Chesney Consulting

MANURE MANAGEMENT PLAN

Navu Farms, Inc.

Proposed Abattoir/Ag Building/Livestock Facility

7300 West Delta Avenue
Tracy, California 95304

Assessor's Parcel Number: 213-020-38 and 213-020-41

Zoning: AG-40 General Plan: A/G

Permit Application Number: PA-1800316

September 6, 2019

Prepared for:
Mr. Ahmed Hussein
232 San Marco Ave.
San Bruno, CA 94066
(650) 676-9687

and

The San Joaquin County Environmental Health Department

 Project No: MMP-126.19

P.O. Box 3794 ✦ Turlock, CA 95381 ✦ (209) 402-1652 ✦ ddchesney@charter.net

INTRODUCTION

Mr. Ahmed Hussein, Command Sergeant Major (Ret.) United States Army, is proposing to construct an Ag Building, an Abattoir and livestock holding pens on property he owns at 7300 West Delta Ave. in Tracy CA.

The San Joaquin County Environmental Health Department (EHD) is requiring a Manure Management Plan (MMP) regarding the on-site animals. Mr. Dylan Wooten of Schack & Company had submitted an MMP to EHD dated August 8, 2019 with the Manure Animal Facility Manure/Solid Waste Management Plan Guidance Document. This document was completed by the Applicant, Mr. Hussein.

The EHD responded with a clarification letter, dated September 3, 2019. My document addresses these questions and provides additional information. The answers below correspond with the numbered question on the EHD document.

1. The livestock will be mostly confined to pens. However, goats, sheep, and particularly cattle may be grazed in fenced-in pasture land on Parcel 213-020-38, which is 36.46 acres. It is anticipated to use 35.0 of these 36.46 acres for cropland production.

2. Pasture grazing will be dependant on the stage of growth of the crop being grown. Grazing may occur near or at crop maturity. Total animals are between 5-20 cows, 20-50 goats, 20-50 sheep/lamb and approx. 3,000 chickens. The chickens will be housed in environmental houses, whereby manure drops to the ground and is then raked up.

3. Manure from all animal types will be raked up from the pens and stored in holding bins. Proper pest control will be implemented if needed. When manure can be spread on the cropland, it will be loaded into a manure spreader pulled by a tractor to be equally deposited on the cropland and then incorporated into the soil by discing. Preferably, manure incorporation will occur immediately prior to crop planting so that the plants can uptake nutrients from the manure, especially nitrogen. Manure deposited from pastured animals will not be raked up. If pens are used in the pasture, an assessment will be made as to manure accumulation. Penned areas within open pasture must be rotated when manure accumulation is observed.

4. Crops planted will consist of grain-type plants such as rye, oats, wheat, and orchard grass.

5. Severe weather conditions during the winter may warrant adjustments in circulating animals from pens to pasture. However, animal populations will be much lower during the winter months, thus making animal housing management easier than the remaining months of the year when the weather is favorable.

6. Feeding will be conducted by hand. Feed will be in bulk containers (e.g., bags, totes, plastic drums, etc.) which will be stored in a locked sea container.

ANALYSIS

To analyze the amount nitrogen from the on-site manure the subject property cropland can assimilate, samples were obtained from goat and chicken manures. There are no cattle presently on the subject property, therefore manure samples could not be obtained. Book values were used. Sheep and goats are similar in manure nitrogen content and production.

