaders each with capacity of three (3) to eight (8) cubic yards; one (1) tub grinder with 75 tons per hour capacity; one (1) windrow turner with 10,000 feet per day capacity, one (1) screen with 70 tons per hour capacity; and, one (1) water truck with 2,000 gallons per day capacity. the next of the people

#### Design and Operations

you Caulo asleep. (ma The Project will receive an average of 1,100 wet tons of biosolids and green/material daily (approximately 400,000 wet tons yearly). This material will be delivered via 48 daily truck loads, on average. The maximum material quantity the Project will receive on any day is 2,000 wet tons, which equates to 87 truck loads.

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Notice of Preparation Nursery Products LLC Composting Facility

March 9, 2009 Unknown

hered

NC1-1 Continued

NC1-1 The County acknowledges the comments and concerns made within this letter. However, the comments do not address environmental issues pertinent to the Draft SEIR and therefore the County is not in a position to provide responses to the opinions expressed in this letter.

NC2-1

NC2-2

NC2-3

NC2-4

NC2-5

## 2009 MAR 27 AM 4: 29

March 19, 2009

Carrie Hyke, Principal Planner San Bernardino County Land Use Services Department Advance Planning Division 385 N. Arrowhead Ave. First Floor San Bernardino, CA 92415

#### Dear Carrie Hyke,

I am a resident of Hinkley, Ca and I'm writing to you regarding a compost/sludge facility being proposed by Nursery Products LLC west of our community. I received a Notice of Preparation from you as an interested individual in this matter. I am a member of Helphinkley, org, an organization that is opposed to this facility being built in our area. It is of great concern to the residents of this area (Hinkley, Barstow, Yermo, Daggett, Newberry Springs, and even Helendale, Ludlow, and Needles) how this facility will affect our water sources. There are many aquifers in this area that could be affected by this facility. We don't even know what kind of debris or health hazards will be contained in the material that will be dumped at this facility. What is going to keep any health hazards from seeping into this water. Nursery Products says they will put down liners (?) first under the material to be dumped, but will this afford enough protection? And what if it rains enough to flood this proposed site? (we do have flash floods here). The run-off will go off site over unprotected ground and may then impact our water sources.

I am also concerned about the recharge basins we have in the area. These have been built to capture rain water to recharge the Mojave River. But what happens when this rain water becomes contaminated by bacteria or fungus from this compost/sludcge facility? The winds in ths area area very strong at times and dust (with who knows what in it) can be carried from this facility to settle in these reoharge basins. There doesn't even have to be water in these basins - the contaminated dust and dirt can just sit there, waiting. Our drinking water may then become undrinkable.

What about fire? Compost/ sludge material can be volatile. This is a dry area and the scrub on the desert floor can very easily catch fire and spread. Will PNLLC have water storage enough at this facility in case of fire? They say they will. This water issue has not been addressed enough. Where is the water going to come from? According to the Notice of Preparation Nursery Products will have a 2000 gallon water truck on the premises. Is this in case of fire or to be used to control dust or keep their compost wet? Will the company truck water in? Will a well be proposed in the future? Our precious water table is low enough without drilling a well and possibly using more of it. This water issue is of great concern to the residents of this area.

As far as the economic feasibility of this facility, I think this operation should be enclosed for human safety and that it can be done economically. There are other companies that operate these types of facilities, enclosed, and still make a profit. Nursery Products just doesn't want to cut into their profit any more than they have to. They do not seem to be concerned about the <u>long-range</u> effects that this compost/sludge may have on the residents of this area. There are other more informed persons on this matter of economic feasibility than I whom I am sure that you will hear from.

I have commented on the two issues that the Court Statement of Decision and Order identified that should be analyzed more thoroughly, but I would like to say that I think the whole EIR needs to be redone. There are too many environmental issues that need more scrutinizing.

Thank you,

Joan Bird 24664 State Hwy. 58 Hinkley, Ca 92347

- NC2-1 The potential to contaminate ground water was discussed in Section 4.7 of the Draft EIR and the potential for exposure to fungus was discussed in Section 4.6 of the Draft EIR and both were found by the Court to be adequately addressed.
- NC2-2 This comment refers to the potential to contaminate groundwater recharge in the local area with bacteria or fungus. See response to comment NC2-1.
- NC2-3 The potential for combustion of windrows was discussed in Section 4.6 of the Draft EIR and was found by the Court to be adequately addressed.
- NC2-4 The Draft EIR concluded that there was no danger to human health and safety from the proposed open-air composting facility (Section 4.6). With respect to the economic feasibility of the enclosed facility alternative, Section 5 of the SEIR details the potential cost and revenue of two variations of this alternative. Based on the analysis it is concluded that enclosing the facility does not reduce VOC emissions to below a level of significance, and is economically infeasible. For additional details see Section 5 of the Draft SEIR and the Economic Feasibility Study in Appendix D.
- NC2-5 The analysis within the 2006 Draft EIR was deemed sufficient by the Superior Court with the exception of the definition of the water supply source and the economic feasibility of the enclosed facility alternative. Therefore the Draft SEIR is only required to address these topics.

PATRICIA ADAIR

2009 MAR 02 014 8: 34 Patricia Adair 4 34-P.O. Bax 414 Hinkley, California 92347 760-253-5477 March 18, 2009 Dear Carrie Hyke, We have lived in Hinkley Twenty Four years, and have enjoyed the clean gir. With the sludge. NC3-1 company coming in Eight miles from us, the gir\_ Vill no lunger be clean. If you have horse's or cow's on your property the attorney general asserts that such land use contributed to global warming. The sludge with 160 yeres or even 80 acres, must then be a real NC3-2 big global warming, with all of its and stuff. So it needs to be covered or not built herei The wind blows 40 to 76 miles thry here glot, we live in a wind tunnel. This wind will bring this styff to our door and Barstow. If Barstow NC3-3 can smell the cows when the wind blows, then\_\_\_\_ they will small the slydge, We small the cows once in awhile from across the street when the wind comes from the direction of Barstow. It

(2)	
stinks, and I leave for awhile until the direction changes, I don't want to smell the sludge every day. As for water there is no vell at the site, and they said they would truck water in for dust and personal use." By T they will not use water to wash the truck's down before they leave the site. We were told that the water we drink from our wells, comes from water under the ground where they are going to build the site. This sludge stuff will seep into this water and end up in our well. About 4 mile from this site is Harper Lake.	NC3-4
a lake for migratory hirds. The air will have a hig impact on them. Flies and the raw sewage will aftract the firds who will east the files plus take them back to the young. This will kill alst of birds. The company said "they could use pesticide to keep the fires down", this will kill the birds - This area is also home to the tortoise, their food plants are in the area, this stuff will kill them	NC3-5
to. This place needs to be covered to protect us and the animal. I already have usthing and Iam diabetic, so I have enough health problems, I don't need more from the sludge. Other companies operate	NC3-6

3 while covered and make a profit, this company can to. There are enough sick people here from the chromium we do not need more I hope a good environmental report comes\_ out this time, and they have to cover the site to protectus and the animals. This company did nothing right in Adelanto to Keep down the smell, Flys, or people getting sisk. So we know they will do nothing right on 160 acres or 80. If the land use services can tell people how to build a home on their own property, and they can not \_ Kill this or that on the property, then they should be able to tell a company whowarts to stink up land with raw sat on the ground COVER IT. Thank Voy Patrices & adam LevR.

NC3-7

NC3-8

- NC3-1 Project generated impacts to air quality in the area were addressed in Section 4.3 of the Draft EIR. The Court found this issue to be adequately addressed.
- NC3-2 The SEIR evaluates global warming impacts and mitigation measures to reduce greenhouse gas emissions associated with the Project in Section 4 of the Draft SEIR. Also a more detailed analysis of global warming impacts can be found in Appendix B of the Draft SEIR.
- NC3-3 Analysis of odor, measures to control odors, and the impacts to the surrounding community were discussed in Sections 1.7 and 4.3 of the Draft EIR. The Court found this issue to be adequately addressed.
- NC3-4 Impacts to water quality were discussed in detail in section 4.7 of the Draft EIR. The Court found this issue to be adequately addressed.
- NC3-5 Potential Project impacts to plants and animals were discussed in Sections 4.4 of the Draft EIR. The Court found this issue to be adequately addressed.
- NC3-6 Potential health effects and health risks associated with project generated air toxics were discussed in Section 4.3 of the Draft EIR. The Court found this issue to be adequately addressed.
- NC3-7 The economic feasibility of enclosing the facility is evaluated in Section 5 and Appendix D of the Draft SEIR.
- NC3-8 Impacts to human health, biological resources, and air resources were discussed in detail in Sections 4.7, 4.4, and 4.3 of the Draft EIR. Also see response to Comments NC2-1, NC3-1, and NC3-5. With respect to the completion of a new environmental report, please see response to Comment NC2-5. The economic feasibility of enclosing the facility is evaluated in Section 5 and Appendix C of the Draft SEIR.

Date:	March 16, 2009	
Eman	2009 MAR 27 AM 4:29	
From:	Louie and Margaret Aviles 38092 Serra Rd. Hinkley, Ca. 92347 phone # 760-253-5005	
	38092 Serra Rd. Hinkley, Ca. 92347 phone # 700-253-5005	
To:	San Bernardino County Land Use Service Department, Advance Planning	
	Division	
Subject:	Notice of Preparation of a Supplemental Environmental Impact Report	
Project Title:	Nursery Products Hawes Composting Facility	
To Whom It N		
	ame is Louie Aviles, myself and my wife Margaret have lived in Hinkley	
	We have raised our two sons in Hinkley, they both attended Hinkley School.	
	v. 2008, my oldest son has moved back with us, with his wife and our	
grandson.	un line i mide des Debites sons instantes II au i des antellantes en la constitue i	
	ve lived with the Dairies, causing smell and fly problems; we have lived nd E water situation. (We live around 1 mile from the plum.) And now this!	
	NC4-1	
	fed up with people destroying our life style, our community and especially ent. I know they say that it will not cause any environment problems, but we	
have heard thi		
	concerns that we have is that it will be an open facility, with the winds we	NC4-2
	sert, I know it will cause smell, fly, and pollutant problems to our	NC4-2
community, b	ecause we are northeast of the area that they plan on using, that puts us	
	th of all these problems.	I
	er big concern is the truck traffic, 87 trucks daily, when I heard the	
	as just overwhelming. Highway 58 is a very dangerous highway, and from	NC4-3
	they are planning on using, it is only a two lane highway, all I can see are	NC4-3
	accidents, that highway is not properly constructed to carry that many	
trucks.	11 19. Li Li di Li	I
	concerns might not seem like a lot, but they are very important to me and ar community has seen enough of bad things happen, and we do not need	
	g to worry about, we have had our fair share.	
	the Nursery Products Facility had been ordered to move out of Adelanto,	
	berry Springs, and now they want to move it, to Hinkley, I say again,	NC4-4
	ugh, move this facility somewhere else.	
•	sing I would like to say that I know I'm just a one person and you are going	
	r you feel like doing, but if this facility does begin operation, that you	
	his an ENCLOSED FACILITY.	-

Yours truly Louie and Margaret Aviles

- NC4-1 Impacts to the communities with respect to odor were addressed in the Draft EIR and found by the court to be adequately addressed. The County also addresses this issue in response to comment NC3-3.
- NC4-2 Odor impacts are addressed in response to comment NC3-3. Potential air pollution and water pollution impacts were addressed in Section 4.3 and Section 4.7 of the Draft EIR respectively. The Court found these issues were adequately addressed in the Draft EIR.
- NC4-3 The potential impacts to the Project area from truck traffic were discussed in Section 5.10 of the Draft EIR. Impacts were found to be less than significant and the Court found this issue to be adequately addressed.
- NC4-4 The alternative of using a different location for the proposed composting facility was discussed in Section 3.3 of the Draft EIR. The Court found the alternatives assessment to be adequately addressed in the Draft EIR with the exception of the economic feasibility of an enclosed facility. The economic feasibility of this alternative is discussed in Section 5 and Appendix D of the Draft SEIR.

#### VICTOR RODRIGUEZ

3/26/2009 DOWNEY CA. MARCH 25TH 2009

#### CA. MANCH 75TH 7009 2009 APR -6 AP 1: 34 MS. CARRIE HYKE: PRINCIPLE PLANNER,

RE.NORSERY PRODUCTS HAWES COMPOSTING FACILITY.

IT IS MY HUMBLE OPINION THAT THE PROPOSED FACILITY BE ENCLOSED, IF NOT ALL AT LEAST THE PORTION WHERE THEY WOULD BE PRODUCING THE DIFFERENT FRODUCTS OF

COMBINATION OF PRODUCTS.

FOR THE SIMPLE BRASON THAT THESE PARTICULAR PRODUCTS WILL GENERATE A CONSIDERABLE AMOUNT OF BAD ODOR AND IN TURN CREATE AN ENVIROMENT WHERE FLYS WILL PESTER AND MULTIPLY BY THE MILLIONS, THERE BY DEVALUEING PROPERTY VALUES.

juito lo

VICTOR RODRIGUEZ 9002 PARAMOUNT BLVD DOWNEY, CA. 90240

( 315 ROY RD HINCKLY, CA.)

NC5-1

NC5-1 Impacts to odor were discussed in the Draft EIR. The County also responds to this issue in response to comment NC3-3.

#### NATIVE AMERICAN HERITAGE COMMISSION

STATE OF CALIFORNIA Arrold Schwarzenesger, Gevenor NATIVE AMERICAN HERITAGE COMMISSION 915 CAPITOL MALL, ROOM 364 SACRAMENTO, CA 95814 (916) 657-5390 - Fax 2089 MAR 27 AM 4: 29 March 17, 2009

Carrie Hyke San Bernardino County Land Use Services Department 385 N. Arrowhead Avenue, 1<sup>st</sup> Floor San Bernardino, CA 92415-0182

RE: SCH#2006051021 Nursery Products Hawes Composting Facility; San Bernardino County.

#### Dear Ms. Hyke:

The Native American Heritage Commission (NAHC) has reviewed the Notice of Preparation (NOP) referenced above. The California Environmental Quality Act (CEQA) states that any project that causes a substantial adverse change in the significance of an historical resource, which includes archeological resources, is a significant effect requiring the preparation of an EIR (CEQA Guidelines 15064(b)). To comply with this provision the lead agency is required to assess whether the project will have an adverse impact on historical resources within the area of project effect (APE), and if so to mitigate that effect. To adequately assess and mitigate project-related impacts to archaeological resources, the NAHC recommends the following actions:

Contact the appropriate regional archaeological information Center for a record search. The record search will determine:

- If a part or all of the area of project effect (APE) has been previously surveyed for cultural resources.
- If any known cultural resources have already been recorded on or adjacent to the APE.
- If the probability is low, moderate, or high that cultural resources are located in the APE.
- If a survey is required to determine whether previously unrecorded cultural resources are present.

If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.

- The final report containing site forms, site significance, and mitigation measurers should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure.
- The final written report should be submitted within 3 months after work has been completed to the appropriate regional archaeological Information Center.
- Contact the Native American Heritage Commission for:

A Sacred Lands File Check. <u>USGS 7.5 minute guadrangle name, township, range and section required.</u>
 A list of appropriate Native American contacts for consultation concerning the project site and to assist in the object the project site name of the project site and to assist in the object the project site name of the project site and to assist in the object the project site name of the project site and to assist in the object site name of the project site and to assist in the object site name of the project site na

- Mitigation measures. Native American Contacts Interview in the project site mitigation measures. Native American Contacts List attached.
   ✓ Lack of surface evidence of archeological resources does not preclude their subsurface existence.
  - Lead agencies should include in their mitigation plan provisions for the identification and evaluation of accidentally
    discovered archeological resources, per California Environmental Quality Act (CEQA) §15064.5(f). In areas of
    identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American, with
    knowledge in cultural resources, should monitor all ground-disturbing activities.
  - Lead agencies should include in their mitigation plan provisions for the disposition of recovered artifacts, in consultation with culturally affiliated Native Americans.
  - Lead agencies should include provisions for discovery of Native American human remains in their mitigation plan. Health and Safety Code §7050.5, CEQA §15064.5(e), and Public Resources Code §5097.98 mandates the process to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery.

4 Janetes Katy Sanchez Program Analysi

CC: State Clearinghouse



### Native American Contact

San Bernardino County March 17, 2009

San Manuel Band of Mission Indians James Ramos, Chairperson 26569 Community Center Drive Highland , CA 92346 (909) 864-8933 (909) 864-3724 - FAX (909) 864-3370 Fax

San Fernando Band of Mission Indians John Valenzuela, Chairperson P.O. Box 221838 Fernandeño Newhall , CA 91322 Tataviam tsen2u@live.com Serrano (661) 753-9833 Office Vanyume (760) 885-0955 Cell Kitanemuk (760) 949-1604 Fax Morongo Band of Mission Indians Robert Martin, Chairperson 11581 Potrero Road Cahuilla Banning , CA 92220 Serrano Robert\_Martin@morongo.org (951) 849-8807 (951) 755-5200 (951) 922-8146 Fax

Serrano Nation of Indians Goldie Walker 6588 Valaria Drive Serrano Highland , CA 92346 (909) 862-9883

Morongo Band of Mission Indians Michael Contreras, Cultural Heritage Prog. Manager 13000 Fields Road Cahuilla Banning , CA 92220 Serrano (951) 755-5025 (951) 201-1866 - cell (951) 922-0105 Fax

San Manuel Band of Mission Indians Ann Brierty, Policy/Cultural Resources Department 26569 Community Center. Drive Highland , CA 92346 abrierty@sanmanuel-nsn.gov (909) 864-8933 EXT-3250 (909) 649-1585 - cell (909) 862-5152 Fax

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americana with regard to cultural resources for the proposed SCH# 2006051021 Nursery Products Hawes Composting Facility; San Bernardino County.

NC6-1 The potential for Project impacts to historical resources was addressed in Section 4.5 of the Draft EIR and were found to be less than significant with mitigation. The Court found this analysis to be adequately addressed.

#### **BEVERLY JUNE KRAMER**

222 S. Figueroa St., 1429 47 Los 5, 18, 18, 64 90012 March 18, 2009

Ms. Carrie Hyke, Principal Planner San Bernardino County Land Use Services Dept. Ad vance Planning Division 385 N. Arrowhead Avenue, First Floor San Bernardino, CA 92415-0182

Re: Parcel 0496061160000

Dear Ms. Hyke:

I have your letter dated March 9, 2009 in which you outline various possibilities concerning my property. I am the sole owner of the above Parcel; my parents, George B. Kramer and Cora M. Kramer, are deceased.

While it is within your purview to authorize environmental tests as outlined in your letter, I must emphatically reject and object to any proposal to invade, use or trespass on my property for any venture, commercial, civic or otherwise, such as, but not limited to , the commercial ventures of Nursery Products Hawes Compost Facility, or "customers" referred to in the sixth paragraph, page 3, of your letter. Nor do I agree to give my permission to use my property as a dumping area.

I recall that in the past the area was considered for construction of an amusement park and I wonder if that might be a possibility in the not too distant future.

In any event, I would have to receive acceptable remuneration with the assurance of ongoing financial participation in any venture: civic, commercial or otherwise.

Please do not permit any person or entity to trespass on my property except for the court-approved environmental tests outlined in your letter. And I would appreciate receiving a copy of the reports concerning those tests.

Sincerely,

Bevery June Kramer Beverly June Kramer

(213) 215-4683

NC7-1

NC7-1 The County acknowledges the comments and concerns made within this letter. However, the comments do not address environmental issues pertinent to the Draft SEIR. There are no plans to develop your property in conjunction with this project.

APR. 02. 2009 DEAR MS. HYKE, RE: NURSERY PRODUCTS HAWES COMPOSTING-FACILITY. 2003 APR-6 AM 4:33 PLEASE OPPOSE THIS PROJECT. WE DON'T HAVE THE WATER TO SUPPORT THIS ON THE DESERT. THANKS. Charles A. Moore, Sr. 701 Montera Road, Spece 66 Barstow, CA 92311-5736 CHMaare f.

NC8-1

NC8-1 Section 4.2 of the Draft SEIR addresses the quantity of water that is legally available to the proposed Project. Based on the analysis the Project as proposed will use less than 10% of the water that is legally available to the Project. Also see Appendix C of the Draft SEIR.

#### EDWARD RIDDLE AND MIRIAM SHULMAN

MIRIAN SUUMAN P.O. Box 111 HINKER, CA 92342-0111

April 3, 2009

I am submitting my objection to allowing Nursery Products Composting facility to operate NC9-1 in Hinkley. Our community has been assaulted and damaged enough. Caltrans wants to realign HWY 58which will divide this rural community, the PGE fiasco has damaged our water, and Nursery Products wants to operate a facility that will damage air quality. No community should be allowed to suffer so many simultaneous assaults, yet the multiple assaults are not acknowledged much less considered. To name only a few: It has not been adequately considered that Tortoise relocation does not work. It has not been adequately considered that actual wind speed spreads dust quickly in the NC9-2 desert which is evidenced in sand dunes. It has not been adequately considered that particulates will interact with cooling systems. The list of genuinely unaddressed items goes on and on. I do not see any real protection in the way the law is being interpreted and enacted. The law has been used as a horse and pony show to make it appear that all is well. In fact, a gross injustice is in progress.

I implore the court to expand the scope of the studies to reflect that Hinkley has been protected with intent, actuality, and action. Not by the misleading letter of weak laws.

Sincerely,

- Floor Rillen Alian Stubia

- NC9-1 The potential impacts to air from the proposed Project were discussed in Section 4.3 of the Draft EIR. With the exception of VOCs impacts were found to be less than significant. Even with the significant impact for VOCs the Court found this issue to be adequately addressed.
- NC9-2 Potential impacts to biological resources, human health, and air quality are discussed in detail in the Draft EIR. See also responses to comments NC2-1, NC3-1, and NC3-5.

JESSIE ORR

2009 App Jessie Orr 36714 Hidden River Rd. Hinkley, CA 92347

April 1, 2009

ATT: Carrie Hyke, Principal Planner SB CO Land Use Services Dept. Advance Planning Division 385 N. Arrowhead Ave, First Floor San Bernardino, CA 92415 - 0182

RE: NOP for SEIR Nursery Products Hawes Composting Facility

My comments on this proposed facility have not changed - in my opinion, this composting facility will compromise the health and quality of life for the residents of my community, Hinkley. Hundreds, if not thousands, have made their requests known during public meetings and in the form of letters and petitions. We have given data upon data proving the possible outcome to human and wildlife, including the endangered Desert Tortoise in the Habitat adjoining this proposed location.

The San Bernardino County Board of Supervisors and MDAQMD, in my opinion, completely ignored the fact that the wind in this area blows most of the time, not uncommon to reach 30 to 60 MPH. It is blowing as I write this letter and has been all week, from the direction of the proposed OPEN Facility. The wind data has also been given to these Boards numerous times. (See attached)

Furthermore, we have water problems in Hinkley. In the area where I live, Hinkley Valley Acres, the water levels in our wells consistently drop, especially during summer months when more water is being pumped. So, where will this company get the water they will need for 80 acreas of 'sludge'? If they do drill a well as deep as I have heard, and use the amount of water required, they will overdraft my well and others in this area.

I am asking NPLLC to consider another location. And this time, if there are residents nearby, meet with them before plans are made. It would be the right thing to do. Put people ( and wildlife ) above money, profit and greed.

