Nutrient Management Plan

For Stafford Lot

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NUTRIENT MANAGEMENT PLAN
CERTIFICATION AND SIGNATURE PAGE

Oregon Department of Agriculture – Animal Feeding Operation (AFO) Permit
Facility / Operation Name: Stafford Lot
Permittee / Operator: Kevin Martin
Facility Address: 9950 SW Culver Hwy, Culver, Oregon 97734
ODA Permit Number (if applicable):
Plan Date: November 3, 2026 **Plan Revision Date:** NA

1. Permittee / Operator Certification

I certify that I have reviewed this Nutrient Management Plan and understand the management practices, requirements, and responsibilities described herein.

I agree to implement and maintain the nutrient management practices identified in this plan, including the proper collection, storage, handling, transfer, and land application of manure, process wastewater, and other nutrient sources, as applicable.

I understand that I am responsible for operating the facility in accordance with the applicable Oregon Department of Agriculture permit requirements and conditions.

Printed Name: Kevin Martin **Title:** Operator

Signature: _____ **Date:** 11/03/26

2. Nutrient Management Plan Preparer Certification

I certify that I prepared this Nutrient Management Plan based on the information made available to me regarding the operation, manure and wastewater management practices, land application areas, soil and crop information, and other applicable site conditions.

The recommendations and management practices presented in this plan are intended to address the nutrient management needs and applicable requirements of the operation, based on the information available at the time of preparation.

Plan Preparer Name: Elizabeth Kittle **TSP Number:** TSP-24-24977

Signature: _____ **Date:** 11/03/26

3. Plan Review / Acknowledgment (if applicable)

Reviewer Name: **Title:**
Agency / Organization:
Signature: _____ **Date:**

Document Control

Plan Version: _____
Effective Date: _____
Supersedes Previous Plan Dated: _____

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SECTION 1 - GENERAL INFORMATION

Operation Information for Stafford Lot

Calendar Year: Plan **Reporting period:**

Name:	Kevin Martin	**Permit Number:**	null
Business	Stafford Lot		
Mailing	3451 SW Hwy 97, Madris, OR, 97741		
Facility	9950 SW Culver Hwy, Culver , OR 97734	**County:**	Jefferson
Telephone	(541)460-0521	**Cell Phone**	
E-mail	martinlivestock22@gmail.com		

Permitted and Actual number of animals by type at the CAFO averaged over the year [S4.D.2(a)/S4.D.2(a)(ii) of the permit].

Animal Type	Average Weight (Lbs)	Days on Farm		Permitted	Actual
		Start Month	End Month		
Calf	100.0	04/15	06/15	500	500
Calf	700.0	09/01	06/15	500	500
Beef Cow	1300.0	01/01	12/31	500	500
Beef Cow	1300.0	09/01	06/15	1500	1500
			Total Animals -	3,000	3,000
			Manure and Bedding Separated (CF) -	1,469,317	1,469,317
			Imported Solids (CF) -	0	0
			Total Solids Generated (CF) -	1,469,317	1,469,317
			Total Solids to Store based on a Volume Reduction Factor of 0.3 (CF) -	1,028,522	1,028,522
			Manure Liquids Generated (CF) -	0	0
			Rainfall-Evaporation on Storage plus Runoff Generated (CF) -	-3,486,078	-3,486,078
			Process Water Generated (CF) -	0	0
			Unrecovered Bedding (CF) -	0	0
			Imported Liquids (CF) -	0	0
			Total Liquids to Store (CF) -	-3,486,078	-3,486,078
			Liquids Applied to Land (CF) -		0
			Solids Applied to Land (CF) -		0
			Grazing Manure Applied to Land (CF) -		4,559
			Liquids Exported (CF) -		0
			Solids Exported (CF) -		1,469,320
			Solids Recycled for Bedding (CF) -		0
			Acres of Land for Land Application Covered by NMP -		75.0 AC
			Acres of Land Under Operator Control Used for Manure Applications -		75.0 AC

SECTION 1 - GENERAL INFORMATION

Storage Facilities for Stafford Lot

Facility Name	Description	Type	Storage Period (days)	Diameter (ft)	Top Length (ft)	Top Width (ft)	Depth (ft)	Side slope Z	Free board (ft)	Volume (CF)	Uncovered Surface Area (SF)
Feedlot Hypothetical	Rainfall Calculation	Liquid	365		1,368	1,000	1			1,368,000	1,368,000
Feedlot Pens		Solid	365		1,368	1,000	1			1,368,000	0

SECTION 1 - GENERAL INFORMATION

Storage Period Calculations for Stafford Lot

Solids Storage

Storage Unroofed Surface Area, SF =	0	Volume Reduction Factor =	0.3
Available Storage, CF =	1368000	Solids Storage Period, Days =	365

Month	Number Of Days	Total Manure Generated (CF)	Manure Applied by Grazing (CF)	Filtered Solids (CF)	Bedding (CF)	Solids Removal Factor (Pct)	Imported Solids (CF)	Solids To Store (CF)	Storage Volume Needed, CF
October	31	147948	0	147948	0	100	0	147948	103563
November	30	143175	0	143175	0	100	0	143175	203786
December	31	147948	0	151948	4000	100	0	151948	310149
January	31	147948	0	151948	4000	100	0	151948	416512
February	28	133630	0	137630	4000	100	0	137630	512853
March	31	147948	0	147948	0	100	0	147948	616417
April	30	144159	0	144159	0	100	0	144159	717328
May	31	149854	4559	145295	0	100	0	145295	819034
June	30	88793	0	88793	0	100	0	88793	881189
July	31	33651	0	33651	0	100	0	33651	904744
August	31	33651	0	33651	0	100	0	33651	928300
September	30	143175	0	143175	0	100	0	143175	1028522
Annual	**365**	**1461877**	**4559**	**1469317**	**12000**	**101**	**0**	**1469317**	

Liquids Storage — Climate Station: MADRAS

Storage Unroofed Surface Area, SF =	1368000	25Yr-24Hr Storm Precip, In =	2	Total 25Yr-24Hr Storm Storage Needed, CF =	239,400
Available Liquid Storage, CF =	1368000	25Yr-24H4 Storm Runoff, CF =	0	Storage Period without 25yr-24hr Storm =	365
Unroofed Runoff Area, SF =	0	25Yr-24Hr Storm on Unroofed Storages, CF =	239,400	Storage Period with 25yr-24hr Storm =	365

Month	Number Of Days	Rainfall (Inches)	Evaporation (Inches)	Rain-Evap on Storages (CF)	Rainfall Runoff (CF)	Manure (CF)	Unrecovered Bedding (CF)	Process Water (CF)	Imported Liquids (CF)	Monthly Liquids to Store (CF)	Total Storage Volume Needed (CF)
October	31	0.77	2.08	-149639	0	0	0	0	0	-149639	-149639
November	30	1.39	1.27	13632	0	0	0	0	0	13632	-136007
December	31	1.25	0.62	72364	0	0	0	0	0	72364	-63643
January	31	1.24	0.64	68902	0	0	0	0	0	68902	5259
February	28	0.97	0.95	2825	0	0	0	0	0	2825	8084
March	31	0.89	1.8	-103533	0	0	0	0	0	-103533	-95449
April	30	0.87	3.26	-272337	0	0	0	0	0	-272337	-367786
May	31	0.95	5.26	-490879	0	0	0	0	0	-490879	-858665
June	30	0.57	6.4	-664580	0	0	0	0	0	-664580	-1523245
July	31	0.53	7.49	-793569	0	0	0	0	0	-793569	-2316814
August	31	0.48	6.68	-707140	0	0	0	0	0	-707140	-3023954
September	30	0.46	4.51	-462124	0	0	0	0	0	-462124	-3486078
Annual	**365**	**10.38**	**40.96**	**-3486078**	**0**	**0**	**0**	**0**	**0**	**-3486078**	