TABLE 1

ANIMAL	MANURE PRODUCTION PER YEAR (Est.)	NITROGEN FRACTIONS (As Tested)			
		NITRATE NITROGEN	ORGANIC NITROGEN	AMMONIA NITROGEN	TOTAL NITROGEN
Goat	6 lbs./day 100 goats/sheep = 600 lbs./day x 365 d/y = 219,000 lbs./y = 110 tons/y	0.003% = 0.06 lbs./ton = 0.02 lbs./ton (as rcv'd.)	1.64% = 32.8 lbs./ton = 13.2 lbs./ton (as rcv'd.)	0.007% = 0.14 lbs./ton = 0.056 lbs./ton (as rcv'd.)	1.65% = 33 lbs/ton = 13.3 lbs./ton (as rcv'd) = 110 tons /yr x 13.3 lbs N/ton = 1,465 lbs N/yr
Chicken	0.33 lbs./day 3,000 chickens = 990 lbs./day x 365 d/y = 361,350 lbs./y = 181 tons/y	0.003% = 0.06 lbs./ton = 0.02 lbs./ton (as rcv'd.)	4.34% = 87 lbs./ton = 29.6 lbs./ton (as rcv'd.)	0.087% = 1.7 lbs./ton = 0.58 lbs./ton (as rcv'd.)	4.65% = 93 lbs/ton = 31.6 lbs./ton (as rcv'd) = 181 tons /yr x 31.6 lbs N/ton = 5,720 lbs N/yr
Beef Cattle (Book Values)	7 lbs./day 20 steers = 140 lbs./day x 365 d/y = 51,000 lbs./y = 26 tons/y				26 tons/yr x 12 lbs N/ton = 312 lbs N/yr
TOTALS	244 tons/y				7,495 lbs N/yr

TABLE 2

CROP TYPES TO BE PLANTED	TYPICAL YIELD PER ACRE	TOTAL NITROGEN UPTAKE (CROP REMOVAL) BY INDIVIDUAL CROPS BASED ON YIELD
BARLEY	2.5 tons/104 Bu	160 lbs N/Ac x 35 Ac = 5,600 x 2 (double cropped) = 11,200 lbs N
OATS	1.6 tons/100 Bu	115 lbs N/Ac x 35 Ac = 4,025 x 2 (double cropped) = 8,050 lbs N
WHEAT	3 ton/100 Bu	175 lbs N/Ac x 35 Ac = 6,125 x 2 (double cropped) = 12,250 lbs N
ORCHARD GRASS	6 tons	300 lbs N/Ac x 35 Ac = 10,500 lbs N lbs N (no double cropping)

RESULTS

The calculations above demonstrate that barley, oats and wheat crops will assimilate nitrogen produced from manure land applications provided these crops are double-cropped meaning that two crops are grown per year on the subject acreage. By double-cropping (or single crop for orchard grass), all the crops should readily assimilate the nitrogen produced from manure exclusively. No synthetic nitrogen fertilizers should be applied to the cropland. These nitrogen production calculations from manure are based upon the maximum number of animals, year-round. Animal populations will not be at the maximum all year, thus incorporating a significant safety factor.

The organic fraction of the manure must mineralize to plant available nitrogen (PAN), which is nitrate and ammonium. This only occurs under certain environmental conditions. Typically, an approximation of 30% of the organic nitrogen fraction is mineralized per year therefore allowing the plants a slower rate of assimilation. Mineralization will occur in the spring and summer months of the year when the crop can be replanted or recovers from grazing.

It is imperative that equal distribution of manure prior to cropland planting be observed. Animal pens that are installed in the cropland must also be rotated when manure accumulates and the crop has mostly been consumed.

If there should be any questions regarding this document, please contact the undersigned.

Respectfully submitted,
CHESNEY CONSULTING

Don Chesney, PE
Registered Civil Engineer #C75479
CA Certified Crop Advisor and Registered Nitrogen Management Specialist #341829
CA Agricultural Pest Control Advisor #74363

REFERENCES

California Fertilizer Association. Western Fertilizer Handbook. Ninth Ed.

Crohn, D. 2006. Optimizing organic fertilizer applications under steady-state conditions. J. Environ. Qual. 35:658-669.

Gale, E.S., D.M. Sullivan, C.G. Cogger, A.I. Bary, D.D. Hemphill, and E.A. Myhre. 2006. Estimating plant-available nitrogen release from manures, composts, and specialty products. J. Environ. Qual. 35:2321-2332.

Nitrogen Notes. Number 4. International Plant Nutrition Institute.

San Joaquin Local Health District, San Joaquin County Ordinance Code Rules and Regulations

The Nature and Properties of Soils, 13th Ed., Brady and Weil.