Keep in mind this Bible Verse - James 4:17 - Therefore to him that knoweth to do good, and doeth it not, to him it is sin. In my opinion this says it all.

Jessie Orr, Hinkley Resident

Jessie Que 1 760-253-5304

### NC10-1

NC10-2

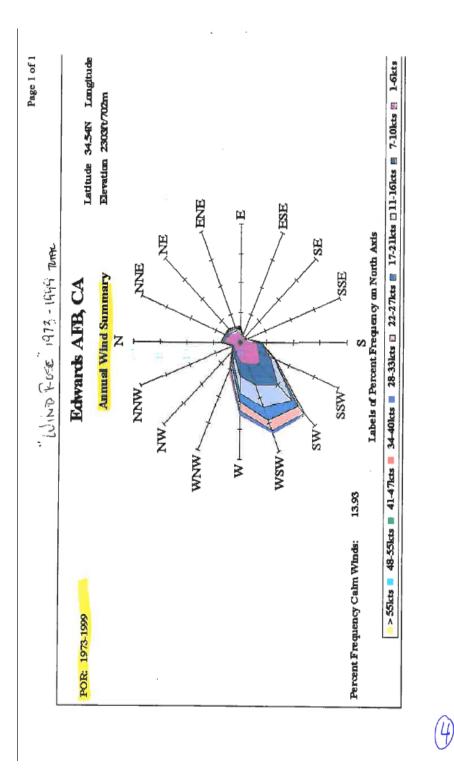
NC10-3

NC10-4

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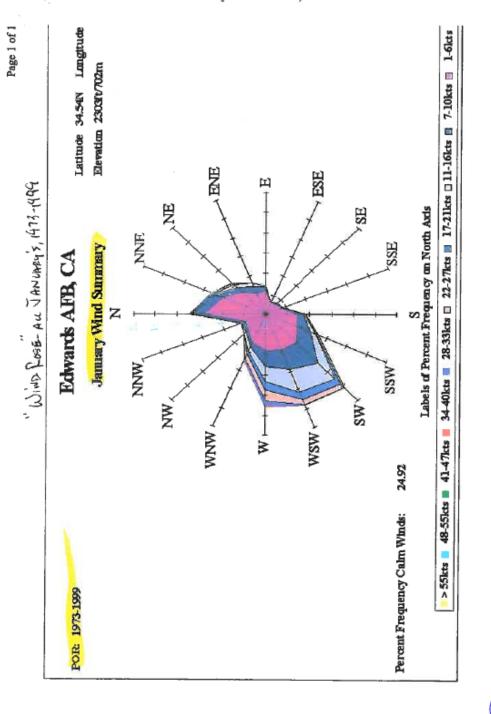
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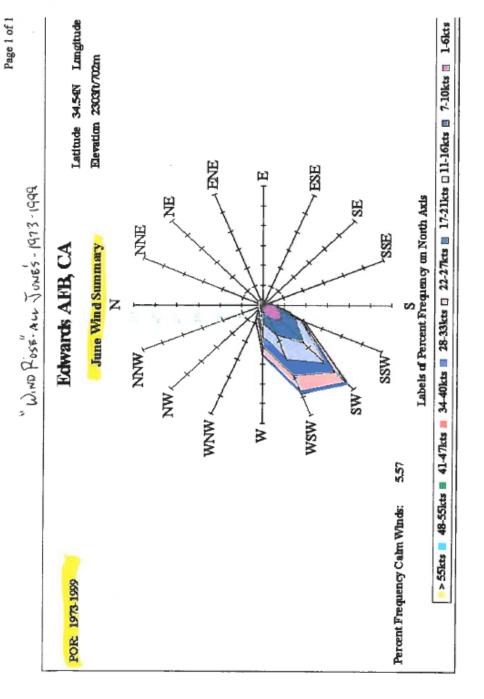


Jessie Orr - April 1, 2009, RE: Hawes Site

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10/26/2006



Jessie Orr, April 1, 2009 RE: Hawes site

10/26/2006

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# **RESPONSE TO COMMENT LETTER NC10**

- NC10-1 Impacts to human health and biological resources were evaluated in the Draft EIR. See response to comments NC3-5 and NC3-8.
- NC10-2 The potential impacts to the Project area from wind were discussed in Section 4.3 of the Draft EIR. Impacts were found to be less than significant and the Court found this issue to be adequately addressed.
- NC10-3 Impacts to the water table were discussed in Section 4.2 and Appendix C of the Draft SEIR and in response to comment NC8-1.
- NC10-4 The evaluation of alternatives was discussed in detail in the Draft EIR. Also see response to comment NC4-4.

## COMMENT NC11

MARCH 31, 2009

MARK ORR POBOX 87 (36714 Hidden River Road) Highley, CA 92347 760-253-55304 4:34

Attention; CARRIE HYKE, Principal Planner, San Bernardino Land Use Services Dept. Advance Planning Division, 385 N. Arrowhead Ave. First Floor, San Bernardino, CA 92415-0182

Regarding: Nursery Products Hawes Composting Facility, Identidied by SB County Land Use Services Dept. as Notice of Preparation of a Supplemental Impact Report.

I am still concerned that the Nursery Products LLC Hawes site is located in an area of temperature extremes and 30-60plus mph winds, upwind and upstream of the entire lower Mojave River Valley and its communities and wildlife. This would include, Hinkley, Barstow, Helendale, Newberry Springs, Grandview, Yermo, Daggett, Harper Lake, and Calico. This would also include Fort Irwin and the Marine Corps supply or logistics properties.

Concerning the new EIR for the Nursery Products LLC site at Hawes, West of Hinkley, California, (Identified by the San BernaRdino Land Use Services Dept. as SEIR). It was my understanding that a new complete EIR would be required for the Hawes site, and not just a supplemental EIR as described by San Bernardino County Land Use Services. It is my understanding that a supplemental EIR primarily concerns only additions or expansions to a project, and such restricts comments only to those subjects of addition or expansion, in this case economic feasibility and water supply.

1

NC11-2

NC11-1

Despite Counties identification as the Hawes Site new EIR as being supplemental, I request the following comments be included in the new EIR , along with my disagreement of the New Hawes site EIR being drafted as a supplemental impact report.

I am still concerned for any contaminants, toxins, or pathogen that could exist, travel from, or originate from materials from the Nursery Products LLC Hawes site, especially in regards to harmful or disrupting impacts and effects to humans, habitations, institutions, business structures and operations, domestic pets and livestock, crops or gardens, or any indigenous or migratory wildlife or habitats in the regions surrounding the Nursery Products LLC Hawes site.

This would include any chemicals, pesticides, bacteria, fungus, molds, odors, possible fire dangers, gaseous emissions, exhaust emissions, introduction of new invasive plant or animal species, vector control problems, and dust or particulate problems.

I am also concerned for introduction of any above mentioned impacts or problems, especially dust, particulate, organism or pathogen, in respect or relation to use of home, shop, business, or institution air conditioning, air circulation, heating, or swamp coolers, which could draw or intake any of the above

NC11-4

NC11-3

NC11-5

mentioned organisms or gaseous or solid substqnce (particulate matter) into a work or living structure where they might concentrate or multiply or accumulate causing harmful or disrupting impacts.

I am also concerned for the introduction of contaminants, toxins or pathogen entering and impacting surface or ground water resources, whether this be onsite at Hawes, or the result of materials leaving the Hawes site by wind, animal, insect, person, water, equipment or vehicle, by any single movement event or one or more movement events over duration of time.

The original EIR (identified as FEIR by the San Bernardino County Land Use Services) for the Nursery Products LLC Hawes site failed to identify a definite source of water. I agree with the courts order to identify a water source, and I also request that if the water source derives from onsite at Hawes or offsite, especially if in the region of the Mojave River and/or any subbasins or basins in the Mojave Desert, then studies should be conducted to determine actual total water usage and possible groundwater diversions or overdraft (reductions) or diminish or reduction of any natural *surface* waters. I request new environmental impact studies and reports be required for the land and property providing the water source, especially if it is offsite, and the public be allowed to participate in any resulting EIR process. NC11-6

NC11-7

### MARCH 31, 2009 NPPLC Hawes Site Comments/Mark Orr

I agree with the County that additional analysis should be provided concerning global warming, though my concerns are as much for health of people and climate as they are for recognizing legal requirements. I hoped the County of San Bernardino would strive to solve greenhouse gas problems, and not just transport the problem from one region of California to another, my opinion.

With the use of massive amounts of water upon decaying open-air materials comprising 100,000 to 400,000plus stored and/or worked tons at the Hawes site, in an open-air condition allowing exposure to extreme temperatures, the creation of methane and volatile organic compounds will be enormously multiplied. A site as large of size and capacity has never been built in this region of the Mojave Deser+ before, and I believe the emissions could be far greater than expected.

The use of huge volumes of water to contain dust and work the composting process will also create the same or similar conditions to a sewage facility, especially after large rains, attracting insects to standing water, and as a result attracting birds, including raven. The common raven (Corvus Corax) is regarded as a major contributor to the decline of the endangered Desert Tortoise, since raven prey upon the adolescent tortoise. I have included portions of reports for U.S. Fish and Wildlife, USGS, and biologist at Fort Irwin. Though the courts found NC11-8

NC11-9

NC11-10

the analysis of threats to endangered species adequate under CEQA, because of the proximity of the Hawes site to the Fremont-Kramer Category One Desert Tortoise Habitat, I request a reanalysis of the threat to endangered species, especially in regards to ravens both on and offsite. A huge site such as at Hawes could potentially impact all surrounding tortoise habitats in the Mojave Desert due to contamiants, toxins, pathogen, and increased number of vectors, including ravens.

With concern to VOC and Greenhouse gas emissions at, or eminating from, the Nursery Products LLC Hawes site, I request the County require a complete study of all VOC and Greenhouse gas emissions and volumes possible in all types of environmental conditions possible at the Hawes site. I request that such a study also include possible accumulative effects of greenhouse emissions both on or offsite, as well as the combining or accumulation of such Hawes emissions with other greenhouse gas emissions being generated in the surrounding region from industry, business, home, or vehicle or equipment sources. I also ask that study results be analyzed with AB32 requirements in mind.

MarkOri

MARK ORR

NC11-11

NC11-12

Portion of Desert Tortoise Recovery Plan To be included in comments for Nursery Products LLC Hawes site Preparation New EIR -> Identified as Supplemental EIR by San Bernardino County Land use Services. Refer to Page 4 comment, 3-31-09. Mark Orr. M submitted march 31, 2009 by Mark Orr 760-253-5304 DESERT TORTOISE (MOJAVE POPULATION) RECOVERY PLAN

8

Prepared by the Desert Tortoise Recovery Team

For

Regions 1, 2, and 6 U.S. Fish and Wildlife Service Region 1 - Lead Region, Portland, Oregon

Approved <u>Main L Plenet</u> Regional Director, U.S. Fish and Wildlife Service

Chairman, Desert Tortoise Management Oversight Group Concurred

Date Approved June 28, 1994

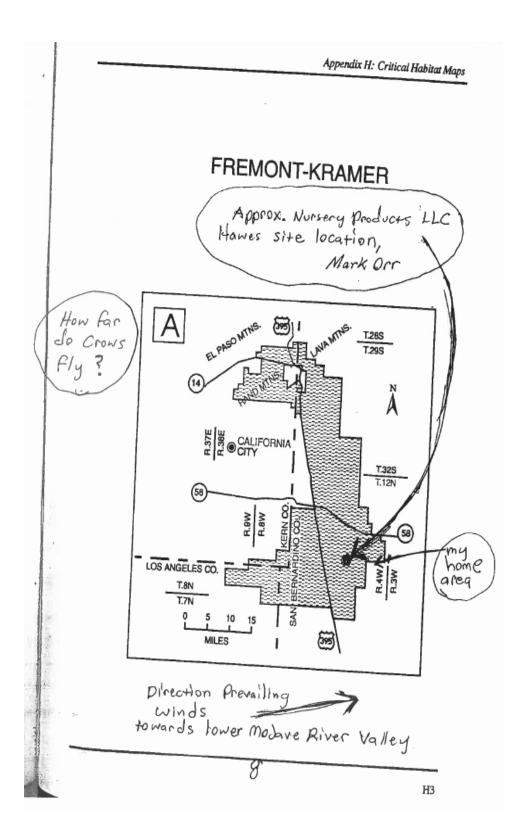
Appendix H: Critical Habitat Maps

## California. Areas of land as follows:

 Fremont-Kramer Unit. Kern, Los Angeles, and San Bernardino Counties. From Bureau of Land Management Maps: Victorville 1978 and Cuddeback Lake 1978. (Index map location A).

Mt. Diablo Meridian: T. 29 S., R. 39 E., secs. 13, 14, 22-26, 35, and 36; T. 29 S., R. 40 E., secs. 12-33; T. 29 S., R. 41 E., secs. 7, 8, 17-20, 27-30, and 32-36; T. 30 S., R. 38 E., secs. 24-26, 35, and 36; T. 30 S., R. 39 E., secs. 1-36 except secs. 3-5; T. 30 S., R. 40 E., secs. 4-9, and 13-36, except that portion of secs. 13, 14, and 23 lying northwesterly of the Randsburg-Mojave Road; T. 30 S., R. 41 E., secs. 1-36, except secs. 5-8, and 20 and that portion of secs. 17 and 18 lying easterly of U.S. Highway 395; T. 30 S., R. 42 E., secs. 7-10, 15-22, and 27-34; T. 31 S., R. 40 E., secs. 1 and 6, except that portion of sec. 6 lying southeasterly of the Randsburg-Mojave Road; T. 31 S., R. 41 E., secs. 1-17, 20-29, and 32-36, except that portion of secs. 20, 29 and 32 lying westerly of U.S. Highway 395; T. 31 S., R. 42 E., secs. 3-10, 15-22, and 27-34; T. 32 S., R. 41 E., secs. 1-4, 9-16, 21-28, and 34-36, except that portion of secs. 4, 9, 16, 21, 27, 28, and 34 lying westerly of U.S. Highway 395; T. 32 S., R. 42 E., secs. 1-36; T. 32 S., R. 43 E., secs. 4-9, 16-21, and 28-33.

San Bernardino Meridian: T. 7 N., R. 5 W., secs. 2-11, and 14-18, except that portion of sec. 18, lying west of U.S. Highway 395; T. 7 N., R. 6 W., secs. 1-6, 12, and 13, except that portion of secs. 1, 12, and 13 lying westerly of U.S. Highway 395; T. 7 N., R. 7 W., secs. 1-6; T. 7 N., R. 8 W., secs. 1-4; T. 8 N., R. 4 W., secs. 6, 7, and 18; T. 8 N., R. 5 W., secs. 1-4; T. 8 N., R. 4 W., secs. 6, 7, and 18; T. 8 N., R. 5 W., secs. 1-35 except secs. 24 and 25; T. 8 N., R. 6 W., secs. 1-36; T. 8 N., R. 7 W., secs. 1-36; T. 8 N., R. 8 W., secs. 1-28, and 33-36; T. 8 N., R. 9 W., secs. 1 and 7-24; T. 9 N., R. 4 W., secs. 2-11, 14-23, 30, and 31; T. 9 N., R. 5 W., secs. 1-36; T. 9 N., R. 6 W., secs. 1-36; T. 9 N., R. 7 W., secs. 1-4, 9-16, and 19-36; T. 9 N., R. 8 W., secs. 24, 25, and 31-36; T. 9 N., R. 9 W., sec. 36; T. 10 N., R. 4 W., secs. 6, 7, 18-20, and 29-34; T. 10 N., R. 5 W., secs. 1-36; T. 10 N., R. 6 W., secs. 1-36 except sec. 6; T. 10 N., R. 7 W., secs. 9-16, 21-28, and 33-36; T. 11 N., R. 5 W., secs. 2-11, 14-23, and 26-35; T. 11 N., R. 6 W., secs. 1-36, except that portion of secs. 6, 7, 18, 19, 30, and 31 lying westerly of U.S. Highway 395; T. 11 N., R. 7 W., that portion of sec. 1, lying easterly U.S. Highway 395; T. 12 N., R. 5 W., secs. 31-35; T. 12 N., R. 6 W., secs. 31-36; T. 12 N., R. 7 W., that portion of sec. 36 lying easterly of U.S. Highway 395.



### 1. Human contact and direct mortality.

Human "predation" is a major factor in the decline of the desert tortoise. Here predation is used in its broadest sense, meaning the taking of desert tortoises out of their natural populations either by death (accidental or intentional) or by removal. People illegally collect desert tortoises for pets, food, and commercial trade. Some new immigrants to the United States collect desert tortoises for medicinal or other cultural purposes (Section 4.1 of Appendix D). Stewart (1991) reported that from 12.5 to 43.7% of desert tortoises with radio transmitters were poached or suspected of being poached from his research site in the western Mojave Desert between 1987 and 1991. Berry (1990, as amended) presented similar evidence of illegal collections at a study plot near Stewart's site during the 1980's. Even in remote areas, desert tortoises on permanent study plots have been collected and later have appeared in cities or towns dozens of miles away from the plots.

Desert tortoises are often struck and killed by vehicles on roads and highways, and mortality of desert tortoises due to gunshot and offhighway vehicles is common in parts of the Mojave region, particularly near cities and towns where people and desert tortoises most frequently come in contact. For example, between 1981 and 1987, 40% of the desert tortoises found dead on a study plot in the Fremont Valley, California, were killed by gunshot or vehicles traveling cross-country or on trails (Berry 1990, as amended). Berry (1986a) reported that nearly 15% of 635 desert tortoise carcasses that were examined from several California study sites showed signs of gunshot.

### 2. Predation.

Desert tortoises, particularly hatchlings and juveniles, are preyed upon by several native species of mammals, reptiles, and birds. Domestic and feral dogs are a new, and probably significant, source of mortality (Causey and Cude 1978, Berry 1979). Predation by the common raven (*Corvus corax*) is intense on younger age classes of the desert tortoise, and the Fish and Wildlife Service's Breeding Bird Survey Program provided data to show a 15-fold increase in raven populations in the Mojave Desert and a 4.7-fold increase in raven populations in the Colorado and Sonoran deserts from 1968 and 1988 (Bureau of Land Management et al. 1989, Table 1). Raven population increases seem to be due to increased food supplies, (e.g., roadkills, landfills, trash, garbage dumps, agricultural developments), as well as new sites for perches and nests (e.g., fence posts, power poles and towers, signs, buildings, bridges, and freeway access-ramps).

The contribution of mammalian or avian predation to overall desert tortoise mortality is not well understood. The best-documented predator is the raven. Berry (1990, as amended) believes that

6

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predation pressure from ravens probably has resulted in such high losses of juveniles in some portions of the Mojave region that recruitment of immature desert tortoises into the adult population has been halted. Increased mortality of young desert tortoises combined with drastically lowered survivorship of adults is likely responsible for observed catastrophic population declines (Berry 1990, as amended).

#### 3. Disease.

Disease has contributed to high mortality rates in the western Mojave Desert in the last four years (Berry 1990, as amended, Avery and Berry 1990, Jacobson 1994). Disease is also suspected of contributing to declines in desert tortoise populations in the Chuckwalla Bench area of the eastern Colorado Desert and at some sites on the Beaver Dam Slope in the northeastern Mojave Desert (Berry 1992, Jacobson et al. 1994).

An upper respiratory tract disease (URTD) is prevalent in captive desert tortoises and has been identified in wild desert tortoises in many localities in the Mojave region. The disease is currently a major cause of mortality in the western Mojave Desert and perhaps elsewhere. Recent studies have demonstrated Mycoplasma agassizii sp. nov. as the causative agent of URTD. A serological test has been developed to determine exposure status of desert tortoises to URTD (Schumacher et al. 1993). Predisposing factors such as habitat degradation, poor nutrition, and drought are also likely involved (Jacobson et al. 1991). Drought and concomitant poor nutrition have the potential to compromise desert tortoises immunologically and, therefore, make them more susceptible to URTD. However, in recent experimental studies, URTD was induced in apparently healthy desert tortoises when challenged with an isolate of M. agassizii obtained from an ill desert tortoise (M.B. Brown, University of Florida, pers. comm. 1993). Under certain conditions, even healthy desert tortoises may become infected with the causative organism and develop signs of URTD. Controlling human-related spread of URTD (Jacobson 1994), improving habitat conditions, and monitoring health status of desert tortoise populations are some of the more important management tools which can be used in controlling URTD in wild populations of the desert tortoise.

URTD appears to be spreading, and may have been introduced to wild populations through illegal releases of captive desert tortoises that were ill (Jacobson 1994). Wild desert tortoises with signs of URTD are commonly found near cities and towns with concentrations of captive desert tortoises (Marlow and Brussard 1992).

A shell disease, characterized by lesions, is correlated with desert tortoise decline in the Chuckwalla Bench population in the eastern Colorado Desert (Jacobson et al. 1994, Berry 1992). Lesions

10



typically appear at seams between adjacent scutes and then spread toward the middle of each scute in an irregular pattern. A variety of mineral and metal deficiencies, as well as various toxicants, are known to cause integumentary pathology in mammals, suggesting a disease or toxicosis may be responsible for these observed shell abnormalities (Appendix D).

## Habitat destruction, degradation, and fragmentation.

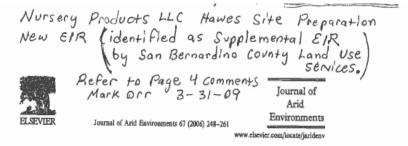
Changes in vegetation accumulating over almost a century and a half in the Mojave region have been substantial. In general, these changes are characterized by decreases in perennial grasses and native annuals and an increase in exotic ephemerals such as red brome (*Bromus rubens*). Continuous stands of exotic ephemerals provide fuel which can carry fire over large areas. Historically, fires were small or infrequent over vast areas of the Mojave region, and because native desert plants have not evolved with fire and are not adapted to it, they generally are killed by high-intensity fire. The increasing incidence and severity of fires in the Mojave region are already converting desert shrublands into ephemeral grasslands. The effects of invading exotic grasses on several ecosystems have recently been reviewed by D'Antonio and Vitousek (1992).

These vegetational changes can be detrimental to desert tortoises for a number of reasons. First, these animals require perennial shrubs for cover from the intense solar radiation in the desert. Second, perennial grasses are important secondary food sources for the desert tortoise in many areas. Third, recurrent fires and competition from exotic ephemerals may reduce the abundance and diversity of native forbs which are the major food source of the desert tortoise. Finally, major fires fragment desert tortoise habitat; fires can also kill desert tortoises (Appendix D).

Habitat fragmentation is a major contributor to population declines (Berry 1984b, Berry and Burge 1984, Berry and Nicholson 1984b, and Berry 1984c). Desert tortoises require a great deal of space to survive (Figure 2; see also Appendix C). Over its lifetime, each desert tortoise may require more than 1.5 square miles of habitat and may make forays of more than 7 miles at a time (Berry 1986b; Esque et al. in prep; K.H. Berry, pers. comm. 1993). In drought years, desert tortoises forage over larger areas (Figure 2) and thus have a greater probability of encountering potential sources of mortality. Roads and urban areas form barriers to movement and tend to create small, local populations which are much more susceptible to extinction than large, connected ones (Wilcox and Murphy 1985).

