

#### STATE OF WASHINGTON

#### DEPARTMENT OF ECOLOGY

P.O. Box 47775 · Olympia, Washington 98504-7775 · (360) 407-6300

December 13, 2017

Mr. Bob Thode Fire Mountain Farms 856 Burnt Ridge Road Onalaska, WA 98570

RE: Addition of Rosman Farms Unit to Fire Mountain Farms (FMF) Permit Coverage under the General Permit for Biosolids Management

Dear Mr. Thode,

The Department of Ecology (Ecology) is approving the addition of the Rosman Farms Unit containing 158 acres to your coverage under the Washington State General Permit for Biosolids Management. This approval is for 1 field as described in the Site Specific Land Application Plan (SSLAP) for the Rosman Farms Unit. The field is located in Section 34, Township 26N, Range 37W, WM. This approval is based on the Determination of Non-Significance signed April 15, 2015, and FMF SSLAP—Rosman Farms Unit dated November 27, 2017. This approval is in accordance with provisions of Chapter 173-308 WAC—*Biosolids Management*. You must also comply with the following additional or more stringent requirements as a condition of this approval:

- 1. Approved Times and Days for Land Application: Unless otherwise approved by Ecology, the following times and days are approved for land application to the Rosman Farms Unit. These times and days are subject to revocation or revision if information is received or discovered by Ecology to necessitate such change.
  - a. Land application will not be allowed when there is snow on the ground or if the ground is frozen.
  - b. Application is limited to Monday through Friday from 6:00 a.m. to 8:00 p.m. and Saturday 7:00 a.m. to 8:00 p.m.
  - c. No land application is to occur on federal holidays.
- 2. **Biosolids Sampling and Analysis:** Unless otherwise approved, the sampling and analysis of biosolids must follow the plan approved for use by Ecology. Prior to the initiation of land application, FMF must verify and document that pollutant limits, pathogen and vector attraction reduction standards, and site restrictions will meet the criteria for Class B biosolids as described in WAC 173-308-160, 173-308-170, and 173-308-180, and 173-308-210.

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- 3. B&B Septic Permit: FMF is sharing the land application site with B&B Septic and must coordinate with B&B Septic and Ecology prior to land application to prevent over application.
- 4. **Spill Prevention and Response:** The spill prevention and response plan for this project must be updated and approved by Ecology prior to initiating land application.
- 5. **Buffers/setbacks:** The buffers to property lines, depth to groundwater, and wells shall be as follows:
  - a. Ground Water: A verification that groundwater at the site is greater than, or equal to three feet below ground surface must be provided to Ecology prior to commencement of land application. The verification may be in the form of email communication and must describe how the minimum requirement for depth to groundwater has been documented.
  - b. All wells must have a 100 foot buffer.
  - c. Property boundary: All property boundaries will have, at a minimum, a 10 feet setback from the fence line or property boundary.
  - d. All buffers/setbacks must be visibly marked (e.g. flags, cones, etc.) and application personnel must be knowledgeable and aware of the buffers. Land application must not commence until appropriate buffers have been marked.
- 6. **Agronomic application rate evaluations:** Proposed agronomic rates for the Olson Hills Road field must be submitted in an evaluation document to Ecology a minimum of 14 days in advance of applying biosolids to the fields.
  - a. A completed version of the most recent edition of the Cogger-Sullivan spreadsheet must be submitted for each agronomic rate proposal.
  - b. Each proposal must consider the previous year's yields, soil sampling results, crop nitrogen requirement, and expected yield.
  - c. Within each proposal consideration must be given to the effects and method of application, crop removal, other fertilizer inputs, and grazing.
  - d. Justification or rationale for all considerations and assumptions made in items a. through c. above, including the projected base agronomic need of the crop, must be stated in a brief cover letter accompanying the application rate evaluation.
- 7. Unless otherwise approved by Ecology, no septage, additional organic or inorganic fertilizers shall be applied to sites that have received biosolids. For sites that are proposed to receive biosolids, all fertilizer inputs, including those from animal grazing and septage, must be accounted for when biosolids are to be land applied after initial fertilizer inputs have been

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already made. A determination of the appropriateness for additional nutrient loading through biosolids application must be approved by Ecology prior to any application.

8. In any case, where the provisions of approval are in conflict with those of the overarching permit coverage held by FMF, the more stringent requirement will prevail, unless otherwise approved by Ecology.

Any person aggrieved by a decision of the department made in accordance with provisions of Chapter 173-308 WAC may appeal that decision as provided by applicable law including, but not limited to, Chapters 43.21B and 34.05 RCW. You have the right to appeal this decision to the Pollution Control Hearings Board (PCHB) within 30 days of receipt. "Date of receipt" is defined in RCW 43.21B.001(2).

If you have any questions regarding this approval, please contact Betty Ann Bickner at 509.329.3505

Sincerely,

Albert W. Krafft

Regional Section Manager Waste 2 Resources Program

By certified mail: 7016 1970 0000 9925 4589

cc: Ed Dzedzy Director

Lincoln County Health Department

90 Nichols Street

Davenport Washington 99122-0105

# 4.30 SITE SPECIFIC LAND APPLICATION PLAN FOR ROSMAN FARMS UNIT

# This Plan is a component of <u>Fire Mountain Farms</u>, <u>Inc.</u> Application for Coverage Under the General Permit for Biosolids Management Permit No. BT9902

#### **Location:**

Site Address	Unaddressed Olson Hills Road E.
(General	Davenport, WA 99122
Locations):	
GPS Coordinates	Lat 47° 42' 30.48" N, Long 118° 07' 47.94" W
of Site Entrances:	
Sec, Twp, Rge:	Sec 34, Twp 26N, Rge 37W, WM
Water Resource	
Inventory Area:	53
County:	Lincoln

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#### 1.0 Ownership, Management, and Landowner Agreements

Owners are as listed below.

Owner	Parcel(s)	Zoning
Rosman, Gary M. 32529 Level Road N. Davenport, WA 99122	2637034800060	Agricultural

This site is owned and managed by Gary Rosman.

This site is zoned as listed in the table above.

See Appendix 1 for signed agreements from landowners (as distinguished from a lessee, farmer, or others entitled to use the land) that acknowledge the applicability and requirements of Chapter 173-308 WAC when their property is used for biosolids land application.

#### 2.0 Past Biosolids Use

A portion of the farm is permitted for and has received septage, but no biosolids have been applied to this site.

#### 3.0 Maps

Mapping units will designate Fire Mountain Farms' area of biosolids land application. Fire Mountain Farms site application maps will show, field acreage, field name, and other identifying characteristics for each site. Maps are located in Appendix 2 of this plan. There is no flood zone map included as the site does not lie in either the 100 or 500-year flood zone.

#### 3.1 General Location Map

**Appendix 2.A –** Vicinity Map

**Appendix 2.B** – Aerial Overview of Site

#### 3.2 Site Map or Field Map

Appendix 2.C - Field ID & Acres

**Appendix 2.D** – Residences, Wells, Roads, Accesses, Staging, Signage Field Identification Map

**Appendix 2.E** – Topographic Map

#### 3.3 Soils Map

Appendix 2.F – Soils Report (includes site soils map)

#### 4.0 Seasonal and Daily Timing of Biosolids Applications

Biosolids will be applied only when weather and site conditions allow for proper application and management.

Biosolids will not be applied if the soil is saturated, frozen, covered with snow, or other conditions exist that could result in soil damage, off-site movement of biosolids, or significantly limit percolation or incorporation. Should deviation from the normal schedule be required, Fire Mountain Farms will apply for approval from Ecology. Fire Mountain Farms will consider requests from neighbors if biosolids application procedures pose a likelihood of conflicting with planned activities. There are no known special events in this area that biosolids activities could impact. Recreational use of this site is limited to private hunting and a private camp site.

#### 5.0 Biosolids Staging and Storage

At this time, there is no expected need for storage. Should the need arise, Fire Mountain Farms will submit an appropriate plan to Ecology for approval.

Access to the site is will be restricted by informational signs that are shown in Appendix 4 of this plan. To ensure that drivers follow procedures, Fire Mountain Farms has printed instruction sheets describing biosolids off-loading procedures. These instruction sheets are sent to all biosolids suppliers. New drivers to the site are walked through these procedures. A triple check system is in place to assure all loads are accounted for: First, all loads are to be scheduled with the Operations Office prior to delivery. Second, all sources have been supplied numbered Delivery Tickets (these are numbered sequentially and if a number is missing, Fire Mountain Farms investigates what happened to it). See Appendix 5.C of this plan for an example. Third, all deliveries are recorded on "Delivery Record Sheet" at sites. See Appendix 5.D for an example.

Biosolids would be applied as it is delivered to this site or within 28 days unless storage has been approved by Ecology

#### 6.0 Cropping Practices and Livestock Management

#### Acreage and Number of Fields:

#### Field Acreage:

Field	Acres	Crop		Alternative Crops
Badlands-1	363.22	Timber	None	
Badlands-2	125.82	Timber	None	
Badlands-3	28.84	Timber	None	
CRP-1	5.55	Native	None	
		vegetation		
CRP-2	3.26	Native	None	
		vegetation		

CRP-3	9.54	Native	None
		vegetation	
CRP-4	13.04	Native	None
	Manufacture	vegetation	
CRP-5	2.66	Native	None
		vegetation	
CRP-6	8.03	Native	None
		vegetation	
CRP-7	11.78	Native	None
		vegetation	
CRP-8	27.23	Native	None
		vegetation	
CRP-9	14.95	Native	None
		vegetation	
R-1	3.76	Wheat	Small grains
R-2	95.88	Wheat	Small grains
R-3	33.28	Wheat	Small grains
R-4	12.54	Wheat	Small grains
R-5	6.83	Wheat	Small grains
R-6	2.72	Wheat	Small grains
R-7	126.98	Wheat	Small grains
R-8	90.89	Wheat	Small grains
R-9	193.95	Wheat	Small grains
R-10	90.94	Wheat	Small grains
R-11	13.73	Wheat	Small grains
R-12	7.19	Wheat	Small grains
R-13	2.72	Wheat	Small grains
R-14	65.62	Wheat	Small grains
R-15	36.39	Wheat	Small grains
R-16	88.53	Wheat	Small grains
R-17	15.5	Wheat	Small grains
Timber-1	64.54	Timber	None
Timber-2	28.93	Timber	None
Timber-3	63.66	Timber	None
Timber-4	80.84	Timber	None
Timber-5	230.52	Timber	None
R2-1	157.77	Wheat	Small Grains
Crop Ground	1045.22*		
Total	2127.63		

<sup>\*</sup>The only fields to have biosolids applied are R2-1.

Parcel Number	Acreage
2637724700020	6.89
2638018400010	40.00
2637034800060	158.00
2637024700030	266.11
2637023700040	203.00
2637014401040	17.00
2637014400130	17.00
2637013800020	240.00
2637014500100	86.00
2637013900010	166.21
2638018900050	301.80
2638018900071	161.23
2638019700000	315.68
2637012500010	196.25
Total	2175.17

Depending on market conditions. Crops may change to any food, feed, fiber or fuel crop as markets and other factors change. There are no livestock onsite. Other Nutrient Sources and Soil Amendments

#### 7.0 Other Nutrient Sources and Soil Amendments

Lime may be applied to this site as a soil amendment. This addition of lime acts to bring the soil-pH into a range that supports optimal pasture growth. Other products may be used to supplement biosolids application when needed. For example, biosolids is low in potassium and cobalt or soil may need supplements to adjust soil pH for optimal plant growth. This is further addressed in the section on calculating application rates where all nutrient and soil amendments will be accounted for.

#### 8.0 Methods of Application

Fire Mountain Farms has a wide variety of application equipment and methods for field applying biosolids. Land application of biosolids will be conducted with equipment that is suitable for the site and also for the material being land applied. Land application methods will provide for an even and consistent distribution in accordance with the calculated application rate (see Subsection 9.2). Quality management of biosolids requires the flexibility to adjust to various site conditions.

Equipment that may be used includes:

- Rear- and side-discharge manure spreaders for dewatered biosolids.
- Spray irrigation equipment for liquid biosolids.
- Drag hose systems for liquid biosolids.
- Other equipment as approved by Ecology.

Buffer widths have been noted on attached maps and will not generally change with application method. However, from a practical standpoint, some methods of application will require increased setbacks to insure biosolids do not enter the buffer area. For example, using a "big gun" (a sprinkler-type system designed to apply liquid materials) could require the setback of an additional distance if wind is determined to be an operational concern. Compliance may also be met on a calm day by stationing a crew member in the field to closely monitor the operations and maintenance of setbacks. Along with buffers comprised of an approved setback distance, vegetated buffers may also be used to protect sensitive areas from biosolids.