University of California. Manure Nutrient Management. www.manure@ucdavis.edu

APPENDICES

APPENDIX A: SCHACK & COMPANY MANURE MANAGEMENT PLAN OUTLINE

APPENDIX B: EHD CLARIFICATION LETTER

APPENDIX C: CHEMICAL ANALYSES OF GOAT MANURE

APPENDIX D: CHEMICAL ANALYSIS OF CHICKEN MANURE

APPENDIX A

SCHACK & COMPANY MANURE MANAGEMENT PLAN OUTLINE

Schack & Company, Inc.
Professional Design Group

Manure Management Plan

Attn:	Michael Kith	**Job No:**	18.035
To:	S.J.C.E.H.D.	**Date:**	August 8, 2019
From:	Dylan Wooten	**Review No:**	02
Re:	Ahmed Hussein Project 7300 W. Delta Ave., Tracy, CA 95304	**Permit No:**	PA-1800316

I have completed a response to your Manure Management Plan Guidance Document for the referenced project. The following response corresponds directly to each item listed on the Guidance Document.

I trust the following remarks will answer all your questions. If there are any further questions, please don't hesitate to call.

GENERAL INFORMATION

Raising of livestock to include cattle, goats, sheep/lamb and chicken. To provide the owners of the animals the ability to slaughter at the farm.

The business will be open on weekends, federal and Islamic holidays from 8:00am – 5:00pm.

4,000sf Ag. building with 1,600sf being dedicated to a slaughter section. Please see attached Site Plan.

West Winds

MANURE MANAGEMENT

There will be 5-20 cows, 20-50 goats, 20-50 sheep/lamb and when fully operational a maximum of 3,000 chickens.

The total manure from the animals will be one wheelbarrow to a maximum of half a cubic yard. It will be cleaned on a weekly basis.

There is no anticipation of any manure storage areas.

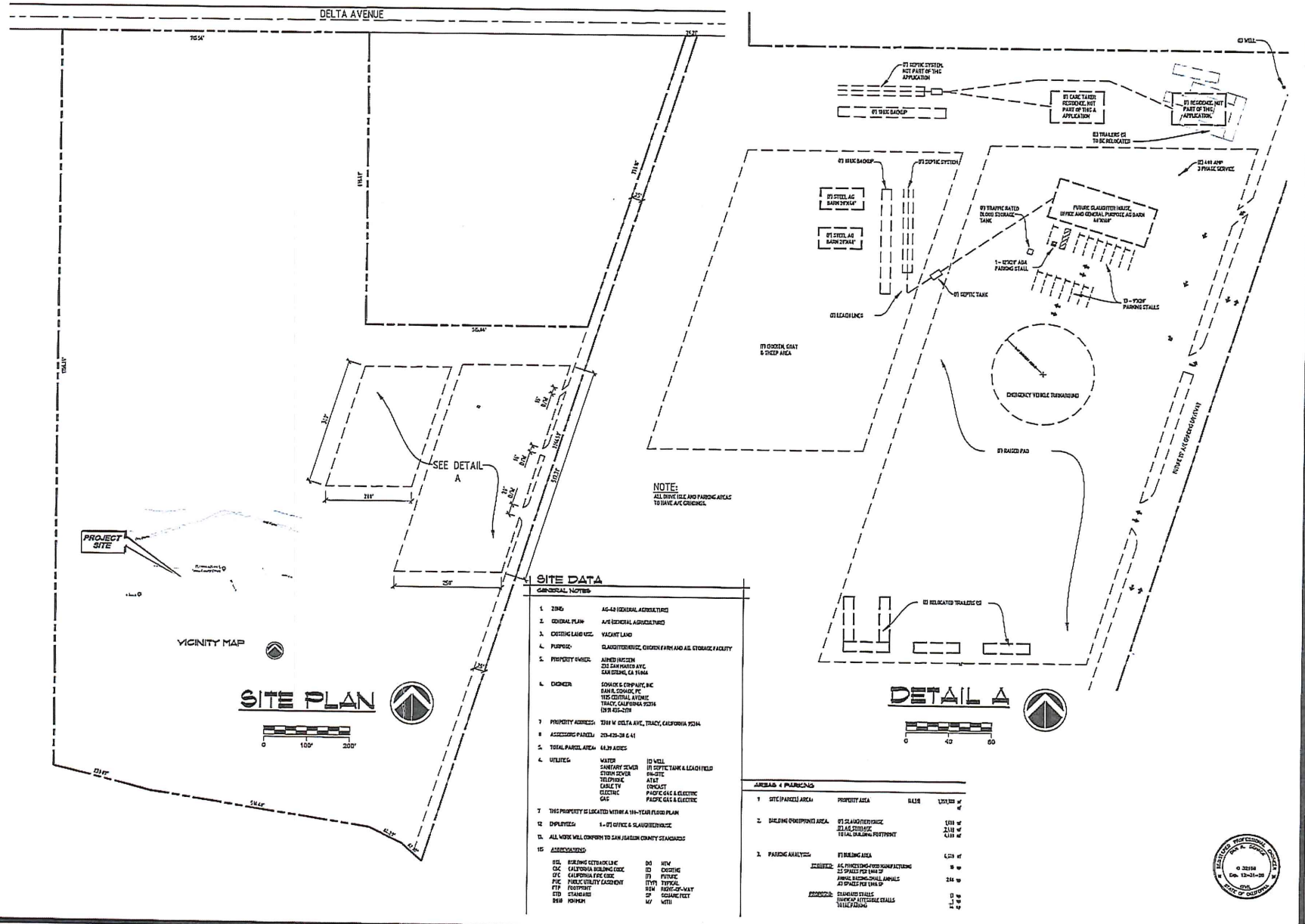
The manure will be used on site and spread in gardens, hay field and pasture.