8

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# Ecology of a population of subsidized predators: Common ravens in the central Mojave Desert, California

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#### Abstract

my arrows. Human subsidies have resulted in the rapid growth of populations of common ravens (Cornus corax) in the Mojave Desert. This is a management concern because ravens prey on threatened desert tortoises (Gopherus agassizii). We conducted weekly counts for 29 months at 10 sites on the US Army's National Training Center, Fort Irwin, California to evaluate factors affecting the distribution of ravens. Raven abundance varied seasonally, diurnally, and with human abundance. It was greatest near resource subsidies, specifically the landfill and sewage ponds. Although other studies have documented heavy use of landfills by ravens, the use of sewage ponds had not been previously reported in the published literature. We suggest that raven management should focus on reducing access to anthropogenic resources. (© 2006 Published by Elsevier Ltd.

Keywords: Anthropogenic resource; Corvid; Corsus corax; Invasive species; Military; Subsidized predator

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12

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#### W.I. Boarman et al. / Journal of Arid Environments 67 (2006) 248-261

249

#### 1. Introduction

Commensal predators such as the common raven (Corvus corax) benefit from a myriad of resource subsidies provided by human activities. These resource subsidies can include food (e.g. organic garbage), water (e.g. reservoirs), nesting substrates (e.g. telephone poles), and safety from inclement weather or predators (e.g. abandoned buildings). Subsidies facilitate population persistence and may increase population size and range. Concentrated human resources may increase predator densities, affecting prey populations in adjacent habitat through spillover predation (Chapman et al., 1996; Holt, 1984; Schneider, 2001). Subsidized predators can drastically impact native populations because subsidies insulate subsidized populations of predators from the effects of declines in prev populations (Sinclair et al., 1998). Predation may be a major concern for the conservation of endangered and threatened species. It is important to understand the factors that affect the predator's population size during the development of management strategies designed to reduce the predators' effect on native prey populations.

In the Mojave Desert of California, C. corax is a subsidized predator (Boarman, 2003; Soulé, 1988). It benefits from anthropogenic resources such as food, particularly in the form of garbage and agricultural wastes, water from sewage ponds and municipal areas, and nesting substrate in the form of billboards, power towers, bridges, and buildings. Ravens that nest in close proximity to anthropogenic resources have improved probabilities of their fledglings surviving to at least 2 year old (Webb et al., 2004). Human subsidies appear to be responsible for recent increases (>1000% over 24 years) in raven populations in the Mojave Desert (Boarman and Berry, 1995). Populations of animals preved on by ravens face greater predation pressure near human developments due to artificially high raven densities (Kristan and Boarman, 2003). One prey species, the desert tortoise (Gopherus agassizii), is of particular concern to conservation biologists. Ravens in the Mojave Desert prey on neonate and juvenile desert tortoises, and the ravens may be partially responsible for the tortoises' status as Threatened (Boarman, 1993, 2003; US Fish and Wildlife Service [USFWS], 1994).

To better manage populations of ravens, it is necessary to characterize the birds' spatial and temporal distributions with respect to important anthropogenic resources and activities. We report on populations of the common raven from in and around the National Training We report on populations of the common farth hour is the "Base". We ask Center of the US Army at Fort Irwin, California, hereafter referred to as the "Base". We ask several questions: (1) Does the raven's abundance at the Base's landfill vary by age? (2) Do ravens move from site to site within the Base or are numbers of ravens at individual sites independent of each other? (3) Does the raven's use of specific sites vary with abundance of human-provided resources? (4) Does the raven's abundance vary by time of day and season? (5) Is the number of ravens directly affected by foot and vehicle activity? (6) Does the raven's abundance correlate with changes in human abundance? (7) Is the raven's abundance associated with that of the coyote (Canis latrans), another human commensal that may be either competitors or help ravens access buried garbage?

#### 2. Materials and methods

#### 2.1. Study area

The Mojave Desert encompasses 140 000 km2 of Nevada, Utah, and California (Jaeger, 1957). Topology consists of mountain ranges and bajadas interspersed with basins.

#### W.I. Boarman et al. / Journal of Arid Environments 67 (2006) 248-261

Elevations range from below sea level to approximately 2400 m. Climate is seasonal: 39.1 °C mean high in the summer to -0.4 °C mean low in the winter, with an annual mean temperature of 17.7 °C (Rowlands, 1995a). Average rainfall is 108.5 mm, with nearly 80% falling in winter. The flora is dominated by short, widely spaced shrubs in the allscalealkali scrub and creosote bush scrub vegetation complexes (Rowlands, 1995b).

Our study was focused mostly in the central Mojave Desert within the cantonment of the Base in San Bernardino Co., California (Fig. 1). The Base encompasses  $642 \text{ km}^2$  and occurs north of I-15 and Barstow, California. The operational headquarters and living area are confined to the cantonment in the south-central portion of the Base. The cantonment, which covers slightly less than  $10 \text{ km}^2$ , contains the military landfill, sewage treatment plant (with evaporation ponds), parks, trees, residential housing for approximately 10000 military personnel and their families, support buildings, and other structures (e.g. shade awnings, wash racks, and storage areas). Desert areas surrounding the cantonment are used for military training and lack abundant, permanent anthropogenic resources.

## 2.2. Surveys

250

Ravens were trapped at the landfill with a rocket net on 31 May 1996 and 21 May 1997 to individually identify and track their movements among sites. We baited the trap site with meat scraps for approximately 3 weeks prior to trapping. All captured birds were

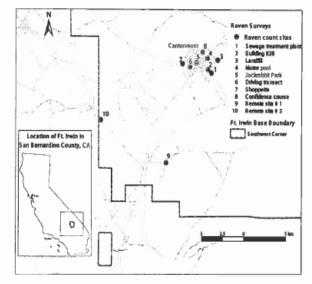


Fig. 1. Map showing cantonment and southwest corner of Fort Irwin where population surveys sites were.

<sup>14</sup> 

aged (Heinrich, 1994; Kerttu, 1973), weighed, and measured (wing cord, culmen length and depth, and tarsus length and width).

Ravens were surveyed weekly during April 1995-August 1997. We selected eight sites within the cantonment that were used by ravens: sewage treatment pond, a tall vehicle shade awning, solid waste landfill, motor pool at the Operations Group Maintenance Area, Jackrabbit Park, a 1.6 km road transect that meandered through residential and light commercial areas, convenience store, and exercise course (Fig. 1). We also selected two remote desert reference sites located in areas devoid of anthropogenic resources, and rarely used for troop movement or training. Desert Reference I was located 1 km from the nearest paved road or other attraction site (116° 48' 53.9" N, 35° 12' 46.0" W) for ravens and Desert Reference 2 was 2 km from the nearest paved road or other attraction site (116° 43' 47.7" N, 35° 10' 28.8" W). Each site was visited three times each day: morning, midday, and afternoon. Visits were conducted in the same order with a random start site chosen at the beginning of the survey day. At each site, all ravens were counted for 10 min. At all sites except the road transect, the counts included all birds that were within a 100 m radius of the site at the time of arrival, and all birds that passed through the area during the count. The road transect was surveyed by driving slowly along a 1.6 km section of roads and counting all ravens observed within 100 m of either side of the transect.

#### 2.3. Analyses

#### 2.3.1. Factors affecting abundance of ravens

We tested for patterns in temporal and spatial abundance, and distribution of ravens within the cantonment. Was it possible that raven numbers across the entire cantonment were fairly constant, that is, was it a relatively closed population? If so, totals at the landfill should be negatively associated with totals summed across the remainder of the sites. Alternatively, large numbers of birds may leave the base at more or less the same time, resulting in a positive association among sites. These predictions were examined using simple linear regression analysis on mean totals by month (n = 29). Tables of Pearson correlation coefficients were constructed to further examine potential temporal associations (positive or negative) in numbers of ravens among sites. Correlations were calculated for mean monthly totals (n = 29), maximum monthly totals (n = 29), and daily totals  $97 \le n \le 101$ . A Dunn-Sidák multiple comparisons correction (Sokal and Rohlf, 1995) was used to adjust the experimentwise error rate (level at 0.05).

Using data from point count surveys, numbers of ravens at the 10 sites at the Base (n = 10) were compared using a nested repeated measures ANOVA, with month nested within season and survey nested within month, and with blocking factors of time of day and month in which the survey was completed. Post hoc contrasts on the main effects were achieved with a Tukey's HSD (Zar, 1996).

We generated an a priori hypothesis with ordered expectations based on results from a similar study we conducted at Edwards Air Force Base, California. Our null hypothesis,  $H_0$ , was  $m_1 = m_2 = m_3$ , where  $m_1$  was the mean number of ravens at heavy human resource sites (the landfill and sewage ponds),  $m_2$  was the mean at light human resource sites (all other human-modified sites at the Base), and  $m_3$  was the mean in natural desert habitat. The alternative hypothesis,  $H_A$ , was  $m_1 > m_2 > m_3$ . The ordered expectation was tested using isotonic regression, a powerful one-tailed ANOVA/linear regression technique (Barlow et al., 1972; Gaines and Rice, 1990). The isotonic regression statistic,  $E^2$ , is the

48

APPENDIX A

#### 252 W.I. Boarman et al. | Journal of Arid Environments 67 (2006) 248-261

ratio of the between groups sums of squares and the total sums of squares and can be calculated from the *F*-statistic obtained from a standard ANOVA (Barlow et al., 1972). The groups (k = 3) had unequal sample sizes  $(n_1 = 58, n_2 = 174, n_3 = 56)$ . Thus, we transformed  $E^2$  into an *S* statistic (Robertson et al., 1988), where  $S = dE^2/(1-E^2)$  with *d* being the degrees of freedom (n - k = 288 - 3 = 285). Tabled critical values of *S* were used to determine statistical significance. To avoid pseudoreplication, monthly means for each site were entered into the analysis.

Variation in raven numbers over 29 months was examined graphically through crosscorrelation, analysis of variance, and Rayleigh's test for circular uniformity. Cross correlation compared the total number of ravens per month across the 29 months of surveys. A nested repeated measures ANOVA used blocking factors of season, month (nested within season), and survey time (nested within month). Because raven numbers were uncorrelated across sites, each site was treated as an independent measure of raven abundance. Thus, repeated measures were surveys with differing time of day, month, and season at the same site. Season was classified as winter (December, January, February), spring (March, April, May), summer (June, July, August), and autumn (September, October, November). Survey time was classified as morning (0630-1030), midday (1100-1430), and afternoon (1500-2000). Post hoc contrasts between means were determined using Tukey's HSD technique. Rayleigh's test for circular uniformity (Zar, 1996) identifies concentrations of data occurring in a cyclical series (e.g. time, direction). Rayleigh's test generates two parameters, R, a measure of departure from a uniform distribution with a probability of p, and  $\theta$ , a measure the angle or direction of the peak in distribution.

The effect of actual, direct human activity was tested using nested repeated measures ANOVA for time effects with activity being treated as the dichotomous (present or absent) main effect. Separate analyses were conducted for overall activity, vehicle traffic, and foot traffic. Post hoc contrasts were examined to determine the pattern of effects, both main and nested.

We used predictable fluctuation in human population within the cantonment to further test the association between human and raven abundance. We performed an isotonic regression to compare human abundance classes against an a priori ordered expectation that raven abundance would be correlated positively with human abundance. The number of people on the Base varied in a regular 28-day cycle following the rotation of troops through the training program. An advance party arrived for the first 2 days, during which time the number of people in the cantonment was at intermediate levels. For the next 7 days, large numbers of troops arrived at the cantonment and prepared for exercises. Troops were several kilometers away from the cantonment during the following 14-day training period and numbers of people in the troops returned to the cantonment for 5 days. Subsequently, the cycle began again. Twice a year, in winter and summer, many people permanently housed on the Base left for 2 weeks. At this time the human population was unusually low.

We examined whether ravens may be commensals on coyotes or not by calculating a Pearson correlation coefficient between numbers of coyotes and numbers of ravens when the former was noted during a census (n = 54 surveys). Then, human activity was entered as a covariate to investigate whether the disruption by humans upset the interspecies association.

#### W.I. Boarman et al. / Journal of Arid Environments 67 (2006) 248–261

253

### 2.3.2. Analyses of age

Chi-square goodness of fit test was used to determine if presence at the landfill varied by age. The expected frequencies were based on the assumption that proportions by age class (hatch year, second year, and adult) were equal. We calculated simple correlation coefficients between age class and number of days each bird was detected at those locations for all sightings of wing- and radio-tagged birds at the landfill and the sewage pond.

#### 3. Results

## 3.1. Factors affecting abundance of ravens

Tallies at the landfill and those summed across the remainder of the Base were not correlated (Fig. 2;  $r^2 = 0.0002$ ). Four significant correlations (3 positive, 1 negative) were found between motor pool and other sites (vehicle shade awning, Jackrabbit Park, exercise course, and desert reference 2, respectively; Table 1). The motor pool may have drawn ravens during the day because it was the site of a night roost.

Number of ravens differed significantly across the ten survey sites (Table 2;  $F_{9,110} = 142.06$ , P < 0.0001). These differences were due to higher numbers of ravens at the landfill than at every other site (Fig. 3), and to higher numbers at the sewage treatment plant than at all sites but the landfill (Tukey's HSD). Numbers at the other eight sites did not significantly differ from each other. Both time of day ( $F_{240,2419} = 3.50$ , P < 0.0001) and survey month ( $F_{110,240} = 1.34$ , P < 0.05) contributed to the variation in numbers of ravens across sites and, thus, on the entire Base (Table 3). Together, month, time of day, and site accounted for 75% (i.e.  $r^2 = 0.75$ ) of the variation in numbers of ravens at the Base. The highest numbers were present between summer and winter, during the afternoon, and at the landfill and sewage treatment plant. Coefficients of variation calculated for mean abundance of ravens at different seasons and times of day showed little difference.

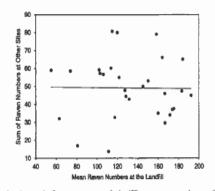


Fig. 2. Mean numbers by month of common ravens at the landfill vs. means summed across the other nine sites surveyed.

## W.I. Boarman et al. / Journal of Arid Environments 67 (2006) 248–261

Table 1

254

Pearson correlation coefficients, r, and probability, P, of Type I error under the null hypothesis of no correlation of common raven numbers among sites based on individual survey totals

	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8	Site 9
Site 2	0.05			_					
	ns.								
Site 3	0.01	-0.07							
	ns	ns							
Site 4	0.17	0.2	0.14						
	•	**	ns						
Site 5	0.18	0.09	0.08	0.2					
	•	<b>B</b> 8	ns						
Site 6	-0.03	0.02	0.09	-0.02	0.14				
	ns	ns	ns	ns	ris				
Site 7	0.16	0.1	0.12	0.18	0.17	0.06			
	ns	ns	<b>D3</b>	•		DS			
Site 8	0.14	0.12	-0.02	0.21	0.05	-0.06	-0.06		
	<b>D</b> S	ns	DS .	**	ns	ns	ns		
Site 9	-0.18	-0.12	-0.01	-0.07	-0.06	0.08	0	-0.08	
	•	ns	INS.	ns	ns	ns.	D.S	ns	
Site 10	-0.11	-0.02	-0.11	-0.25	-0.01	-0.08	0.14	-0.15	0.02
	rus	10.5	ns		ns	nŝ	21.9	11.5	ns

These totals are the least conservative because of the larger sample compared to monthly means or maxima and given that they ignore monthly and daily fluctuations. Raven numbers are not correlated among sites under the Duna-Sidák experimentwise d' of  $1-(1-0.05)^{1/43} = 0.001$ . Site 1 = sewage treatment pond, Site 2 = vehicle shade awaing. Site 3 = landfill, Site 4 = motor pool, Site 5 = Jackrabbit Park, Site 6 = ensidential, Site 7 = convenience store. Site 8 = exercise course, Site 9 = desert reference 1, and Site 10 = desert reference 2. For levels of significance, \*\*\* represents  $P \leq 0.01$ , \*\* represents  $P \leq 0.05$ , \* represents  $P \leq 0.10$ , and "ms" represents P > 0.10.

### Table 2

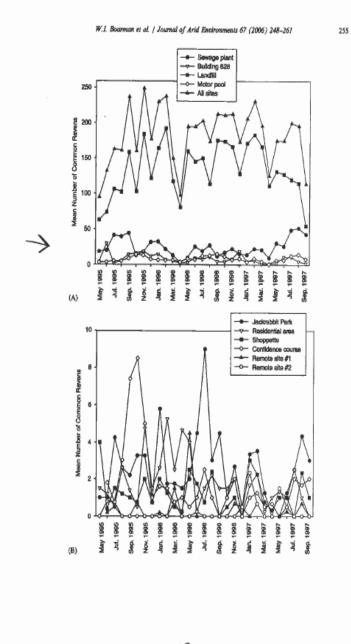
 $\rightarrow$ 

Mean number of common ravens observed at each of the ten survey points

Site	Mean	S.E.	n	Total number of ravens detected
Landfill	134.3	5.5	101	13564
Sewage treatment plant	24.9	1.8	101	2514
Vehicle shade awning	9.2	1.4	101	929
Motor pool	7.8	0.6	101	791
Jackrabbit Park	2.7	0.3	101	274
Exercise course	1.9	0.3	101	191
Residential	1.9	0.2	101	188
Convenience store	1.3	0.2	100	127
Desert reference 2 east	0.3	0.1	97	31
Desert reference 1 west	0.3	0.1	97	30

Fig. 3. Fluctuations in mean numbers by month of common ravens at Base. (A) Numbers at the landfill drive most of the pattern for the entire Base. The next three most heavily used sites and all sites combined are also presented. Note the sharp decrease in both springs. (B) The six sites with the fewest ravens are presented. *Note:* Remote Site = Desert Reference.





#### W.I. Boarman et al. / Journal of Arid Environments 67 (2006) 248-261

Table 3

256

Mean number of common ravens observed across all sites at each of the four seasons and three times of day

	Mean	\$.E.	Total number of ravens detected	C.V
Season				
Winter	14.80	1.60	675	2.81
Spring	9.04	1.01	706	2.97
Summer	11.69	1.01	862	2.54
Autumn	11.87	1.46	-536	2.85
Time of the day				
Morning	8.96	0.81	951	2.79
Midday	10.52	0.98	952	2.87
Afternoon	16.30	1.43	876	2.60

Ravens were much more common (mean = 78.9, S.E. = 8.08) at sites with heavy relative to light (mean = 4.0, S.E. = 0.34) human resources. The ravens were also more common in light human resources relative to no human resources (mean = 0.4, S.E. = 0.10). The ordered expectation of higher raven numbers at sites with heavy human resources > light human resources > no human resources was significant ( $E^2 = 0.55$ , P < 0.01). Numbers at the landfill were particularly high: 18 times the mean number at light resource sites and 225 times that at open desert sites. Regardless of whether monthly means, monthly maxima, or individual survey numbers were used, we failed to detect correlations in counts of ravens among most sites once we adjusted for the experimentwise error rate for the appropriate number of multiple comparisons made (Table 1).

Numbers of ravens on the Base showed an oscillatory pattern across months with a 3 month cycle (Fig. 3; r = -0.76, P < 0.001). Season showed a significant effect on abundance of ravens across the Base ( $F_{3,B} = 4.88$ , P < 0.05), with numbers decreasing from winter to spring, but remaining the same at other seasons, as per Tukey's HSD. Month nested within season neither showed a separate effect ( $F_{8,24} = 0.57$ , P > 0.50), nor did the time of day during which the survey was conducted ( $F_{24,2743} = 1.24$ , P > 0.10). Rayleigh's test revealed a significant departure from uniformity with a peak in raven abundance in October and a trough in March (Fig. 4; Rayleigh's R = 0.084,  $\theta = 277.4$ , P < 0.001, d.f. = 2221).

Significantly higher numbers of ravens were tallied during times of no human presence at the survey points ( $F_{1,22} = 5.77$ , P < 0.05), regardless of the month of the survey ( $F_{22,44} = 0.72$ , P > 0.50). Within a given period, time of day affected activity ( $F_{42,207} = 1.98$ , P = 0.0001). Human activity was highest during morning and midday periods and lowest during the afternoon, and the numbers of ravens were highest during afternoon. The strong association between abundance of humans comes from vehicle traffic ( $F_{42,204} = 1.92$ , P < 0.001) or foot traffic ( $F_{48,2705} = 1.84$ , P < 0.001). When landfill surveys were removed from the analysis, abundance of humans had no effect on numbers of ravens ( $F_{1,22} = 2.98$ , P > 0.25).

Abundance of ravens correlated positively with overall abundance of humans in the cantonment (low = 173.6, S.E. = 8.12; medium = 183.9, S.E. = 22.64; high = 202.2, S.E. = 10.34). The isotonic regression yielded significant positive results ( $S_{2,98} = 4.48$ ,



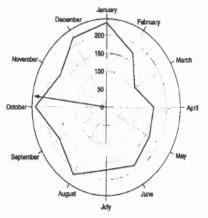


Fig. 4. Mean monthly abundance of common ravens at Ft. Irwin, 1995–1997. The arrow signifies peak abundance, on average ca. the first week of October. The dip in numbers in spring February-April is significant Rayleigh's test: r = 0.084, d.f. = 2221, P < 0.001.</p>

 $P \leq 0.05$ ). Abundance of ravens followed the patterns in abundance of humans associated with cycling of the troop-training schedule.

Numbers of coyotes did not depress numbers of ravens. Instead, their abundances were strongly positively associated ( $r_s = 0.58$ , P = 0.0001). This correction was also seen when human activity is used as a covariate (r = 0.38, P < 0.01, covariate r = 0.06).

### 3.2. Age

An average of 18.6 (S.D. = 43.83) ravens were counted at all sites per survey, but not all ravens on the Base were counted. Having no a priori knowledge of the population's demographic structure, our H<sub>0</sub> was that an equal number of each age class would be represented. Fewer hatch year (HY) birds were trapped than expected by chance  $(X^2 = 33.272, p < 0.0001, d.f. = 2)$ . HY birds were only trapped on 31 May 1996, not a year later on 21 May 1997. Tagged birds in their second summer (i.e. 1 year olds) were far more common at the landfill than adults (mean immatures = 11.4, S.E. = 2.55, n = 14 vs. mean adults = 4.0, S.E. = 1.40, n = 10; r = -0.44, P < 0.05).

### 4. Discussion

#### 4.1. Factors affecting abundance of ravens

Given the large number of ravens usually present at the landfill, we probably characterized a significant proportion of the ravens on the Base. Although sites most heavily used during the day were surveyed, we did not survey other locations that

## W.I. Boarman et al. | Journal of Arid Environments 67 (2006) 248–261

258

contained low numbers of ravens. However, we regularly found radio transmittered birds at low-density sites. Additionally, the night roost at the Rotational Unit Facility Maintenance Area had an average of 446 (S.D. = 173.1) ravens (Boarman, unpubl. data). On one winter evening, this roost contained over 1000 birds. They arrived after sunset and departed before sunrise. Given that only an average of 18.6 ravens were found on daytime surveys, the majority of roosting birds probably left the Base during the day. Thus, conclusions about raven abundance are tempered by the large variation among locations, times of day, and seasons.

We expected numbers of ravens at the landfill to be negatively correlated with numbers at other sites. When not at the landfill, the ravens were expected to be using other parts of the cantonment, and vice versa. However, our expectation was not realized. Ravens at the landfill apparently were not moving as a group to other specific sites surveyed on the Base. Instead, they were probably dispersing individually or in small groups to multiple sites on, and perhaps off, the Base. Many ravens apparently left the Base during the day, resulting in low numbers at the landfill (e.g. morning). These regular movements off the Base indicated an important connection between the Base and the Barstow area. Ravens took frequent advantage of resources in both areas, and neither can be viewed separately when considering Base or regional populations of ravens.