Currently Fire Mountain Farms has the following equipment:

For de-watered biosolids:

Knight side slingers (5)

Meyers rear discharge

Big A with FarmCo box

John Deere hydro push

For liquid applications:

Truck spread with splash plates

Nuhn 5000 gallon tank spreader

Hard hose reel (2)

With big gun

With 120ft spray bar

Drag hose system

With airway aerator

With sod injector

With 7-shank injector

With splash plate

Under normal conditions, the preferred method of land application is the use of a drag-hose with airway aerator or seven shank injectors for liquid and the Knight or Meyer spreaders for de-watered material. The method of application will be matched with the type of biosolids being delivered, crop and soil conditions. For example, the 7-shank injector is only usable with liquid biosolids being applied to annual crops, whereas the Meyer works best for very dry biosolids (40% +).

When biosolids must be incorporated to meet the vector attraction reduction (VAR) standard for Class B biosolids, one of the following methods will be used: Injection with drag-hose system

Incorporation with tillage tool such as a disk harrow

#### 9.0 Determining and Validating Application Rates

The subsections below detail the process to set desired nitrogen levels for a given crop, determine how much nitrogen is available in biosolids being applied, and how to calculate volume of biosolids to apply to a given field.

#### 9.1 Determining the Plant Available Nitrogen Requirement

Agronomic rates for biosolids application will be determined using one or a combination of the following methods:

- Recommendation of professional agronomist or forester.
- As prescribed in farm plans on file with appropriate County Conservation Districts.
- As recommended by Washington State University (WSU) Cooperative Extension guidance.
- Production estimate based on potential of soil as determined by NRCS Soils Surveys, WSU or other Cooperative Extension guidance.
- As determined by actual production data using WSU rates per production unit or the following formula. For example, calculating the nitrogen requirement for crop production such as hay or pasture will be as follows:

Dry matter yield (DmY) x (%N) =N-uptake (%N)= Crude Protein/6.25 Example: DmY=4500 lb, Crude Protein=18.75%, %N=18.75/6.25=3% N-uptake= 4500x .03 = 135 lb nitrogen utilization

Rates will be adjusted as indicated by biosolids nutrient data, soil sampling and report card soil testing. Record of past production is the preferred method, but when that is not available (i.e., new site or new crop), Fire Mountain Farms will base application rate on the best available recommendation. Biosolids application rates will be calculated using Washington State Department of Ecology's Best Management Guidelines (#93-80, Revised July 2000). The Fire Mountain Farms Application Report (see Appendix 5.A of this plan) will be used to record and document application rates.

#### 9.2 Calculating the Application Rate

Application rates are calculated using Worksheet for Calculation Biosolids Application Rates in Agriculture (PNW0511e), Excel spreadsheet based off of PNW0511e (aka Cogger/Sullivan Worksheet). See Appendix 5.E of this plan for an

example. This spreadsheet allows input values for previous applications of biosolids, ammonium retention, and mineralization rate.

- Information that may be needed to support application rates
  - o Cogger-Sullivan Spread sheet
  - o What crop grown, harvested as,
  - o Other inputs, Irrigation, commercial products, lime
  - o Previous yields and expected yields
  - o Animals: type, size, time on field
  - Soil test results
  - Biosolids analytical data and type

#### 9.3 Verifying the Application Rate

When applying biosolids, application rates are calculated in gallons per acre for both dewatered and liquid applications. For dewatered biosolids, each application unit is assigned a volume, and the number of loads per field is determined. For less experienced operators, the square feet of area to be covered will be determined. Depending on which applicator is being used, the correct area will be covered by varying speed and width of spread. More experienced operators will check the maximum number of loads per field and set travel area and width so as to come out at that number or less. The typical application rate procedure works like this: the supervisor determines rate and maximum number of loads for a field. This is entered on the "Application Report" and the report is given to the operator with a conservative factor built in (typically 1 to 3 loads less than specification). For liquid applications, a determination of the number of dry tons required is calculated. Then, using the percent total solids of the biosolids, the gallons per acre can be determined. The percent total solids will be checked periodically and an adjustment to the agronomic rate will be made if needed. When using the drag-hose system, a flow meter is mounted in the tractor and a read out is displayed in acres per hour. For example, if an application rate requires 30,000 gallons per acre and a flow rate of 1000 gpm (gallons per minute), the tractor speed is set to two acres per hour. All of this information is recorded on the "Liquid Application Report" located as Appendix 5.B of this plan.

#### 10.0 Sampling Plan

The following sections describe soil and biosolids sampling procedures.

#### 10.1 Soil Sampling

Pre-application soil sampling will be done to evaluate Nutrients and Pollutants and determine the agronomic application rate. Samples will be sent to a lab for analysis. See the Soil Sampling Plan in Appendix 6.

#### 10.2 Biosolids Sampling and Analysis

Documenting that biosolids meet the standards for land application in WAC 173-308 is performed by the biosolids generator and analyzed by a state certified lab. A sampling and analysis plan detailing the procedures for the collection of biosolids samples and the analyses must be approved by Ecology prior to land application

#### 10.3 Pathogen Reduction

The pathogen reduction requirement for biosolids received at the site shall be met by one of the alternatives listed in WAC 173-308-170 (5) through (7)

#### 10.4 Pollutants

Biosolids must meet the Ceiling Concentration Limits for pollutants found in Table 1 and (3) of WAC 173-308-170 (1).

#### 10.5 Vector Attraction Reduction Standard

Biosolids, prior to being received at the site, shall meet one of the vector attraction reduction (VAR) requirements in WAC 173-308-180 (1) through (6) or If the VAR requirement has not been met prior to the biosolids arriving at the site, one of the VAR requirements in WAC 173-308-210 (4) (a) or (4) (b) shall be met at the time of biosolids application.

#### 11.0 Groundwater Protection Plan

Land application will not occur on any area if groundwater depth is less than three feet from the surface or rising. Test holes will be dug if there is concern that ground water is not greater than three feet.

#### 12.0 Erosion Control Plan

Biosolids will be applied at agronomic rates and managed consistent with established farming practices. Typical farming practices designed to reduce erosion potential are in place. These include managing crop residue and timing of tillage practices. Rosman Farms has an approved and implemented conservation plan on file with the Lincoln County Conservation District. If incorporation of biosolids is required to meet Vector Attraction Reduction standard or to reduce ammonia loss we will work with Conservation District personnel to ensure our operations comply with approved plan.

#### 13.0 Noxious Weed Plan

Sites are managed for specific crops with standard farming practices in place to control noxious weeds. There are no known specific concerns in this area that

are not being controlled by current practices. Site is monitored by operator to identify new noxious weeds. When new noxious weeds are identified control will depend on species of noxious weed and its spread. Control may be biological control, mechanical control or by herbicide application.

We will encourage operators of this farm to also aggressively seek compliance of noxious weed laws on adjoining land, be it public or private. The best control of noxious weeds is to prevent them from establishing in the first place.

Land applied with biosolids will receive additional monitoring to ensure that noxious weed seeds have not been transported to the site in the biosolids. Very few seeds are able to survive wastewater treatment systems.

#### 14.0 Restricting Site Access

A copy of Fire Mountain Farms' informational sign can be found in Appendix4 of this plan. Signs will be placed as noted on the map in Appendix 2.D

Signs will be placed at all normal points of access and at least every quarter mile along roadways that border application areas. Signs will also be placed at other points along the boundary where it is deemed appropriate by Fire Mountain Farms or as requested by DOE. Entering property without permission of land owner or person who has right of possession (lease holder) is a violation of state law. The posting of signs noting the site is restricted adds an additional measure for public protection and also signals that the land is not open for public access.

#### 15.0 Recordkeeping

Fire Mountain Farms shall keep specific records of land application activities. These records shall be available for inspection by Ecology upon request. As a minimum, the following information shall be included in the land application site records:

Fire Mountain Farms will maintain the following information as required. Forms for maintaining this information are located in Appendices 2.C & 5.A-D of this plan.

- Sampling and analysis data obtained or used to make decisions on land application.
- The source of biosolids delivered.
- The amount of biosolids delivered.
- The amount of biosolids applied.
- The number of acres on which biosolids were applied.
- The rate of application.
- The date biosolids were applied.
- The targeted vegetation and its nitrogen requirement.
- Information on how site management and access restrictions were met

•	Information on how vector attraction reduction requirements were met if biosolids were required to be tilled or injected.				et if		
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#### **Appendices**

- 1. Land Owners Agreement
- 2. 3.0 Maps
  - 3.1 General Location
    - A. Vicinity Map and Zoning Map
    - B. Aerial Overview of Site
  - 3.2 Field and Topographic Maps
    - C. Field Id and acreage
    - D. Residences, Wells, Roads, Access, Staging, Signage, Field Identification Map
    - E. Topographic Map
  - 3.3 Soils Maps
    - F. Soils Report (includes site soils map)
- 3. Well Logs
- 4. Informational Sign
- 5. Forms
  - A. Land Application Report
  - B. Liquid Application Report
  - C. Haul Delivery Ticket
  - D. Delivery Record Sheet
  - E. Calculation Biosolids Application Rates in Agriculture (PNW0511e)
- 6. Soil Sampling and Analysis Plan

## APPENDIX 1

1.0 LAND OWNER AGREEMENT

### Landowner Consent for the Application of Biosolids

#### Rosman Farms Unit

Whenever biosolids not meeting exceptional quality standards are applied to the land, the owner of the land where the biosolids are applied must sign a statement acknowledging restrictions on use of the property which are imposed by federal and state laws. These restrictions regard access to the land, grazing of livestock on the land, and harvest of crops form the land. Either all owners of record must sign an acknowledgment, or an individual owner must provide proof that he/she has the authority to make such decisions on behalf of all other owners of record.

I understand that state rules and permit requirements impose certain restrictions on the use of my land after biosolids are applied. I agree to abide by those restrictions as long as they are in effect. I certify that I am (select 1, 2 or 3) 1 the only landowner, (2) \_\_ one of \_\_ landowners, 3 \_\_ legally able to sign for landowner of record for the parcel(s) in question and have authority to grant permission for the land application of biosolids. I understand that I may revoke my permission at any time by notifying the Department of Ecology and land applier in writing, but that any contractual arrangement I may have with a biosolids generator or land applier will need to be resolved separately between myself and those persons. I understand that revocation of consent does not relieve me from any applicable restriction which may be in place due to the land application of biosolids.

Owner Name GARRY KOSWAN	
Signature Sam Rosma	Date of Signature 1/-27-/7
Operator (if other than owner)	
Signature	Date of Signature

#### PARCEL IDENTIFICATION

Parcel Number(s) of lands owned by Garry Rosman where biosolids may be applied:

- Lincoln County parcel number 26-37-034-800060
- 1. I understand that application of biosolids to my land will affect my ability to use the land immediately after application and for a period of up to 38 months after the last application of biosolids. I understand that livestock grazing is prohibited for 30 days after the last application of biosolids. I understand that some crops including hay cannot be harvested for thirty days after application of biosolids; some crops such as strawberries cannot be harvested for up to 20 months after the last application of biosolids, and some crops such as carrots cannot be harvested for 38 months after the last application of biosolids. I understand that the foregoing are examples and that restrictions vary according to the crop and biosolids management practices involved. I accept responsibility for understanding the implications of biosolids use on my land and farming practices.
- 2. I understand that it may be a requirement to post informational signs on my property, and that those signs must be maintained in place for a period of up to one year after the last application of biosolids.
- 3. I understand that I must restrict access to my land for a period of one year after the last application

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of biosolids. I agree to prohibit uninformed or casual access, and to otherwise make certain that all parties accessing my land are informed as to the use of biosolids and any restrictions which may apply.

- 4. I understand that biosolids are applied according to agronomic requirements understand that the use of other nutrient sources (such as, but not limited to, manure or commercial fertilizers) may require a reduction in the amount of biosolids applied, or may prohibit further application of biosolids to my land. I understand that I must inform the biosolids land applier of any such sources. I also understand if biosolids are applied that application of other nutrient sources may be prohibited or reduced in the same and subsequent years.
- I understand that the land applier and Department of Ecology staff or their designated representatives will require periodic access to my land in order to assess compliance, and I agree to cooperate in allowing access.
- 6. I understand that the person who applies biosolids to my land has a record keeping obligation which may require my cooperation, including information on when and where cattle are grazed, what kind of crop is grown, and productivity/harvest records.

I have read and agree to abide by above restrictions. <u>A L</u> (owner initial) <u>D</u> (operator initial)

#### **Harvest Restrictions for Class B Biosolids**

Food crops – Waiting period after Class B biosolids are applied are required to allow time for pathogens to die *off* before harvest. The table below details the waiting periods for food crop harvest.