SECTION 1 - GENERAL INFORMATION

Annual Nutrient Balance for Stafford Lot

Nutrient Concentrations:	Nitrogen (Total N)	Phosphorus (P_2O_5)	Potassium (K_2O)	Units
Liquid Manure -	0.00	0.00	0.00	lbs/1000 Gal
Solid Manure -	43.20	23.90	32.40	lbs/Ton

Nutrients Generated:	N Generated	P_2O_5 Generated	K_2O Generated
Liquid Manure -	0 lbs	0 lbs	0 lbs
Solid Manure -	1142541 lbs	632100 lbs	856906 lbs
Grazing Manure -	955 lbs	500 lbs	991 lbs
Total -	**1143497 lbs**	**632601 lbs**	**857897 lbs**

Exported Nutrients:	N Exported	P_2O_5 Exported	K_2O Exported
Liquid Manure -	0 lbs	0 lbs	0 lbs
Solid Manure -	1142543 lbs	275906 lbs	711126 lbs
Total -	**1142543 lbs**	**275906 lbs**	**711126 lbs**

Crop Nutrient Removal:	N Utilized	P_2O_5 Utilized	K_2O Utilized
Total -	**928 lbs**	**293 lbs**	**771 lbs**

Annual Nutrient Budget:	Nitrogen (N)	Phosphate (P_2O_5)	Potassium (K_2O)
Nutrients Generated -	1143497 lbs	632601 lbs	857897 lbs
Nutrients Removed by Crop and Exported -	1143471 lbs	632395 lbs	857679 lbs
Net Annual Nutrient Balance -	**25 lbs***	**206 lbs**	**218 lbs**

Note: Total nutrients generated are computed from analytical data by taking the total volume of material applied times the nutrient analysis of the material. The total nutrients utilized are computed using the crop yield data times the crop uptake of nutrients.

*Amount shown is a rounding error, as all waste is moved off farm.

SECTION 1 - GENERAL INFORMATION

Background and Site Information

Type and Size: Beef Feedlot - Planned 3,000 animals

Latitude/Longitude: N44.585805, W-121.147626

Stafford Lot is located off of SW Culver Highway, 2 miles southeast of Culver, Oregon in Jefferson County. This 120-acre farm is owned Sam Stafford and leased by Martin Livestock, LLC. It is operated by Kevin Martin. These acres consist of 32 acres of feedlots, 13 acres feedlot infrastructure and 75 acres of native grassland area.

The property of Stafford Lot is located in the Lower Willow Creek watershed having a twelve-digit Hydrologic Unit Code (HUC) of 170703060205.

The field map and topography map located in Section 2 show the boundaries of Stafford Lot.

Farmstead Area

The Farmstead Area Map shows the layout of the planned feedlot. The farm is in operation from January through December with a planned maximum capacity of 3,000 animals. 2000 cows are part of the feedlot capacity. The goal is to have these cows moved off farm before they calve. 500 calves are added to the animal capacity to cover any that are born before being moved. 500 feedlot calves may be brought in and would weigh around 500 lbs and leave around 900 lbs. Up to 500 cattle may be at the farm over the summer.

70 cows are put on the West Field for 1 month during the spring, with access to their feedlot. This is low-productivity, non-irrigated rangeland. Cattle consume mostly imported feed in their feed pen, so manure deposition may exceed forage removal in West Field. Current soil tests do not indicate elevated phosphorus. The field will be tested at least every 5 years.

Animal Mortality Management

Animal mortalities for this farm are being disposed of by burial within 24 hours. Other acceptable disposal methods may be used.

Manure Management

Manure, wasted feed, and bedding (straw used during severe weather months in winter) are collected in the feedlot pens. Manure is stored in the pens and shaped as needed. Pens are cleaned between groups of cattle. The 1,781,560 CF of solid waste from the feedlot will be transported off the farm.

Water Management

Water will be absorbed or evaporate off in all pens. In the event of the 25-year 24-hour storm, there is a Catchment Pond at the north end of field 8. Any liquid will be held and evaporate off. The Catchment Pond is scraped as needed. The solid material is added to the solid waste that is exported off the farm.

Setbacks

There are no setback requirements for Stafford Feedlot. There are no wells or waterways.

Emergency Response Plan

In Case of an Emergency Storage Facility Spill, Leak or Failure-

Implement the following first containment steps:

Stop all other activities to address the spill.
Stop the flow. For example, use skid loader or tractor with blade to contain or divert spill or leak.
Call for help and excavator if needed.
Complete the clean-up and repair the necessary components.
Assess the extent of the emergency and request additional help if needed.

In Case of an Emergency Spill, Leak or Failure during Transport or Land Application-

Implement the following first containment steps:

Stop all other activities to address the spill and stop the flow.
Call for help if needed.
If the spill posed a hazard to local traffic, call for local traffic control assistance and clear the road and roadside of spilled material.
Contain the spill or runoff from entering surface waters using straw bales, saw dust, soil or other appropriate materials.
If flow is coming from a tile, plug the tile with a tile plug immediately.
Assess the extent of the emergency and request additional help if needed.

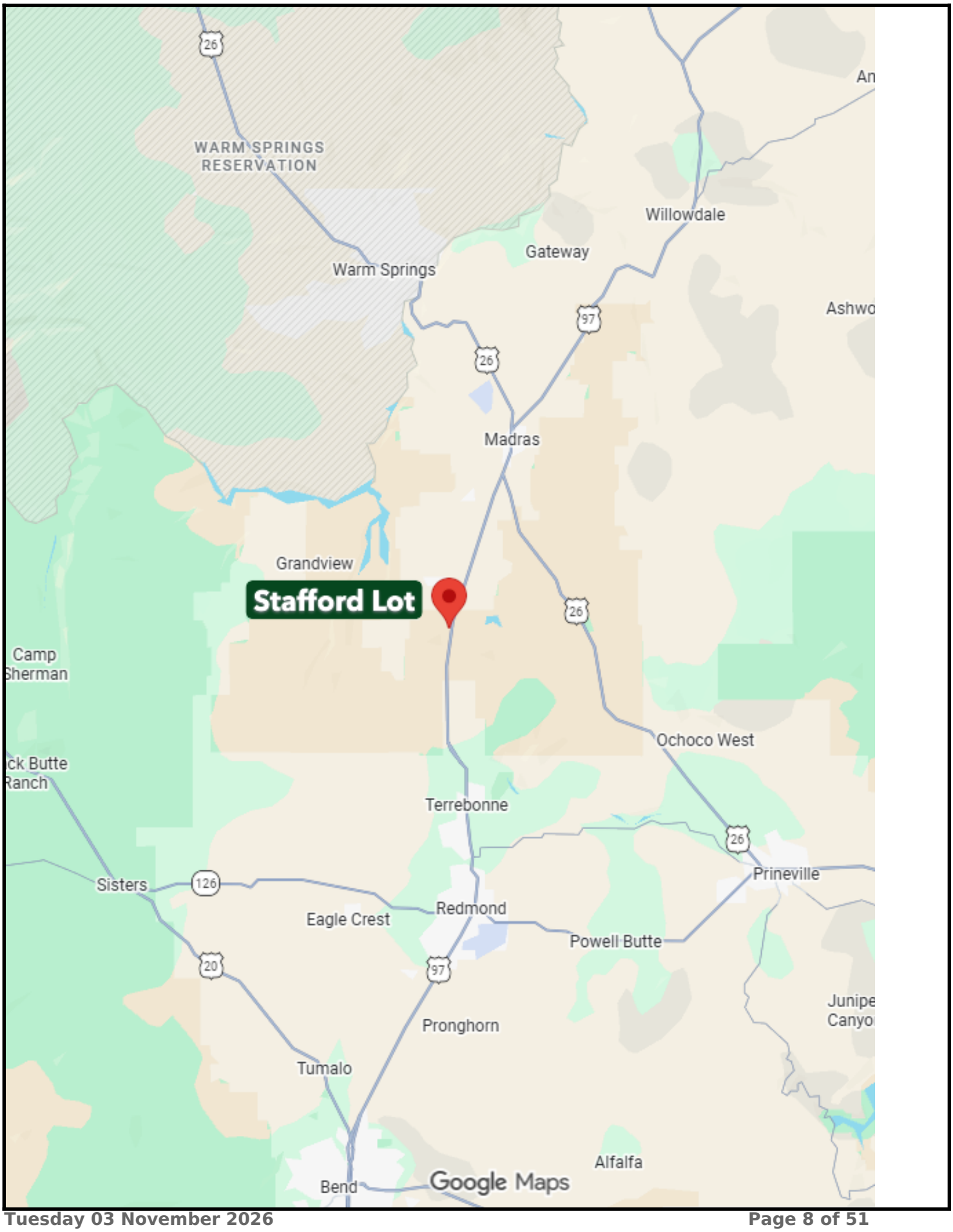
Contacts to be made by the owner or operator within 24 hours-