Our results supported the hypothesis that food and water were importan: anthropogenic resource subsidies for common ravens in the Mojave Desert. Ravens were significantly more abundant at the landfill and sewage pond than at other sites. In general, landfills had important concentrations of ravens (Dorn, 1972; Engel and Young, 1992; Knight et al., 1993; Restani et al., 2001). Knowles et al. (1989, unpublished report) reported large numbers of ravens at sewage ponds (C. Knowles, R. Gumtow, P. Knowles, and P. Houghton; FaunaWest Wildlife Consultants, Boulder, MT. Relative abundance and distribution of the common raven in the deserts of southern California and Nevada during the fall and winter of 1988–1989. Unpublished report to Bureau of Land Management, Riverside, CA).

Low raven abundance was expected at the two remote desert reference sites because the sites provided no resource attraction. Although the mean number of ravens was higher at some other anthropogenic sites (shade awning, motor pool, Jackrabbit Park, road transect, convenience store, and exercise course), they were not significantly greater than the remote desert sites. This lack of difference was surprising given that anthropogenic sites generally provide some resources for ravens. The lack of significance may be an artifact of lack of power in our statistical tests because of the high degree of variance relative to mean at these sites. Camp et al. (1993) also measured very low raven abundance in remote areas of the Mojave Desert and Knight et al. (1993) found significantly fewer ravens in natural areas compared to powerline and highway corridors.

Ravens were significantly more common on the Base in the afternoon. The closure of the landfill at 16:00 probably best explained this discovery. The landfill was surrounded by a chain link fence, which prevented people from disturbing the birds. The negative association obtained between raven abundance and actual human activity supported this hypothesis. Restani et al. (1996) obtained similar results with ravens in Greenland. The higher numbers of ravens in the afternoon, with similar coefficients of variation, suggested that afternoon was a good time to conduct surveys to obtain valid estimates of the raven's population density.

Abundance of ravens on the Base was seasonal, fluctuating widely throughout the year. The density of ravens was significantly lower in the spring than in other seasons. Austin

(1971) and Knight et al. (1999) also obtained a similar pattern of lower raven numbers in the Mojave Desert in spring. The low point was probably due to a combination of accumulated mortality, particularly in fledglings, over the year, and partly due to dispersion over a broader area for breeding. The autumn's significant peak in raven abundance was surprising. We believe the numbers were higher than expected in the winter because ravens were concentrated at human-provided food sites during a time of year when non-human food sources are rare (Restani et al., 2001).

Number of ravens in the cantonment varied in concordance with a regular 4-week cycle of troop rotation schedules. As abundance of humans peaked in the cantonment, so did raven abundance. When troops abandoned the cantonment for training exercises in remote desert locations, raven abundance dipped significantly. Many ravens may have followed the troops into the desert, but others may have left the base altogether. Restani et al. (2001) reported raven abundance roughly tracked reductions in human abundance in southwest Greenland. The observations supported the hypothesis that raven and human populations were closely associated in the Mojave Desert.

Numbers of ravens and coyotes at the landfill were positively correlated with each other. Ravens followed wolves and cougars in order to scavenge on their leftover carcasses (Mech, 1970; Pearse, 1938). Coyotes heavily used the landfill and its superabundance of food probably prevented any competition between ravens and coyotes. The positive correlation between the species remained, even after controlling for human activity levels. This suggested either that there was an attracticn between the species (for example, coyotes may help ravens by making food available when they tear open packages, move heavy debris, and dig into dirt cover), or that both species were attracted to the same resources. However, there were also negative interactions: on one occasion, a coyote caught and consumed a raven at the landfill (M. Masser, pers. comm.).

## 4.2. Age

Young (second year) ravens tended to use the landfill more than adults. Restani et al. (2001) also observed significantly more immatures and juveniles at a landfill in Greenland, particularly in late summer. Our data were consistent with the observation by Heinrich et al. (1994) that non-breeders (hence primarily juveniles) joined feeding flocks or crowds. However, feeding crowds also contained adults.

#### 5. Conclusion

The density of the Ravens on the Base was tied to human activities. Ravens occurred in considerably greater numbers at the landfill and sewage pond than at other anthropogenic and undisturbed sites. Their numbers also fluctuated in response to predictable patterns in the size of the human population at the Base, which varied with the troop training cycle. The resource subsidies provided by human activities were well used by ravens. The ravens at the Base were a regular part of the broader raven population, including neighboring urban and agricultural areas to the south. For the long term, management efforts should focus on reducing the availability of resource subsidies, especially at landfills and sewage ponds. These efforts may have great success, but only when coupled with similar efforts on a broader, region-wide basis (Boarman, 2003).

#### W.I. Boarman et al. / Journal of Arid Environments 67 (2006) 248-261

#### Acknowledgments

260

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W.I. Boarman et al. / Journal of Arid Environments 67 (2006) 248-261

261

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## RESPONSE TO COMMENT LETTER NC11

- NC11-1 Wind-blown dust was previously addressed in Draft EIR section 4.3. The Court found this issue to be adequately addressed.
- NC11-2 On April 11, 2008 the Superior Court of California, County of San Bernardino, Barstow District, set aside the certification of the environmental impact report for Nursery Products, and vacating any and all approvals given to the Project, including the issuance of the Conditional Use Permit. The Court later directed the County to comply with CEQA, specifically directing the County to:
  - Conduct an appropriate economic feasibility analysis of an enclosed facility at the Hawes site for the Project as proposed; and
  - Identify the water source for this Project and conduct a water assessment.

When an environmental impact report has been prepared for a project, a subsequent environmental impact report is required only if "substantial changes" in the project or its circumstances will result in new or substantially more severe impacts that require additional analysis (CEQA, §21166.). The additional analysis directed by the Court did not result in changes to the Project but rather changed circumstances, thus a supplemental EIR is the appropriate document. An SEIR, as its name implies, supplements the EIR already prepared for a project to address the changed circumstances since the prior document was certified. The purpose of this Draft SEIR is to address the changed circumstances, as established by the Court's Decision, in the previous EIR. Accordingly, this Draft SEIR contains only the analyses necessary to respond to the Court's Decision.

- NC11-3 Health Hazards were previously addressed in Draft EIR section 4.6. The Court found this issue to be adequately addressed.
- NC11-4 Pesticides were previously addressed in Draft EIR section 4.6. The Court found this issue to be adequately addressed.
- NC11-5 Pathogens were previously addressed in Draft EIR section 4.6. The Court found this issue to be adequately addressed.
- NC11-6 Pathogens and Groundwater resources were previously addressed in Draft EIR Section 4.6 and 4.7. The Court found these issues to be adequately addressed.
- NC11-7 A water supply assessment was completed with this Draft SEIR. The Mojave Water Agency determined there is more than sufficient aquifer capacity, at approximately 300' below the ground elevation at the Hawes Composting Facility, to produce good quality water, capable of provided a sustainable water supply for over one hundred years, free of a replenishment water assessment imposed by the Mojave Basin Watermaster.
- NC11-8 Global Climate Change issues are discussed in Section 4.1 and Appendix B of the Draft SEIR.
- NC11-9 VOCs were previously addressed in Draft EIR section 4.3. The Court found this issue to be adequately addressed.

- NC11-10 Ravens were previously addressed in Draft EIR section 4.4. The Court found this issue to be adequately addressed.
- NC11-11 Desert Tortoise was previously addressed in Draft EIR section 4.4.2.1. The Court found this issue to be adequately addressed.
- NC11-12 The Draft SEIR evaluated global warming impacts and mitigation measures to reduce greenhouse gas emissions associated with the Project in Section 4 and in Appendix B.

# COMMENT NC12

# DEPARTMENT OF FISH AND GAME



## FACSIMILE TRANSMITTAL SHEET

TO:	FROM:
Carrie Hyke	Tonya Moore
COMPANY: County of San Bernardino	DATE: APRIL 8, 2009
FAX NUMBER: Fax: (909) 387-3223	TOTAL NO. OF PAGES INCLUDING COVER
PHONE NUMBER: Phone: (909) 387-4147	SENDER'S REFERENCE NUMBER: Hawes composting Facility
Comments on NOP	YOUR REFERENCE NUMBER SCH 2006051021

URGENT FOR REVIEW PLEASE COMMENT PLEASE REPLY PLEASE RECYCLE

NOTES/COMMENTS





DEPARTMENT OF FISH AND GAME http://www.dfg.ca.gov triand Doserts Region (DR) 407 West Line Street Bishop, CA \$20514 (760) 672-1171

State of California - The Resources Agency



April 7, 2009

Ms. Carrie Hyke San Bernardino County 385 N. Arrowhead Avenue, 1<sup>et</sup> Floor San Bernardino, CA 92415-0182

Subject: Notice of Preparation (NOP) for Nursery Products Hawes Composting Facility Draft Environmental Impact Report (DEIR) APN# 0492-021-24-0000 (SCH# 2006051021).

Dear Ms. Hyke:

The Department of Fish and Game (Department) has reviewed the Notice of Preparation (NOP) for the Draft Environmental Impact Report (DEIR) for the Nursery Products Hawes Composting Facility which occupies 80 acres of a 160 acre parcel originally evaluated in a Final Environmental Impact Report (FEIR). The project proponent, under court order, is preparing a Supplemental Environmental Impact Report. The project is located 1 mile south of State Route 58 and 1 mile west of Helendale Road, approximately 12.3 miles east of Krämer Junction and 8 miles west of Hinkley in unincorporated San Bernardino County. APN # 0492-021-24-0000.

The Department is providing comments on this NOP as the State agency which has statutory and common law responsibilities with regard to fish and wildlife resources and habitats. California's fish and wildlife resources, including their habitats, are held in trust for the people of the State by the Department (Fish and Game Code §711.7). The Department has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and the habitats necessary for biologically sustainable populations of those species (Fish and Game Code §1802). The Department's Fish and wildlife management functions are implemented through its administration and enforcement of Fish and Game Code (Fish and Game Code §702). The Department is a trustee agency for fish and wildlife under the California Environmental Quality Act (see CEQA Guidelines, 14 Cal. Code Regs. §15386(a)). The Department is providing these comments in furtherance of these statutory responsibilities, as well as its common law role as trustee for the public's fish and wildlife.

In order for Department staff too adequately review and comment on the proposed project the following information should be included in the DEIR:

 A complete assessment of the flora and fauna within and adjacent to the project area, with particular emphasis upon identifying endangered, threatened and sensitive species and sensitive habitats.

Conserving California's Wildlife Since 1870

Hawes Composting NOP Comments April 8, 2009

- a. If appropriate habitat for any listed species occurs on the site, including surface waters potentially containing any fish species, have qualified biologist conduct focused surveys according USFWS and /or Department protocols (guidelines).
- b. Have a qualified botanist conduct a focused rare plant survey during the appropriate time of year following USFWS and/or Department protocols.
- c. Have a qualified biologist conduct focused surveys for burrowing owl following the 1993 Burrowing Owl Consortium protocol guidelines. Survey guidelines can be obtained for the Department. The mitigation measures presented in the guidelines should be included in the DEIR and/or DEIS.
- d. If any listed species will potentially be impacted by the proposed project, consultation with the Department and the USFWS will be required to establish appropriate avoidance, minimization and mitigation measures. An Incidental Take Permit may be required by the Department pursuant to Fish and Game Code Section 2080 et. seq.
- e. The Department requests that impacts to State and Federally-listed species and potential avoidance, alternative and mitigation measures be addressed in the CEQA document and not solely in subsequent negotiations between the applicant and the agencies.
- A through discussion of direct, indirect and cumulative impacts expected to adversely affect biological resources, with specific measures to offset such impacts.
  - a. CEQA Guidelines, 15125(a), state that knowledge of the regional setting is critical to an assessment of environmental impacts and that special emphasis should be placed on resources that are rare or unique to the region.
  - b. Project impacts should be analyzed relative to their effects on off-site habitats. Specifically, this should include nearby public lands, open space, adjacent natural habitats and riparian ecosystems. Impacts to and maintenance of wildlife corridor/movement areas, including access to undisturbed habitat in adjacent areas, should be fully evaluated and provided. This includes impacts to wildlife from increased raven populations.
    - The zoning of areas for development projects or other uses that are nearby or adjacent to natural areas may inadvertently contribute to wildlife-human interactions. A discussion of possible conflicts and mitigation measures to reduce these conflicts should be included in the environmental document.
    - 2) A cumulative effects analysis should be developed as described under CEQA Guidelines, 15130. General and specific plans, as well as past, present, and anticipated future projects, should be analyzed relative to their impacts on similar plant communities and wildlife habitats.

Page 2 of 4

NC12-1

Haves Composting NOP Comments April 8, 2009

- 3. A range of alternatives should be analyzed to ensure that alternatives to the proposed project are fully considered and evaluated. A range of alternatives, which avoid or otherwise minimize impacts to sensitive biological resources should be included. Specific alternative locations should also be evaluated in areas with lower resource sensitivity, where appropriate.
  - a. Mitigation measures for project impacts to sensitive plants, animals and habitats should emphasize evaluation and selection of alternatives which avoid or otherwise minimize project impacts. Off-site compensation for unavoidable impacts through acquisition and protection of high-quality habitat elsewhere should be addressed.
  - b. The Department considers Rare Natural Communities as threatened habitats having regional and local significance. Thus, these communities should be fully avoided and otherwise protected from project-related impacts.
  - c. A California Endangered Species Act (CESA) Permit must be obtained, if the project has the potential to result in "take" of species of plants or animals listed under CESA, either during construction or over the life of the project. CESA Permits are issued to conserve, protect, enhance and restore State-listed threatened or endangered species and their habitats. Early consultation is encouraged, as substantial modification to the proposed project and mitigation measures may be required in order to obtain a CESA Permit. Revisions to the Fish and Game Code, effective January 1998, requires that the Department issue a separate CEQA document for the issuance of a CESA permit unless the project CEQA document addresses all project impacts to listed species and specifies a mitigation monitoring and reporting program that will meet the requirements of a CESA permit. For these reasons, the following information is requested:
    - Biological mitigation monitoring and reporting proposals and a raven control plan should be of sufficient detail and resolution to satisfy the requirements of a CESA Permit. The Department recommends early consultation with the Department to discuss appropriate measures to avoid, minimize, and/or compensate for impacts.
    - A Department-approved Mitigation Agreement and Mitigation Plan are required for plants listed as rare under the Native Plant Protection Act.
- 4. Under Section 1600 et. seq of the Fish and Game Code, the Department requires the project applicant to notify the Department of any activity that will divert, obstruct or change the natural flow of the bed, channel or bank (which includes associated riparian habitat) or a river, stream or lake, or use material from a streambed prior to the applicant's commencement of the activity. Streams

Page 3 of 4

Hawes Composting NOP Comments April 8, 2009

> include, but are not limited to, intermittent and ephemeral streams, rivers, creeks, dry washes, sloughs, blue-line streams and watercourses with subsurface flow. The Department, as a responsible agency under CEQA, may consider the local jurisdiction's (Lead Agency) Negative Declaration of EIR for the project. However, if the EIR does not fully identify potential impacts to lakes, streams and associated resources (including, but not limited to, riparian and alluvial fan sage scrub habitat) and provide adequate avoidance, mitigation, monitoring and reporting commitments, additional CEQA documentation will be required prior to execution (signing) of the Streambed Alteration Agreement. In order to avoid delays or repetition of the CEQA process, potential impacts to a lake or stream, as well as avoidance and mitigation measures need to be discussed within this CEQA document. The Department recommends the following measures to avoid subsequent CEQA documentation and project delays:

- a. Incorporate all information regarding impacts to lakes, streams and associated habitat within the DEIR. Information that needs to be included within the document includes: (a) a delineation of lakes, streams and associated habitat that will be directly or indirectly impacted by the proposed project; (b) details on the biological resources (flora and fauna) associated with the lakes and/or streams; (c) identification of the presence or absence of sensitive plants, animals or natural communities; (d) a discussion of environmental alternatives; (e) a discussion of avoidance measures to reduce project impacts; and (f) a discussion of potential mitigation measures required to reduce the project impacts to a level of insignificance. The applicant and lead agency should keep in mind that the State also has a policy of no net loss of wetlands.
- 5. The Department recommends that the project applicant and/or lead agency consult with the Department to discuss potential project impacts, avoidance and mitigation measures. Early consultation with the Department is recommended, since modification of the proposed project may be required to avoid or reduce impacts to fish and wildlife resources.

In conclusion, the requested biological survey information should be submitted to Mr. Eric Weiss, 12550 Jacaranda Avenue, Victorville, CA 92395, for review in order to adequately determine the potential impacts of the project. Questions regarding this letter and further coordination on these issues should be directed to me at (760) 246-8828.

Sincerely,

Donya Macu Tonya Moore

Senior Environmental Scientist

cc: Mr. Eric Weiss, DFG State Clearinghouse

Page 4 of 4

NC12-1 Biological resources were discussed in detail in Section 4.4 of the Draft EIR. The court found this resource area to be adequately addressed.

### COMMENT NC13

April 8, 2009

Carrie Hyke, Principal Planner San Bernardino County Land Use Services Department Advance Planning Division 385 N. Arrowhead Avenue, First Floor San Bernardino, CA 92415-0182

Re: Notice of Preparation of a Supplemental Environmental Impact Report Proposed Nursery Products Hawes Composting Facility

Dear Ms. Hyke:

Thank you for the opportunity to comment on this proposed project. I want to again express my disagreement and disbelief with how Nursery Products LLC wants to operate. I am also deeply disappointed with our elected San Bernardino County officials who don't seem to care that their actions will have devastating effects on the communities in the high desert. You represent us, the people of the high desert, not some company with a bad history out of Southern California.

I have looked at the NOP and have some questions regarding information in it.

It states "Compost and soil amendments provide a source of organic matter (humus), nitrogen, phosphate and potassium, as well as calcium, magnesium, sulfur and other important trace elements. Finished compost is manufactured specifically for each customer and the technical requirements for each individual application. Golf courses, agriculture, nurseries and homeowners require different blends of finished compost. Soil treated with compost increases retention and conservation of nutrients and water, is more capable of resisting pests and diseases, and produces healthier crops and increased yields. In addition, adding humus-rich compost improves soil structure and texture, enhances moisture retention and drainage, and reduces soil compaction."

What does this have to do with the project? It sounds as if the County is producing an advertisement for a product. Is the County in partnership with NPLLC? Compost is a vital ingredient to healthy plant growth but not compost made from potentially toxic materials. The main problem with this project is that they want to compost sewage sludge without knowing exactly what is in the sludge. There needs to be more studies to find out what is in sewage sludge.

There is speculation that heavy metals play a huge role in the toxicity of particles in sewage sludge. Studies need to be done on the heavy metals that are said to be found in sewage sludge. More information is needed on what happens when these heavy metals get airborne and travel across the desert. How does this affect humans and animals who live in the area? MORE INFORMATION IS NEEDED! DO YOU

NC13-1

KNOW WITHOUT A DOUBT THAT SEWAGE SLUDGE WILL NOT HARM ANIMALS OR HUMANS?

There are studies that have been done that try to remove or make less harmful the heavy metals in sewage sludge. You need to consider this.

# Clean soil or other inert materials, such as gypsum or sawdust, will be used as a bulking agent or amendment and delivery will not exceed 200 tons or up to 10 truck loads per day.

Where will this material be kept? Will it be covered so that doesn't blow over the desert? Nursery Products LLC was supposed to take precautions in Adelanto and did not follow through with court-ordered requirements. Why do you think they would do it now that the project location will be more remote? There will be no oversight.

Finished compost will be stored temporarily on the Project site and will be used on site for erosion control or further processing, or will be transported off site via trucks.

What do you mean by "temporarily" stored? How long does that mean? Will the compost be covered so that it doesn't blow all over the desert? What does it mean that the finished composted will be used for "further processing". Where will the finished product be transported? Will the trucks be covered? More information needs to be given to the community where these trucks will be traveling.

### The end product will not be safe and no one will want it.

Information taken from a Compost Network regarding a study of sewage sludge compost talks about "the economic viability of sludge composting depends entirely on the market i.e. on the willingness of members of public and farmers to purchase and/or use the compost. Transport costs are not insignificant and can affect the economic viability of composting sewage sludge" Nursery Products has talked about the huge demand for their composted sewage sludge. Where is the demand coming from? Who would be willing to put this untested product on their land? If there is not proof of this demand from a valid source, this material will continue to pile up at the proposed site and cause more problems in the future. NPLLC never cleaned up their mess in Adelanto. Do you really think they care what happens to your high desert?

Europe is a leader in dealing with their solid waste problem. From their experience: "The composting of mixed municipal solid waste (MSW) is no longer state of the art and becomes more and more unusual and can be seen only in the few countries in southern Europe. In these countries, however, a change in the waste management also begins because it is obvious that in future there will be no market for composts with bad qualities - such as e.g. mixed municipal solid waste composts. Compost products based on source separated organic waste show only 10 to 20 percent of the heavy metal contents compared to MSW compost and can reach the same quality level as the one produced in private gardens. This suits the requirements especially to those of professional compost users." NC13-3

NC13-4

No one wants to buy a product that has so many uncertainties surrounding it. If a product is deemed unsafe or questionable, there will be no market. There has been no mention in any records regarding this project a timeline for removal of the finished product, or where it is going. If the County has allowed this company to operate in it's high desert, it will be held responsible for the waste that accumulates on our desert land.

The OC Register had an article in their February 11, 2009 issues inquiring about spreading sludge on areas recently burned by fires. It was not allowed due to the uncertainties in sludge. When are you going to realize that people do not want to used sludge that has not been tested for toxic elements?

San Bernardino County has allowed Nursery Products to go ahead with producing a product that is unsafe, or that appears to be unsafe. If there was more quality control over what is in the sludge, I would not have as many concerns. If there was more safety measures in place regarding the safety precautions taken by the NPLLC, I would not be as concerned. Again, we just don't know enough about what is in the sludge and what it will do to the people in the area when it spreads over the high desert. As the report continues to show: "Marketing analysis over recent years show that all users of compost demand a standardized quality product that is supervised by independent organizations. A study in the south of Germany showed that 94% of the commercial users made this a precondition. In another German study among citizens of Cologne and Düsseldorf 80% of the participants would have a more positive attitude towards compost and food grown on arable land with compost application, if they were sure that a quality control system for compost exists. The introduction of separate collection and composting must therefore go hand in hand with the introduction of a quality assurance system. Assuring compost quality is more than just fulfilling a number of heavy metal limit values. It plays a central role and influences all stages of the treatment of organic residues:

-Separate collection Quality assurance can be used to draw conclusions on the quality of the source separation and can introduce measures for improvement.

 Plant engineering Errors in the plant engineering can be quickly identified via quality controls. In the hygienic sector quality assurance also serves to guarantee worker protection.

- Compost production Only constant quality and product checks avoid errors in compost production.

 Marketing Consumers want a standardised quality compost. Only a quality assurance system guarantees this. The quality sign as a symbol helps the marketing efforts.

- Public relations work A good image for compost can be built up with assured quality and a quality label.

- Application The analytical results form the basis for the declaration and the recommendations for use and consequently for the correct and successful application of compost.