Harvested part comes in contact with	Part of plant harveste	Biosolids remains on soil surface	Waiting period from biosolids application to
Yes	Leaf/fruit/grain	No time specified	14 months
Yes	Root	More than 120	20 months
Yes	Root	Less than 120 days	38 months
No	Leaf/fruit/grain	No time specified	30 days

#### **Animal Feed and Non-food Crops Harvest Restrictions**

Site/Crop	Grazing or Harvest	Public Access
Animal feed and other	30 days until	
Pasture	30 days until grazing	
Turf	365 days until	365 days
Public contact site		30 days (low potential for public exposure), 365 days (high potential for public exposure)

## APPENDIX 2 3.0 MAPS

- 3.1 GENERAL MAPS
- 3.2 FIELD and TOPOGRAPHICLE MAPS
- 3.3 SOIL MAPS

## 3.1 GENERAL MAPS

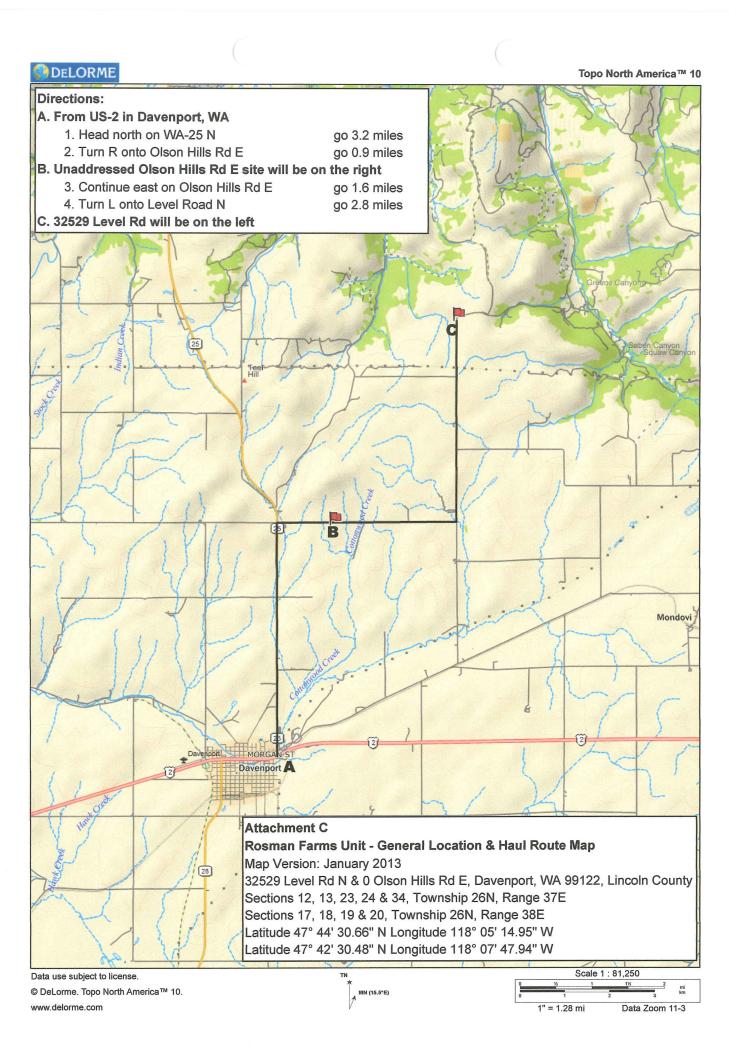
Latitude 47° 42' 30.48" N Longitude 118° 07' 47.94" W

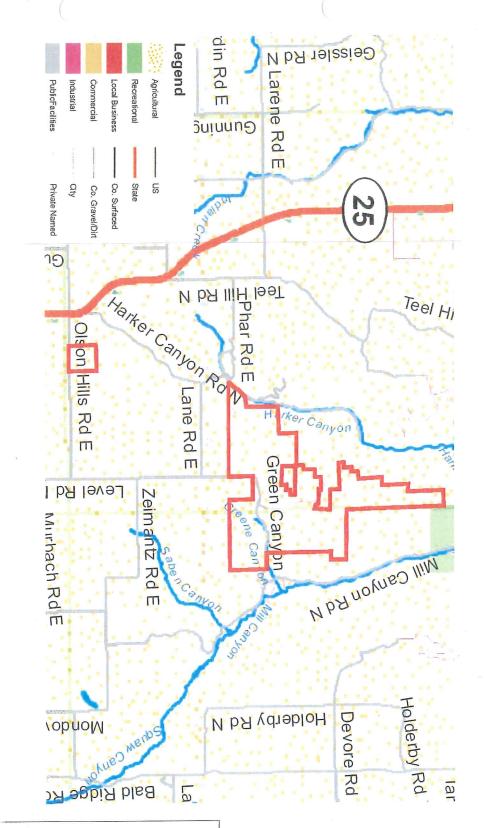
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# Site Map A Rosman Farms Unit – Zoning Map Map Version: 2012 32529 Level Road N. & Unaddressed Olson Hills Rd. E. Davenport, WA 99122, Lincoln County Sections 12, 13, 23, 24 & 34, Township 26N, Range 37E Sections 17, 18, 19 & 20, Township 26N, Range 38E Latitude 47° 42' 17.52" N, Longitude 118° 07' 30.37" W Latitude 47° 44' 55.58" N, Longitude 118° 04' 24.54" W



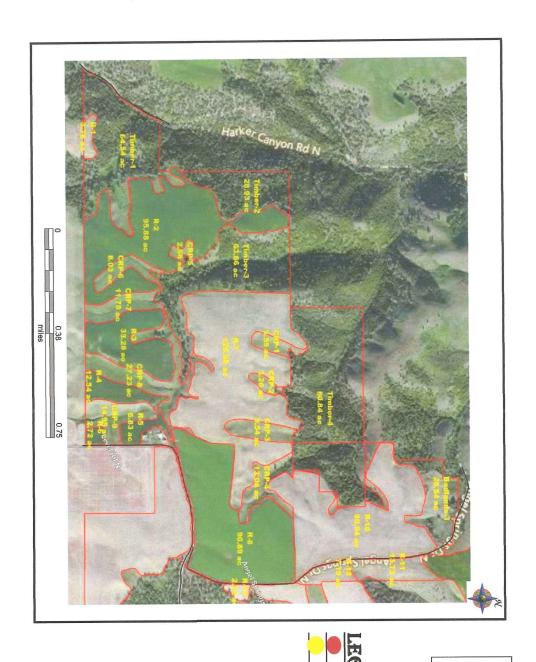
Fire Mountain Farms Inc. Permit# BB9902
Rosman Farm Unit Attachment 2.A.4 Overview
32529 Level Road N. Davenport, WA 99122 Lincoln County
Sections 12,13,23,24,& 34, Township 26N, Range 37E
Latitude 47° 42' 30.48" N, Longitude 118° 05' 14.95" W
Version22.12.15



FIELD BOUNDARY FIELD NAME & SIZE







Fire Mountain Farms Inc. Permit# BB9902
Rosman Farm Unit Attachment 2.A.1 Overview
32529 Level Road N. Davenport, VVA 99122 Lincoln County
Sections 12,13,23,24,8 34, Township 26N, Range 37E
Latitude 47° 42' 30.48" N, Longitude 118° 05' 14.95" W
Version21.12.15

LEGEND

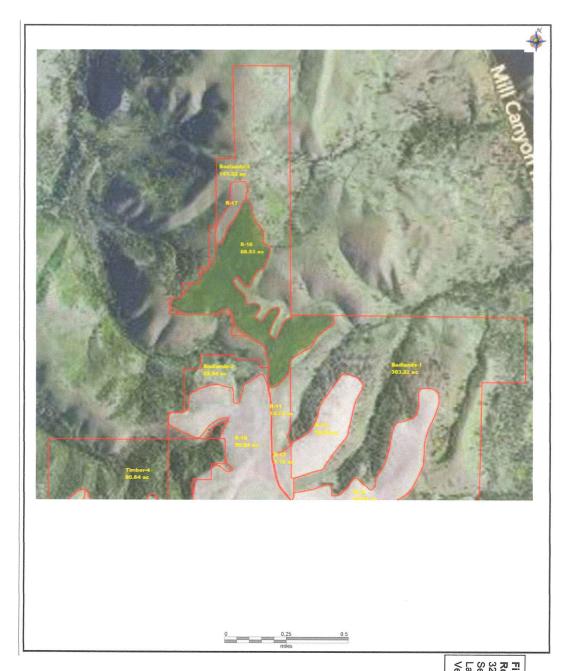
FIELD BOUNDARY
FIELD NAME & SIZE



Fire Mountain Farms Inc. Permit# BB9902
Rosman Farm Unit Attachment 2.A.2 Overview
32529 Level Road N. Davenport, WA 99122 Lincoln County
Sections 12,13,23,24,& 34, Township 26N, Range 37E
Latitude 47° 42' 30.48" N, Longitude 118° 05' 14.95" W
Version22.12.15



FIELD NAME & SIZE FIELD BOUNDARY



Fire Mountain Farms Inc. Permit# BB9902
Rosman Farm Unit Attachment 2.A.3 Overview
32529 Level Road N. Davenport, WA 99122 Lincoln County
Sections 12,13,23,24,& 34, Township 26N, Range 37E
Latitude 47° 42' 30.48" N, Longitude 118° 05' 14.95" W
Version22.12.15

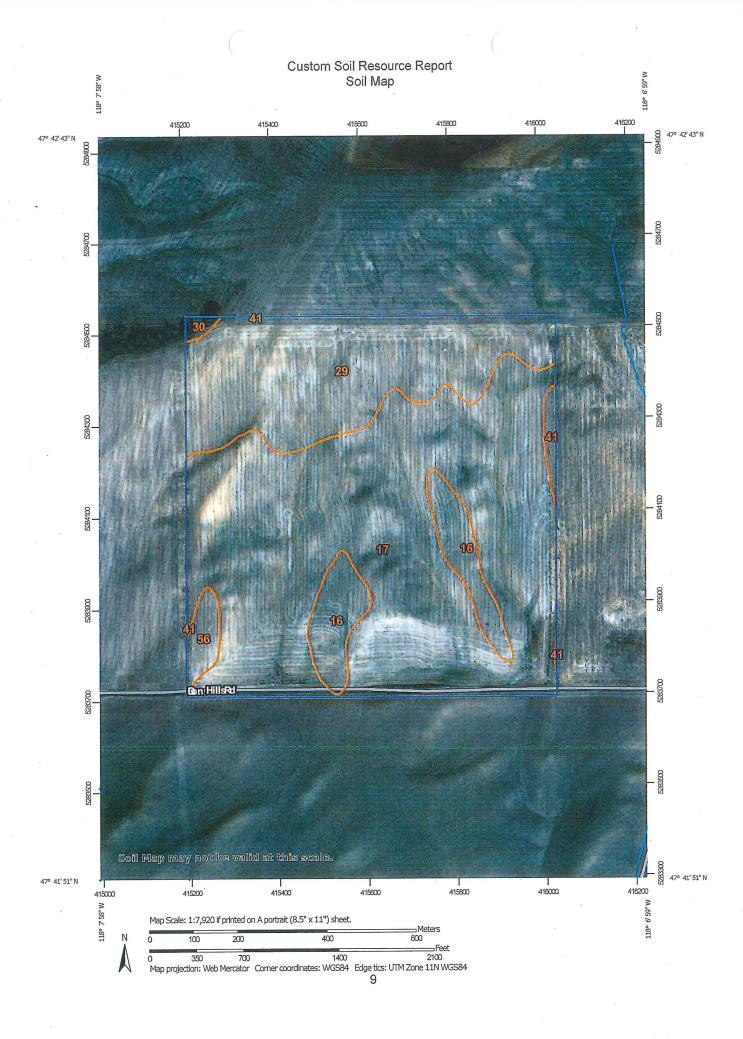


## 3.2 FIELD and TOPOGRAPHICLE MAPS





## 3.3 SOIL MAPS



#### Custom Soil Resource Report

#### MAP LEGEND MAP INFORMATION Area of Interest (AOI) Spoil Area The soil surveys that comprise your AOI were mapped at Area of Interest (AOI) Stony Spot ê Soils Very Stony Spot 0 Warning: Soil Map may not be valid at this scale. Soil Map Unit Polygons Wet Spot 0 Soil Map Unit Lines Enlargement of maps beyond the scale of mapping can cause Other 1 misunderstanding of the detail of mapping and accuracy of soil Soil Map Unit Points line placement. The maps do not show the small areas of Special Line Features Special Point Features contrasting soils that could have been shown at a more detailed Water Features Blowout (0) Streams and Canals X Borrow Pit Please rely on the bar scale on each map sheet for map × Clay Spot measurements. +++ Closed Depression 0 Interstate Highways Source of Map: Natural Resources Conservation Service Gravel Pit × Web Soil Survey URL: Coordinate System: Web Mercator (EPSG:3857) US Routes Gravelly Spot 4 Major Roads Landfill 0 Local Roads Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts ٨ Lava Flow Background distance and area. A projection that preserves area, such as the Aerial Photography 1 Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required. Mine or Quarry R 0 Miscellaneous Water This product is generated from the USDA-NRCS certified data as of the version date(s) listed below. Perennial Water 0 Rock Outcrop Soil Survey Area: Lincoln County, Washington Survey Area Data: Version 13, Sep 5, 2017 + Saline Spot Sandy Spot 2 0 Soil map units are labeled (as space allows) for map scales 1:50,000 or larger. Severely Eroded Spot Sinkhole 0 Date(s) aerial images were photographed: Jun 5, 2015—Sep 20, Slide or Slip Ž. Sodic Spot The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor

shifting of map unit boundaries may be evident.

#### Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
16	Broadax silt loam, 0 to 7 percent slopes	12.4	7.2%
17	Broadax silt loam, 7 to 25 percent slopes	110.8	64.6%
29	Dragoon silt loam, 7 to 25 percent slopes	43.4	25.3%
30	Dragoon silt loam, 25 to 40 percent slopes	0.7	0.4%
41	Hanning silt loam, 0 to 7 percent slopes	1.4	0.8%
56	Reardan silt loam, 7 to 25 percent slopes	2.9	1.7%
Totals for Area of Interest		. 171.6	100.0%

#### **Map Unit Descriptions**

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it

was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An association is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

# Lincoln County, Washington

# 16-Broadax silt loam, 0 to 7 percent slopes

# **Map Unit Setting**

National map unit symbol: 29d7 Elevation: 1,500 to 3,000 feet

Mean annual precipitation: 12 to 18 inches Mean annual air temperature: 48 to 50 degrees F

Frost-free period: 105 to 160 days

Farmland classification: All areas are prime farmland

#### Map Unit Composition

Broadax and similar soils: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

# **Description of Broadax**

#### Setting

Landform: Hills
Parent material: Loess

# Typical profile

H1 - 0 to 16 inches; silt loam H2 - 16 to 35 inches: silt loam H3 - 35 to 60 inches: silt loam

# Properties and qualities

Slope: 0 to 7 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to

high (0.57 to 1.98 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum in profile: 15 percent

Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0

mmhos/cm)

Available water storage in profile: High (about 11.1 inches)

#### Interpretive groups

Land capability classification (irrigated): 2e Land capability classification (nonirrigated): 2e Hydrologic Soil Group: B Hydric soil rating: No

# 17—Broadax silt loam, 7 to 25 percent slopes

# **Map Unit Setting**

National map unit symbol: 29d8

Elevation: 1,500 to 3,000 feet

Mean annual precipitation: 12 to 18 inches Mean annual air temperature: 48 to 50 degrees F

Frost-free period: 105 to 160 days

Farmland classification: Farmland of statewide importance

#### Map Unit Composition

Broadax and similar soils: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

# **Description of Broadax**

#### Setting

Landform: Hills

Parent material: Loess

# Typical profile

H1 - 0 to 16 inches: silt loam H2 - 16 to 35 inches: silt loam H3 - 35 to 60 inches: silt loam

# Properties and qualities

Slope: 7 to 25 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to

high (0.57 to 1.98 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum in profile: 15 percent

Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0

mmhos/cm)

Available water storage in profile: High (about 11.1 inches)

#### Interpretive groups

Land capability classification (irrigated): 6e Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: B Hydric soil rating: No

# 29—Dragoon silt loam, 7 to 25 percent slopes

# **Map Unit Setting**

National map unit symbol: 29dp Elevation: 2,000 to 4,500 feet

Mean annual precipitation: 15 to 21 inches
Mean annual air temperature: 45 to 48 degrees F

Frost-free period: 100 to 140 days

Farmland classification: Farmland of statewide importance

# Map Unit Composition

Dragoon and similar soils: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

# **Description of Dragoon**

#### Setting

Landform: Buttes, hills

Parent material: Loess and/or residuum weathered from granite

# Typical profile

H1 - 0 to 11 inches: ashy silt loam

H2 - 11 to 23 inches: loam

H3 - 23 to 27 inches: weathered bedrock

# Properties and qualities

Slope: 7 to 25 percent

Depth to restrictive feature: 20 to 40 inches to paralithic bedrock

Natural drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to

high (0.57 to 1.98 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water storage in profile: Low (about 4.6 inches)

# Interpretive groups

Land capability classification (irrigated): 6e Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: C Hydric soil rating: No

# 30—Dragoon silt loam, 25 to 40 percent slopes

# Map Unit Setting

National map unit symbol: 29dr Elevation: 2,000 to 4,500 feet

Mean annual precipitation: 15 to 21 inches

Mean annual air temperature: 45 to 48 degrees F

Frost-free period: 100 to 140 days

Farmland classification: Not prime farmland

# **Map Unit Composition**

Dragoon and similar soils: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

# **Description of Dragoon**

# Setting

Landform: Hills, buttes

Parent material: Loess and/or residuum weathered from granite

Typical profile

H1 - 0 to 11 inches: ashy silt loam

H2 - 11 to 23 inches: loam

H3 - 23 to 27 inches: weathered bedrock

Properties and qualities

Slope: 25 to 40 percent

Depth to restrictive feature: 20 to 40 inches to paralithic bedrock

Natural drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to

high (0.57 to 1.98 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Available water storage in profile: Low (about 4.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6e

Hydrologic Soil Group: C Hydric soil rating: No

# 41—Hanning silt loam, 0 to 7 percent slopes

Map Unit Setting

National map unit symbol: 29f4 Elevation: 2,300 to 3,000 feet

Mean annual precipitation: 15 to 18 inches Mean annual air temperature: 48 degrees F

Frost-free period: 120 to 140 days

Farmland classification: All areas are prime farmland

**Map Unit Composition** 

Hanning and similar soils: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Hanning**

Setting

Landform: Hills

Parent material: Loess

Typical profile

H1 - 0 to 21 inches: silt loam H2 - 21 to 49 inches: silt loam H3 - 49 to 60 inches: silt loam

Properties and qualities

Slope: 0 to 7 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to

high (0.57 to 1.98 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0

mmhos/cm)

Available water storage in profile: High (about 11.2 inches)

# Interpretive groups

Land capability classification (irrigated): 2e Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: B Hydric soil rating: No

# 56-Reardan silt loam, 7 to 25 percent slopes

# Map Unit Setting

National map unit symbol: 29fn Elevation: 1,500 to 2,800 feet

Mean annual precipitation: 15 to 18 inches Mean annual air temperature: 46 to 48 degrees F

Frost-free period: 100 to 130 days

Farmland classification: Farmland of statewide importance

# Map Unit Composition

Reardan and similar soils: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

### Description of Reardan

#### Setting

Landform: Hills

Parent material: Loess

# Typical profile

H1 - 0 to 13 inches: silt loam H2 - 13 to 23 inches: silt loam H3 - 23 to 35 inches: silty clay loam H4 - 35 to 60 inchès: silty clay loam

## Properties and qualities

Slope: 7 to 25 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to

moderately high (0.06 to 0.20 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None Frequency of ponding: None

Calcium carbonate, maximum in profile: 35 percent

Salinity, maximum in profile: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)

Available water storage in profile: High (about 11.4 inches)

# Interpretive groups

Land capability classification (irrigated): 6e Land capability classification (nonirrigated): 4e Hydrologic Soil Group: C Hydric soil rating: No

# APPENDIX 3

9.0 Determining and Validating Application Rates

9.2 Calculating the Application Rate

can view PNW0511e via the 'PNW0511e' worksheet or via http://cru.cahe.wsu.edu/CEPublications/pnw0511e/pnw0511e.pdf from Pacific Northwest Extension Publication PNW0511e (aka The Cogger/Sullivan Worksheet). For further information you This spreadsheet will help you determine a nitrogen-based biosolids application rate for agricultural sites. This was adapted

Enter information below to obtain a nitrogen-based biosolids application rate.

# You must enter information in pink cells.

Enter information in yellow cells as applicable.

Blue cells are calculated for you.

**GENERAL INFORMATION** 

**Biosolids Source** 

Field Number/ID

Somewhere Example

260

118.7

185

Dry tons biosolids available

Acres available

**BIOSOLIDS DATA** 

Acres needed

Total Kjeldahl N (mg/kg) Total solids (%)

(#/dry ton)

2.0% 37,100 7,670

15

Ammoniacal-N (mg/kg) Nitrate-N (mg/kg)

Organic nitrogen (mg/kg)

# 59 N CREDITS NOT ACCOUNTED FOR IN N RECOMMENDATION BELOW 29,430

48

If the site has received biosolids within the past 4 years, go to 'Previous Applications' and enter the applicable information.

Generally applies to sites east of the Cascades. If applicable, go to 'Soil Nitrogen' and enter the applicable information.

N from previous biosolids applications (#/acre)

N applied in irrigation water (#/acre)

N applied at seeding (#/acre)

N in root zone (#/acre)

N from previous manure applications (#/acre) N from plowdown of cover crop (#/acre)

Total N credit (#/acre)

# N RECOMMENDATION

N recommendation (# N/acre/year)

**BIOSOLIDS N** 

Ammonium-N retained after application (%)

Organic N mineralized in Year 1 (%) N in biosolids (# N/dry ton)

N needed from biosolids (# N/acre)

# **AGRONOMIC APPLICATION RATE**

Wet tons per acre =

Dry tons per acre =

Cubic yards per acre =

Acre-inches per acre =

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48

tilizer guideline, an agronomist, etc.

See 'Ammonium Retention'. See 'Mineralization'. 22% 23% 102 22

See 'Conversion Factors, etc' 22,671 112.2 94.3 0.84 4.7

# **APPENDIX 4**

# 10.0 SAMPLING PLAN

10.1 Soil Sample Plan



# SOIL SAMPLING PLAN

17.11.21

# FOR FIRE MOUNTAIN FARMS, EASTERN WASHINGTON SITES

# Introduction

This Soil Sampling Plan has been developed for Fire Mountain Farms Inc. Eastern Washington Land application sites as a component of our Site-Specific Land Application Plan. This Sampling plan is to give the reader instructions on how to take samples and how to care for samples and how results will be interpreted.

- Confirm responsible government agencies received 72hrs notice to sampling event
- > Use clean sampling tools.
  - o A push probe or Soil auger (Manual or Automatic) can be used.
  - o Clean plastic bucket for each marked for depth increment.
  - o Sample Mixing devices, stainless steel or plastic
  - Brush and/or wipe sample tools between fields to remove all foreign material
    - To Clean tools between fields brush loose material from tools
    - Between Site locations clean tools with soap and water to remove all traces of soil.
  - o Cooler with Ice or Cold Packs or alternative cooling device
  - Sample containers or zip lock bags and marking device
  - Sample log book, writing utensil, log date time weather conditions

**Sample each representative area** \*{\* Representative area; may be single or multiple fields with similar soil and same crop & fertilizer management}

- o O to 12 inches
- 0 12-24
- o 24-36
- > Core sample collection
  - Determine how many individual cores to take from chart below

Sample points recommended by field size to form composite				
1-9 Acres	10 Cores			
10-25 Acres	20 Cores			
26-50 Acres	25 Cores			
>51 Acres	30 Cores			

Fire Mountain Farms: 349 SR 508 Chehalis, WA 98532

Fire Mountain Farms: 856 Burnt Ridge Road Onalaska, WA 98570



- All samples shall be taken within the field where land application is to occur. Bring a sample location field map with you to insure that samples are not located in buffer areas or outside permitted boundaries.
- At each sampling point remove loose material and vegetative material from the surface then take the sample.
- Take subsamples randomly from the representative area, distribute subsample sites throughout the representative area. Put each core sample in bucket.
- Mix multiple cores thoroughly in a sample bucket with a ladle or trowel.
   Creating a composite sample of the multiple core samples
- > Break up large clumps while mixing. Remove rocks and sticks while mixing. If sample is to be dried,
  - Place 5 cups of sample in clean zip lock bag, label with Unit, field and depth.
  - o On return to office
    - Fill out multi-sample soil test request form including all samples taken that day.
    - Place the sample in drying pan and label with Field ID and depth
    - Place sample in to drying soil dryer to be no greater more than 65°C
    - Once sample is dry place approximately 2 cups in sample bag
    - Label sample bag with Field ID and depth
- If sample is to be frozen or delivered straight to lab; place about 2 cups of the mixed sample in a sample bag.
  - Fire Mountain Farms
  - Unit/ Field ID
  - Sample depth (i.e. 0-12)
  - At end of the day fill out multi-sample soil test request form including all samples taken that day.
- > Fill out a Multi-Sample Soil Test Request form /Chain-of-Custody Form
  - Soil will be tested for
    - Nitrate-N (0-12") Method S-3.10 or other approved by Ecology
    - Ammoniacal-N (0-12") Method S-3.50\*\*\*\* or other approved by Ecology
    - Nitrate-N (12-24") Method S-3.10 or other approved by Ecology
    - Nitrate-N (24-36") Method S-3.10 or other approved by Ecology
    - Soil Organic Matter (0-12") Method S-9.10 or other approved by Ecology
    - Soil pH\* \*\* Method S-5.50 or S-2.70 or other approved by Ecology
    - Metals: \*\*\*\*