Organization	Phone Number
Oregon Department of Agriculture	(503) 986-4699
Natural Resources Division TTD	(503) 986-4762
635 Capitol St., N.E.	
Salem, OR 97301-2532	
Oregon Emergency Response (System OERS)	(800) 452-0311

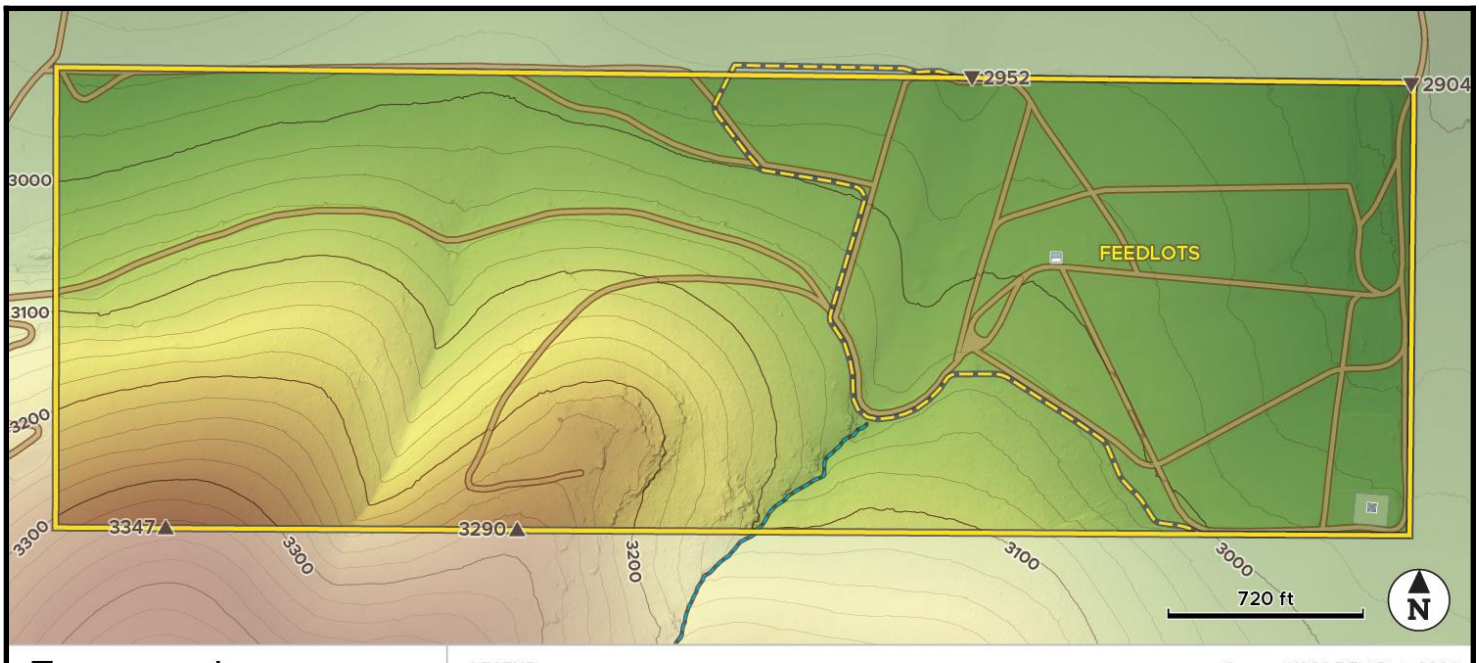
Be prepared to provide the following information:

Your name and contact information.
Farm location (driving directions) and other pertinent information.
Description of emergency.
Estimate of the amounts, area covered, and distance traveled.
Whether manure has reached surface waters or major field drains. Include the name of the surface water source that manure reached. Contact the Oregon Emergency Response System if manure entered a drinking water source.
Whether there is any obvious damage: employee injury, fish kill, or property damage.
If a grab sample of the discharge was taken.
Current status of containment efforts.

SECTION 1 - GENERAL INFORMATION
Location Maps for Stafford Lot



SECTION 1 - GENERAL INFORMATION
Topographical Maps for Stafford Lot



Topography

STAFFORD LOT

Operator	Martin Livestock, LLC
Prepared by	Elizabeth Kittle, TSP-24-24977
Prepared	Jul 2026
Location	T:12S R:13E Sec:32 Jefferson County, Oregon 44.490°N 121.203°W
SWCD	Jefferson County SWCD
Area	120 acres

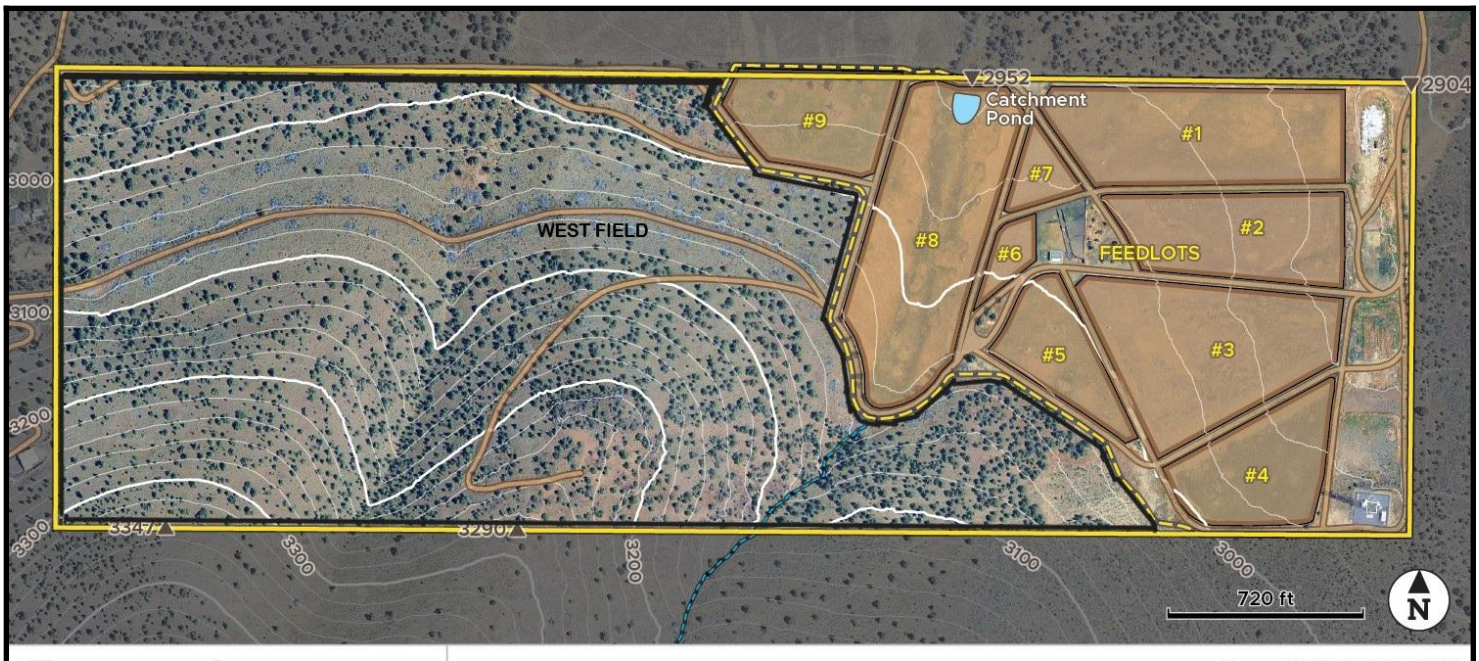
LEGEND

Source: USGS DEM Data 2024

2925 3000 3075 3150 3225 3300 3375 feet above sea level

Contour lines at 20- and 100-foot intervals

SECTION 1 - GENERAL INFORMATION



Topography

STAFFORD LOT

Operator	Martin Livestock, LLC
Prepared by	Elizabeth Kittle, TSP-24-24977
Prepared	Jul 2026
Location	T:12S R:13E Sec:32 Jefferson County, Oregon 44.490°N 121.203°W
SWCD	Jefferson County SWCD
Area	120 acres