Will comply.

SOLID WASTE MANAGEMENT

One (1) 1.5 yard top flat bin dumpster, serviced weekly by Tracy Delta Solid Waste Management, Inc.

Animal death is not anticipated. In the event that one does occur, the deceased animal will be placed in a covered container and transported to Sisk Recycling, Co. See attached letter.



SITE DATA

GENERAL NOTES

1.	ZONE:	AG-40 (GENERAL AGRICULTURE)
2.	GENERAL PLAN:	A/G (GENERAL AGRICULTURE)
3.	EXISTING LAND USE:	VACANT LAND
4.	PURPOSE:	SLAUGHTERHOUSE, CHICKEN FARM AND AG. STORAGE FACILITY
5.	PROPERTY OWNER:	AHMED HUSSEIN 251 SAN MARCO AVE. SAN JOSE, CA 95116
6.	ENGINEER:	SCHACK & COMPANY, INC DANIEL SCHACK, PE 1105 CENTRAL AVENUE TRACY, CALIFORNIA 95376 (209) 835-2178
7.	PROPERTY ADDRESS:	2200 W. DELTA AVE., TRACY, CALIFORNIA 95304
8.	ASSESSORS PARCEL:	209-420-38 & 41
9.	TOTAL PARCEL AREA:	44.39 ACRES
10.	UTILITIES:	WATER (E) WELL SANITARY SEWER (E) SEPTIC TANK & LEACH FIELD STORM SEWER ON-SITE TELEPHONE AT&T CABLE TV COMCAST ELECTRIC PACIFIC GAS & ELECTRIC GAS PACIFIC GAS & ELECTRIC
11.	THIS PROPERTY IS LOCATED WITHIN A 100-YEAR FLOOD PLAIN	
12.	EMPLOYEES:	1 - (E) OFFICE & SLAUGHTERHOUSE
13.	ALL WORK WILL CONFORM TO SAN JOAQUIN COUNTY STANDARDS	

15. ABBREVIATIONS:

BSL	BUILDING SETBACK LINE	(N)	NEW
CBC	CALIFORNIA BUILDING CODE	(E)	EXISTING
CFC	CALIFORNIA FIRE CODE	(F)	FUTURE
PUE	PUBLIC UTILITY EASEMENT	(TYP)	TYPICAL
FTP	FOOTPRINT	ROW	RIGHT-OF-WAY
STD	STANDARD	SF	SQUARE FEET
DIM	DIMENSION	W/	WITH