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- Arsenic (method EPA6010B or other approved by Ecology),
- Cadmium (method EPA6010B or other approved by Ecology),
- Copper (method EPA6010B or other approved by Ecology),
- Lead (method EPA6010B or other approved by Ecology),
- Mercury (method EPA7473 or other approved by Ecology),
- Molybdenum (method EPA6010B or other approved by Ecology),
- Nickel (method EPA6010B or other approved by Ecology)I,
- Selenium (method EPA6010B or other approved by Ecology),
- Zinc (method EPA6010B or other approved by Ecology).
- Keep bags cool and out of the sun.
  - If sample hold time is less than 3 days keep chilled and deliver to laboratory analysis.
  - If Sample hold time is expected to be Greater than 3 Days
    - Sample should be frozen or dried to halt microbial processes
- Drying samples
  - Within 24hrs remove sample from zip lock bag and place in clean drying pan.
  - Label sample with Unit, Field, and Depth.
  - Place sample in dryer for greater than 24Hrs.
- Log Sampling Event in Soil Sampling Log book.
  - o Date
  - o Unit
  - o Fields sampled
  - Who sampled and who Witnessed
  - o Draw a rough map of where samples were pulled
  - o General Weather conditions
- Results will be provided to responsible government agencies with in 14 day of receiving results.
- > Result interpretation.
  - Results will be use in Pacific Northwest Extension Publication PNW0511e
     (aka The Cogger/Sullivan Worksheet) in a Pre-Application Format

{\*\*\* Soil pH to be run on areas that have a history of lime stabilized Biosolids application} (\*\*\*\* will be done before first application and as directed by Ecology)

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Fire Mountain Farms: 856 Burnt Ridge Road Onalaska, WA 98570

# APPENDIX 5

14.0 INFORMATIONAL SIGNS

# NOTICESIASSING BIOSCIEDS RECYCLING SITE

**Access to this Site is Restricted Until** 

MM/DD/YYYY

For Information Contact:

Fire Mountain Farms. Inc. – 856 Burnt Ridge Road, Onalaska, WA 98570, Robert Thode, firemt@Q.com, (360) 266-0695 or (360) 508-0904

Washington Department of Ecology 4601 N MONROE

SPOKANE, WA 99205 Biosolids Coordinator, ( (509)329-3400

REMOVAL OF THIS SIGN DURING THE TIME ACCESS IS RESTRICTED IS A VIOLATION OF STATE LAW

# NO TRESPASSING

# **Public Notice**

# NOTICE OF DETERMINATION OF NON-SIGNIFICANCE (DNS), AMENDMENT TO COVERAGE UNDER THE STATEWIDE GENERAL PERMIT FOR BIOSOLIDS MANAGEMENT

Notice is hereby given that Fire Mountain Farms, Inc. (FMF) is applying to the Washington State Department of Ecology (Ecology) to amend its existing coverage as a biosolids beneficial use facility under the Statewide General Permit for Biosolids Management. A copy of the general permit can be found at:

http://www.ecy.wa.gov/programs/swfa/biosolids/pdf/BiosolidsManagement.pdf. FMF is proposing to add a new land application site located at Sections 12, 13, 23, 24 & 34, Township 26N, Range 37W, WM and

Sections 17, 18, 19 & 20, Township 26N, Range 38W, WM near 32529 Level Rd. N. and unaddressed Olson Hill Rd. E, Davenport, WA. A Site Specific Land Application Plan (SSLAP) has been submitted to address the management of biosolids at this site. FMF proposes to accept biosolids from unspecified sources for land application at the new site. The site consists of fields totaling approximately 2 thousand acres.

As the lead agency for this proposal, Ecology has determined that the proposed action will likely not have a probable significant adverse impact on the environment. An environmental impact statement is not required under RCW 43.21C.030 (2) (c). This decision was made after review of a completed environmental checklist and other information on file with Ecology.

Copies of the Site Specific Land Application Plan, DNS and completed Environmental Checklist are available at: by contacting Betty Ann Bickner. Any person wishing to comment on the DNS or proposed permit application must do so in writing or as described below. Comments must be received by Ecology, at the address listed below by 5:00 p.m. on May 15, 2015

Any person who wants to comment of this proposal or to request a public hearing or meeting must do so in writing. Comments or requests must be submitted to Betty Ann Bickner by May 15, 2015.

If you wish to receive notification of activities relating to this project, please notify, in writing, the Fire Mountain Farms contact listed. Fire Mountain Farms, Inc. will provide written confirmation by certified mail, return receipt requested, to each interested person or organization that their name has been placed on the list.

Contact persons to receive questions, comments, or requests:

Department of
Ecology
Betty Ann Bickner
4601 N. Monroe
Spokane, WA 99205-1295
509-329-3505
bbic461@ecv.wa.gov

Fire Mountain Farms, Inc

Robert Thode 856 Burnt Ridge Road Onalaska, WA 98570 (360)266-0695

Robert.Thode@Firemtn.us

# APPENDIX 6

# 15.0 RECORD KEEPING/FORMS

# Gire Mountain Garmi, Inc.

Unit		Field ID		Buffers	Acres Spread	
Crop@lb Nitrogen (pi  MATERIAL TYPE SOURCE(S) _ NITROGEN PER DRY TON GALLONS PER ACRE				CE(S)		
SPREADE	R LOAD	S			ac =	Load
Date	Unit	# loads	Operator	Notes		
				A CONTRACTOR OF THE CONTRACTOR		
				To a second seco		
				Section 2012		
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# APPLICATION REPORT (LIQUID)

# Gire Mountain Garms, Inc.

Unit	Field ID	Acres	Buffers	Acres Sp.	read
Crop		Ib Nitr	ogen (plant av:	ilable nitrog	gen, PAN)
MATERI	IAL TYPE	SOUR	CE(S)		
NITROG	IAL TYPE EN / DRY TON	GALI	ONS PER AC	RE	
Or NITR	OGEN / 1000 gal		-		
Volume/	Acre = N rate desired _	/ lb pei	r1000 gal	=	Gal/Ac
Nozzle Si	ze PSI	Width	G.P.M.		
Liner ft /	ac = 43560 / width	= ]	Feet pull per ac	ere	
Gal/acre	/ G.P.M.	=	Minute:	oper acre	
Travel Ra	ate = Feet pull per acre	/Mii	utes per acre	а.	=
Ft/Min	· •		_		
Environn	nental Data				
$\mathbb{W}$	ind direction	Light, Mod	lerate, High		
Ra	in Amount	Light, Mod	erate, High		
	eas of special concern (				
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Date	Operator	Pumping Hou	rs Gallo	ns Pumped	Acers Covere
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Special In	struction:				
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5300

# FIRE MOUNTAIN FARMS, INC. Biosolids Haul Delivery Ticket

Biosolids Source
Date
Transport Company
Driver
elivered to BR HS NP MC MF BC LC BH other
Gross weight
Tare weight
Net Weight
Tons
For each delivery complete this delivery ticket and staple or clip top copy to scale slip and bill of lading (if used). Second copy for treatment plant, third for transport company. (Delivery ticket on top) Be sure to sign in on delivery record sheet at site. Any concerns or questions call FMF shop 360-266-0695 or office 360-985-7780
Comments
Original - Fire Mountain Farms, Inc., Pink - Treatment Plant, Yellow-Transport Company

# FIRE MOUNTAIN FARMS, INC.

# Delivery Record Sheet

. 20

Month:

DATE	TIME	SOURCE	MATERIAL	TONICAL	200
	A HIVE	SOURCE	WAICRIAL	TON/GAL	DRIVER
		MANAGE AND		ec. ascinent	
		A PAGE A STATE	Manager Control		
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POSIA			to the proposal designs.		
		G-000000000000000000000000000000000000		O CONTRACTOR OF THE CONTRACTOR	-
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can view PNW0511e via the 'PNW0511e' worksheet or via http://cru.cahe.wsu.edu/CEPublications/pnw0511e/pnw0511e.pdf from Pacific Northwest Extension Publication PNW0511e (aka The Cogger/Sullivan Worksheet ). For further information you This spreadsheet will help you determine a nitrogen-based biosolids application rate for agricultural sites. This was adapted

Enter information below to obtain a nitrogen-based biosolids application rate.

You must enter information in pink cells.

inter information in yellow cells as applicable. Blue cells are calculated for you.

GENERAL INFORMATION

Field Number/ID **Biosolids Source** 

Dry tons biosolids available

somewhere

560 185 118.7

Acres available Acres needed

# **BIOSOLIDS DATA**

Fotal Kjeldahl N (mg/kg) Total solids (%)

(#/dry ton) 74

> 37,100 7,670

2.0%

Ammoniacal-N (mg/kg) Nitrate-N (mg/kg)

Organic nitrogen (mg/kg)

# N CREDITS NOT ACCOUNTED FOR IN N RECOMMENDATION BELOW

59

29,430

48

15

N from previous biosolids applications (#/acre)

N applied in irrigation water (#/acre)

N applied at seeding (#/acre) N in root zone (#/acre)

N from previous manure applications (#/acre) N from plowdown of cover crop (#/acre)

Total N credit (#/acre)

# N RECOMMENDATION

N recommendation (# N/acre/year)

# **BIOSOLIDS N**

Ammonium-N retained after application (%) Organic N mineralized in Year 1 (%)

N in biosolids (# N/dry ton)

N needed from biosolids (# N/acre)

# **AGRONOMIC APPLICATION RATE**

Cubic yards per acre = Wet tons per acre = Dry tons per acre =

Acre-inches per acre =

102

		,	

48

If the site has received biosolids within the past 4 years, go to 'Previous Applications' and enter the applicable information.

Generally applies to sites east of the Cascades. If applicable, go to 'Soil Nitrogen' and enter the applicable information.

Obtain this from an appropriate fertilizer guideline, an agronomist, etc.		See 'Ammonium Retention'.	See 'Mineralization'.	
150 Ok	Supply to the	55% Se	23% Se	22

		See 'Conversion Fact		
4.7	94.3	112.2	22,671	700

tors, etc '.

# SPILL PREVENTION AND RESPONSE PLAN

Submitted as an attachment to the Application for Coverage Under the Statewide General Permit for Biosolids Management

Submitted by:

Fire Mountain Farms, Inc.

Date:

Xx/xx/xxxx

XXXXXX BIOSOLID FROM XXXXX TO APPLICATION FIELDS ON PUBLIC ROADS

THIS PLAN MUST BE IN TRANSPORT / APPLICATION VEHICLE

# INTRODUCTION

This Spill Prevention and Response Plan is being submitted as required by the General Permit for Biosolids Management. Fire Mountain Farms hauls biosolids from XXXXX to to application site

# **ROUTE TRAVELED**

See attached map and directions

# SPILL PREVENTION MEASURES

To minimize the possibility of spills, Fire Mountain Farms has implemented the following measures:

- All vehicles are regularly inspected and serviced
- Drivers never exceed the posted speed limit and only travel at speeds appropriate for current road conditions
- Vehicles are to be "leak-proof" upon purchase and are regularly examined to ensure no leaking occurs
- Drivers consult the Washington State Department of Transportation's website during times of possible inclement weather

# **EQUIPMENT TO ADDRESS A SPILL**

In order to be able to promptly and properly respond to a spill, Fire Mountain Farms equips all biosolids transportation vehicles with the following:

- A copy of the most current Spill Prevention and Response Plan
- A cell phone
- Gloves and boots
- Hazard flares
- Reflective traffic cones
- A shovel

# SPILL RESPONSE MEASURES

In the event of a spill, the following measures may occur:

- Safely exit roadway if possible
- Place reflective traffic cones along roadway leading up to the spill (use flares if needed)
- If the spill has or could result in an emergency situation: dial 911
- If the spill is small: use shovel to remove all biosolids and place back into the truck

- If the spill is large and may obstruct traffic for an extended period: contact the appropriate Department of Transportation regional office
- If the spill is large: contact Fire Mountain Farms, Inc. to have them contact a local excavation or similar-type company to remove all biosolids and place back into truck
- Contact the Department of Ecology's Southwest Regional Office as soon as possible but not more than 3 days following the spill

# CONTACTS

Emergency: 911

Department of Ecology

• Eastern Regional Office: 509-329-3505

Fire Mountain Farms, Inc.