Source: USGS DEM Data 2024

SECTION 2 - PRODUCTION AREA

Animal Mortality

To decrease non-point source pollution of surface and ground water resources, reduce the impact of odors that result from improperly handled animal mortality, and decrease the likelihood of the spread of disease or other pathogens, approved handling and utilization methods shall be implemented in the handling of normal mortality losses.
Animal mortalities must be handled in accordance to ORS 601.140 to prevent the discharge of pollutants to state waters. Animal mortalities will be managed to ensure that they are not disposed of in a liquid manure, storm water, process waste water storage or treatment system, or that is not specifically designed to treat animal mortalities.
Under no circumstances are animal mortalities to be disposed of in any type of liquid manure storage facility.

Guidance for Proper Management of Dead Animals
Refer to Plan for Catastrophic Animal Mortality Handling for guidance on what steps to take for a catastrophic animal mortality event. Having dead animals sent to an acceptable disposal site is the best method to deal with animal mortalities. A list of landfills and phone numbers can be found on the internet at http://www.deq.state.or.us/lq/sw/disposal/permittedfacilities.html. If a local landfill is not permitted to accept animal carcasses, the Oregon Department of Environmental Quality (DEQ) may grant an exception. Phone numbers to local DEQ offices can be found in most phone books or on the internet at http://www.deq.state.or.us/about/locations.html.
Under no circumstances are animal mortalities to be disposed of in any type of liquid manure storage facility.
Acceptable methods and guidance for animal mortality disposal are:
Composting- Composting animal mortalities requires a composting plan be prepared and submitted to the Oregon Department of Agriculture, Natural Resources Division. A composting plan consists of a site plan drawing of the composting facility, a description of how any runoff from the facility will be contained, a description of the composting process to be used and how the compost will be used. The composting facility for animal mortalities must have a concrete floor or similar impervious surface to prevent nutrient leaching. A roof covering the animal mortality composting facility is recommended to control moisture added by rainfall and rainfall runoff. Assistance to develop a composting plan is available from the Natural Resources Division of the Oregon Department of Agriculture, (503) 986-4700. A permit is also needed from the Department of Environmental Quality (DEQ) if animal mortalities will be imported from other farms for composting.
Rapid composting of dead animals occurs when the carbon to nitrogen (C:N) ratio of the compost mix ranges between 10 and 20 to 1. To achieve the recommended C:N ratio, build the initial compost pile by placing 18 inches of sawdust or other bulking agent on the floor of the composting area. The bulking agent should extend beyond the perimeter of the animal to be composted by at least 2 feet. If using a compost bin the bulking material should extend at least 1 foot beyond the perimeter of the animal being composted. Using a bulking agent such as sawdust will absorb any liquids as the animal decomposes during the composting process.
Once the bulking agent has been placed on the floor of the composting area, place the animal carcass on top. To decrease composting time and prevent bloating the body cavity should be cut open. Cover the carcass with 1 to 3 feet of separated manure solids or other material that has a moisture content between 30 to 60 percent and a C:N ratio of not more than 30 to 1. Use 1 foot of material for small carcasses and 3 feet for large carcasses such as cattle. Be careful not to add material that is to wet as it will hinder the composting process and cause odors. Small animals can be layered in a compost pile by placing 12 inches of the bulking agent between layers as shown in the figure below. Be sure the total height of the compost pile does not exceed 7 feet in height as it may spontaneously combust causing a

fire.
The first heating or primary composting cycle will take approximately 15 to 90 days depending on the size of the animal being composted. Refer to the table below for estimated primary composting times. Check pile temperature using thermometer probe on a daily basis. The pile temperature should be checked at multiple points around the compost pile and at a point approximately 3 feet into the pile. The temperature of the compost pile should reach 130 degrees Fahrenheit (F) within a few days. Temperatures should peak between 130 and 150 degrees F in 3 to 4 days. When the temperature of the compost pile falls below 130 degrees F, the compost needs to be aerated by turning or other means. Be sure carcasses remain covered with the bulking agent after being aerated. It is important to maintain a temperature above 130 degrees F for at least 7 days during the primary composting cycle as failure to do so may result in the incomplete destruction of pathogens and can cause fly and odor problems. After aerating the compost pile, the secondary composting times will be similar to the first.
CAUTION: It is unclear whether prions that are the proteins that cause Bovine Spongiform Encephalitis (BSE or Mad Cow Disease) are destroyed in the composting process. Animals showing signs of Mad Cow Disease and those with anthrax should not be composted and must be reported to the Oregon Department of Agriculture, Animal Health and Identification Division at (503) 986-4680 for guidance on disposal.
After aerating the compost pile by turning or other means, be sure to check the moisture content and add water if necessary being careful not to add to much water. The compost pile should feel moist to the touch but you should not be able to squeeze any water out of it.
Odors given off by the composting operation is a good indicator of how the compost operation is proceeding. Foul odors may mean that the process has turned from aerobic to anaerobic. Anaerobic conditions are the result of insufficient oxygen in the compost. This may be caused by excessive moisture in the compost or the need for turning or aerating of the compost pile.
After the composting process is finished, it may be used as a bulking agent for a new compost pile. A rule of thumb is to use 50 percent of the composted material for a bulking agent but you may want to use more or less depending on how degraded the bulking agent is in the finished compost. Using finished compost in a new compost pile reduces the amount of bulking agent needed for the new pile and provides microbial inoculants to get the composting process started.
Finished compost can also be applied to crop and pasture land fields for utilization of the nutrients and organics in the composted material. Compost from animal mortalities should not be applied to crops that will be consumed directly by humans. The nutrient content of the composted material should be determined and application equipment calibrated to ensure nutrients contained in the composted material are not over applied.
Natural Disposal- To allow nature to take its course the dead animal needs to be transported to a location at least ½ mile from any off-farm dwelling and at least ¼ mile from any water way in accordance with ORS 601.140. Once this criteria is met the carcass can be left to degrade naturally with the help of scavengers. This method is not an acceptable means of disposal for a large number of animal mortalities or for byproducts generated during butchering.
Landfill- Dead animals may be transported to a permitted landfill that accepts animal carcasses for disposal. Be sure to call the chosen landfill first to insure a landfill will accept your animal carcasses. Refer to the website given previously for permitted landfills to call. Contact the landfill operator and the DEQ at (800) 452-4011 if the landfill you would like to use is not a permitted facility to see if an exception may be granted for the disposal of animal carcasses.

Incineration- Dead animals may be burned as a method of disposal and as a method to control diseases. The economics of incineration and availability of incineration units usually make this option undesirable. A permit is needed from the Oregon Department of Environmental Quality (DEQ) Air Quality program to operate an incineration unit. Contact your DEQ at (800) 452-4011 for guidance on incineration of animal carcasses.
Burial- Dead animals may be buried in accordance with ORS 601.090(7) as a method of disposal. Large animals such as an adult cow will require a hole approximately 2 feet by 7 feet by 8 feet deep. Be

sure to select a site that doesn't have a water table to insure the bottom of the hole will be dry. The animal carcass should be covered with hydrated lime and covered with at least 4 feet of soil mounded 2 feet above the natural ground line to allow for settling as the carcass decomposes. Burial sites should be located at least 500 feet down slope from surface waters or wells.
Burial is not an acceptable method of disposal for animal byproducts generated from butchering. Burial of large numbers of animal mortalities is not acceptable unless performed in accordance with a Catastrophic Animal Mortality Management Plan. Burial of imported animal mortalities is subject to disposal regulations and the Oregon Department of Environmental Quality (DEQ), the Oregon Department of Agriculture (ODA) and the local land use planning authority should be contacted.