AREAS & PARKING

1.	SITE (PARCEL) AREA:	PROPERTY AREA	44.39	1,933,328 sf
2.	BUILDING FOOTPRINT(S) AREA:	(E) SLAUGHTERHOUSE		1,056 sf
		(E) AG STORAGE		2,268 sf
		TOTAL BUILDING FOOTPRINT		4,324 sf
3.	PARKING ANALYSIS:	(E) BUILDING AREA		4,324 sf
	REQUIRED:	AG PROCESSING-FOOD MANUFACTURING 1/2 SPACES PER 1,000 SF		2 sp
		ANIMAL RAISING-SMALL ANIMALS 1/2 SPACES PER 1,000 SF		244 sp
	PROVIDED:	STANDARD STALLS		10 sp
		HANDICAP ACCESSIBLE STALLS		1 sp
		TOTAL PARKING		11 sp

REGISTERED PROFESSIONAL ENGINEER
DANIEL K. SCHACK
No. C 32198
Exp. 12-31-20
CIVIL
STATE OF CALIFORNIA

DRAWING RELEASE		
	DESCRIPTION	DATE
	PRELIMINARY REVIEW	05/30/19
	PLANNING REVIEW	
	PUBLIC HEARING	
	BID DOCUMENTS	
	FINAL CONSTRUCTION	

USE PERMIT

AHMED HUSSEIN PROPERTY

2200 W. DELTA AVE.
TRACY, CALIFORNIA 95304
APN 209-420-38 & 41

Schack & Company, Inc.
Civil Engineering • Building Design • Surveying
(209) 835-2178 • FAX 941-2321 • 1105 CENTRAL AVENUE • TRACY, CA 95376

DATE	05/30/19
DRAWN BY	DW
CHECKED BY	DW
JOB NO.	19.014
	1
OF	1 SHEETS

FEEDING OPERATIONS

The livestock will graze own pasture and be fed hay. As a supplement, the chickens will be given all natural chicken scratch grain and will also be free range, eating grass and insects.

VECTOR CONTROL

A local pest control company will be hired, such as Orkin Pest Management or Patriot Pest Management. They will do monthly scheduled visits and spray Eco friendly insecticides and set bait stations.

SAN JOAQUIN COUNTY ENVIRONMENTAL HEALTH DEPARTMENT
1868 East Hazelton Avenue, Stockton, CA 95205-6232 Telephone: (209) 468-3420
Fax: (209) 464-0138 Web: www.sjgov.org/ehd

CONFINED ANIMAL FACILITY MANURE/SOLID WASTE MANAGEMENT PLAN GUIDANCE DOCUMENT

This Guidance Document is designed to assist in the development of a Manure/Solid Waste Management Plan for confined animal facilities (as defined in Title 27, § 20164 of the California Code of Regulations) that must be approved by the Environmental Health Department. The plan is required in order to ensure that wastes from these operations are handled in a manner that provides public health protection, protects ground and surface, water quality, and minimizes the harborage and breeding of vectors such as rodents and insects.

Authority for these requirements are contained in the California Public Resources Code, Division 30, §43020; the California Code of Regulations, Title 14, Division 7, Chapter 3, Article 8; the San Joaquin County Development Title, §9-605.6(k)(4), and the San Joaquin County Ordinance Code, Title 5, Division 2.

GENERAL INFORMATION

Describe the type of operations conducted at this facility.

Raising of livestock, to include cattles, goats sheep/lamband chicken. Provide owners of the animals to have the ablity to slaughter at the farm.

Describe the frequency, duration, and time of year the facility will be in operation (year-round, seasonal, etc.)

Would be open for business on weekends, federal and islamic holidays during day hours 8:00 am till 5:00 pm.

Provide a general description of the facility, and a site map of the parcel(s) showing the location of existing and proposed structures associated with the operation (such as barns, stalls, corrals, pens, feed storage areas, ponds, lagoons, drainage canals, and manure use or disposal fields), as well as any residences, septic systems, and wells.

1600 sq ft slaughter section within a 4000 sq ft building AG building. Please see the site plan.

Describe the prevailing wind direction at the site.

West winds

MANURE MANAGEMENT

Provide the maximum number of animals proposed in the facility design.

5-20 cows, 20- 50 goats, 20 to 50 sheep/lamb and a maximum of 3000 chickens when fully operational

.

Describe how manure from the confined animal operations will be managed, including the estimated amount that will be generated daily and the moisture content of the manure (liquid or dry).