- Product range Only by precisely knowing the constituents and their width of fluctuation several compost products can be developed.-

- Politics/legislature Through statistical evaluation of the test results the legislator is familiar with the present standard of compost and the possibilities of the composting plants and he can issue directives that are appropriate for the current practical situation of the compost quality.

- Certification A quality assurance system is a pre-condition for certifying the composting plants to e.g. the EU-Standard EN ISO 9002.

The central role of quality assurance is seen in the countries with developed composting system like Austria, Germany, Denmark, the Netherlands and Belgium. These countries have established an extensive quality management for the composting plants, in which around 400 composting plants take part at the moment. Several other countries like Sweden, Norway, Italy and France are in the status of the conceptual design."

The Study continues and talks about:

"Elements of quality assurance systems

Depending on intention, philosophy, political or functional approach, the quality assurance systems for compost comprise different elements:

- Raw material- Intake control
- Limits for harmful substances

- Quality criteria for the valuable constituents in the compost- Composting production

- External control (product and/or production)
- In-house monitoring
- Quality label for the product
- Certificate for the plant and/or the product
- Declaration of the properties of compost
- Recommendations for use and application
- Training and qualification of the operator
- Management and operation of plants (plant assessment)- Annual certificates
- 4.2. Quality of compost and quality management

When considering the introduction of composting, the end product should merit equal or even more attention than the composting process and the composting technique. Quality assurance of compost plays hereby a central role. It links the end product to all the elements of the organic treatment and cycle and forms the first step to a comprehensive quality management of the composting plants."

The rest of the world understands the problems associated with sewage sludge compost and is trying to do the right thing. Why aren't you?

Compost Network further states "Investigations in Europe indicate that quality and marketing of the end product are the most crucial composting issues. Both producers and users are of the opinion that sustainable recycling of organic wastes demands clear regulations with regard to what is suitable to be recycled and how it should be managed and controlled. Around 15% of the estimated total recoverable potential of 60 million Mg of organic waste is presently treated biologically in Europe. The re-use has to meet environmental and market requirements. Therefore, the trend in Europe goes definitely towards source separation of the organic residues from gardens and households. Quality requirements for composts regarding heavy metals, organic pollutants and hygiene allow no other alternative. There is no longer a market for mixed-waste compost. The introduction of source separation and composting must go hand in hand with the introduction of a quality assurance system for compost plants. Assuring compost quality entails more than just fulfilling a number of heavy metal limits. Levels and ranges of the quality criteria for compost differ very much in Europe. In most countries, independent monitoring of sampling and analysis takes place or is in preparation. A quality label or certificate will be given to compost, which meets the monitored quality criteria."

In order to have a quality product, you have to have quality ingredients going into the making of it.

There have been numerous problems with the use of composted sewage sludge as land applied. You need to look at Nu-Earth and the residual effects of sewage sludge on soybean growth.

Industries are allowed to dump heavy metals and other toxins into our waste water. These elements end up concentrated in the sludge. Studies by the State of Washington show that heavy metals can be found in sludge. Many of these metals are toxic to humans. You need to do better studies of the sludge.

Further studies by Washington State show that "lead, mercury and arsenic can be found in sewage sludge and may cause acute and chronic poisoning of animals and human beings, including disabilities and death. A more important source of danger for human health is the dirt and contamination that may enter the food chain directly, rather than through plant uptake. Sludge sprayed in liquid form on growing plants may dry and adhere very strongly to the plants, and is difficult to wash off even by rain. Metals from the soil may also be absorbed onto roots of plants, including edible roots such as carrots and radishes. Another important pathway for entry into the food chain is through grazing animals, which ingest from 1% to as much as 20 or 30% of their diet as soil, depending on weather and grazing conditions. The highest 8 amounts occur in wet weather on overstocked fields, when forage is trampled into the soil." You should look into the effects of heavy metals in sludge and the long term on humans and animals.

This study goes on to talk about how once heavy metals are in the soil, there is no know way to reverse the process. Do you want to be responsible for this?

What about Cadmium? Have you considered the problems with that? The study continues "Cadmium is another metal which has effects comparable to arsenic, lead and mercury. It is both a chronic and an acute poison, and there have been occurrences of widespread human illness and death from cadmiumcontaminated soil, particularly in Japan. The metal accumulates in the kidney and causes irreversible kidney damage, as well as other symptoms. Cadmium is discussed separately, because it represents a special danger in sludge. Plants do take up cadmium into their leaves and roots, especially green leafy vegetables such as spinach and chard, and root vegetables such as beets and carrots. More cadmium is taken up when the soil is acid, below a pH of 6.5, as most soils in Western Washington and Oregon are. Cadmium concentrations in soils and in human diet have been increasing for many years and, according to the World Health Organization, the amounts of cadmium that most people contain in their bodies worldwide may be approaching a critical level for sensitive individuals. Cadmium is very widely used in industry. It is also a contaminant in zinc, as well as in the phosphate rock used to produce commercial fertilizers. Besides uptake into food crops for human and animal use, cadmium can also enter the diet directly from the soil, as discussed above."

Even with these measures, heavy metals remain a concern, because of their irreversible attachment to the soil and irreversible health effects.

What about pathogenic organisms? The following is information you need to consider:

"Infectious organisms found in sludge include bacteria, viruses, protozoa and parasites (worms). Composting must be skillfully done to be effective. Composting does not kill the eggs of intestinal parasites unless heat is added in the process. "

Management techniques for preventing infection from bacteria and viruses are considered sufficient to protect against these diseases.

What are the effects on human health and the environment of exposure to low levels of these chemicals? Are there any interactions of these substances with each other or with other pollutants that could increase their potential for damage? "There are hundreds of thousands of organic substances produced by modern industry, from detergents to pesticides. Any of these can appear in wastewater. Some are known to be harmless, and many are known to be toxic. Most are very little known, in their effects, their transport through the environment, and in techniques for monitoring them. EPA now lists over a hundred organics as priority pollutants, but techniques for measuring even these, and knowledge of their interactions in soil, water and air, are still inadequate."

"Nevertheless certain toxic organics are persistent, such as the PCBs and several pesticides. Except for unusual discharges from industries, most organic substances are in low concentration in sludge, and the principal danger from them would be their potential to cause cancer or gene mutations in these low concentrations. There may be a danger from a spill or illicit dumping into the system."

Organic EPrints writes an extensive article on the different types of composting. You should look into this article to learn more about the effects sewage sludge composting will have on our community.

We have asked before and we ask again, please do the right thing and place more safety controls on this composting process.

Sincerely,

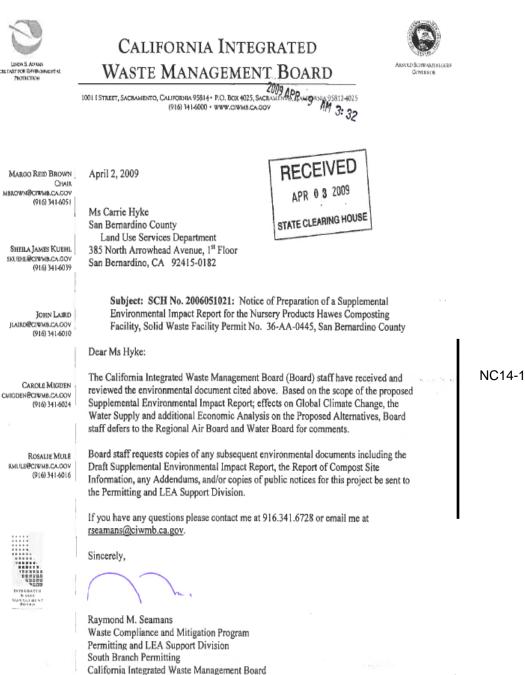
Peg Díaz

25789 Community Blvd. Barstow, CA 92311

- NC13-1 The definition of compost in the NOP was provided to give the public a clear understanding of the Project.
- NC13-2 Potential impacts to human health were discussed in detail in the Draft EIR. Also see response to comments NC2-4.
- NC13-3 A discussion of the operating process including where and how the bulking agents and amendments will be stored is discussed in Section 2 (specifically 2.3.2) of the Draft EIR. The Court found the processes to be adequately described.
- NC13-4 A complete description of the Project operational activities is presented in Section 2 of the Draft EIR. Also see response to comment NC13-3.
- NC13-5 Compost from biosolids and green waste is a viable market as is discussed in section 1.5 of the Draft EIR and is addressed in further detail in Section 5.0 of the Draft SEIR. Currently compost from biosolids and green waste are available for sale in retail gardening centers as well as are being utilized by cities and other entities for landscaping. Although currently sold at approximately \$2.00 per ton, a similar composting facility is currently negotiating higher prices for their product as they are currently selling as much compost as they can produce.
- NC13-6 Monitoring and testing was previously addressed in Draft EIR section 2.3.3. The Court found this issue to be adequately addressed.
- NC13-7 Quality Assurance and Quality Control is to be addressed through monitoring and testing which was previously addressed in Draft EIR section 2.3.3. The Court found this issue to be adequately addressed.
- NC13-8 Impacts from the use of biosolids were previously addressed in Draft EIR section 4.6. The Court found this issue to be adequately addressed.
- NC13-9 Health Hazards were previously addressed in Draft EIR section 4.6. The Court found this issue to be adequately addressed.
- NC13-10 Pesticides were previously discussed in the Draft EIR and in response to comment NC11-4.

### COMMENT NC14

### CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD



CHARLER AND AN INFO CONTENT, PROCEEDED CHARLES FREE MARK

NOP Nursery Products Hawes Composting

April 2, 2009

CC: Dianne Ohiosumua Waste Compliance and Mitigation Program Permitting and LEA Support Division South Branch Permitting, Region 4 California Integrated Waste Management Board

Susan Markie, Branch Manager Susan Markie, Branch Manager Waste Compliance and Mitigation Program Permitting and LEA Support Division South,Branch Permitting California Integrated Waste Management Board 36UCH DIMRAJ DI STATE Jane Brinkerhoff, Supervisor County of San Bernardino Division of Environmental Health 385 North Arrowhead Avenue

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NC14-1 The California Integrated Waste Management Board will remain on the Project mailing list and the forthcoming Draft SEIR and Final SEIR will be provided for your review.

### COMMENT NC15

### DEPARTMENT OF TOXIC SUBSTANCES CONTROL



Department of Toxic Sumptances Control

Maziar Movassaghi, Acting Director <sup>4M</sup> 3: 32 5796 Corporate Avenue Cypress, California 90630



Arnold Schwarzenegge Governor

April 7, 2009

Ms. Carrie Hyke San Bernardino County Land Use Services Department 385 North Arrowhead Avenue, 1<sup>st</sup> Floor San Bernardino, California 92415

NOTICE OF PREPARATION (NOP) OF A DRAFT ENVIRONMENTAL IMPACT REPORT (EIR) FOR NURSERY PRODUCTS HAWES COMPOSTING FACILITY (SCH# 2006051021)

Dear Ms. Hyke:

The Department of Toxic Substances Control (DTSC) has received your submitted Notice of Preparation of the Environmental Impact Report for the above-mentioned project. The following project description is stated in your document: "The Project site occupies 80 acres of a 160 acre vacant parcel that was evaluated in the FEIR. The site is located one (1) mile south of State Route 58 and one (1) mile west of Helendale Road, approximately 12.3 miles east of Kramer Junction and eight (8) miles west of Hinkley, in unincorporated San Bernardino County.

The Project includes compost and feedstock storage areas, retention basins (impoundments), drainage features, composting windrows, screening area, finished product storage area, equipment storage area, scale, office space, parking, and a 2,000 gallon double-walled, above-ground diesel fuel tank".

DTSC has the following comments:

- The EIR should evaluate whether conditions within the project area may pose a threat to human health or the environment. Following are the databases of some of the regulatory agencies:
  - National Priorities List (NPL): A list maintained by the United States Environmental Protection Agency (U.S.EPA).
  - Envirostor (formerly CalSites): A Database primarily used by the California Department of Toxic Substances Control, accessible through DTSC's website (see below).

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NC15-1

Ms. Carrie Hyke April 7, 2009 Page 2 of 4

٠	Resource Conservation and Recovery Information System
	(RCRIS): A database of RCRA facilities that is maintained by U.S.
	EPA.

- Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS): A database of CERCLA sites that is maintained by U.S.EPA.
- Solid Waste Information System (SWIS): A database provided by the California Integrated Waste Management Board which consists of both open as well as closed and inactive solid waste disposal facilities and transfer stations.
- Leaking Underground Storage Tanks (LUST) / Spills, Leaks, Investigations and Cleanups (SLIC): A list that is maintained by Regional Water Quality Control Boards.
- Local Counties and Cities maintain lists for hazardous substances cleanup sites and leaking underground storage tanks.
- The United States Army Corps of Engineers, 911 Wilshire Boulevard, Los Angeles, California, 90017, (213) 452-3908, maintains a list of Formerly Used Defense Sites (FUDS).
- 2) The EIR should identify the mechanism to initiate any required investigation and/or remediation for any site that may be contaminated, and the government agency to provide appropriate regulatory oversight. If necessary, DTSC would require an oversight agreement in order to review such documents.
- 3) Any environmental investigations, sampling and/or remediation for a site should be conducted under a Workplan approved and overseen by a regulatory agency that has jurisdiction to oversee hazardous substance cleanup. The findings of any investigations, including any Phase I or II Environmental Site Assessment Investigations should be summarized in the document. All sampling results in which hazardous substances were found above regulatory standards should be clearly summarized in a table. All closure, certification or remediation approval reports by regulatory agencies should be included in the EIR.
- 5) If buildings, other structures, asphalt or concrete-paved surface areas are being planned to be demolished, an investigation should also be conducted for the presence of other hazardous chemicals, mercury, and

NC15-2

NC15-3

April	Carrie Hyke I 7, 2009 e 3 of 4	
	asbestos containing materials (ACMs). If other hazardous chemicals, lead-based paints (LPB) or products, mercury or ACMs are identified, proper precautions should be taken during demolition activities. Additionally, the contaminants should be remediated in compliance with California environmental regulations and policies.	NC15-4
6)	Future project construction may require soil excavation or filling in certain areas. Sampling may be required. If soil is contaminated, it must be properly disposed and not simply placed in another location onsite. Land Disposal Restrictions (LDRs) may be applicable to such soils. Also, if the project proposes to import soil to backfill the areas excavated, sampling should be conducted to ensure that the imported soil is free of contamination.	NC15-5
7)	Human health and the environment of sensitive receptors should be protected during any construction or demolition activities. If necessary, a health risk assessment overseen and approved by the appropriate government agency should be conducted by a qualified health risk assessor to determine if there are, have been, or will be, any releases of hazardous materials that may pose a risk to human health or the environment.	NC15-6
8)	If it is determined that hazardous wastes are, or will be, generated by the proposed operations, the wastes must be managed in accordance with the California Hazardous Waste Control Law (California Health and Safety Code, Division 20, Chapter 6.5) and the Hazardous Waste Control Regulations (California Code of Regulations, Title 22, Division 4.5). If it is determined that hazardous wastes will be generated, the facility should also obtain a United States Environmental Protection Agency Identification Number by contacting (800) 618-6942. Certain hazardous waste treatment processes or hazardous materials, handling, storage or uses may require authorization from the local Certified Unified Program Agency (CUPA). Information about the requirement for authorization can be obtained by contacting your local CUPA.	NC15-7
9)	If the project area was used for agricultural, livestock or related activities, onsite soils and groundwater might contain pesticides, agricultural chemical, organic waste or other related residue. Proper investigation, and remedial actions, if necessary, should be conducted under the oversight of and approved by a government agency in the project area prior to construction of the project.	NC15-8
10)	In future CEQA documents please provide the contact person's title and e- mail address.	NC15-9

Ms. Carrie Hyke April 7, 2009 Page 4 of 4

If you have any questions regarding this letter, please contact me at <u>ashami@dtsc.ca.gov</u> or by phone at (714) 484-5472.

Sincerely,

Al Shami

Project Manager Brownfields and Environmental Restoration Program - Cypress Office

cc: Governor's Office of Planning and Research State Clearinghouse P.O. Box 3044 Sacramento, California 95812-3044 state.clearinghouse@opr.ca.gov.

> CEQA Tracking Center Department of Toxic Substances Control Office of Environmental Planning and Analysis P.O. Box 806 Sacramento, California 95812 nritter@dtsc.ca.gov

CEQA#2507

- NC15-1 Potential impacts to human health are discussed in Section 4.6 of the Draft EIR. The analysis showed that these impacts were less than significant with incorporated mitigation and the Court found this issue to be adequately addressed.
- NC15-2 The existing environmental conditions of the proposed Project site are discussed in Section 4.6 of the Draft EIR. The evaluation of the existing conditions with respect to potential contamination and the lack of need for further evaluation were found by the Court to be adequately addressed.
- NC15-3 Potential impacts from the contamination of hazardous substances were discussed in Section 4.6 of the Draft EIR. Also see response to Comment NC11-3.
- NC15-4 As discussed in the Draft EIR (Section 2) the proposed Project is on undeveloped land and therefore there is no potential for the site to have existing buildings containing lead based paints, asbestos or other hazardous materials.
- NC15-5 Potential impacts from the contamination of hazardous substances were discussed in Section 4.6 of the Draft EIR. The Court found this issue to be adequately addressed.
- NC15-6 Potential impacts to human health were discussed in the Draft EIR. Also see response to Comment NC15-1.
- NC15-7 The potential impacts from Hazardous Waste were discussed in Section 4.6 of the Draft EIR. The analysis showed that these impacts were less than significant and the Court found this issue to be adequately addressed.
- NC15-8 The proposed Project is not intended to be used for livestock, agricultural, or related activities as discussed in Section 5.2 of the Draft EIR. The Court found this issue to be adequately addressed.
- NC15-9 The DTSC has been added to the mailing list for this project. As was indicated on the NOP, Ms. Carrie Hyke, Principal Planner for the County of San Bernardino Land Use and Planning Division is the contact for the Project and she can be contacted at chyke@lusd.sbcounty.gov.

4-9-09 CARPIE 16 HM 4445 I DO NOT WANT SewAte Dumped In SAN BERADING CO. I An norried ABOUT PIERASES, Heavy metals, water TABLE & USE, & More. Stop NURSER PRODUCTS SAVE OUR Hedlig Regard & Mallog RAJMOND 5 MAHOR, BX 596 YERMO CA 92398-0596

NC16-1

NC16-1 As discussed in Section 2 of the Draft EIR, biosolids are treated prior to being brought to the project site. Project operations do not include spreading of sewage on the project site. The potential impacts to human health were discussed in Section 4.6 of the Draft EIR. Also see response to comment NC15-1.

Page 1 of 4	
From: Robert Conaway [rdconaway@gmail.com] Sent: Monday, April 13, 2009 4:03 PM To: Hyke, Carrie - LUS - Advance Planning Subject: NURSERY PRODUCTSCOMMENTS ON THE NOTICE OF PREPARATION on the NURSERY PRODUCTS COMPOSTING FACILITY I note with frustration that the County is doing a supplemental environmental impact report (hereafter "SEIR") as opposed to a full report. The issues discussed in the court's ruling are fluid and interactive. Only because Nursery Products has significant political control over the county, is this surgical approach to science and reality apparently possible. I ask that this comment letter which requests and urges a more expansive approach to the environmental review and related NOP be done, and that this letter be made part of the administrative record on the Nursery Products Hawes Composting facility Notice of Preparation.	
First, while I am no self professing expert on environmental law, I note the Court ordered the EIR be re-done, not a supplemental EIR. I believe the County is acting in contempt of the court's clear and unambiguous order. Second, a reading of the available case authority on when supplemental EIR's can be done, it is clear that they are done on projects that have been approved and are already operational. The SEIR is done where the operator wants to expand the permit for operations that have already been approved (example would be Nursery Products operating a composting operation on 80 acres and wanting it expanded to another 20 acres).	NC17-1
Third, to the extent the court order required a full re-do, ordering a partial EIR to be done, is a gift of public funds to the vendor as it will be an incomplete product that does not meet the requirements of the court's order or law, which exposes the county officers involved to potential criminal liability (and further litigation costs, which the county can ill afford)).	NC17-2
Fourth, it is a reckless disregard of the regulatory scheme put in place to protect public health and safety to proceed before the court challenges are overnot only the appeal and cross appeal of the court's order in the initial CEQA issues, but the litigation with the air board.	NC17-3
Fifth, some threshold questions and follow-up items that should be asked and required of the county and their vendor should include (and be added to the process/ NOP):	NC17-4
(i) What expertise will the vendor be required to have, if any, dealing with a Nursery Products-type open air composting project?	NC17-4
(ii) Will the vendor be required to test for down-wind drift so the risk of genetic fragments (that confer either resistance or virulence) can be assessed? If so, what experience and certification does the vendor or will the vendor picked have in those fields? If not, why not? Again, if so, what experience will the vendor be required to have?	NC17-5
(iii) Will the vendor be asked to make any pathogen risk assessments? If not, why not? If so, how will they be getting their data, what methodology will they pick, what labs will they use and what certifications do they have?	NC17-6
(iv) Will the vendor assess, characterize and deal with potential impacts to on-site workers and the public health before project approval. If not, why not? Will the vendor be asked for its opinion on the nature and extent of post project approval monitoring?? If not, why not? Will regulation by the county consist of waiting for public health complaints to emerge?	NC17-7
(v) With respect to dust from sewage sludge composting, several workmen's comp cases were filed by staff of the Chino Women's Prison for complaints accruing to dust from the	
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Page 2 of 4	
adjacent and up-wind sewer sludge composting facility in San Bernardino County, California. Will the County's vendor investigate those risks and whether sludge-to- agricultural grade compost operations present the same risks? If not, why not?	NC17-8
(vi) Having experienced 60 mile per hour (plus) winds over the past three weeks in the Hinkley area, I am mindful of the USGS studies on the movement of dust from Africa, across the Atlantic and carrying with it viable pathogens thus causing respiratory disease in the Caribbean. This is a distance of over 3,000 miles, reaching high altitudes and subjected to about 3 weeks of intense UV radiationyet the pathogens survived. They certainly can travel 10 miles with no problem! What studies are you going to require of your vendor so the transmission of contaminated dust and pathogens can be properly evaluated from a public health standpoint? if none? Why in light of the USGS studies?	NC17-9
The table below demonstrates the extent of pathogen drift, in this case from a sewer plant, but it is illustrative. By definition, an aerosol is able to remain in suspension for prolonged periods because of its low settling velocity. The energy supplied by aeration of sewage, especially when the overlying air is cold, may see the mist rise several meters. While these data are for an open plant, a similar series could be constructed by steaming from compost piles, the droplets from which may carry pathogens.	NC17-
For spherical particles of unit density the settling time for a 3-M fall is noted in the table below. From this, considering the size of both bacteria and viruses and aerosol generation from large open systems, it will be noted that aerosol movement is considerable. Remember that the average bacteria is 1 uM and a virus about 1/00 of that.	
TABLE*	
Assumptions: 5 mpg** average wind speed, laminar flow. The assumptions would be upset within an urban setting with buildings, up-currents, and turbulence from traffic which would affect laminar flow. However in an open area such as desert, the laminar flow would need to be considered.	
Particle DiameterSettling TimeDistance at wind speed 5 mph	
100 uM	
<ul> <li>* Adapted from Tellier's work [15]</li> <li>** 5 mph is about as fast as a rapid walk.</li> </ul>	

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**'-10** 

size range that will reach the deepest recesses of the respiratory tract.