Plan for Catastrophic Animal Mortality Handling

The following information describes how you plan to manage catastrophic loss of animals in a manner that protects surface and ground water quality. You must follow all national, state and local laws, regulations and guidelines that protect soil, water, air, plants, animals and human health.

Guidance in the event of a catastrophic animal mortality event:

Remove animal mortalities from the livestock production area and place in an area designated for mortality storage to be determined at the time of the catastrophic event.
Contact the state veterinarian if animal death is suspicious or animal displayed unusual symptoms before death.
If it is determined that a disease outbreak may be eminent, implement procedures as directed by the State Veterinarian. This may include killing exposed animals, burning carcasses and burial of ashes in a predetermined catastrophic mortality burial areas.
Refer to state guidance regarding appropriate catastrophic animal mortality handling methods.

Contact Information-

Organization	**Phone Number**
Oregon Department of Agriculture	(503) 986-4699
Natural Resources Division	TTD- (503) 986-4762
635 Capitol St. NE	
Salem, OR 97301-2532	
Oregon Emergency Response System (OERS)	(800) 452-0311
Oregon State Veterinarian	(503) 378-4710
USDA APHIS	(503) 399-5871
530 Center Street NE, Suite 335	Fax- (503) 399-5607
Salem, OR 97301	

Operation and Maintenance Considerations

RAINFALL RUNOFF CONTROL AREA-
The rainfall runoff control area is used to capture and store rainfall runoff containing manure generated by the farm. The rainfall runoff stored in the rainfall runoff control area should evaporate during the spring and summer months. If the stored rainfall runoff is not totally evaporated by the fall, the rainfall runoff control area must be pumped to the lowest level possible to function properly and have the greatest management flexibility before the fall and winter rainy season begins.

Any annual sludge buildup in the rainfall runoff control area must be removed to maintain design capacity taking care not to damage the soil liner and applied to land application areas in accordance with guidance given in Section 3.
Inspect the rainfall runoff control area weekly to insure structural integrity and that at least 1 foot-6 inches of freeboard is being maintained on the earthfill embankment(s) to accommodate excess rainfall such as a 25 year-24hour storm and prevent overtopping the embankment(s). If the structural integrity of the rainfall runoff control area embankment is found to be compromised, immediately draw the liquid level down below the damaged area to determine the cause. Seek the services of a qualified engineer to assess the damage and recommend necessary repairs before allowing rainfall runoff levels above the damaged area.
Inspect the rainfall runoff control area during the summer months when all the rainfall runoff has evaporated and inspect the embankments for structural damage. If structural damage to the embankment of the rainfall runoff control area is discovered, seek the services of a qualified engineer to assess the damage and recommend necessary repairs before allowing rainfall runoff levels above the damaged area. Follow the guidance given in Section 3 if rainfall runoff has to be applied to the crop land fields.
Control undesirable vegetation growth by spraying or mowing. Control rodents as necessary. Check elevations of earthfills periodically and restore to grade and shape as necessary. Fill and reseed eroded embankment areas or repair with well graded rock riprap. Safety features such as signs and fences should be kept in good repair. Do not dispose of animal carcasses in any rainfall runoff containment area. It is against the law to do so.

FEEDLOT PENS-
Maintaining a firm, dry feedlot surface is an important factor in maintaining a good environment that promotes good animal health.
Maintain diversions and drainageways so they direct clean water runoff away from the feedlot pens and holding areas. Stormwater runoff from the feedlot pens should be directed to storage or treatment areas.
Manure shall be contained in the feedlot pens until it can be transferred off farm. Manure accumulations created for bedding mounds shall be managed such that manure does not create a potential pollution hazard.
Take care to maintain the compacted layer when removing excess manure from the feedlot pens.

DIKES AND BERMS-
Periodically check elevations of earthfills and restore to grade and shape, if necessary. All settlement or cracks in the dike should be investigated to determine the cause and immediately repaired.
Maintain vigorous growth of vegetative coverings. This includes reseeding, fertilization, and application of herbicides when necessary. Fertilize the established stand with at least 200 pounds of 21-0-0 per acre or equivalent annually or as needed to maintain a uniform vigorous stand. Avoid excess travel and

uncontrolled grazing on any portion of the dike system that will harm or destroy vegetative cover. Periodic mowing or controlled grazing may also be needed to control height.
Maintain installed fences to prevent unauthorized human access or uncontrolled grazing of dike surfaces. Livestock can be used to control vegetation height, providing grazing is controlled to short periods of time when damage to the dike surface and vegetation will not result.
Check all erosion control sections for accelerated weathering and displacement of materials. Replace to original shape and grade if necessary.
Immediately repair any vandalism, vehicular, or livestock damage to the dike or other appurtenance.
Eradicate or otherwise remove all rodents or burrowing animals and repair any damage caused by their activity.

ANIMAL ACCESS LANES AND WALKWAYS-
Remove debris and excess manure from access lanes, walkways, and drainage areas. Good vegetative cover should be maintained on all areas adjacent to access lanes and walkways.

FENCES-
Do not allow livestock access to open water courses and drainageways. Provide off stream watering facilities where possible and limit access to designated watering areas.
Inspect fences periodically and repair or replace broken or decayed posts and tighten sagging wire as needed. Broken wire can be spliced or replaced. Replace broken or missing insulators on electric fences as needed and repair or replace inoperative electric fence controllers.
Insure gates and other appurtenances are in good working order. Replace or repair components as needed.

LIVESTOCK WATERING FACILITIES-
Check all above ground connections, valves, gates, rodent guards, inlets and outlets to make sure they are functioning properly. Check troughs and tanks for leaks or cracks and repair or replace immediately, if necessary.
Make certain the area adjacent to the trough is well protected with gravel, paving, or good cover. Be sure that the outlet pipe has a free outlet and is not causing any serious erosion problems. Check periodically to see if debris has fallen into the trough or tank which may restrict inflow or planned functions of the outflow system.
Clean the entire system periodically and remove moss, algae growth, and/or sludge. Chemicals such as copper sulfate and chlorine can be used to prevent moss and algae growth. Local rules and regulations are to be followed when using chemicals to make sure they are safe for animals.
Where necessary maintain coverings and insulation to prevent damage by freezing.
Eradicate or otherwise remove all rodents or burrowing animals. Immediately repair any damage caused by their activity.
Immediately repair any vandalism, vehicular or livestock damage.