Will be maximum to half a cubic yard or one wheelbarrow of dry manure from goat, lamb/sheep, and chicken in the confined area, since most of the animals will be free range. The manure would be cleaned on a weekly basis.

Describe the number, type, size and location of manure storage areas (ponds, lagoons, retention basins, stockpiles, etc.) and any associated washout systems (gutters, pipes, drains

and ditches, etc.).

I dont antipacite any manure storage areas

Describe the manure disposal method(s) and location(s), such as on-site or off-site land spreading, irrigation, etc.

Manure would be used on site by spreading it on my gardens, hay field and pasture

Note that any proposed discharge of manure to ponds, lagoons, land spreading, irrigation, or combination of these methods must comply with EHD requirements, the State Water Resources Control (SWRCB) "Statewide Water Quality Regulations for Confined Animal Facilities," and any requirements of the Central Valley Regional Water Quality Control Board (CVRWQCB).

See the CVRWQCB website:http://www.waterboards.ca.gov/centralvalley/available_documents/confined

Will comply

SOLID WASTE (REFUSE, GARBAGE AND DEAD ANIMAL) MANAGEMENT

Describe the type, number and capacity of refuse and garbage containers used by the facility (cans, dumpsters, etc.) and the name of the person or refuse company responsible for waste removal, frequency of removal and disposal location (transfer station, landfill, etc.)

1ea 1.5 yd top flat bin (dumpster) serviced weekly by Tracy Delta Solid Waste Management Inc.

Describe the projected number and frequency of animal deaths, and the storage and disposal methods used for dead animals (licensed rendering plant, etc.)

We do not anticipate any animal death. In the event such may occur, the deceased animal will be placed in covered container and transported to Sisk Recycling Co. See attached letter

FEEDING OPERATIONS

Describe the type(s) of feed utilized (hay, silage, grain, food processing byproducts, etc.) and storage location(s).

Our livestock will be fed hay and by grazing in our own pasture (grass fed animals), chickens will be given all natural chicken scratch grain as a supplement and will also be free range eating grass and insects

VECTOR CONTROL

Describe the methods (trapping, baiting, spraying, etc.) used to minimize rodent harborage, insect breeding (mosquitoes, flies, etc.), and adult fly populations associated with the facility operations (the animal confinement areas, the manure storage areas, the feeding operations, and the solid waste containment areas).

If a licensed pest control service is utilized, provide the name of the company, the frequency, and type of control methods to be used.

Will be using a local pest control company. Such as Orkin Pest Management or Patriot Pest Management on monthly scheduled visit. Spraying of eco friendly insecticide and bait stations

APPENDIX B

EHD CLARIFICATION LETTER

SAN JOAQUIN
COUNTY
Greatness grows here.

Environmental Health Department
Linda Turkatte, REHS, Director
Kasey Foley, REHS, *Assistant Director*

PROGRAM COORDINATORS
Robert McClellon, REHS
Jeff Carruesco, REHS, RDI
Willy Ng, REHS
Muniappa Naidu, REHS
Michael Kith, REHS

September 3, 2019

Dylan Wooten
Schack & Company, Inc.
1025 Central Avenue
Tracy, CA 95376

Dear Mr. Wooten:

The San Joaquin County Environmental Health Department has reviewed the Manure Management Plan submitted for the Ahmed Hussein Project and determined that the plan requires clarification in a few areas. Please amend the Manure Management Plan to include the following information:

1. State whether livestock at the facility will be on pasture and/or confined to pens.

2. Estimate how many animals will be on pasture and/or confined into pens. If the facility plans to use both methods of enclosure, provide an estimate of the number of animals for each type of enclosure.

3. Specify how the facility will collect and dispose of manure from the enclosure(s) as the methods used may differ depending on whether the livestock are in pasture or pens.

4. Specify what crops will be fertilized with the manure.

5. There is no mention of weather conditions and how winter weather will affect the operation.

6. The plan mentions types of feed, but there is no mention of how the feed will be handled and stored.

If you have any questions, please contact Natalia Subbotnikova, Lead Sr. REHS at (209) 468-0338.