The point of all this is that there are several areas where workers and the population are exposed to antimicrobial resistance and thus are those ging to be considered or required to be considered in the NOP and by the vendor picked? If not, why not?

(vii) Will the County require the vendor doing the supplemental EIR to consider antibiotic resistance, transfer of genetic information? Will the County require lab tests that consider viable but non-culturable materials? If not, why not? Again considering the work of others in working with sewage byproducts that presumably received very rigorous treatment, Joan B Rose (2004), looking at recycled water in Florida, Arizona, and California and all contained pathogens. Giardia cysts were found in 84% of the final treated water. Enteric viruses were found in 31% of the final product in 2/3 of these plants and Cryptosporidum were noted in 71% of the final product of all tested plants.

These bacteria and their genetic material, when released by sewage treatment or contained within sewage byproducts are thus able to colonize in environmental niches, and animals, including humans, through ingestion. Once ingested, the plasmids may be transferred to normal flora, and subsequently to pathogenic bacteria found in humans or animals, making later treatment with particular antibiotics ineffective. Also one must consider transfer of genetic information from these organisms to more robust organisms as highlighted by Sjolund et al. (2005) indicating that resistance in the normal flora, which may last up to four-years, might contribute to increased resistance in higher-grade pathogens through interspecies transfer.

Sjolund et al go on to note that since populations of the normal biota are large, this affords the chance for multiple and different resistant variants to develop. This thus enhances the risk for spread to populations of pathogens. Furthermore, there is crossed resistance. For example, vancomycin resistance may be maintained by using macrolides. What studies has the MDAQMD conducted on the destruction of, for example, erythromycin, a macrolide that will bioaccumulate? Does composting destroy this material?

Walsh (2003) who wrote one of the newer medical texts on antibiotic resistance notes that resistance to antibiotics is not a matter of IF but one of WHEN. So how fast can antibiotic resistance develop?

(viii) If the vendor is not independently conducting these types of studies, who will they be using and what is their experience and their certifications?

(ix) Will the vendor justify from an environmental justice and economic feasibility the costs of sludge to compost operations in Rancho Cucamonga, Banning, Colton, Rialto, Lost Hills and Niland vs what Nursery Products is proposing to minimally do?

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### NC17-11

NC17-12

NC17-13

(x) Will the vendor assess the public health hazard from a fire breaking out in the windrow or stacks/piles? If not, why not? The gases coming from the windrow/piles/stacks in the event of fore and the hazards from same needs to be assessed. Heated chemicals, inorganic and organic matter can present different risks to public health.	NC17-14
(xi) The Hinkley and Barstow Fire District do not have large dozers, typically needed to knock down a stack or windrow firethe closest dozers are in Riverside (the forestry service). A full blown range fore and toxic plume catastrophe would be going by the time existing assets are able to arrive. Will the vendor assess fire suppression needs and what the resources are? If not, why not?	
(xii) The area aquifer and 5 or 10 thousand gallon tanks do not have the capacity to supply 2 inch hozes for a fire fight to knock down a stack or windrow fire. Will the vendor assess the recharge rate of potential wells on the Nursery Products property? If not, why not? Will the County be content to let the facility burn to the ground, but not before belching a cloud of contaminants throughout the Barstow/Mojave Valley area?	
(xiii) The introduction of open air trash, draws ravens. Ravens carry in their beaks bacterias dangerous to people and livestock. The infection rate of livestock will impact existing businesses as well. The presence of ravens will further threaten indigenous birds and tortoises, who they hunt. Will the county assess the potential public health and impacts to indigenous animals from a boost in the raven population (or its staying in the area year round due to the new sources created by Nursery Products operations)? If not, why not?	NC17-15
(xiv) Will the vendor take samples of the "product" from the sources that Nursery Products would accept loads from to assess potential chemical, metal, pesticide waste so to know what the risks will be? If not, why not? Isn't it hard to assess public and environmental risk without profiling the material to be accepted?	NC17-16
(xv) Will the vendor do a PM 2.5 and PM 10 study based on the approach to be used by Nursery Products on windrow (or stacks)? If not, why not?	NC17-17

Page 4 of 4

ROBERT D. CONAWAY

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- NC17-1 The publication of a SEIR narrowly addressing three topics is discussed in Section 1 of the Draft SEIR as well as in response to comment NC11-2.
- NC17-2 The County is acting in response to a Court order for additional information with respect to the proposed Project. See response to comments NC11-2.
- NC17-3 The issue of public health and safety was discussed in Section 4.6 of the Draft EIR and in response to comment NC15-1.
- NC17-4 The County has selected a qualified environmental consultant through the standard purchasing process.
- NC17-5 Potential impacts from winds and to human health were previously addressed in Draft EIR sections 4.3 and 4.6. The Court found these issues to be adequately addressed.
- NC17-6 Pathogens was previously addressed in Draft EIR section 4.6.3. The Court found this issue to be adequately addressed.
- NC17-7 Potential impacts to public health were addressed in Section 4.6 of the Draft EIR. Monitoring was previously addressed in Draft EIR section 2.3.3. The Court found these issues to be adequately addressed.
- NC17-8 Potential impacts from dust and potential impacts to human health were previously addressed in Draft EIR Sections 4.3 and 4.6. The Court found this issue to be adequately addressed.
- NC17-9 Potential impacts from winds were previously addressed in Draft EIR section 4.3. The Court found this issue to be adequately addressed.
- NC17-10 Potential impacts from pathogens were previously discussed in the Draft EIR. Also see response to comment NC17-6.
- NC17-11 Potential impacts to human health were previously addressed in Draft EIR section 4.6. The Court found this issue to be adequately addressed.
- NC17-12 Consultant and sub-consultant selections by the County were made through the standard purchasing process.
- NC17-13 The economic feasibility analysis of the enclosed facility alternative used information on facilities operated by the Inland Empire Utilities Agency in Rancho Cucamonga and the Las Virgenes Municipal Water District (LVMWD) located in Las Virgenes, California. Both enclosed facility variations are rejected because they do not reduce the significant impact (VOC emissions) associated with the proposed Project to less than significant levels and are economically and technically infeasible.
- NC17-14 Fire hazards were previously addressed in Draft EIR section 4.6. The Court found this issue to be adequately addressed.

- NC17-15 Ravens were previously addressed in Draft EIR section 4.4. The Court found this issue to be adequately addressed.
- NC17-16 Potential health hazards were previously addressed in Draft EIR section 4.6. The Court found this issue to be adequately addressed.
- NC17-17 PM<sub>2.5</sub> and PM<sub>10</sub> were previously addressed in Draft EIR section 4.3. The Court found this issue to be adequately addressed.

# Robert D. & Jacquese L. Conaway

(760) 256-0603

### April 13, 2009

Carrie Hyke San Bernardino County Land Use Services Department Advance Planning Division 385 North Arrowhead, 1" Floor San Bernardino CA 92415-0182 Fax: (909) 387-3223

Re: COMMENTS ON NURSERY PRODUCTS HAWES COMPOSTING FACILITY'S NOP for SUPPLEMENTAL EIR

Dear Ms. Hyke:

We note with frustration that the County is doing a supplemental environmental impact report (hereafter "SEIR") as opposed to a full report. The issues discussed in the court's ruling are fluid and interactive. Only because Nursery Products has significant political control over the county, is this surgical approach to science and reality apparently possible. We ask that this comment letter which requests and urges a more expansive approach to the environmental review and related NOF be done, and that this letter be made part of the administrative record on the Nursery Products Hawes Composting facility Notice of Preparation.

First, while we are not experts on environmental law, we note the Court ordered the EIR be re-done, not a supplemental EIR. We believe the County is acting in contempt of the court's clear and unambiguous order.

Second, a reading of the available case authority on when supplemental EIR's can be done, it is clear that they are done on projects that have been approved and are already operational. The SEIR is done where the operator wants to expand the permit for operations that have already been approved (example would be Nursery Products operating a composting operation on 80 acres and wanting it expanded to another 20 acres).

Third, to the extent the court order required a full re-do, ordering a partial EIR to be done, is a gift of public funds to the vendor as it will be an incomplete product that does not meet the requirements of the court's order or law, which exposes the county officers involved to potential criminal liability (and further litigation costs, which the county can ill afford)). NC18-1

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Page 2 of 6 of Letter to Carri	e Hyke on Nurserv Praduct	A MOP	
Fourth, it is a reckless disre place to protect public healt court challenges are overnot the court's order in the init with the air board.	gard of the regulatory so th and safety to proceed	heme put in before the	NC18-3
Fifth, some threshold question asked and required of the cou (and be added to the process/	ntv and their vendor show	t should be ald include	1
(I) What expertise will the v dealing with a Nursery Product	endor be required to hav s-type open air compostin	e, if any, g project?	NC18-4
(ii) Will the vendor be require risk of genetic fragments virulence) can be assessed? If does the vendor or will the ven not, why not? Again, if so, required to have?	that confer either res so, what experience and cer dor picked have in those	istance or rtification	NC18-5
(iii) Will the vendor be assessments? If not, why not? J data, what methodology will the what certifications do they hat	ev Dick, what labs will 41	bhinn bhoin	NC18-6
(iv) Will the vendor assess, c impacts to on-site workers an approval. If not, why not? Will on the nature and extent of po not, why not? Will regulation public health complaints to em	d the public health befor 1 the vendor be asked for : st project approval monit by the county consist of a	re project its opinion	NC18-7
(v) With respect to dust from workmen's comp cases were filed for complaints accruing to dust sludge composting facility in will the County's vendor involudge-to-agricultural grade of sisks? If not, why not?	by staff of the Chino Wome from the adjacent and up- San Bernardino County, ( vestigate those risks a	en's Prison wind sewer California.	NC18-8
(vi) Having experienced 60 mile three weeks in the Hinkley are on the movement of dust from carrying with it viable pathoge in the Caribbean . This is a di	a, I am mindful of the US A Africa, across the At.	GS studies lantic and	NC18-9

# Page 3 of 6 of Letter to Carrie Hyke on Nursery Products NOP

high altitudes and subjected to about 3 weeks of intense UV radiation----yet the pathogens survived. They certainly can travel 10 miles with no problem! What studies are you going to require of your vendor so the transmission of contaminated dust and pathogens can be properly evaluated from a public health standpoint? if none? Why in light of the USGS studies?

CHING F TOCOL NO ORTHWEI

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For spherical particles of unit density the settling time for a 3-M fall is noted in the table below. From this, considering the size of both bacteria and viruses and aerosol generation from large open systems, it will be noted that aerosol movement is considerable. Remember that the average bacteria is 1 uM and a virus about 1/00 of that.

### TABLE\*

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Assumptions: 5 mpg\*\* average wind speed, laminar flow. The assumptions would be upset within an urban setting with buildings, up-currents, and turbulence from traffic which would affect laminar flow. However in an open area such as desert, the laminar flow would need to be considered.

10	0 uM10	sec	
20	uM	minutes	feet
10	uM17	minutes	Feet (1 4 miles)
5	uM	inutesapprox 5	miles
<	3uM	se essentially will	not settle.

\* Adapted from Tellier's work [15] \*\* 5 mph is about as fast as a rapid walk.

The median diameters at which particles exhibit aerosol behavior also corresponds to the size range that will reach the deepest

Page 4 of 6 of Letter to Carrie Hyke on Nursery Products NOP

recesses of the respiratory tract.

The point of all this is that there are several areas where workers and the population are exposed to antimicrobial resistance and thus are those going to be considered or required to be considered in the NOP and by the vendor picked? If not, why not?

(vii) Will the County require the vendor doing the supplemental EIR to consider antibiotic resistance, transfer of genetic information? Will the County require lab tests that consider viable but non-culturable materials? If not, why not? Again considering the work of others in working with sewage byproducts that presumably received very rigorous treatment, Joan B Rose (2004), looking at recycled water in Florida, Arixona, and California and all contained pathogens. Giardia cysts were found in 04% of the final treated water. Enteric viruses were found in 31% of the final product in 2/3 of these plants and Cryptosporidum were noted in 71% of the final product of all tested plants.

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Walsh (2003) who wrote one of the newer medical texts on antibiotic resistance notes that resistance to antibiotics is not a matter of IF but one of WHEN. So how fast can antibiotic resistance develop?

(viii) If the vendor is not independently conducting these types of studies, who will they be using and what is their experience and their certifications?	NC18-12
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Page 5 of 6 of Letter to Carrie Hyke on Nursery Products NOP

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Page 5 of 6 of Letter to Carrie Hyke on Nursery Products NOP

risk without profiling the material to be accepted?

(xv) Will the vendor do a PM 2.5 and PM 10 study based on the approach to be used by Nursery Products on windrow (or stacks)? If not, why not?

ROBERT

JACQUESE L. CONAWAY une Herry

This letter is a repeat of comment letter NC17.

- NC18-1 The publication of a SEIR narrowly addressing three topics is discussed in Section 1 of the Draft SEIR as well as in response to comment NC11-2.
- NC18-2 The County is acting in response to a Court order for additional information with respect to the proposed Project. See response to comments NC11-2.
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- NC18-11 Potential impacts to human health were were previously addressed in Draft EIR section 4.6. The Court found this issue to be adequately addressed.
- NC18-12 Consultant and sub-consultant selections by the County were made through the standard purchasing process.
- NC18-13 The economic feasibility analysis of the enclosed facility was discussed in Section 5 and Appendix D of the Draft SEIR, and in response to comment NC17-13.
- NC18-14 Fire hazards were previously addressed in Draft EIR section 4.6. The Court found this issue to be adequately addressed.
- NC18-15 Ravens were previously addressed in Draft EIR section 4.4. The Court found this issue to be adequately addressed.

- NC18-16 Potential health hazards were previously addressed in Draft EIR section 4.6. The Court found this issue to be adequately addressed.
- NC18-17 PM<sub>2.5</sub> and PM<sub>10</sub> were previously addressed in Draft EIR section 4.3. The Court found this issue to be adequately addressed.

### COMMENT NC19

### MOJAVE WATER AGENCY



22450 Headquarters Drive 
Apple Valley, California 92307
Phone (760) 946-7000 
Fax (760) 240-2642 
www.mojavewater.org

April 13, 2009

Carrie Hyke, Principal Planner San Bernardino County Land Use Services Department Advanced Planning Division 385 N. Arrowhead Ave., First Floor San Bernardino, CA 92415-0182

Dear Ms. Hyke:

As two sitting members of the Board of Directors for the Mojave Water Agency, and certainly on behalf of our mutual constituents in the community of Hinkley and the surround area, we are writing to state our profound opposition to the possibility of locating the Nursery Products Hawes Composting Facility in Hinkley.

We hope that you and your colleagues will give deliberate consideration before making your decision about whether to approve or deny Nursery Products' request. Again, on behalf of our mutual constituents in the community of Hinkley, we respectfully request that you deny the project.

Respectfully,

Kimberly Cox, President Board of Directors

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Beverly Lowry, Treasurer Board of Directors

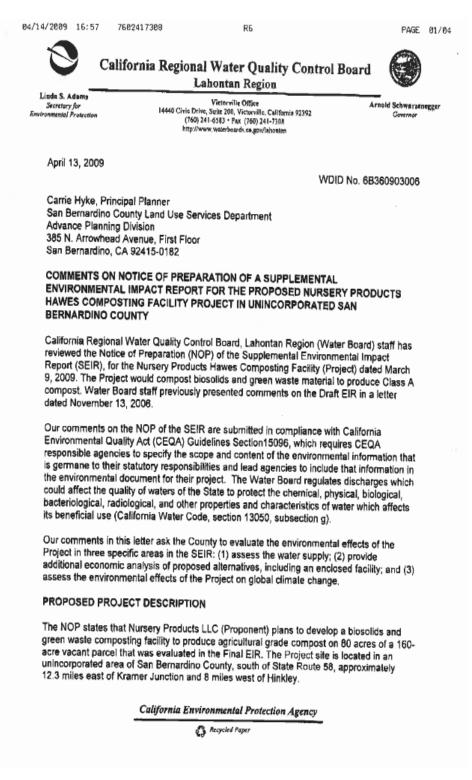
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NC19-1

NC19-1 An alternative site review was addressed in Draft EIR section 3.3. The Court found these issues were adequately addressed in the Draft EIR.

# COMMENT NC20

# CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD



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Ms. Hyke		-2-	April 13, 2009

COMMENTS

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#### Water Supply

According to information contained in the Draft / Final EIRs, the Project will require an estimated daily average of 1,000 gallons (1.12 acre-feet per year) of supply water for dust control, fire suppression needs, and sanitary uses. Currently, there is no on-site groundwater production well, nor is there a source of municipal water in the site vicinity.

The SEIR should provide accurate data supporting the estimate of the water needs for the Project and should further analyze and evaluate potential sources for water supply including, but not limited to, on-site groundwater supply, recycled water from local wastewater treatment facilities, and on-site stored water supplied by municipal source delivered to the site by truck or other conveyances.

Should on-site groundwater supply be required, the Proponent should identify the water production rights available for the Project through the regional watermaster, evaluate the need and availability for replacement water in excess of the production rights, examine any requirement to become a party to the Mojave Basin Area Judgment, and describe any water supply wells that will be installed at the site.

If required, groundwater production wells should be constructed in accordance with applicable state and local standards. The California Department of Water Resources (DWR) has established standards for the construction and destruction of groundwater wells, as described in California Well Standards, Bulletin 74-90 (June 1991) and Water Well Standards: State of California Bulletin 74-81 (December 1981). DWR has combined the contents of Bulletins 74-81 and 74-90, integrated the Water Well Standards, and made them available on the following website:

# http://www.dpla.water.ca.gov/sd/groundwater/california well standards/well standards.html.

These standards, and any more stringent standards adopted by the state or county will apply to all water wells constructed at the site. Please provide a reliable estimate of the yields of each well, diagrams illustrating the estimates of the zones of influence (with relation to the Project boundaries) due to pumping at average and maximum pumping rates, and the water quality analyses of the production water.

# Economic Feasibility of an Enclosed Facility

The SEIR should analyze the economic feasibility, cost and benefit, if any, of construction of a covered or enclosed facility to comply with water quality objectives, and to prevent pollution or nuisance conditions, as described below. In determining compliance with water quality objectives, which include the terms "pollution" and or "nuisance," the Water Board considers the following definitions from the Porter-Cologne Water Quality Control Act, as described in the California Water Code, sections 13050, subsections, I (1 & 2), and m (1, 2 & 3).

California Environmental Protection Agency

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NC20-1

PAGE 02/04

Ms. Hyke		- 3 -	April 13, 2009	
Polluti which	ion An alteration of th unreasonably affects e	he quality of the waters of the either of the following:	state by waste to a degree	
•	The waters for benef	ficial uses.		
•	Facilities which serve	these beneficial uses.		
•	public health through "Contamination" inclu	de "contamination," which is a te by waste to a degree which poisoning or through the spre udes any equivalent effect res t waters of the state are affec	ad of disease.	
Nuisar	ice Anything which n	neets all of the following requi	rements;	
•	ls injurious to health,	or is indecent or offensive to perty, so as to interfere with the	the senses, or an obstruction	
•	considerable number	ime an entire community or no of persons, although the exte n individuals may be unequal.	nt of the annovance or	
•	Occurs during, or as	a result of, the treatment or di	sposal of wastes.	
liquids, com evaluate the and runoff to surface imp The Propon stormwater or other con discharges i Proponent m	ting processes, and pr iposting material, fugiti e potential impacts and to surrounding drainage ioundments, should the ient must consider all p flows and that may be flows and that may be throl measures that will must be fully described must address any area	uce residual wastes, such as l recipitation that has come in c ive raw material, and finished d economic liabilities from stor es, as well as the effects of su e facility remain unenclosed, o botential pollutant sources that discharged from the facility. It be implemented to contain and d, and their economic impacts s of potential soil erosion that ther flows from the facility, whe	ontact with such generated compost. The SEIR must mwater runon to the site ich stormwater on the or if only partially enclosed. It may commingle with Best management practices, ny potentially impacted be discussed. The may occur due to	
contact with analyze and facility, ident evaluate the surface wate eliminate or water quality volume of pr compost pro	stormwater, and affect stormwater, and affect further examine the price potential downwind in er and groundwater qui reduce any impacts, a r impacts to insignifican recipitation that would duct, and evaluate the	tants contained in windblown f ility could be transported awa it water quality downwind of th otential for emissions of fugiti bioaerosols contained in the o pacts from stormwater and w ality. The SEIR should evalua nd include mitigation measure int levels. Please describe me come into contact with the fee ocot/benefit of the elternative iny potential water quality imp	y from the site, come in e project. The SEIR should ve dust and debris from the lust and debris, and indborne pollutants to te feasible alternatives to es to reduce any potential asures for reducing the dstock, windrows, and si including any militation	
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NC20-2

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Ms. Hy	ke		- 4 -		April 13, 2009	

Due to the nature of composting itself, odors may become a nuisance issue for this facility. The Proponent must evaluate how an enclosed versus an unenclosed facility will affect odors and must discuss any mitigation that may be required due to the odor problems that this project will generate.

## **Global Climate Change**

It is widely recognized that global climate changes (changes in temperature and precipitation patterns) will impact water availability and water quality. Water Board staff request that the Proponent evaluate the potential effects of the Project, with respect to climate change, on water quality and water supply. Also consider ways in which the Project may reduce its carbon footprint by evaluating water conservation techniques that may be used and the viability of using recycled treated wastewater at this facility.

Thank you for your attention to these comments in the preparation of the SEIR for this project. If you should have any questions regarding our comments, please contact me at (760) 241-7391, jkoutsky@waterboards.ca.gov, or Patrice Copeland, Senior Engineering Geologist at (760) 241-7404, pcopeland@waterboards.ca.gov.

Sincerely,

Joseph J. Koutsky, P.B. Water Resources Control Engineer

CC:

U.S. EPA IX, Lauren Fondahl, CWA Compliance Officer
State Water Resources Control Board, Jarrod Ramsey-Lewis, Biosolids Program Coordinator,
California Integrated Waste Management Board - Waste Compliance and Mitigation Program, Sabra Ambrose, Engineer
San Bernardino County, Department of Public Health - Environmental Health Division, Terri Williams, Environmental Health Program Manager
HelpHinkley.org, D. Norman Diaz
Sludge Watch, Maureen Reilly
Hinkley Resident, Joan Bird
Hinkley Resident, Jay Potter
Hinkley Resident, Ed Riddel

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California Environmental Protection Agency

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NC20-3

- NC20-1 A water supply assessment was completed with this Draft SEIR (Section 4.2 and Appendix C), and further discussed in response to comment NC11-7.
- NC20-2 The enclosed facility alternative is considered technologically and economically infeasible and is addressed in Section 5 of the Draft SEIR. Additional land required for solar power is neither feasible nor available, VOC emissions would not be reduced below significance and, with the conventional power variation, a new significant impact is encountered with the increased generation of GHG emissions.
- NC20-3 The Hawes Facility Global Climate Change Report in Section 4.1 of the Draft SEIR found the total unmitigated global warming potential associated with Project-generated GHG emissions is estimated to be 7,682.94 tons/year at full capacity of the proposed facility. This is below the estimated total global warming potential for the transport of waste material (14,453.21 tons/year) without the project.