- Business Office: (360) 985-7780
- Operations Office: (360) 266-0695
- Cell: (360) 508-0904 (Bob Thode, President)

XYZ Tucking

- Office
- Dispatch

Local Health Department (if spill occurs in specific county as listed below)

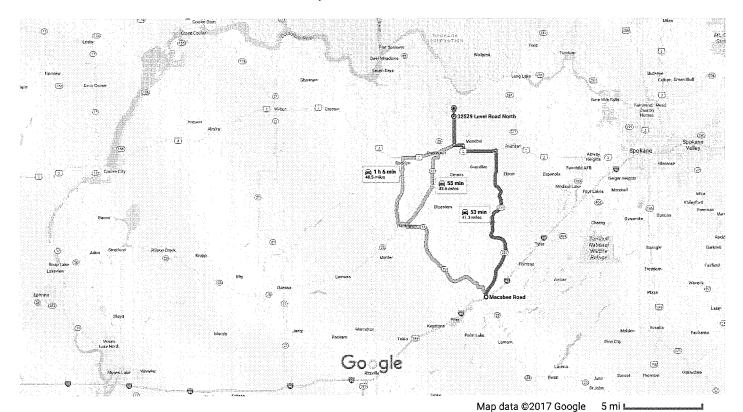
Lincoln County Health Department: 509-725-1001/509-725-2501

Other contacts:			
		•	

# Google Maps

# Macabee Rd, Sprague, WA 99032 to 32529 Level Rd N, Davenport, WA 99122

Drive 41.3 miles, 53 min



# Macabee Rd

Sprague, WA 99032

<b>†</b>	1.	Head north on WA-23 N toward WA-231 N	
ר*	2.	Turn right onto WA-231 N	4 mi
4	3.	Turn left onto US-2 W	0 mi
L <sub>&gt;</sub>	4.	Turn right onto Ziemer Rd N	5 mi
4	5.	Turn left at the 1st cross street onto Sunset Hwy E	0 mi
<b>N</b>	6.	Sharp right onto Old State Rte 2	5 mi
ኻ	7.	Slight left onto Level Rd N  Destination will be on the left	00 ft
			7 mi

# 32529 Level Rd N

Macabee I orague, WA 99032 to 32529 Level Rd N, Davenport, ' 3122 - Google Maps

11/16/2017

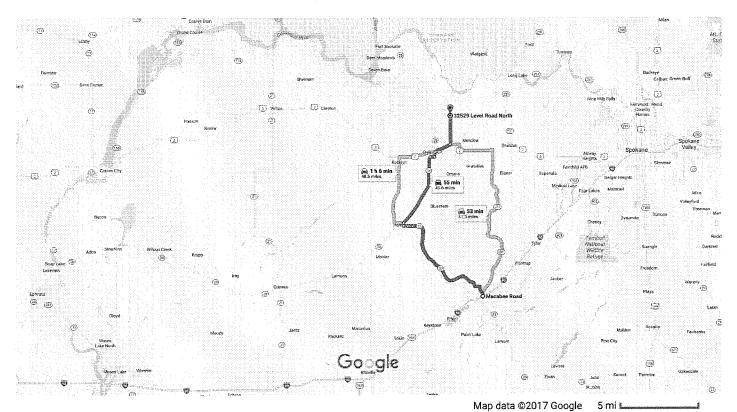
Davenport, WA 99122

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.

# Google Maps

# Macabee Rd, Sprague, WA 99032 to 32529 Level Rd N, Davenport, WA 99122

Drive 43.6 miles, 55 min



# Macabee Rd

Sprague, WA 99032

# Follow WA-23 N and WA-28 E to Sunset Hwy in Davenport

			42 min (36.1 mi)
1	1.	Head north on WA-23 N toward WA-231 N	
			21.7 mi
Γ,	2.	Turn right onto S 3rd St	
7	3.	Slight right onto WA-28 E	0.5 mi
			12.3 mi
L	4.	Turn right onto Fitness Ln E	0.7 mi
4	5.	Turn left onto 3rd St	0.7 mi
Ļ	6.	Turn right onto Morgan St/State Hwy 2 E	0.8 mi
			0.2 mi
4	7.	Turn left onto WA-25 N	
			279 ft

	Macabee 1 Jague, WA 99032 to 32329 Level Rd N, Davenport, 912.	z - Google Maps
		13 min (7.5 mi)
8.	Turn right onto Sunset Hwy	
		2.7 mi
9.	Keep left to continue on Old State Rte 2	
		479 ft
10.	Slight left onto Level Rd N	
	Destination will be on the left	

# 32529 Level Rd N

Davenport, WA 99122

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.

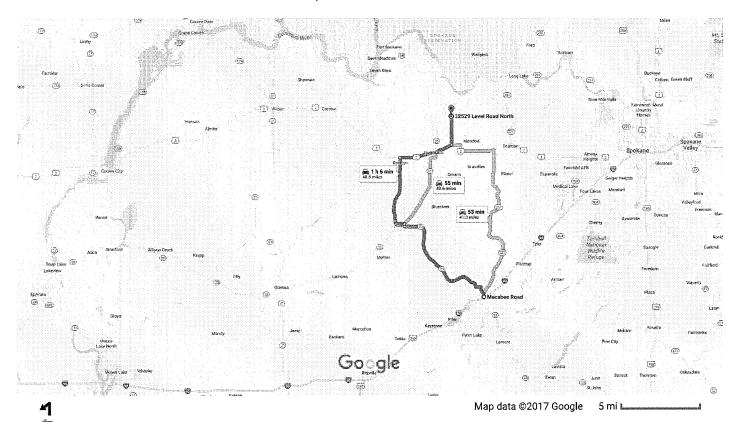
4.7 mi

Macabee

# Google Maps

# Macabee Rd, Sprague, WA 99032 to 32529 Level Rd N, Davenport, WA 99122

Drive 48.5 miles, 1 h 6 min



# Macabee Rd

Sprague, WA 99032

# Follow WA-23 N to Coffee Pot Rd E in Harrington

1		26 min (22.3 mi)
X	1.	Head north on WA-23 N toward WA-231 N
*1		21.7 mi
T <sup>*</sup>	2.	Turn right onto S 3rd St
P		0.5 mi
ð	3.	Turn left onto WA-28 W
Ö		0.1 mi
À		

# Take Rocklyn Rd N to US-2 E

18 min (12.5 mi) Turn right onto Coffee Pot Rd E 1.8 mi Keep right to continue on Rocklyn Rd N 10.7 mi Follow US-2 E to Sunset Hwy in Davenport

8 min (6.2 mi)

11/16/2017	,	Macabee I	prague, WA 99032 to 32529 Level Rd N, Davenport,	∂122 - Google Maps	
r	6.	Turn right onto US-2 E			
1	7.	Turn left onto WA-25 N			6.1 mi
					279 ft
Follo		unset Hwy to Level Rd N  Turn right onto Sunset H	wy		- 13 min (7.5 mi)
4					2.7 mi
1	9.	Keep left to continue on	Old State Rte 2		
5	10.	Slight left onto Level Ro	i Ni		479 ft
	10.	Destination will be on			
					4.7 mi

# 32529 Level Rd N

Davenport, WA 99122

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must obey all signs or notices regarding your route.

NOTICE OF DETERMINATION

DE NON-SIGNIFICANCE
(DNS), AMENDMENT TO
COVERAGE UNDER THE
STATEWIDE GENERAL
PERMIT FOR BIOSOLIDS
MANAGEMENT

Notine is hereby given that Fire Mountain Farms, Inc. (FMF) is applying to the Washington State Department of Ecology (Ecology) to amend its existing coverage as a biosolids beneficial use facility under the Statewide General Permit for Biosolids Management. A copy of the general permit can be found at http://www.ecy.wa.gow/programs/swta/biosolids/pdf/BiosolidsManagement.pdf.

EME is proposing to accide a new send application sits located at Sections 12, 13, 23, 24, 2-3-7 Township 26N, Plange S7W, WM and Sections 17, 18, 19 & 20, Township 26N, Bange 38M, WM near 32529 Level Rd. N, and unaddressed Olson Hill Rd. E. Davenport: WA. A Site Specific Land Application Plan (SSLAP) has been submitted to address the management of biosolids at this site.

FMF proposes to accept biosolids from unspecified sources for land application at the new site. The site consists of fields totaling approximately 2 frousand acres.

As the lead agency for this proposal, Ecology has determined that the proposed action will likely not have a professive significant adverse impact on the environment. Impact otalement is not required under SCA: 3.21C.030 (2) 17 has the second environmental impact of a completed environmental checklist endother information on tile with Ecology.

Copies of the Site Specific land. Application Plan, DNS and completed Environmental Checklist are available by confacting Betty. Ann Bickner. To review the Site Specific Land Application Pland DNS or Environmental Checkler. DNS or Environmental Checkler. Any person wishing to comment on the DNS or proposed permit application must do so in writing or as described below. Comments must be received by Ecology at the address listed below by 5:00 pass on Lany 15: 2015.

do so in writing সতীৰ্ভিটে please notify, in wating, ধিভ শিক্ত Mountain Farms contact will provide written confirmation you wish to receive notifical listed Fire Mountain Farms, Inc. by certified mail, return receipt requested, to each interested regulest a public nearing meeting must do so in writi Contact persons to redemay TREEL ON THE PROPERTY tons, comments or reques tion of activities relating Spokare, MA 99205-1296 Department of Ecology Betty Ann Bickner 956 Burnt Aidge Road bblo461 @ecy, wa gow Fire Mountain Parms, 4501 N. Monnoa Comments of 508-529-3505 Robert Thode

#### SUPERIOR COURT OF WASHINGTON FOR LINCOLN COUNTY

AFFIDAVIT OF PUBLICATION

FIRE MOUNTAIN FARMS.

DNS AMENDMENT -BIOSOLIDS MANAGEMENT

STATE OF WASHINGTON

PUBLICNOTKE \$150.00

HARLAN SHELLABARGER, being first duly sworn on eath deposes and says that he is the PUBLISHER, of the Devemport Times, a weekly newspaper. That said newspaper is a legal newspaper and it is now and has been for more than six months prior to the date of publication hereinafter referred to, published in the English language continually as a weekly newspaper in Lincoln County, Washington, and it is now and during all of said time was printed in an office maintained at the aforesaid place of publication of said newspaper, which said newspaper had been approved as a legal newspaper by order of the Superior Court of the State of Washington in and for Lincoln County. That the following is a true copy of a Public Notice as it was published in regular issues commencing on the 9th day of April, 2015, and ending on the 15th day of April, 2015, both dates inclusive, and that such newspaper was regularly distributed to its subscribers during all of said period:

SUBSCRIBED and SWORN to before me this 16th day of April 2015. State of Washington

County of Spokene

Notary Public State of Washington Dawn L. Chemak My Commission Expires 12-04-18

Title: Notary Public

My appointment expires 12-04-2018

PUBLIC NOTICE
Application for Coverage
Under the General Permit for
Biosolids Management

Notice is hereby given that Fire Mountain Farms, Inc. (FMF) has submitted an application to the Washington Department of Ecology, to obtain coverage under the General Permit for Biosolids Management. The general permit can be found at: http://www.ecy.wa.gov/programs/swfa/biosolids/pdf/BiosolidsManagement.pdf

MF's application and associated documents can be found at: http://bit.fy/2bdHP95 insert correct address

FMF applies biosolids as a soil amendment. The land application site is located at Rosman Farms in Encoln County. Our permitted application includes Site-Specific Land Application Plans that address the management of FMF biosolids.

FMF permit application includes a General Land Application Planthat addresses how future land application stress will be identified and managed Proposals for new sites will be consistent with FMF General Land Application Plantham and additional environmental review will be completed as needed. Public notice at proposed new sites will include a 30-day comment period, and signs will be posted around the proposed sites.

Public Comment Period Extended Through 10/18/16

Ecology invites public input on additional permit conditions placed on EME as a result of previous public comments. Any person who wants to comment on this proposal can do so in writing by October 18, 2016, or in person during the meeting/hearing.

October 11, 2016, 5:30 p.m. Lincoln County Courthouse 450 Logan

Davenport, WA 99122 Interested Parties List

If you wish to be included on an Interested Parties List to receive notification of activities relating to this project, please notify FMF in writing. EMF will provide written confirmation by certified mall, return receipt requested, to each interested persented organization, that their marrie has been placed on the list.