Robert McClellon, Program Coordinator, REHS
Environmental Health Department

APPENDIX C

CHEMICAL ANALYSES OF GOAT MANURE

A & L WESTERN LABORATORIES, INC.

1311 Woodland Ave. #1 • Modesto, California 95351 • Phone 209-529-4080

CHAIN OF CUSTODY

Client CHESNEY CONSULTING

Address P.O. BOX 3794

TURLOCK, CA Zip 95381

Phone 209-402-1652

CC to: _____

Signature of person authorizing work under terms stated below* Don Chesney

*Net 30 days. All accounts past due will be subject to interest charges of 1.5% per month.
*Hazardous materials are the property of the client. The client is responsible for proper disposal of hazardous wastes. Clients not picking up hazardous wastes may be assessed an appropriate fee.

PROJECT ID: NAVU FARMS

SAMPLED BY: (signature): Don Chesney

Date	Time	sample type Grab	sample type Comp.	Sample Location	No. of Containers	ANALYSIS: mg TKN mg NO3	REMARKS
6/30	1530			GOAT	1	X	
6/30	1540			CHKN	1	X	

Relinquished by (signature):	Date	Time	Received by (signature):	Date	Time
Don Chesney	7/1/19	1340	Catherine Guerrero	7/1/19	1:40 pm
Relinquished by (signature):	Date	Time	Received by (signature):	Date	Time
Relinquished by (signature):	Date	Time	Received by (signature):	Date	Time
Relinquished by (signature):	Date	Time	Received by (signature):	Date	Time
Relinquished by (signature):	Date	Time	Received by (signature):	Date	Time

Site Time: Start: Finish: Total Hours:

Driving Time: Start: Finish: Total Hours:

Dedicated Exclusively to Providing Quality Analytical Services

A & L WESTERN AGRICULTURAL LABORATORIES

1311 WOODLAND AVE #1 • MODESTO, CALIFORNIA 95351 • (209) 529-4080 • FAX (209) 529-4736

REPORT NUMBER: 19-182-037 CLIENT NO: 2778-D

SEND TO: CHESNEY CONSULTING
P.O. BOX 3794
TURLOCK, CA 95382-

SUBMITTED BY: DON CHESNEY

CUSTOMER: NAVU FARMS

LAB NO: 26602 DATE: 07/05/2019

ORGANIC FERTILIZER REPORT

SAMPLE ID	REPORT OF ANALYSIS IN PERCENT									REPORT OF ANALYSIS IN PARTS PER MILLION						
	Nitrogen N	Phosphorus P	Phosphate P_2O_5	Potassium K	Potash K_2O	Sulfur S	Magnesium Mg	Calcium Ca	Sodium Na	Iron Fe	Aluminum Al	Manganese Mn	Copper Cu	Zinc Zn		
GOAT																

SAMPLE ID	POUNDS OF NUTRIENTS / TON															
	Nitrogen N	Phosphorus P	Phosphate P_2O_5	Potassium K	Potash K_2O	Sulfur S	Magnesium Mg	Calcium Ca	Sodium Na	Iron Fe	Aluminum Al	Manganese Mn	Copper Cu	Zinc Zn		
GOAT																

☐ **Reported on an as-received basis** **Moisture =**

☒ **Reported on a dry basis** **Moisture =** 59.77%

Ammonia Nitrogen = 0.007 %
Nitrate Nitrogen = <.003 %
Organic-N = 1.64%

Remarks: To convert to pounds of nutrients/ton as received, multiply pounds of nutrients/ton as reported by (100 - moisture %)/100.

This report applies only to the sample(s) tested. Samples are retained a maximum of thirty days after testing.

Robert Butterfield
A & L WESTERN LABORATORIES, INC.