# Comments on Notice of Preparation for Nursery Products Hawes Facility.

1. I object to the process being used by Supervisor Mitzelfelt and San Bernardino County to work against the judgment of a Superior Court Ruling against Nursery Products and the County. All work, approvals, studies, permits, and all County work needs to stop until the current litigation is complete. To not do so is violating a judge's order and opens up the County and Mitzelfelt for future unneeded litigation. Include this in the scope.

2. Supervisor Mitzelfelts prewritten statement READ in Feb 2007 during a public hearing and written prior to public testimony is a gross violation of the Brown Act. Please add the video of the Board of Supervisors approval of the NP Hawes facility to the record for future legal action against the Board and specifically Supervisor Mitzelfelt. Stop all work on this project until the Grand Jury and Sec of State review the actions of the BOS and specifically Supervisor Mitzelfelt and Supervisor Postmus. Include this in the scope.

3. Place all medical, legal and political documents and statements on, from and about Supervisor Postmus and Supervisor Mitzelfelt on the official record. Then Supervisor Postmus has admitted he was a drug addict at the time of his work on this project and when he accepted money from NPLLC. Even his appointment of his then Chief of Staff Mitzelfelt is objected to and needs to be looked at by Grand Jury and other legal groups to ensure the legality and lack of quid pro quo in Mitzelfelts approval and unending support about this project. The NOP scope needs to include these actions and approvals in their work to ensure the project was approved without bias, payoff or other illegal means. All work by the County must stop or risk further litigation at the taxpayers expense. Include this in the scope.

4. I officially object to the extra conditions imposed on March 29<sup>th</sup>, 2007 on the County approval on Feb 27<sup>th</sup> 2007 of the NP project. These changes have great effect on the overall impact of the project and should have been given to the public for review and approval. I

NC21-1

object to lack of comment period or review. The conditions placed by Mitzelfelt will increase profits for the applicant and decrease public health and safety. When Mitzelfelt was Chief of Staff to Supervisor Postmus, his office received money to help get the project through. More money was given to Mitzelfelt through Postmus controlled funds. Include this in the scope.	
5. The scope must also look into how flies might carry pathogens off the dumpsite downwind to public areas and water sources. Many studies on flies and salmonella have come out showing potential problems. Some studies show flies traveling 17 miles with disease and carrying and transferring those diseases to other areas. Look into how water quality and quantity could be impacted by flies, dust or other transport mechanisms. Include this in the scope.	NC21-2
<ol> <li>6. The Scope must include more work on water as it pertains to fire suppression. How much water is required to suppress fire on an 80 acre site of flammable material. Is the smoke considered more dangerous than other smoke, like structures, grass, conventional combustible sources? Include this in the scope.</li> <li>7. The scope must include work on the effects of proposed</li> </ol>	NC21-3
legislation on food labeling of products grown with Sludge or Sludge fertilizer. Look at all existing and pending legislation requiring notification of food grown with Sludge based amendments or fertilizers. With no market for finished product, that will change the need for water, or make an enclosed sludge to energy more economical, feasible, and profitable? Include this in the scope.	NC21-4
8. The scope must include hydrology work in the event of seismic activity along the Adelanto, Shadow Mtns, Apple Valley, Lockhart, Iron Mtn, Mt General or other faults. A major event is due on the San Andres fault. How could any event change the hydrology of the area? Contingency plans. If well becomes less productive and water needs increase, how will effect fire and dust issues? Include this in	NC21-5

the scope.

<ol> <li>The scope must include work on how facility will address a failure of compliance with Federal pathogen requirements of sludge received. Look at Pacifica, CA. Include this in the scope.</li> </ol>	NC21-6
10. Wind direction, wind speed, wind consistency and pan evaporation should be evaluated. How will wind effect water use, dust and pathogen reduction, invasive weeds and seeds from greenwaste, dust from grinding, dust from finished piles, dust on roads, dust out of dry retention pond	NC21-7
11. The scope must include looking at BioPetrol alternatives in Israel. How will this cost-effective alternative affect water use? Look into how using this type of technology is safer for water degradation possibilities.	NC21-8
12. The scope must include any work on heavy metals in general, and specifically how heavy metals might increase during composting. Will more water decrease this process? Will wind or temperature affect the process or percentage increase or decrease? Is there any difference between seasons or with unusual weather patterns?	NC21-9
13. The scope must include any political or criminal influences and how it might effect the EIR, DEIR, SEIR or any other documents, conditions, restrictions, permits, or other items and actions. How did Mr. Postmus, Mr. Adams, Mr. Mitzelfelt, Mr Bob Smith, Mr. Dan Avera, Ms. Rock, Mr. Orme, Ms Hyke, Mr Dale, Dr. Rubin, San Bernardino Planning Commission, Land Use Services, San Bernardino Health Dept, San Bernardino Board of Supervisors or others affect the process, permits, safety measures, procedures or other approvals and decisions. If illegal drug influences, or campaign contributions were present during the permit and approval process, how did that affect the process?	NC21-10
14. The scope must include a complete analytical characterization of sludge's pathogen, endotoxin and chemical contaminant composition as recommended in 1996 and 2002 by National	NC21-11

Academy of Sciences review panels. Only about 1% of the chemicals likely present in sludge were assessed by the US EPA for risk in the late 1980s. Look at published studies that suggest that the transport potential of chemical and pathogen-containing airborne particles also may have been underestimated. Look at the 99% of chemicals not scoped

15. The scope must include work on the known or potential risk of technologically enhanced naturally-occurring radioactive materials, radioactive wastes or radionuclides from industry runoff or medical waste, human or natural sources. The Sewage Sludge Subcommittee of the Interagency Steering Committee on Radiation Standards (ISCORS), the U.S. Environmental Protection Agency (EPA) and Nuclear Regulatory Commission (NRC) has data, studies, future work and documents that must be considered. Will water for dust suppression be enough, will it take more water, how will it effect the runoff, retention ponds, dust off site, vectors and smell from being hazardous? Potential for introducing radioactive wastes or radionuclides into the water system by leeching, weather events, wells, water sources, bathymetric countours, micro bursts, or other conditions, events or circumstances? The scope must look at all sources of incoming sludge, biosolids, greenwaste, construction waste, bulking agent or other material from any POTWs, waste treatment plants, or others sources for how they comply with elevated levels of radioactive wastes or radionuclides. Include how the POTW operator contacts the compost facility, the State radiation control agency, the Federal Nuclear Regulatory Commission, the Environmental Protection Agency, or a radiation protection professional, such as a health physicist, for assistance when radioactive wastes or radionuclides are detected? How will a radioactive clean up on the compost site affect water use, amount or quality.

16. The scope must include concerns about pesticides, the fate of pesticides, amount of pesticides, and combining of pesticides in sludge, biosolids, waste, greenwaste, bulking agents during the composting process, mixing, delivery to the facility, storage or any material processing or storage.

NC21-12

NC21-13

17. The scope must include work and study on asthma and other respiratory issues. Compost gases and dust with regards to asthma. Will more water help better control potential harmful respiratory issues?	NC21-14
18. The scope must include work on Volatile Organic Compounds (VOCs). Large amount of VOCs will be released from the facility, how will water and enclosure affect the potential for air pollution, PM10, PM2.5, persistent organic pollutants, prions, pathogens, coliform, or other chemicals, materials or gases from the facility.	NC21-15
19. The scope must include work on aspergillus fumigatus, invasive aspergillosis, allergic bronchopulmonary aspergillosis ABPA, SAFS studies, mycotoxins, aspergilloma, Gram-Negative Bacteria, Endotoxin and dust at compost plants. How does water and enclosure affect the potential for offsite transmission? How will wind effect the transmission, dispersion, life cycle, spreading of any dangerous fungus or diseases. Investigate how some asthma patients with very severe asthma may also be sensitized to certain fungi.	NC21-16
20. The scope must include work on PCBs and potential for PCBs and remediation, evaluation, testing and reporting of PCBs. Other areas have had sludge, biosolids and finished compost containing excessive amounts of PCBs. What is the plan, danger, potential and liability of PCB contamination?	NC21-17
21. The scope must include work on bioaerosals. Include monitoring options. How does enclosure and water effect amount of potential for emissions of bioaerosals? Quantify and identify the potential types and amounts of bioaerosals.	NC21-18
22. The scope must include the effect of temperature on composting of sewage sludge. Also the seasonal effect of temperature, wind and humidity and how that affects potential differences in finished compost product must be included. Will seasonal changes, water amounts, enclosure change the pasteurization of pathogenic microorganisms?	NC21-19

23. The scope must include work on health incidents accociated with sewage sludge. Look into people living near land appication as well as composting facilities. Look into workers at composting, land applications facilities and waste water sites and well as transporters of sludge, biosolids and bulking agents.	NC21-20
24. The scope must include work on organic chemicals in sewages sludges.	NC21-21
25. The scope must look at the possibility of storage of finished product on site, on the additional 80 acres, land owned in Newberry Springs, or any other storage areas and how much water will be used to keep any material from becoming airborne. Will the material be producing any additional VOCs, NOX, PM10, PM2.5,	NC21-22
26. The scope must look at the possibility of traffic conditions changing so that the biosolids is not able to be delivered and degrades to a class B biosolids due to pathogen and virus growth. How much time is allowed from pickup to delivery? Will water use change due to higher levels of pathogens, more potential for odor?	NC21-23
27. The scope must include work on mechanical odor testing. Look into devices to quantify the odor and potential for nuisance. How will enclosure or water affect odor and problems associated with odor.	NC21-24
28. The scope must include how the grading will impact the surrounding areas of BLM and private land? Will the 5 days of scheduled monthly grading impact wildlife, water and air impacts? Look at new work done by Wilshire to show long term impacts. How will enclosure change the potential problems and dust and air impacts? Will more water be needed if more grading is done? How much water? Will Sludge dust get mixed with the on site dust?	NC21-25
29. The scope must include the potential for lawsuits from environmental justice groups and other Hispanic groups from the lack of information given to the effected population. The scope must include the Cerral report and Kettleman City history. If future lawsuits	NC21-26

are brought forward and stop the project, how will this affect water use, project approval or enclosure possibilities?	
30. The scope needs to look at European enclosed alternatives that are cost effective and have less environmental impacts associated with water and air issues.	NC21-27
31. The scope must include work on the possibility of fuel prices changing the economic viability of an enclosed facility.	NC21-28
32. The scope must include how utilizing byproducts of the composting process for energy will effect the economic feasibility of enclosure. Look at ideas, plans, projects or concepts in places like Niland, Redlands, Banning, Colton, Rialto, Lost Hills, Rancho Cucamonga, California City and others.	NC21-29
33. The scope must include work on why the applicant had so many problems in Adelanto and how they will avoid those using enclosure. Why County of San Bernardino did not revoke Conditional Use Permit (CUP) from the applicant sooner and how San Bernadino County will handle this facility differently. Will enclosure solve some or all the problems in Adelanto? What enclosed facility options can mitigate the problems and potential violations?	NC21-30
34. The scope must include work on alternative technologies that might mitigate or eliminate some of the impacts anticipated in this open-air facility. The scope needs to evaluate the companies such as pmc-biotech, ILS Partners, Liberty, Bio Char, Slurrycarb, ABT Haskell, American Bio-tech, Mechtronix Systems, Biosoils, Delta Environmental, Brandix Finishing, Microsludge, GSL Energy Solutions, Compact Power Holdings and many of the other technologies to see what will best protect the population and environment downwind.	NC21-31
Comments officially submitted for the record by D. Norman Diaz on April 13 <sup>th</sup> , 2009 at 4:45pm.	
Thanks Norman	
D. Norman Diaz 25789 Community Blvd Barstow, CA 92311	

- NC21-1 The County acknowledges the comment. However, the Draft SEIR does not address the actions of local officials and therefore the County is not in a position to provide a response.
- NC21-2 Flies and pathogens were previously addressed in Draft EIR section 4.6. The Court found this issue to be adequately addressed.
- NC21-3 Section 4.1 and Appendix C of the Draft SEIR addressed water usage states approximately 1,000 gpd of water will be consumptively used for dust suppression and control, equipment washing and up to 30,000 gallons will be available for fire protection.
- NC21-4 The potential hazards with respect to the use of biosolids were previously addressed in Draft EIR section 4.6. The Court found this issue to be adequately addressed.
- NC21-5 Hydrology was previously addressed in Draft EIR. The Court found this issue to be adequately addressed
- NC21-6 Operational controls with respect to biosolids were previously addressed in Draft EIR Sections 2 and 4.6. The Court found this issue to be adequately addressed.
- NC21-7 Potential impacts due to winds were previously addressed in Draft EIR section 4.3. The Court found this issue to be adequately addressed.
- NC21-8 The Draft SEIR is focused on three areas: assessment of supply of water: impacts on global climate change; additional analysis of the economic feasibility of the proposed enclosed facility.
- NC21-9 Heavy metals were previously addressed in Draft EIR section 4.6. The Court found this issue to be adequately addressed.
- NC21-10 The County acknowledges the comment. However, the Draft SEIR does not address the political or criminal aspects of the town of Hinkley or its occupants and therefore the County is not in a position to provide a response.
- NC21-11 Potential impacts to human health were previously addressed in Draft EIR Section 4.6. The Court found this issue to be adequately addressed.
- NC21-12 Potential impacts to human health were previously addressed in Draft EIR Section 4.6. Also see response to comment NC21-11.
- NC21-13 Potential impacts due to pesticides were previously addressed in Draft EIR Section 4.6. The Court found this issue to be adequately addressed.
- NC21-14 Potential impacts to human health were previously addressed in Draft EIR Section 4.6 and in response to comment NC21-11.
- NC21-15 Impacts from VOCs and other criteria air pollutants were previously addressed in Draft EIR section 4.3. The Court found this issue to be adequately addressed.

- NC21-16 Potential impacts to human health were previously addressed in Draft EIR Section 4.6 (also see response to comment NC21-11). Impacts from windblown dust were addressed in Section 4.3 of the Draft EIR. The Court found this issue to be adequately addressed.
- NC21-17 Monitoring and testing was previously addressed in Draft EIR section 2.3.3. The Court found this issue to be adequately addressed.
- NC21-18 Potential impacts to human health were previously addressed in Draft EIR Section 4.6. Also see response to comment NC21-11.
- NC21-19 A description of the Project operations and products were previously addressed in Draft EIR section 2. The Court found this to be adequately addressed.
- NC21-20 Potential impacts to human health were previously addressed in Draft EIR Section 4.6. Also see response to comment NC21-11.
- NC21-21 Potential contaminants in the biosolids were previously addressed in Draft EIR section 4.6. The Court found this issue to be adequately addressed.
- NC21-22 Potential impacts to Air Quality were previously addressed in Draft EIR Section 4.3. The Court found this issue to be adequately addressed.
- NC21-23 Traffic and transportation was previously addressed in Draft EIR section 5.10. The Court found this issue to be adequately addressed.
- NC21-24 Odor was previously addressed in Draft EIR section 4.3. The Court found this issue to be adequately addressed.
- NC21-25 Potential impacts to air quality, biological resources, water use were previously addressed in Draft EIR Sections 4.3, 4.4, and 4.7 respectively. The Court found these issues to be adequately addressed.
- NC21-26 Environmental justice was previously addressed in Draft EIR section 5.4. The Court found this issue to be adequately addressed.
- NC21-27 The alternatives analysis within the 2006 Draft EIR Section 3.3 was deemed sufficient by the Superior Court with the exception of the definition of the water supply source and the economic feasibility of the enclosed facility alternative. Therefore the Draft SEIR is only required to address these topics.
- NC21-28 The County acknowledges the comment. However, the County is not required to speculate on the possibility of change in fuel prices and therefore is not in a position to provide a response.
- NC21-29 Potential Project alternatives were discussed in Section 3.3 of the Draft EIR. Also see response to comment NC21-27.
- NC21-30 Monitoring and testing was previously addressed in Draft EIR section 2.3.3. The Court found this issue to be adequately addressed.
- NC21-31 The analysis within the Draft EIR was deemed sufficient by the Superior Court with the exception of the assessment of the water supply source and the

economic feasibility of the enclosed facility alternative. Therefore the Draft SEIR is only required to address these topics.

# COMMENT NC22

April 13, 2009

Carrie Hyke-Principal Planner San Bernardino County Land Use Services Department Advance Planning Division 385 N. Arrowhead Avenue, First Floor San Bernardino, CA 92415-0182

This letter has been drafted in order to present National Parks Conservation Association's (NPCA) concerns relating to the limited scope presented in the Notice of Preparation for CEQA review of the Hawes Nursery Project proposed to be built in Hinkley, CA. NPCA is a leading authority on National Parks, and a advocate for the enhancement of the National Park System for current and future generations. NPCA currently has membership exceeding 340,000 nationally, with 45,000 of those members residing within California. NPCA recognizes that San Bernardino County contains significant areas of public land, including National Park Service Properties. NPCA recognizes and supports the county's need to develop economically while balancing environmental protections for its citizens and native ecosystems. NPCA appreciates the opportunity to comment on this process, and supports the decision to perform a thorough environmental review on this project.

The Mojave Desert Air Quality Management district contains the southernmost section of Death Valley National Park and contains the entire 1.6 million acre Mojave National Preserve; additionally the district contains the northern gateway communities to Joshua Tree National Park. As such, the decisions made relating to permitting development within this district have direct implications to National Park Service lands within the district, and to those directly adjacent to it. NPCA requests that the scope of the environmental review be widened to include an assessment of potential negative impact to the air quality of the district, including particulate matter sizes 2.5 and 10, bioaerosols, VOC's, ozone, nitrogen dioxide, and carbon dioxide that may escape this site or be created through construction, transportation of solid waste to and/or from this facility, or materials used as a bulking agent. Hinkley is located within a recognized wind corridor and any local impacts to air quality have the potential to be carried to National Park gateway communities and/or into the National Park Service units. The National Park lands in the California Desert are visited by local residents as well as international visitors to enjoy our unrivaled scenic viewshed of mountain and desert, and to appreciate our night sky viewing opportunities. Any decrease in our air quality is a potentially significant negative impact, as it diminishes our opportunity to profit from tourism, and increases the potential for fire damage to our parks by supporting the growth of invasive grasses. We request that these issues be addressed in any environmental review.

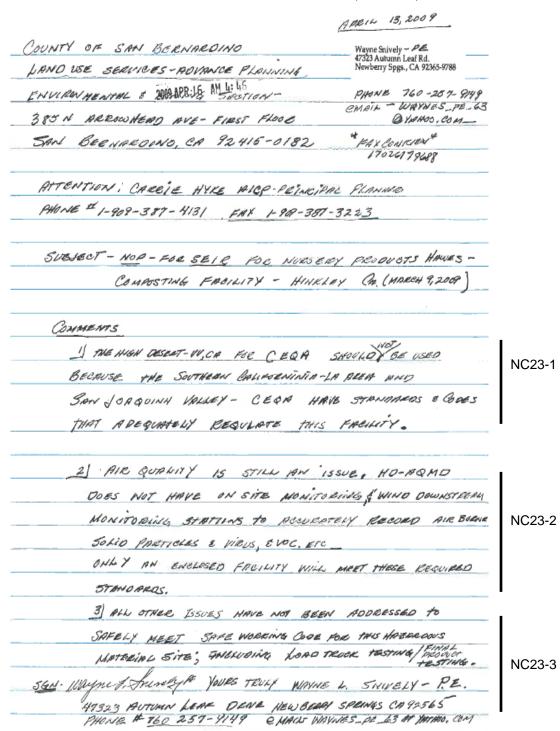
Sincerely,

David Lamfrom-California Desert Field Representative National Parks Conservation Association 400 South 2<sup>-+</sup> Avenue #213 Barstow, CA 92311 NC22-1

NC22-1 Potential impacts to air quality were previously addressed in Draft EIR section 4.3. The Court found this issue to be adequately addressed.

COMMENT NC23

WAYNE L, SNIVELY, P. E.



- NC23-1 Alternative sites were previously addressed in Draft EIR section 3.3. The Court found this issue to be adequately addressed.
- NC23-2 Potential impacts to air quality were previously addressed in Draft EIR section 4.3. The Court found this issue to be adequately addressed.
- NC23-3 Potential impacts to human health and safety were previously addressed in Draft EIR section 4.6. The Court found this issue to be adequately addressed.

# COMMENT NC24

# EDWARD RIDDLE AND MIRIAM SHULMAN

Page 1 of 2

April 3rd, 2009

# 2009 APR 16 AM & California 92347-0111

# Re: Comments- Nursery Products LLC Hawes Processing Facility

Carrie Hyke, Principal Planner San Bernardino County Land Use Services Department Advance Planning Division 385 N. Arrowhead Avenue, First Floor San Bernardino, CA 92415-0182

1) I disagree that the SEIR is sufficient to address the issues, and ask that the court order San Bernardino County (Nursery Products LLC) to perform an entirely new EIR, and further order a sufficient expansion and deepening of all of the study elements required. Neither the County, theLLC, nor the MDAQMD have mut adequately and truthfully addressed any issue regarding the proposed site.	NC24-1
2) I vigorously disagree that the County and MDAQMD are deemed by the Court to have adequately addressed the issues of air quality (high velocity and direction, verifiable winds) and endangered species. The studies for those issues have nothing to do with the truth of what actually occurs in the real world. The County and MDAQMD have manufactured an approve- able, yet untrue, picture of what does not exist. (See www.edwards.af.mil/weather/climo.htm) No study has been made for those driving on SR 58, nor effects on Fort Irwin.	NC24-2
3) The proposed site is located virtually over the ancient underground Mojave River spur from Helendale which supplies the Harper Lake aquifer. The intentional pollution of that aquifer is designed to provide control and ownership of it by the principals snd interested parties, by reclamation of the pollution itself.	NC24-3 NC24-4
<ul><li>4) Why has the Court ordered analysis of a facility enclosure when it knows there is absolutely no legal basis on which to ultimately order the LLC to make it an enclosed facility?</li><li>5) Alternative siting can be made several miles north and the east of the intersect of Hwy 395 and SR 58 with an adequate water supply and no disturbance of people or State and Federal assets, but that the land for the current proposed site must be sold and deleted as a proposal.</li></ul>	NC24-4
6) The site proposal as it exists is intentionally designed to degrade and replace Hinkley and its residents, as well as the Fremont-Kramer Tortoise Critical Area assets, and the one-of-a-kind State and Federal assets which are included in and surround Hinkley. It is a land-and-water grab by individuals who possess an innate abhorrence of human beings and natural resources, who worship at the altar of money and power, with the eager assistance of County agencies which will do <i>whatever</i> is necessary to enhance tax revenue and profit. Although damages cannot be assessed until damages actually occur, the clear intent which exists in the proposal and the clear	NC24-6

Page 1 of 2

#### Page 2 of 2

deficiencies which have not been addressed in the EIR will be deemed to have been made clear enough for permits to have been denied the LLC, yet that they were not denied. The individuals and agencies involved shall be held legally accountable for their actions and non-actions. The site is simply being proposed in the worst possible place for the worst reasons.

7) Bill Postmus was early on involved in approval of this proposal, immediately before he moved to the Assessor's position. Is an investigation of a deeper association between the LLC and Postmus' Supervisors office warranted?

8) Barstow Enterprises LLC, 1801 Century Park East, Suite 1600, Los Angeles CA 90067, was listed in 2005 as being the firm assisting the Chemehuevi Indians to establish a casino in Barstow.

Although they are customarily performed locally or near the place of interest, signatures required by for land transfers may be notarized at any Notary Public anywhere in California.