Contacts
Department of Ecology, Biosolids.
Goordinator.
Betty Ann Bickner.
4601 N Monroe Street.
Spokane, WA 99205
509-329-3505
bic461 @ ecy.wa.gov
Eire. Mountain Farms, Inc.
Robert. Thode.
856 Burnt Ridge Road.
Onalaska, WA 98570

360-266-0695 RT@FireMtn.US

#### SUPERIOR COURT OF WASHINGTON FOR LINCOLN COUNTY

AFFIDAVIT OF PUBLICATION

FIRE MOUNTAIN FARMS	).	APPLICATION FOR COVERAGE UNDER
	)	THE GENERAL PERMIT FOR
	)	BIOSOLIDS MANAGEMENT FOR
	,	FIRE MOUNTAIN FARMS, INC.
•		

STATE OF WASHINGTON

PUBLIC NOTICE \$57.50

HARLAN SHELLABARGER, being first duly swom on oath deposes and says that he is the <u>PUBLISHER</u>, of the Davenport Times, a weekly newspaper. That said newspaper is a legal newspaper and it is now and has been for more than six months prior to the date of publication hereinafter referred to, published in the English language continually as a weekly newspaper in Lincoln County, Washington, and it is now and during all of said time was printed in an office maintained at the aforesaid place of publication of said newspaper, which said newspaper had been approved as a legal newspaper by order of the Superior Court of the State of Washington in and for Lincoln County. That the following is a true copy of a <u>Public Notice</u> as it was published in regular issues commencing on the <u>8th day of September</u>, 2016, and ending on the <u>8th day of September</u>, 2016, both dates inclusive, and that such newspaper was regularly distributed to its subscribers during all of said period:

SUBSCRIBED and SWORN to before me

this 8th day of September, 2016.

State of Washington County of Spokane

Title: Notary Public

My appointment expires 06/18/19

Notary Public State of Washington Rachel N Stuart Commission Expires 06-18-19

Application for Coverage P
the General Permit for B.
Management
Audities is hereby given 1.

Bes submitted a renewa application to the Benaral Permit for Biscadios Management. A copy of the general permit care be found at him-Movey.cc.viv.gov/poperans/

Marghagemics/hol/

Biscadios/Banagement. Act copy of the general permit care be found in him-Movey.cc.viv.gov/poperans/

Marghagemics/hol/

Biscadios/Banagement. Act copy of the general permit care be found in the State Environmental Policy Act (SEPA) and has determined that for the purposes of this proposts. SEPA requirements have been satisfied.

FMI applies bissolida as a soil ameadment. Land application sites are located in Linonlo Co.

S12.13.28.24.23 T26H R37 & ST.18.19.20726N R38 Spokane

Co. S6 T298 R44C and Perd Oreitle Co. S9.25 T379 R43E.

Permit application includes Site Specific Land Application Plan application sites will be identified and management of cut biosolidis at these sites. Permit application sites will be identified and management of cut biosolidis at these sites. Permit application includes a general Land Application Plan and additional environmental review will be consistent with our central and Application Plan and additional environmental review will be consistent with our central rate of the proposed sites. Any person who wants to comment on this proposed sites. Any person who wants to comment and this proposed sites. Any person who wants to comment and this proposed sites. Any person who wants to comment and this proposed sites. Any person who wants to comment and this proposed on the submitted to DOG Bertly Ann Bickner by Sologn on Application proposed on an Interested Parties List to receive audither relating to this representation of activities relating to this representation of activities relating to this representation of activities relating to this repres

Fire Mountain Farms, Inc. Robert Thode 856 Burnt Ridge Road Onalaska, WA 98570 360-266-0695 RT@FireMcn.US

Dept. of Ecology Binsolids Coordinator Betty Ann Bickner K 4501 Monroe St. Suita 100 Spokane. WA 99205 (509) 329-3505 betty bickner@ecy.wa.gov

Lincoln Co. Health Dapt. Ed Dzedzy 90 Nicholls St. Davenport, WA 99122 (509)725-9213

Tri- County Health Dept. Matt Schanz 24D E Dominion Ave. Colville, WA 95114 (509)684-5048

Spokane Heafth Dept. David Swink 1101 W College Ave. Spokane, WA 99201 (509) 324-1500

\*Federal Tax ID No. 68-0617327

#### AFFIDAVIT OF PUBLICATION

#### STATE OF WASHINGTON County of Spokane) ss

Name:	Fire Mountain Farms, Inc.	Client ID:	9020181				
PO No.:	SR30739	No. Lines:	98				
Total Cost:	\$417.08	Order No.	208662				
do solemna newspar language, and in the has been circulation July, 1941 place of pri was appro Court of the 1941, and that the nowas publis been mad							
of the pap	notice was published in the regular a er during the period of time of public in the newspaper proper and not in Jacob Hr.	cation, and that t					
Subscribe 31st	d and sworn to before me at the Cit day of March , 2016.    OW   William   W	State of Washington,	VINCE VINCE OF PUBLIC STORY STATE OF WASHINGTON STATE OF WASHINGTO				

Paper Affidavits.xls

SR30739



# State Environmental Policy Act (SEPA) Determination of Nonsignificance

Proposal Description:

Fire Mountain Farms, Inc. proposes application of Class A or B

biosolids material as a soil amendment to agricultural land.

Proponent:

Fire Mountain Farms, 856 Burnt Ridge Road, Onalaska,

Washington 98570

**Proposal Locations:** 

Section 12, 13, 23, 24 & 34, Township 26N, Range 37W, WM

Section 17, 18, 19 & 20, Township 26N, Range 38W, WM

Lat 47° 44' 30.66" N, Long 118° 05' 14.95" W Lat 47° 42' 30.48" N, Long 118° 07' 47.94" W

32529 Level Road N. and

Unaddressed Olson Hills Road E.

Davenport, WA 99122

Lead agency:

Washington State Department of Ecology

Ecology has determined that this proposal does not have a probable significant impact on the environment. An environmental impact statement (EIS) is not required under RCW 43.21C.030(2)(c). This decision was made after review of a completed environmental checklist and other information on file. This information is available to the public on request.

This DNS is issued under WAC 197-11-340(2). There is no comment period.

SEPA Contact: Terri Costello, (509) 329-3550; terri.costello@ecy.wa.gov

Responsible official: Wayne Krafft, Waste 2 Resources Program Section Manager

Address: Washington Department of Ecology, 4601 N. Monroe Street, Spokane, WA 99205

Phone: (509) 329-3438

Date: 4-15-15 Signature: Wans Tuff

# State Environmental Policy Act SEPA Checklist

Prepared for
Amendment to Coverage Under Statewide Permit
for
Biosolids Management

Rosman Unit

Fire Mountain Farms, Inc. 856 Burnt Ridge Road Onalaska, Washington

September, 7, 2014

# WAC 197-11-960 Environmental checklist.

#### ENVIRONMENTAL CHECKLIST

Purpose of checklist:

The State Environmental Policy Act (SEPA), chapter 43.21C RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the agency decide whether an EIS is required.

Instructions for applicants:

This environmental checklist asks you to describe some basic information about your proposal. Governmental agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring preparation of an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can.

You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answer, or if a question does not apply to your proposal, write "do not know" or "does not apply." Complete answers to the questions now may avoid unnecessary delays later.

Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the governmental agencies can assist you.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

## A. BACKGROUND

1. Name of proposed project, if applicable:

Amendment to Application for Coverage Under the Statewide General Permit for Biosolids Management

2. Name of Applicant:

Fire Mountain Farms, Inc. Contact: Robert Thode

3. Address and phone number of applicant and contact person:

856 Burnt Ridge Road Onalaska, WA 98570 (360) 266-0695 – Operations Office (360) 508-0904 – Cell

4. Date checklist prepared:

September, 7, 2014

Agency Use

Rosman Unit

5. Agency requesting checklist:

# Washington State Department of Ecology

6. Proposed timing or schedule (including phasing, if applicable):

This SEPA checklist is for addition of a site under the Statewide General Permit for Biosolids Management. This site is anticipated to be used starting in the summer of 2014.

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

Fire Mountain Farms, Inc. continues to expand and adjust to changing markets and demand. SEPA will be followed, if required, for any new additions or expansions proposed.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

Biosolids applied to fields will be analyzed as required under state and federal law. Site Specific Land application Plan (SSLAP) has been prepared and is part of our application for coverage under Statewide General Permit for Biosolids Management. A copy of SSLAP can be viewed at on our web site www.firemtn.us

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes explain.

Other than the Site Specific Land Application Plan no other proposals are known to be pending at this time.

10. List any governmental approvals or permits that will be needed for your proposal, if known.

The Site Specific Land Application Plan being approved by Department of Ecology is the only action known to be required.

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)

Biosolids will be applied to agricultural lands at agronomic rates for beneficial value of nutrients and as a soil conditioner and soil builder. Application will be during the drier season, from March until the soil becomes saturated or frozen.

Agency Use

This is an addition of multiple fields located at two separate sites.

Anticipated start time is Summer 2015.

A General Permit for Biosolids Management issued by Department of Ecology is required.

Agency Use

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

To better address checklist questions we will refer to Site A, (fields R-1 through R-16, with access point of 32529 Level Road N) and Site B, (field R2-1 located on the north side of Olson Hills Road E). All fields are under the same ownership and management but separated by several miles.

Rosman Units

Sec 12, 13, 23, 24 & 34, Twp 26N, Rge 37W, WM Sec 17, 18, 19 & 20, Twp 26N, Rge 38W, WM

Lat 47° 44' 30.66" N, Long 118° 05' 14.95" W

Lat 47° 42' 30.48" N, Long 118° 07' 47.94" W

32529 Level Road N. and

Unaddressed Olson Hills Road E.

Davenport, WA 99122

Site A fields are located near the north end of Level Road N., where Level Road N. intersects with Green Canyon Road E. and Angel Springs Drive N. See attached map (Note: The directions to site A are incorrect; turn left off Sunset Hwy on Level Road N.) A, field R-1 may have biosolids applied in the future, but it's unlikely.

# B. ENVIRONMENTAL ELEMENTS

#### 1. EARTH

a. General description of the site (circle one): Flat, rolling, hilly, steep slopes, mountainous, other...

Site A fields are rolling hills with steep timbered areas. Site B is one contiguous field with rolling hills.

b. What is the steepest slope on the site (approximate percent slope)?

The steepest slope(s) in the proposed application areas is less than 15% for both site A and B.

c. What general types of soil are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.

Site A: Soils for proposed biosolids application are Broadax silt loam, Hanning silty loam, and Badge-Bakeoven-Rock.

Site B: Soils for proposed site is Dragoon silt loam.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

No indication of unstable soils has been found on ether site A or B during our investigations, nor have any unstable soils been known to be present by those now managing the farm, in proposed application areas.

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.

There are no plans to do any major filling or grading on this ether site in relation to this project. Any fill material will be from onsite or rock will be hauled in from local rock pits to maintain and construct roads or pads as needed.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

Biosolids are soil conditioners. A short time after biosolids being applied, the soil will resemble a rich, organic top soil. The organic matter increases water retention and retains nutrients in the soil, similar to the effects of peat moss, and helps plants withstand drought. It also permits easier root penetration. In addition, the organic matter improves soil tilth, making the soil easier to work. Adding biosolids to the soil can improve water retention and accelerate plant establishment, thereby potentially reducing stormwater runoff and erosion.

It is noted that erosion could occur from road maintenance or construction and other normal agricultural activities. Site A has several areas that have been put into the Conservation Reserve Program, (CRP), and are not being farmed due to potential of soil erosion.

g. About what percent of the site will be covered with impervious surfaces after project construction?

Less than 1% of the site A will be covered with impervious surfaces such as farm roads and buildings.
There are no plans for any impervious surfaces on site B.

h. Proposed measure to reduce or control erosion, or other impacts to the earth, if any.

As an added protective measure against erosion, vegetated buffers are being maintained in CRP areas of site A.

Both site A and B are farmed using Best Management Practices, (BMPs), to prevent soil loss due to erosion.

Agency Use

No fill is proposed at either site.

Pads will not be constructed.

Normal maintenance of existing roads using same materials may occur.

New road construction is not proposed.

Also the addition of organic matter to the soil will increase soil water holding capacity and aid in reducing risk of runoff.

#### 2. AIR

a. What types of emissions to the air would result from the proposal (i.e., dust, automobile, and odors, industrial and wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.

There is an odor associated with the spreading of biosolids. Most of this odor dissipates quickly and what lingers is a musty smell. Odors will vary depending on source and method of treatment used. There will also be emissions from equipment used to spread biosolids (tractors) and emissions from trucks hauling equipment and personnel. Due to the distance to potentially affected residences at both site A and B there is little chance of odor impact.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

Off-site odors should not be a problem as the current use of both site A and B is agriculture.

c. Proposed measures to reduce or control emissions or other impacts to air, if any.

None

## 3. WATER

Surface

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes describe type and provide names. If appropriate, state what stream or river it flows into.

Site A has a seasonal drainage ditch, which runs between fields R-2,3,4 and fields r-5,6,7. This seasonal stream flows down Harker Canyon to Lake Roosevelt. Swales into field are in Conservation Reserve Program and have permanent vegetation of 50 to 200 feet. No application will occur on steep areas, , <15%, of Harker Canyon. Fields R-4 and R-5 come the closest to the seasonal stream and will have minimum 10 meter buffer.

Site B has no surface water within 200 feet of field.

Site A: A number of unnamed drainages/streams, tributaries to Lake Roosevelt, are nearby.

Agency Use

2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, Please describe and attach available plans.