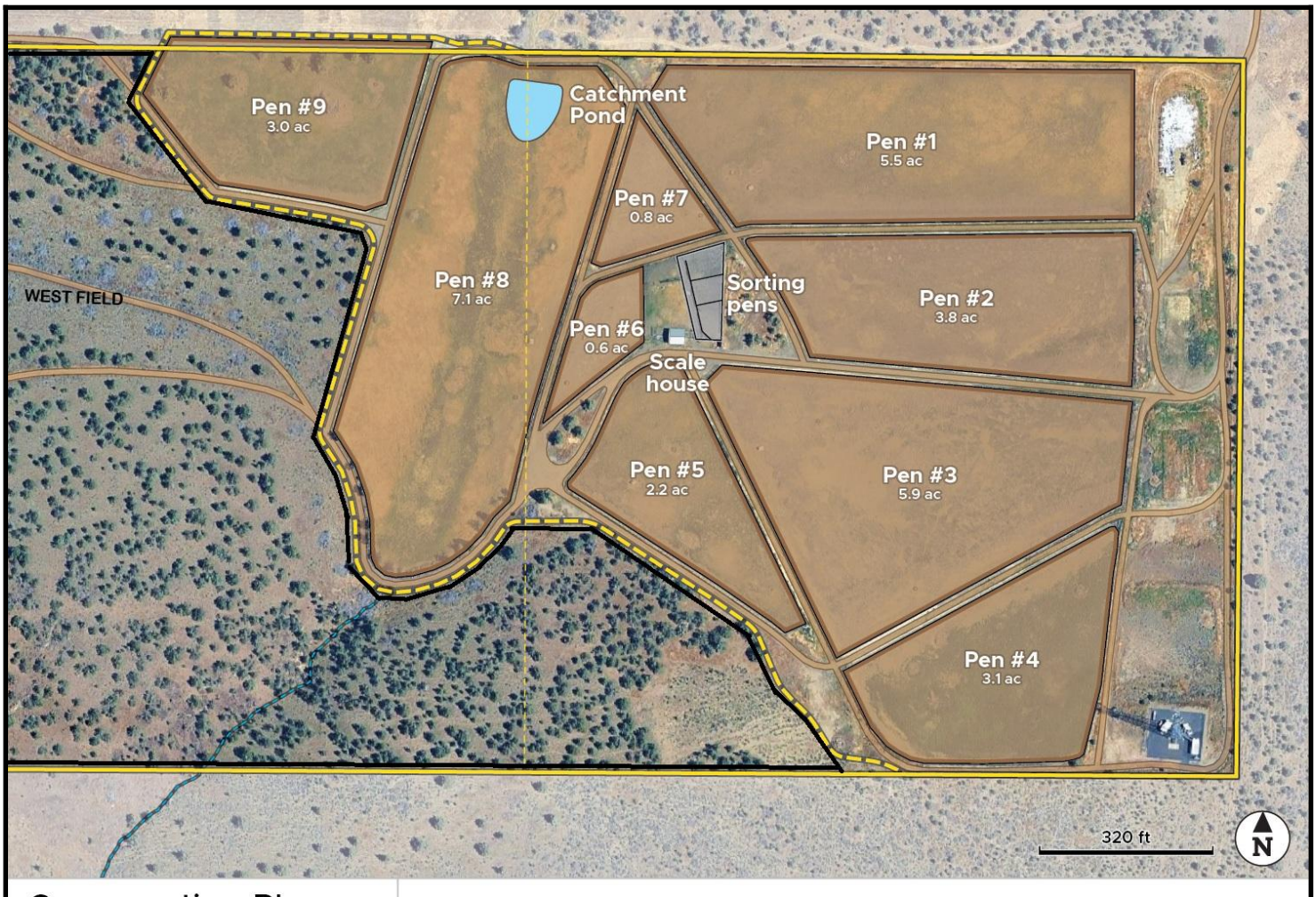
PIPELINES-
Flush pipelines used for wastewater applications with clean water following an application, or as needed, to prevent particle buildup.
Drain the pipeline and components in areas that are subject to freezing. If parts of the pipeline cannot be drained, a non-toxic antifreeze solution may be added.
Check to make sure all valves and air vents are set at the proper operating condition so they can provide protection to the pipeline.

Inspect pipelines for signs of failure. Inspect risers and valves periodically for leaks or worn gaskets. Repair or replace pipeline, risers and valves as needed.
Eradicate or otherwise remove all rodents or burrowing animals. Immediately repair any damage caused by their activity.
Annually inspect underground pipelines for proper operation. Check fields for signs of positive pressure (blow holes) or negative pressure (sink holes) in underground pipelines. Repair or replace damaged or broken pipelines as needed maintaining designed depth of cover.
For free draining underground pipelines, keep outlets free of vegetation and sediment. Correct and prevent erosion at outlets by installing riprap or other measures. Repair or replace damaged or broken rodent guards as needed.
Avoid travel over underground pipelines with heavy equipment when the soil is saturated except at crossings designed for this purpose.
Avoid any subsoiling operation that may disturb the underground pipeline.
Eradicate or otherwise remove all rodents and/or burrowing animals that have or can potentially damage any part of the system. Immediately repair any damage caused by their activity.
Immediately repair any damage due to vandalism, vehicular or livestock.

CHEMICAL HANDLING CHECKLIST-
The following measures shall be taken to prevent chemicals from contaminating process water or storm water storage and treatment systems:
1. Make sure all chemicals are stored in proper containers. Expired chemicals and empty containers are to be properly disposed of in accordance with state and federal regulations. Pesticides and associate refuse are to be disposed of in accordance with the FIFRA label.
2. Chemical storage areas are to be self-contained with no drains or other pathways that will allow spilled chemicals to exit the storage area.
3. Chemical storage areas are to be covered to prevent chemical contact with rain or snow.
4. Emergency procedures and equipment are to be in place to contain and clean up chemical spills.
5. Chemical handling and equipment wash areas are to be designed and constructed to prevent contamination of surface waters, waste water, and storm water storage and treatment systems.
6. Stafford Lot affirms that it will dispose any chemicals and all other wastes on-site in accordance with applicable state regulation and in accordance with the standards of its CAFO permit

SECTION 2 - PRODUCTION AREA

Production Area Maps for Stafford Lot



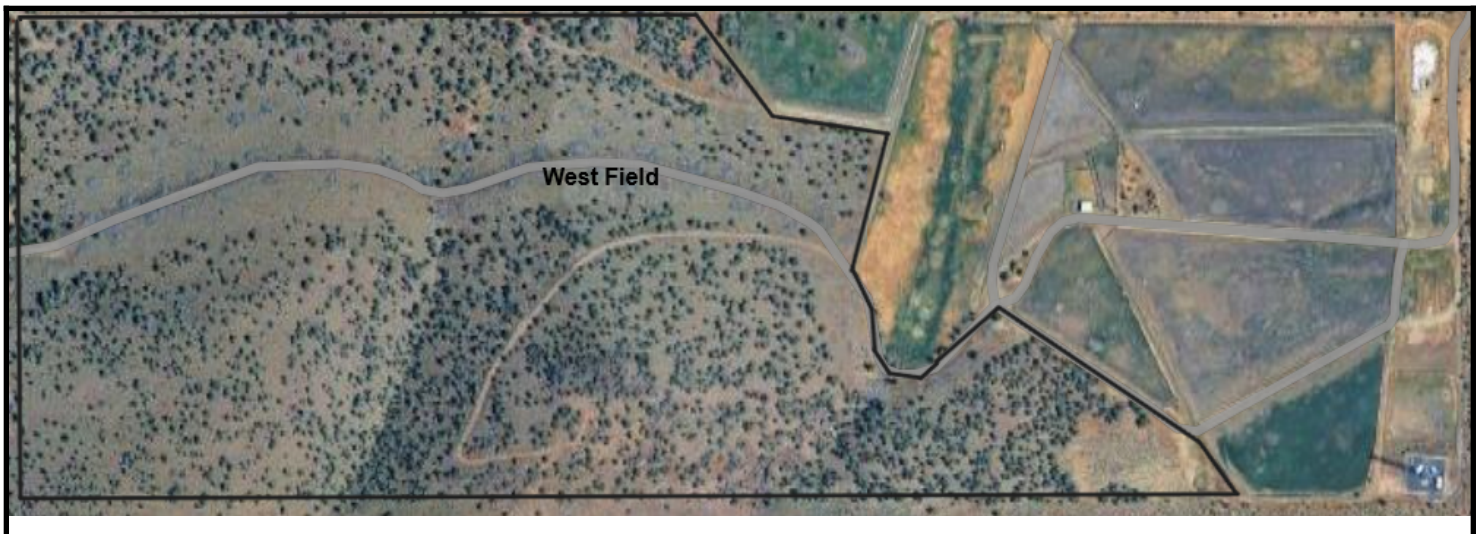
Conservation Plan

STAFFORD LOT HQ

Operator	Martin Livestock, LLC
Prepared by	Elizabeth Kittle, TSP-24-24977
Prepared	Jul 2026
Location	T:12S R:13E Sec:32 Jefferson County, Oregon 44.490°N 121.203°W
SWCD	Jefferson County SWCD
Area	45 acres

SECTION 3 - UTILIZATION AREA

Field Maps for Stafford Lot



SECTION 3 - UTILIZATION AREA

Setback Maps for Stafford Lot

NA - No wells or waterway on property.