APPENDIX D

CHEMICAL ANALYSIS OF CHICKEN MANURE

A & L WESTERN AGRICULTURAL LABORATORIES

1311 WOODLAND AVE #1 • MODESTO, CALIFORNIA 95351 • (209) 529-4080 • FAX (209) 529-4736

REPORT NUMBER: 19-182-037 CLIENT NO: 2778-D

SEND TO: CHESNEY CONSULTING
P.O. BOX 3794
TURLOCK, CA 95382-

SUBMITTED BY: DON CHESNEY

CUSTOMER: NAVU FARMS

LAB NO: 26603 DATE: 07/05/2019

ORGANIC FERTILIZER REPORT

SAMPLE ID	REPORT OF ANALYSIS IN PERCENT									REPORT OF ANALYSIS IN PARTS PER MILLION						
	Nitrogen N	Phosphorus P	Phosphate P_2O_5	Potassium K	Potash K_2O	Sulfur S	Magnesium Mg	Calcium Ca	Sodium Na	Iron Fe	Aluminum Al	Manganese Mn	Copper Cu	Zinc Zn		
CHKN																

SAMPLE ID	POUNDS OF NUTRIENTS / TON															
	Nitrogen N	Phosphorus P	Phosphate P_2O_5	Potassium K	Potash K_2O	Sulfur S	Magnesium Mg	Calcium Ca	Sodium Na	Iron Fe	Aluminum Al	Manganese Mn	Copper Cu	Zinc Zn		
CHKN																

☐ **Reported on an as-received basis** **Moisture =**

☒ **Reported on a dry basis** **Moisture =** 65.93%

Ammonia Nitrogen = 0.087 %
Nitrate Nitrogen = <.003 %
Organic-N =4.34%

Remarks: To convert to pounds of nutrients/ton as received, multiply pounds of nutrients/ton as reported by (100 - moisture %)/100.

This report applies only to the sample(s) tested. Samples are retained a maximum of thirty days after testing.

Robert Butterfield
A & L WESTERN LABORATORIES, INC.

From: "Subbotnikova, Natalia" <nsubbotnikova@sjgov.org>
To: "ddchesney@charter.net" <ddchesney@charter.net>
Cc: "McClellon, Robert" <RMcClellon@sjgov.org>
Date: Monday September 16 2019 10:24:22AM

Manure Management Plan, 7300 W. Delta Ave., Tr

Good morning Mr. Chesney,

The EHD received the Manure Management Plant with an additional information requested in our clarification letter. The answer #3 states that " Manure from all animal types will be raked up from the pens and stored in holding bins". Please provide more detailed information on how the bins will be covered.

Thank you,

Natalia Subbotnikova, Lead Sr. REHS
San Joaquin County Environmental Health Department
1868 E. Hazelton Ave
Stockton, CA 95205
(209) 468-0338
nsubbotnikova@sjgov.org

Chesney Consulting

September 20, 2019

FOR: San Joaquin County Environmental Health Department (EHD)
1868 Hazelton Ave.
Stockton, CA 95205

PROJECT: Navu Farms, Inc.
7300 West Delta Avenue
Tracy, California 95304
Assessor's Parcel Number: 213-020-38 and 213-020-41
Permit Application Number: PA-1800316, SR0081146

SUBJECT: Manure Management Plan Additional Information

Reference is made to the Project listed above. Additional information has been requested by EHD regarding manure storage. The email request is attached to this document.

Further in-depth discussions with Mr. Ahmed Hussein, the Applicant, regarding his proposed manure storage has indicated the following:

At the current chicken population of approximately 25 birds, manure is raked up and placed in plastic barrels, with plastic lids. The lids are not threaded onto the barrel to allow gases to escape, but keeps rainwater out. At the current population, it takes about 30 days to fill a plastic barrel.

As the chicken population increases, the manure will be windrowed and tarps placed over the windrows to keep pests out. Ultimately, if the chicken population reaches the anticipated maximum, manure will be stored in a top and side covered lean-to that allow accessibility with a front-end loader. The top cover will keep rainwater out. Fly pesticides will be used to keep the fly populations under control.

All manure will be spread onto the cropland with a PTO driven manure spreader to equally distribute it under agronomic rates.

Respectfully submitted,
CHESNEY CONSULTING

Registered Professional Engineer
Don D. Chesney
No. 75479
Civil
State of California

Don Chesney, PE
Registered Civil Engineer #C75479
CA Certified Crop Advisor and Registered Nitrogen Management Specialist #341829
CA Agricultural Pest Control Advisor #74363

P.O. Box 3794 ✦ Turlock, CA 95381 ✦ (209) 402-1652 ✦ ddchesney@charter.net