The land transfer for Nursery Products was not notarized at a Notary office in or near Barstow. Nor was it notarized at a Notary Public in or near the San Clemente office of Nursery Products LLC. Nor was it notarized anywhere else.

It was notarized only *blocks* from the offices of Barstow Enterprises LLC, also located in West Los Angeles, not in or near Barstow or San Clemente, by Lilly Taheri, 1388 Westwood Blvd., Suite 202, Los Angeles CA 90024 (310-234-9770) on 11-2-05, closing date 11-17-05. (Parcel number 0492- 021 through 024, purchased from Hooshang Karimi, Newberry Springs, for \$256,000.

How then is Barstow Enterprises LLC associated with Nursery Products LLC? And what other companies and persons is Barstow Enterprises LLC associated with? Who are/were Barstow Enterprises' and Nursery Products lobbyists, partners, spokesmen, and attorneys?? What, if any, is their association with the County and the MDAQMD? And who are they running interference for?

Respectfully, Edward Riddle <u>Elward Kiddl</u> Miriam Shulman Minin Shuha

Page 2 of 2

NC24-7

NC24-8

- NC24-1 The publication of a SEIR narrowly addressing three topics is discussed in Section 1 of the Draft SEIR as well as in response to comment NC11-2.
- NC24-2 Potential impacts to air quality and from winds were previously addressed in Draft EIR section 4.3. The Court found this issue to be adequately addressed.
- NC24-3 The potential to impact groundwater was discussed in Section 4.7 of the Draft EIR and was found by the Court to be adequately addressed.
- NC24-4 The court ordered further support for the analysis of the economic feasibility of an enclosed facility to provide substantial evidence in the Administrative Record.
- NC24-5 Alternate sites were previously addressed in Draft EIR section 3.2.4. The Court found this issue to be adequately addressed.
- NC24-6 Alternate sites were previously addressed in Draft EIR section 3.2.4. The Court found this issue to be adequately addressed.
- NC24-7 The County acknowledges the comment. However, the political actions or conduct of local officials is not an environmental issue and therefore the County is not in a position to provide a response as part of the Draft SEIR.
- NC24-8 The County acknowledges the comment. However, the Draft SEIR does not address the actions of local businesses and therefore the County is not in a position to provide a response.

# Center on Race, Poverty & the Environment

1302 Jefferson Street, Suite 2 Delano, CA 93215

Phone: (661) 720-9140 Fax: (661) 720-9483 Rabih Santago Abascal (1934-1997) Dévedor 1900-1907 Gusteve Aguina Assistant Director of Organishy Baff Alturney Luke W. Cole Director Catoline Famel Director Catoline Famel Director Saff Alturney Bofa Santha Saff Alturney Daniela Sing Alturney Daniela Santha

Carrie Hyke San Bernardino County Land Use Services Department Advance Planning Division 385 N. Arrowhead Avenue, First Floor San Bernardino, CA 92415-0182

#### Re: Notice of Preparation of a Supplemental Environmental Impact Report for the Nursery Products Hawes Composting Facility

Dear Ms. Hyke:

The Center on Race, Poverty & the Environment submits these comments to San Bernardino County ("County") on behalf of the Center for Biological Diversity ("CBD") and HelpHinkley.org. CBD and HelpHinkley.org object to the County's issuance of a Notice of Preparation of a Supplemental Environmental Impact Report ("Supplemental EIR"). The issuance of this document directly contradicts the Judge's Order in *Center for Biological Diversity v. County of San Bernardino*, Case No. BCV 09950, and will result in needless and wasteful expenditure of public funds, time and resources. Therefore, the County must cease all work on its Supplemental EIR in order to preserve the status quo while an appeal in the litigation is pending. CBD and HelpHinkley.org are confident that if the County decides to proceed with its Supplemental EIR, its actions will ultimately be vacated by the District Court. Nevertheless, in an abundance of caution, CBD and HelpHinkley.org also identify issues not previously or adequately analyzed so that these issues can be fully examined in any future environmental review processes.

Providing Legal & Technical Assistance to the Grassroots Movement for Environmental Justice

#### A. The County Must Preserve the Status Quo Pending Appeal

CBD and HelpHinkley.org objects to the County issuance of a Notice of Preparation for the Nursery Products Hawes Composting Facility. The County's ongoing attempts to upset the status quo and avoid the Court's judgment in *Center for Biological Diversity v. Country of San Bernardino*, is a wasteful enterprise that will create an undue burden on members of the public, County staff, and the County Board of Supervisors.

CBD and HelpHinkley.org prevailed in its lawsuit seeking a writ of mandamus and injunctive relief against the County for improperly certifying the EIR for the Nursery Products Hawes Compost Facility. Specifically, the Court found that the County violated CEQA by:

- (a) failing to properly evaluate a technologically feasible mitigation measure for the Project because the finding that an enclosed composting facility was not feasible was not supported by substantial evidence or the Administrative Record, and;
- (b) adopting an EIR for the Project that failed to identify a water source and failed to properly conduct a water assessment for the Project.

The Court ordered the County to vacate and set aside the certification of the EIR and all approvals given to the Project, including all findings, statements of overriding considerations, and the issuance of the CUP, and to comply with CEQA regarding the Project. No part of the Project is severable from the Court's order.

The County's issuance of a Notice of Preparation of a Supplemental EIR is in direct contravention of the Judge's order. A Supplemental EIR is appropriate when there have been substantial changes to the project; there are substantial new circumstances surrounding the project; or there is new information of substantial importance that affects the significant environmental impacts, mitigation measures, or reasonable alternatives to the project. In addition to satisfying one of the above criteria, a lead agency may issue an SEIR only when it can show that "[o]nly minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the new situation." The Judgment unequivocally requires the County to vacate the entire EIR that it had previously certified for the Project. The question of whether the EIR can be adequately fixed by minor additions or changes is now moot, as it has been answered in the negative by the Court.

There are only two possible outcomes of Nursery Products' appeal: the Order can be affirmed or denied. In either case, the County is engaging in a pointless and wasteful act to continue to engage in the Supplemental EIR process. If Nursery Products loses the appeal, the County's current efforts to prepare a Supplemental EIR will be in direct conflict with the Judge's Order and will have to be abandoned mid-process. The entire process will have been an inappropriate waste of public resources. If Nursery Products wins the appeal, the County will have a valid CUP and a certified EIR and will be free at any time to supplement the EIR if it determines that a supplement is required for full compliance with CEQA. CEQA Guidelines § 15163.

2

If the County continues the pointless exercise of working on a Supplemental EIR, HelpHinkley members will be forced to participate in the administrative process to preserve their right to challenge the SEIR in court if it is ultimately certified. This requires time and money, the expenditure of which is especially absurd considering the time and resources already spent having the Judge resolve this very issue in CBD and HelpHinkley's favor. In signing its Order, the Court rejected the County's attempts to have the Judge sign an order allowing the initial EIR to be supplemented instead of vacated.

The County should immediately vacate the EIR as ordered or suspend any activity on the SEIR until a final decision in the Appeal is reached in order to preserve the status quo during the appeal process. Going forward with the SEIR process will also result in a multiplicity of unnecessary judicial proceedings. HelpHinkley.org, therefore, objects to any further action taken on the part of the County to issue and certify an SEIR pending a final determination of the appeal on the merits.

## B. The County Must Assess Impact of Bioaerosols from the Proposed Nursery Products Facility.

The County failed to previously consider the effect bioaerosols dispersed from the composting process at the Hawes site may have on public health and the environment. Bioaerosols are particles of microbial, plant or animal origin and may be called organic dust. This can include live or dead bacteria, fungi, viruses, allergens, bacterial endotoxins, antigens, toxins, mycotoxins, glucans, pollen, and plant fibers. Many bioaerosols are known to cause symptoms and/or illness, including a wide range of adverse health effects and infection. *Aspergillus fumigatus* is a fungus and one of many microorganisms which decompose organic matter in our environment. Diseases such as extrinsic asthma, allergic bronchopulmonary aspergillosis, hypersensitivity pneumonitis, and invasive aspergillosis can result from the inhalation of bioaerosols. The County must assess and mitigate any risks associated with the release of bioaerosols from the Hawes facility.

## C. The County Must Assess Impact of the Release of Toxic Metals from Composted Materials at the Proposed Hawes Facility.

The County failed to previously consider the environmental impact of the release of toxic metals from sludge composted at the site. The California Regional Water Quality Control Board in the Lahontan Region noted that open air sludge composting increases risks posed by a variety of heavy metals. Sludge contains heavy metals such as lead and mercury, which pose a particularly high risk to human health. Lead can cause reproductive problems in men and women, high blood pressure and hypertension, nerve disorders, memory and concentration problems, and muscle and joint pain. Mercury can cause tremors; emotional changes (e.g., mood swings, irritability, nervousness, excessive shyness); insomnia; neuromuscular changes (such as weakness, muscle atrophy, twitching); headaches; disturbances in sensations; changes in nerve responses; and performance deficits on tests of cognitive function. At higher exposures there may be kidney effects, respiratory failure and death. The County must assess the risk these toxic metals may present to human health.

3

NC25-2

In addition, the County must address the extent to which the low concentrations of heavy metals and metalloids (metal-like elements) present in sludge compost may adversely affect plant growth, soil organisms, water quality and animal health. Arsenic, cadmium, lead, and mercury are of concern because of their potential to harm soil organisms and animals who may eat contaminated plants or soil. Cadmium, lead, and mercury can be harmful to plants and animals at relatively low concentrations and thus, should receive close scrutiny when processing waste at the Nursery Products sludge compost facility. The County must assess the risk these toxic metals can present to plants, soil organisms, water quality and animal health.

### D. The County Must Assess New Studies on the Health Impacts From Composting Air Emissions.

In July 2007, almost a year after the County first certified the EIR for the Hawes Composting Facility, Ellen Z. Harrison published a paper entitled *Compost Facilities: Off-Site Air Emissions and Health* to address concerns regarding the potential of air emissions from large-scale composting facilities to impact the health of neighbors. The paper compiled studies on the health effects of compost facilities and included a summary of findings from at least five studies published in 2006 which were not analyzed in the EIR. The County failed to assess many of the 55 studies included in the literature review. The County should assess the findings of these studies when assessing the health impacts of air emissions from the proposed Hawes Compost Facility.

# E. The County Must Assess Occupational Health Hazards From the Proposed Hawes Composting Facility.

The County failed to previously assess the effect the Proposed Hawes Composting Facility will have on workers at the site. Compost workers show a response to elevated exposure to bioaerosols, and gram-negative bacteria. Compost workers also had elevated acute and chronic respiratory health effects, mucosal membrane irritation, skin diseases and inflammatory markers. Workers reported subjective symptoms in terms of nausea, headache and diarrhea more often than a control group. The County must assess the occupational health hazards posed by the Proposed Hawes Composting Facility.

## F. The County Must Assess Fecal Coliform and Salmonella Contamination From the Proposed Hawes Composting Facility.

The County relied on federal regulations to ensure that the facility would not release fecal coliform or salmonella into the environment. However, studies indicate that existing regulations for biosolids do not adequately control fecal coliform or salmonella because the test compliance methods in the regulations are flawed. One method cited in the regulations failed to detect Salmonella in 43 percent of the samples. Only one of the three specified test methods in the regulations appear to be acceptable for compliance testing. Since compliance with the 503 regulations is not sufficient to mitigate potential harm caused by fecal coliform and salmonella, the

4

NC25-4

NC25-5

County must analyze the potential harm of these contaminates on human health and the environment.

#### G. The County Must Assess the Effect Wind Will Have on Odor and Contaminate Dispersal From the Proposed Hawes Compost Facility.

The County failed to adequately analyze the effect high winds in the vicinity will have on odor and air pollution dispersal. Heavy winds, prevalent in that region of the Mojave Desert will amplify the impacts of odor and air pollution on communities downwind. Data taken from the Barstow Airport indicates that the Mojave Desert area has the fourth highest average monthly wind speed in California. These average wind speeds for Barstow were 14.4 miles an hour in May from 1992-2000. Wind speeds of this magnitude carry with them great potential to disperse heavy metals and pathogens found in sludge. For example, studies demonstrate that dust storms are able to carry bacteria the distance from China to Japan. The County must assess the impact high winds in the region will have on the dispersal of odor, air contaminates, spores, soil contaminates, and invasive species.

### H. The County Must Assess the Effect of Methane Emissions from the Proposed Hawes Composting Facility.

The County previously failed to adequately analyze the effect of methane emissions from the Proposed Hawes Composting Facility. In a source testing report, conducted at San Joaquin Composting in Lost Hills, CA, it was estimated that 33.5 pounds of methane was emitted per ton of dewatered sludge/bulking agent mix. In addition to being a major greenhouse gas, methane also can have localized health impacts. Methane is considered an asphyxiant at high concentrations and can displace oxygen in the blood. The County must analyze impacts of methane emissions from the Proposed Hawes Compost Facility.

## I. The County Must Assess the Effect of Seismic Activity at the Proposed Hawes Composting Facility.

The County must assess the risks earthquakes present to local groundwater aquifers beneath the Hawes site. If the ground is disturbed, there is an unreasonable risk that the contaminates found in sludge would have a straight conduit into the region's groundwater aquifers. The County must assess this risk and assess the impact of those contaminates reaching the groundwater.

## J. The County Must Assess the Past Compliance Record of the Project Applicant.

The County previously failed to analyze the project applicant's past compliance record. Nursery Products has a history of non-compliance with its EIRs and operating permits. The company's previous co-composting facility in Adelanto closed when a court order forced it to stop accepting new waste in the face of over 125 complaints that facility odors were making residents ill and swarming flies constituted a public nuisance. In November, 2003, the Adelanto City Council voted to find Nursery Products had misrepresented its operations and the impacts on the community, and was not in compliance with its environmental impact report. Specifically, impacts to air quality

5

NC25-8

NC25-7

NC25-9

and vector control were not being implemented as promised in the facility's EIR. Nursery Products also broke its commitments to pave and provide lighting for streets adjacent to the facility. The public health and nuisance hazards in Adelanto were caused by Nursery Products' failure to implement many conditions of its operational permits. The County must consider and address Nursery Products' past failures to comply.

#### K. The County Must Assess How Heat and Wind in the Vicinity of the Hawes Site Will Increase VOC Emissions From the Proposed Facility.

In setting its emission factor, the County failed to account for the effect high winds and temperature have on VOC emissions. Wind velocity and temperature are important factors to consider in developing an accurate emission factors. Wind can greatly increase VOC emissions during the composting process. The County should consider real on-the-ground conditions at the proposed Hawes location when calculating VOC emissions from the proposed facility. The Mojave Desert experiences one of the highest wind velocities in the state. This will increase VOC emissions dramatically.

In addition, VOC and ammonia emissions increase during higher temperatures. Because the Mojave Desert experiences very high temperatures in the summer months, VOC and ammonia emissions are likely higher during those times. The County failed to account for the higher summer temperatures in its initial calculations of VOC and ammonia emissions and, therefore the County must consider this additional factor when it performs additional environmental review.

### L. The County Must Assess Risk that Wind-Blown Contamination that May Settle on Recharge Ponds and Surface Water-Bodies.

The County failed to previously assess the project's impacts to recharge ponds and surface water bodies. Open-air composting produces high levels of dust and debris. Wind causes these particles to end up in recharge ponds and surface water bodies. In a letter regarding the proposed Nursery Products facility near Hinkley, the California Regional Water Quality Control Board, Lahontan Region commented that "Pollutants contained in windblown dust and debris from the proposed facility could be transported away from the site and may come in contact with storm waters and affect surface or groundwater quality downwind of the project." The County failed to adequately respond to these concerns during the initial environmental review, and must consider those impacts in a future environmental review.

#### M. The County Must Assess the Proposed Facility's Impact on the Region's Desert Tortoise Population, Which Is Prone to Respiratory Illness from Emissions and Pathogens from Open Air Composting Operations.

The County failed to previously assess the impact of the proposed project's emissions on the desert tortoise population. Desert tortoises have an increased risk of metal toxicity from air-born particulate matter that may be carried by the wind from the windows on the Project site to desert tortoise habitat. This metal toxicity can endanger desert tortoises both on and off-site. High desert winds could easily carry metals long distances affecting desert tortoises throughout the Mojave

NC25-11

NC25-12

<sup>6</sup> 

Desert. Desert tortoises are even more susceptible to these airborne toxins because of their sensitive respiratory systems. The County must assess the project's risks to desert tortoise respiratory health.

#### N. The County Must Assess Impact of Fly Dispersion from the Proposed Facility on Hinkley and Other Populated Areas.

The County previously failed to accurately account for the dispersal rate of flies from the proposed site. Studies have shown that flies can travel much greater distances than previously thought. It was discovered that flies can travel 13 to 15 miles from their origination point. Hinkley is only seven miles from the site. The County must assess the impact of fly dispersion from the Proposed Hawes facility on communities within 15 of from the proposed site.

#### O. The County Must Assess the Risk of a Compost Fire at the Proposed Hawes Site.

The County must assess whether the Proposed Hawes Facility will have fire suppression equipment continuously available, properly maintained and located as required by the local fire authority. In addition, the County must assess whether the Proposed Hawes Facility will have sufficient water supply in the case of a fire emergency. Initially, the applicant had no provisions for fire control and prevention but has since added a few measures. The project will have a water supply with a minimum fire flow of 1,500 gallons for 30 minutes. For other high risk waste projects, the California Code of Regulations has set forth a minimum standard of 1000 gallons per minute for a duration of at least three hours. For larger projects, at least 2000 gallons per minute for a duration of at least three hours is necessary. 14 CCR § 17351. A half hour of water supply is not sufficient to put out 80 acres of combustible material. The County must therefore, assess the risk of a compost fire at the Proposed Hawes facility.

#### P. The County Must Assess Risk of Obscured Visibility from Dust from the Proposed Hawes Facility Migrating to Highway 58.

The County must assess whether dust migrating from the site poses a safety hazard due to obscured visibility of travelers on Highway 58, only short distance away. Dust will not stop at the facility's borders because of strong winds in the vicinity, the open and unobstructed terrain, the lack of sufficient water on-site, the turning of windrows in wind speeds up to 30 miles per hour, and the large stockpiling of finished compost which will not have significant water content to keep it from becoming wind-borne. In addition, the proposed operation will use the same processes that were used at the facility's former location in Adelanto. There, dust often migrated throughout the town, leading to multiple complaints. There have been many reported accidents in the area due to wind-storms that obscure driver visibility. The County must assess the visibility impairment and safety risks posed by dust leaving the site.

#### Q. The County Must Assess the Impact Flooding Will Have on the Environment.

The County failed to previously analyze how a flash flood would increase impacts from the

7

# NC25-14

NC25-15

proposed Hawes Composting Facility. The Proposed Hawes Facility will be located in a flood zone. If heavy rains in the area cause a flash flood, contaminates from the sludge could be carried off-site. The County needs to assess the risk of flooding and the potential impact on the surrounding areas and the groundwater if the sludge material is swept of the facility site.

#### R. The County Must Assess the Impact of Increased Diesel Exhaust Exposure from Hauling Waste to the Proposed Hawes Facility.

The County previously failed to adequately analyze the project's impacts from diesel exhaust emissions. Diesel engine emissions are highly complex mixtures. Diesel exhaust contains more than 40 toxic air contaminants. They consist of a wide range of organic and inorganic compounds distributed among the gaseous and particulate phases. These particles have hundreds of chemicals absorbed onto their surfaces, including many known or suspected mutagens and carcinogens such as benezene, arsenic and formaldehyde. The gaseous phase contains many irritants and toxic chemicals. Oxides of nitrogen, which are ozone precursors, are among the combustion products in the gaseous phase.

Diesel emissions have the potential to cause adverse health effects including cancer and other pulmonary and cardiovascular diseases. Long-term exposure to diesel exhaust particles poses the highest cancer risk of any toxic air contaminant. ARB estimates that about 70 percent of the cancer risk that the average Californian faces from breathing toxic air pollutants stems from diesel exhaust particles.

The Proposed Hawes Facility will increase diesel truck traffic in the Hinkley area from transporting sludge and greenwaste to the facility and finished compost product out. The County must assess all project impacts, both direct and indirect. This includes evaluating the impact of increased diesel exhaust in the local area as well as the increased traffic along the hauling routes. This also requires identification of where the waste streams are originating.

The County must assess these issues, and others identified by agencies and the public on the Proposed Hawes Composting Facility. These issues should ultimately be addressed in a new EIR. CBD and HelpHinkley.org object to the County's continued work on a supplemental EIR while the appeal is pending. Please notify CRPE, CBD and HelpHinkley.org of the County's intention to continue or suspend work on the SEIR. Please also notify CRPE and HelpHinkley.org when any documents on the Proposed Hawes Composting Facility become publically available.

Sincerely,

Ingrid Brostrom Staff Attorney NC25-17

NC25-18

8

- NC25-1 The certification of the Draft EIR is pending. The completion of the Draft SEIR was required by the Superior Court to address water supply and the economic feasibility of an enclosed facility. See response to comment NC2-5.
- NC25-2 Potential impacts to human health were previously addressed in Draft EIR section 4.6. The Court found this issue to be adequately addressed.
- NC25-3 Potential impacts from toxic metals were previously addressed in Draft EIR Section 4.6. The Court found this issue to be adequately addressed.
- NC25-4 Potential impacts to air quality were previously addressed in the Draft EIR Section 4.3. The Court found this issue to be adequately addressed.
- NC25-5 Potential impacts to human health were previously addressed in Draft EIR section 4.6. The Court found this issue to be adequately addressed.
- NC25-6 Potential impacts to human health were previously addressed in Draft EIR section 4.6. The Court found this issue to be adequately addressed.
- NC25-7 Potential impacts from wind were previously addressed in Draft EIR Section 4.3. The Court found this issue to be adequately addressed.
- NC25-8 Potential impacts to human health were previously addressed in Draft EIR section 4.6. The Court found this issue to be adequately addressed. Methane generation from the proposed Project with respect to global climate change is discussed in Section 4.1 and Appendix B of the Draft SEIR.
- NC25-9 Seismic activity was previously addressed in Draft EIR section 5.3. The Court found this issue to be adequately addressed
- NC25-10 Measures to control the impacts to the surrounding community was discussed in Sections 1.7, 2.3, and 4.3 of the Draft EIR. The Court found this issue to be adequately addressed.
- NC25-11 Potential impacts from VOC's were previously addressed in Draft EIR Section 4.3. The Court found this issue to be adequately addressed.
- NC25-12 Windrow management with respect to water quality was previously addressed in Draft EIR Section 4.7. The Court found this issue to be adequately addressed.
- NC25-13 Potential impacts to the Desert Tortoise were previously addressed in Draft EIR section 4.4.2.1. The Court found this issue to be adequately addressed.
- NC25-14 Potential impacts from flies were previously addressed in Draft EIR Section 4.6. The Court found this issue to be adequately addressed.
- NC25-15 Potential impacts from fires were previously addressed in Draft EIR section 4.6.1. The Court found this issue to be adequately addressed.
- NC25-16 Dust suppression and Project operational activities was previously addressed in Draft EIR section 2.7.1. The Court found this issue to be adequately addressed.

- NC25-17 Potential Impacts on site and area hydrology were previously addressed in Draft EIR section 4.7. The Court found this issue to be adequately addressed.
- NC25-18 Potential impacts from diesel were previously addressed in Draft EIR section 4.6. The Court found this issue to be adequately addressed.