SECTION 3 - UTILIZATION AREA

Application Considerations

The manure and irrigation application systems will be calibrated in accordance with guidance in this section to insure the applications of manure, bedding and runoff from the waste storage facilities are in accordance with agronomic rates.

No application of wastewater or solids containing manure is to be made to the field buffer areas shown on the Setback Map in Section 3-2. Applications of wastewater and solids containing manure should be made in accordance with guidance in this section to reduce the risk of contaminated runoff to surface water sources and leaching of contaminants to ground water sources.

The phosphorus runoff rating for each of the farm fields is based on the Oregon Natural Resources Conservation Service Phosphorus Index and is shown in the table in Section 4-3. Wastewater, solids and commercial fertilizer for any field with a LOW runoff rating can be applied on a nitrogen basis. Wastewater, solids and commercial fertilizer for any field with a MEDIUM or HIGH runoff rating must be applied on a phosphorus basis. No applications of manure or commercial fertilizer containing phosphorus are to be made on a field with a ZERO OUT phosphorus runoff rating.

Manure applications may be made at any time of the year provided certain factors have been considered. However, the overriding factor one should use in considering whether or not to apply nutrients to a crop, irrespective of the nutrient source, is the agronomic need of the crop at the time of application. The following guidelines are to be considered once the decision has been made to make a manure application.

Consider using T-Sum 200 to determine when manure applications are to begin as long as you can comply with all other permit and AWMP requirements. Calculations for T-Sum 200 are outlined in OSU Extension Fertilizer Guide for Pastures (OSU FG63, 2000). T-Sum 200 is based on accumulated heat units and is an accurate guide to estimate plant activity. Research has shown that T-Sum 200 is the earliest date when plant roots begin to grow in the spring and thus are receptive to applied nutrients.

T-Sum 200 is determined by monitoring surface air temperature and summing the daily minimum and maximum air temperatures and dividing the sum by two to get the average daily air temperature then converting that to centigrade (F degrees minus 32 times 0.556). Manure applications may begin once 200 heat units have been accumulated. However, one must still apply manure at agronomic rates based on the estimated growth potential of the crop and anticipated climatic events.

Based on crop nutrient uptake patterns, manure applications should stop when the crop is done growing for the year and before the first significant rainfall event that is expected to result in saturated soils or surface runoff.

Fields that are subsurface (TILE) drained require additional precautions when manure is applied. Any pre-application tillage should leave as much residue as possible on the soil surface. Water control structures installed in subsurface drainage systems should be managed to prevent discharge of manure and wastewater during periods of application.

Be aware of the location of sensitive areas, concerns of neighbors or concerns of the public, which require special application procedures. To reduce odor problems, apply wastewater and solids containing manure in mid-morning when temperatures are warming and air is rising rather than in the afternoon or evening when air is cooling and settling. Avoid applications during periods of fog.

SECTION 3 - UTILIZATION AREA

Calibrate application equipment to insure uniform distribution and accurate application rates in accordance with guidance given in the Considerations for Manure Applications and with guidance on the calibration of application equipment.

Maintain setbacks for manure application from any surface waters. The management goal is not to allow manure to enter surface waters at any time. The following table shows minimum setback requirements for manure applications:

Manure Type	Application Equipment	Month and Setback Distance in Feet [a, b, d] Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Liquid	Big gun	100	100	100	35	35	35	35	35	35	100	100	100
Liquid	Pivot or Linear	100	100	100	35	35	35	35	35	35	100	100	100
Liquid	Spreader Bar	100	100	35	35	35/15[c]	15	15	15	35	100	100	100
Liquid	Tank Wagon	100	100	35	35	35/15[c]	15	15	15	35	100	100	100
Liquid	Tanker Truck	100	100	35	35	35/15[c]	15	15	15	35	100	100	100
Solid	Spreader	100	100	35	35	35/15[c]	15	15	15	35	100	100	100

Note:

a. Setbacks are the distance between open waterways and manure application area.

b. Setback requirements will generally increase for manures which are applied aerially (such as a pivot/linear or traveling big gun) versus manures applied lower to the ground (such as a splash bar) due to potential for drift from wind or splashing.

c. This is a floating date and should be evaluated based on current weather conditions and forecast information.

d. Fifteen (15) feet is the suggested setback distance during summer months, however larger and/or smaller distances may be set depending on conversations with the ODA.

Record applications, transfers or exports of nutrients (manure and fertilizer) and maintain them for at least 5 years. The CAFO Recordkeeping Calendar or other acceptable record keeping systems can be used to record this information.

CONSIDERATIONS FOR DRY SEASON MANURE APPLICATIONS:

Apply wastewater and solids containing manure at agronomic rates using the following guidelines:

-Consider using T-Sum 200 as a guideline to begin making manure applications.

-Do not apply to soils immediately before or during rainfall events that are expected to result in saturated soils or surface runoff.

-Apply to land being prepared for crops. Till manure into soil within 3 days of application if possible or apply to actively growing crops such as grass, clover or alfalfa after cutting.

-Maintain the setback buffer distances described in this section and shown on the Setback Map when making applications of liquids or solids containing manure.

-Record applications, transfers or exports of nutrients (manure and fertilizer) and maintain them for at least 5 years. The CAFO Recordkeeping Calendar or other acceptable record keeping systems can be used to record this information.

CONSIDERATIONS FOR WET SEASON MANURE APPLICATIONS:

Only apply manure during this time period if the following guidelines CAN be met. Call the ODA CAFO Program at (503) 986-4700 for guidance if a manure application is needed and the following guidelines CANNOT be met:

- Apply manure only to actively growing crops such as grass, clover or alfalfa.
- Minimize application rates by using the maximum travel rates for the application equipment.
- Maintain the setback buffer distances described in this section and shown on the Setback Map when making applications of liquids or solids containing manure.

- Do not apply to soils immediately before or during rainfall events that are expected to result in saturated soils or surface runoff.
- Do not apply to saturated or flooded soils. It is recommended that application(s) be limited to soils (areas) where the flooding frequency class rating is None, Very Rare or Rare.
- Do not apply to slopes greater than 5%. See the Soil Map in Section 4-1 for the location of soil map units with slopes greater than 5%.

Applications of wastewater or solids containing manure to frozen soils should be avoided. Do the following if an application of wastewater or solids containing manure is to be made to frozen soils:
- Apply only enough wastewater or solids containing manure to address storage limitations until suitable soil conditions for application are available.
- Minimize applications to 5 wet tons per acre or less of solids containing manure and 6,788 gallons (0.25 inches) per acre or less of wastewater.
- Apply to alternating strips to reduce the risk of contaminated runoff reaching surface water sources.
- Apply to fields of established hay, pasture or fields containing at least 90% cover and are the furthest from open water sources.
- Do not apply wastewater or solids containing manure within 200 feet of surface water sources, drainageways, wells, or inlets to subsurface drainage systems.
- Runoff control systems such as earthen dikes must be in place where applications will be made to fields with slopes greater than 5%.

Record applications, transfers or exports of nutrients (manure and fertilizer) and maintain them for at least 5 years. The CAFO Recordkeeping Calendar or other acceptable record keeping systems can be used to record this information.

Do not apply manure or commercial fertilizer to fields receiving applications unless the nutrients applied in the manure are less than the annual application of nutrients planned in the nutrient budget for the fields.

HOW TO CALIBRATE APPLICATION EQUIPMENT

Calibration of application equipment is a critical part of nutrient management. Calibration should be completed at least annually to insure manure and fertilizer will be uniformly applied. There are two basic approaches for calibrating a manure spreader – the load area and the weight area methods. The load area method is more accurate and can be used for both liquid and solid manure. The weight area method works only with solid or semi-solid manure.