Application will not occur within 200 feet of surface water on ether site. Application may occur within 200 feet of stream or drainage swales on site A when no water is present as application to these areas will be during the dryer parts of the year when no surface water is present. To prevent potential contamination of surface water, we will maintain a minimum buffer of 10 meters to stream bed drainage swales.

3) Estimate the amount of fill and dredge material that would be placed in or removed from the surface or wetlands and indicate the area of the site that would be affected. Indicate the sources and fill material.

#### None

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

#### No

5) Does the proposal lie within a 100-year flood plain? If so, note location on the site plan.

#### No

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

#### No

#### b. Ground

1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.

#### No

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: domestic sewage; industrial, containing the following chemical....; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if

applicable), or the number of animals or humans the system (s) are expected to serve.

Biosolids will be applied to the soil surface or worked into it. The law, (RCW 70.95J. The rule is ~ 173-308 WAC) now defines biosolids as a valuable resource and regulates its use in a manner to protect human health and the environment. Application rates will be based on plant nutrient needs in order to minimize the risk of nutrient leaching.

- c. Water Runoff (including storm water)
  - 1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

The only source of runoff will be normal rainfall or spring snow melt. Normal rainfall and snow melt runoff disposal will be usage of seasonal drainages. Best Management Practices will be followed to minimize impacts of runoff at both site A and B. The sites will remain in agricultural crops, thus runoff should not present a problem. Proposed activity will increase organic matter in the soil through the application of biosolids, increasing infiltration rates and water retention and decreasing runoff potential. Land application will only take place in the drier months.

2) Could waste materials enter ground or surface waters? If so, generally describe.

When properly managed under the guidelines of the regulatory agencies, biosolids can be safely applied to the land with less risk than other options of fertilization. During heavy rain events or snow melt, rainfall may exceed infiltration capabilities of the soil. Buffers and normal agricultural BMPs will be followed to prevent materials from entering ground or surface waters at both sites A and B.

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any.

Best management practices will be followed at both sites A and B to prevent surface, ground, and runoff water impacts. These will include application methods, applying at agronomic rates and adequate vegetated buffers of a minimum of 10 meters, from surface water (dependent on slope, soil type and ground cover these could be wider). Application will only take place during the drier months.

#### 4. PLANTS

Ъ.

Check or circle types of vegetation found on the site:
— X deciduous tree: alder, maple, aspen, other
X evergreen tree: fir, pine, other
X shrubs
—X grass
——— pasture
X crop or grain
——— Wet soil plants: cattail, buttercup, bullrush, skunk cabbage other
— Water plants: water lily, eelgrass, milfoil, other
X_ other types of vegetation
Most types of vegetation native to the local area can be found on site. No application will occur in water bodies or wetland areas.
What kind and amount of vegetation will be removed or altered?

be removed at ether site A or B. Vegetation may be altered by increasing nutrient availability and therefore increasing vegetative growth.

Other than normal agricultural activities, no vegetation needs to

c. List threatened or endangered species known to be on or near the site.

After reviewing the Washington State Threatened and Endangered listing of species, no justification was found to suspect any threatened or endangered species to be present on this site. A list of Washington State Threatened and Endangered species for Lincoln County was reviewed by proponent and land owner. This list applies to both site A and B. We do not expect that land application of biosolids would adversely impact threatened or endangered species if they were to come on to ether site.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

None

#### 5. ANIMALS

Agency Use

a. Circle any birds and animals which have been observed on or near the site or are known to be on or near the site:

birds: (hawk, eagle, songbirds, other: mammals: (deer, bear, Turkey, beaver, other: (coyote)

fish: bass, salmon, trout, herring, shellfish, other:

Most birds and animals common to the local area could be found on site.

b. List any threatened or endangered species known to be on or near the site.

A list of threatened or endangered species that could be in the area was reviewed and there are no threatened or endangered species are known to be on this site by land owner or noted by us.

c. Is the site of a migration route? If so, explain.

Several species of migrating birds may pass through this area, yet the minimal amount of increased activity proposed on this site would not restrict their use of this site for stop over.

d. Proposed measures to preserve or enhance wildlife, if any.

The application of biosolids to farm land will increase feed availability for wildlife. Biosolids application enhances the growth of vegetation by providing nutrients needed for plant growth.

# 6. ENERGY AND NATURAL RESOURCES

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs?
 Describe whether it will be used for heating manufacturing, etc.

The only energy required for the project sites will be diesel fuel for operation of application equipment.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

No

Both sites are within the Pacific Flyway.

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce of control energy impacts, if any.

None

#### 7. ENVIRONMENTAL HEALTH

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste that could occur as a result of this proposal? If so, describe.

Potential pollutants in biosolids include nitrogen, metals, pathogens (disease causing organisms), and synthetic organic compounds. Potential pollutants are regulated. Biosolids are not classified as hazardous or dangerous wastes by the Washington State Department of Ecology. The producer of the biosolids is required to have certified laboratories periodically analyses the biosolids to check quality.

1) Describe special emergency services that might be required.

The types of hazards that exist do not require any special emergency types of services beyond those that might be needed for normal agricultural activities.

2) Proposed measures to reduce or control environmental health hazards, if any.

Humans are at little risk from biosolids-borne pathogens when biosolids are properly treated and handled. The soil environment, hostile to human pathogens, serves as the final phase in the pathogen removal process. Based on the type of biosolids used, the land will be managed to control human contact with pathogens. We will limit public access during the required period of time under the 173-308-210 WAC. Regulations require buffer zones around some biosolids application.

Biosolids recycling sites control metal uptake into the food chain by limiting biosolids application to those meeting quality standards. Only biosolids meeting current 173-308-160 WAC Table 3 for metals will be recycled on this site. Nitrogen (N) is an essential plant nutrient, but excess levels of N from biosolids or from other fertilizers can pollute ground water or surface water and can reduce crop quality. For this reason, the project will

apply biosolids to land based on the amount of biosolids-supplied

N needed by the crop.

TABLE 3 - POLLUTANT CONCENTRATION LIMITS

POLLUTANT	LIMIT in milligrams per kilogram (dry weight basis)
Arsenic	41
Cadmium	39
Copper	1500
Lead	300
Mercury	17
Nickel	420
Selenium	100
Zinc	2800
Molybdenum	75

Biosolids application site will meet Chapter 173-308 WAC, Biosolids Management guidelines, and a Site Specific Land Application Plan has been prepared for review and approval by the Department of Ecology.

#### b. Noise

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

#### None

2) What types and levels of noise would be created by or associated with the project on a short-term or long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

Operation of typical agricultural equipment will create noise during normal operating hours. As outlined in our General Permit for Biosolids Management, we are proposing no limitations on daily timing of applications or restrictions for holidays. From a practical standpoint, applications will normally occur during daylight hours, and we do not normally work on holidays. There may be occasions where we need to deviate from the normal schedule, such as trying to get a crop planted prior to the rains coming in. All noise will be consistent with typical agricultural practices and the noises associated with it.

3) Proposed measures to reduce or control noise impacts, if any.

None proposed other than normal exhaust mufflers on equipment.

# 8. LAND AND SHORELINE USE

a. What is the current use of the site and adjacent properties?

The current use of site A is agriculture and forestry. Adjacent parcels of site include agricultural, forestry and rural residential. The current use of site B is agriculture, all adjacent parcels are agriculture also.

b. Has the site been used for agriculture? If so, describe.

These sites have been used for agricultural or timber purposes. Plans are to retain site in these uses. Site A will remain in agriculture and timber and Site B will remain in agriculture.

c. Describe any structures on the site.

Site A, the only structures are agricultural or residence on site. Site B has no structures.

d. Will any structures be demolished? If so, what?

No

e. What is the current zoning classification of the site?

The site is classified as Agricultural.

f. What is the current comprehensive plan designation of the site?

There is no current comprehensive plan designation for these sites.

g. If applicable, what is the current shoreline master program designation of the site?

There are no current shoreline master program designations for these sites.

h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.

Site A, there are no environmentally sensitive areas such as wetlands and riparian zones on proposed biosolids application fields. A seasonal stream does originate on site and flow down Harker Canyon to Roosevelt Lake. Biosolids will not be applied to

Agency Use

"environmentally sensitive" areas. Site B has no environmentally sensitive areas adjacent to or within field.

i. Approximately how many people would reside or work in the completed project?

One single family residence is found on the site A. No residences are located on site B. No additional housing is proposed. The number of workers would increase by one or two during application times.

j. Approximately how many people would the project displace?

None

k. Proposed measures to avoid or reduce displacement impacts, if any.

None

I. Proposed measures to ensure the proposal are compatible with existing and projected land uses and plans, if any.

Proposal will improve the economic viability of the current agricultural uses, providing added incentive to keep this land in natural resource production.

#### 9. HOUSING

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low income housing.

None

b. Approximately how many units would be eliminated? Indicate whether high, middle, or low income housing.

None

c. Proposed measures to reduce or control housing impacts, if any.

None

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

There will be no height issue on this project. No structures are proposed at this time.

b. What views in the immediate vicinity would be altered or obstructed?

None

c. Proposed measures to reduce or control aesthetic impacts, if any.

None

### 11. LIGHT AND GLARE

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

Other than normal lighting from vehicles, no light or glare would be produced from this project.

b. Could light or glare from the finished project be a safety hazard or interfere with views?

None

c. What existing off-site sources or light or glare may affect your proposal?

There will be no off-site sources of light or glare that may affect our proposal.

d. Proposed measures to reduce or control light and glare impacts, if any.

None

#### 12. RECREATION

a. What designated and informal recreational opportunities are in the immediate vicinity?

Both site A and B are private property and have controlled accesses, thus providing no formal recreational opportunities. Informal opportunities such as hunting may exist. Sites are private property and posted "no trespassing"; hunting is by permission of land owner only. Fields will be posted with signs indicating that this is a biosolids application site and access is restricted.

b. Would the proposed project displace any existing recreational uses? If so, describe.

No

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any.

None

# 13. HISTORIC AND CULTURAL PRESERVATION

a. Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe.

No

b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.

None

c. Proposed measures to reduce or control impacts, if any?

None

# 14. TRANSPORTATION

 Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plan, if any.

Traffic could increase up to 12 vehicle trips per day as biosolids are delivered and the crew enters and exits these sites.

Agency Use

Both sites will be posted with signs for 30 days from the date on the signs.

None per WISAARD

b. Is the site currently served by public transit? If not, what is the approximate distance to the neatest transit stop?

There is not any anticipated need for public transit systems.

c. How many parking spaces would the completed project have? How many would the project eliminate?

None

d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so generally describe (indicate whether public or private).

The proposal will not require any new roads or streets, or improvements to existing roads or streets, some on site farm road may be built or improved.

e. Will the project use (or occur in the immediate vicinity of) water, rail or air transportation? If so, generally describe.

No

f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

Expected vehicular trips per day will normally be from one to 12 per day to a site during application times. Peak volumes of trips would occur between the hours of 6 am and 7pm.

g. Proposed measures to reduce or control transportation impacts, if any.

None

# 15. PUBLIC SERVICE

a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.

No

b. Proposed measures to reduce or control direct impact on public services, if any.

None

Agency Use

No new roads will be constructed due to this project.

#### 16. UTILITIES

Agency Use

- a. Circle utilities currently available at the site: electricity natural gas water refuse service, telephone sanitary sewer, septic system, other.
- b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site in the immediate vicinity which might be needed.

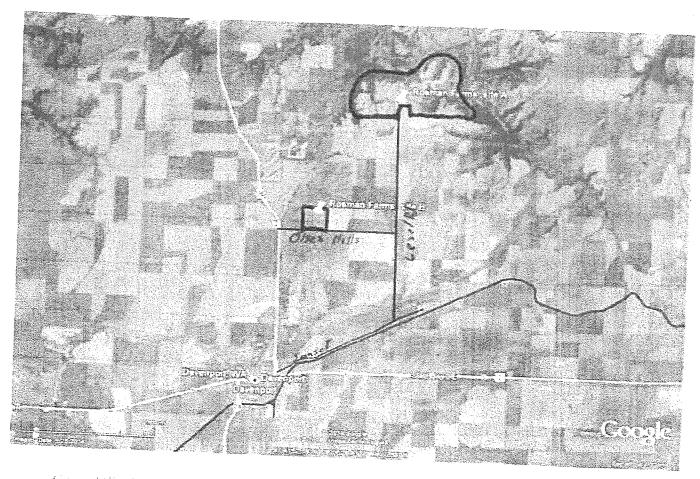
None

#### C. SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them 19 make its decision.

More 21, 2014 Date

Prepared by: Robert J. Thode Fire Mountain Farms Inc. 856 Burnt Ridge Road Onalaska, WA 98570



General Site Locations Rosman Farms

Site A. Turn north on hwy 25 then right on Sunset Hwy, to Level Road turn right, 4% miles Site B: Turn north on hwy 25, 3.1% miles to right on Olsen Hills Rd, % mile to field