Irrigation System Calibration

Place 3-5 buckets throughout the irrigation spray pattern and collect samples while operating the pump at a given rpm and pressure (for a traveling gun record the travel speed also). At the end of the planned sample period measure the amount of liquid collected in inches (average the samples). The following chart shows how many gallons per acre applied per inch of liquid applied:

Inches Liquid Manure Applied	Gallons per Acre
0.20	5,431
0.30	8,146
0.40	10,862
0.50	13,577
0.75	20,366
1.00	27,152
1.25	33,943

1.50 40,731

Soft Hose Injection System with Irrigation Hose:
Alternative 1. Use a flow meter mounted on the injector system and calculate the distance and width to determine amount applied over a measured area. Example the flow meter measures 1,000 gallons over a distance of 600 feet and 10 feet wide.
Formula: Application Rate (7,260 gallons/acre) = (Gallons Applied (1,000 gal) X 43,560 sq. ft/acre) divided by (Distance traveled (600 ft) X Application width (10 ft))

Alternative 2. (Requires a 10-20 gallon graduated measuring container)
Step 1) In the field, measure the flow out of one injector for 5 seconds into the graduated measuring container and record gallons, repeat three (3) times and average the results.
Step 2) Multiply the average amount collected from one injector by the number of injectors (equals amount applied for the whole system for 5 seconds).
Step 3) Multiply the results of Step 2 times 12 to get gallons per minute.
Step 4) Place the injector in the soil at the planned depth and operating speed and record the distance traveled in 1 minute (average 3 different measurements).
Step 5) Determine the effective application width (number of injectors X injector spacing in feet).
Step 6) Multiply the effective width times the distance traveled in 1 minute (this gives the square feet covered in 1 minute).
Step 7) Divide the result of Step 6 by 43,560 (this gives the acres covered in 1 minute).
Step 8) Divide the results of Step 3 (gallons per minute) by the results of Step 7 (acres covered in 1 minute) - (this gives the gallons applied per acre.

For example:
Step 1) Collect an average of 6 gallons from one injector for 5 seconds.
Step 2) Applicator has 8 injectors (8 injectors X 6 gallons per injector = 48 gallons for 5 seconds)
Step 3) 48 gallons in 5 seconds X 12 = 576 gallons/minute applied
Step 4) Average distance covered in 1 minute was 250 feet
Step 5) Average width of the applicator is 12 feet.
Step 6) 12 feet wide X 250 feet long = 3000 square feet
Step 7) 3000 square feet divided by 43,560 square feet/acre = .0688 acres covered in 1 minute
Step 8) 576 gallons/minute divided by .0688 acres/minute = 8,372 gallons/acre.

Manure Spreader/Tanker Calibration
There are several methods that can be used to calibrate the application rate of a manure spreader. The two best methods are the load-area method and the weight-area method. It is desirable to repeat the calibration procedure 2 to 3 times and average the results to establish a more accurate calibration. Before calibrating a manure spreader, the spreader settings such as splash plates should be adjusted so that the spread is uniform. Most spreaders tend to deposit more manure near the middle than at the edge of the spread pattern. Overlapping can make the overall application more uniform. Calibrating application rates when overlapping is involved requires measuring the width of two spreads and dividing by two to get the effective spread width.
Calibration should take place annually or whenever manure is being applied from a different source or consistency.

Load-Area Method:
The load-area method is the most accurate and can be used for both liquid and solid manure. The load

area method is a 3-step process:
Step 1) Determine the amount of manure in the spreader. The most accurate way to determine the amount of manure in a spreader is weighting the spreader when it is empty and again when it is full. For a reliable estimate of spreader capacity, weigh several representative loads (at least five) to determine the average gross weight. Subtract the empty spreader weight. Then, calculate the average net loaded weight.
Step 2) Determine the area of spread using the method at the right. Width measurements near the beginning and end of the spread pattern should be avoided because the spreader may not be operating at full capacity.
Step 3) Calculate the application rate. The application rate is calculated using the formula for either liquid or solid manure.
Formula for Solid Manure Equals Tons/Acre
(Average Loaded Weight (lbs) x 21.81) divided by (Distance Traveled (ft) x Width of Spread (ft))
Formula for Liquid Manure Equals Gal/Acre
(Tank Volume (gal) x 43,560) divided by (Distance Traveled (ft) x Width of Spread (ft))

Weight-Area Method:
The weight-area method can only be used with solid or semi-solid manure. When a scale is not available, the application rate of a box spreader can be determined by collecting manure on a tarp or piece of heavy material. The weight area method is less accurate than the load area method.
This method consists of eight steps:
Step 1) Prepare/cut three 56-inch square tarps or pieces of heavy material (this size equals 1/2,000 of an acre). The pounds of manure collected on 56 inches square equals tons applied per acre.
Step 2) Weigh one of the clean tarps and a large bucket on a platform scale. Record the weight.
Step 3) Anchor the three tarps in the field ahead of the spreader near the beginning, middle, and end of the area that will be spread with one load.
Step 4) Drive over the three tarps at a normal speed to collect a representative manure sample.
Step 5) Fold and place the first tarp into the empty bucket without spilling the manure.
Weigh the bucket, tarp, and manure. Subtract the weight of the clean tarp and bucket recorded in step 2.
Step 6) Repeat the process for each of the two remaining tarps.
Calculate the average weight (pounds) of the manure collected. This value equals tons of manure applied per acre.
Factor for converting pounds to tons and square feet to acres (21.8 = 43,560 sq ft per acre divided by 2,000 lbs/ton).
The factor for converting square feet to acres = 43,560 sq ft per acre.
Step 7) Determining Area of Spread.
The “area of spread” is the length and width of the ground covered with one load of manure. The area of spread is affected by speed and equipment settings. Spreaders discharge manure at varying rates depending on travel and PTO speed, gear box settings, and discharge openings. It is important to adjust the spreader so the pattern is as uniform as possible. Accurately measuring the length and width of this area is essential. To determine width, measure two adjacent spreads and divide by two to find the “effective” spread width. This accounts for overlap, which is often needed for a more uniform application. The length of spread is determined using the following three values:
Desired manure application rate based on soil and manure tests,
Width of the manure spread, and
Manure spreader holding capacity (weight and/or volume).
From these values, calculate the distance or lengths of spread using these formulas:

Formula: Solid Manure Equals Feet/Load
(Average Load Weight (lbs) x 21.81) divided by (Spread Width (ft) x App. Rate (tons/ac))
Formula: Liquid Manure Equals Feet/Load
(Tank Volume (gal) x 43,560) divided by (Spread Width (ft) x Desired App. Rate (gal/ac))
Step 8) Spread a load. If the distance traveled does not equal the calculated distance, adjust the speed or equipment settings.

AMOUNT OF MANURE TO APPLY FOR CROPS GROWN

The formulas for determining the total nutrient application rate per unit yield for each crop shown in the table below are as follows:
Total N to apply in pounds = N in pounds per yield unit from the table for the crop grown X Yield Units per Acre X actual percent (%) dry matter (DM) of harvested crop/percent (%) dry matter (DM) from table
Total P_2O_5 to apply in pounds = P in pounds per yield unit from the table for the crop grown X Yield Units per Acre X 2.291 P_2O_5/P X actual percent (%) dry matter (DM) of harvested crop/percent (%) dry matter (DM) from table
Total K_2O to apply in pounds = K in pounds per yield unit from the table for the crop grown X Yield Units per Acre X 1.205 K_2O/K X actual percent (%) dry matter (DM) of harvested crop/percent (%) dry matter (DM) from table
Example- for a field with 5 tons per acre of grass/legume hay harvested at 90% dry matter:
Total N to apply in pounds per acre = (33.92 lb N / ton) X (5 tons / acre) X (90%DM / 100% DM) = 153 lbs N / acre

The following tables show the nutrient removal (lb/yield unit) for crops that may be grown on this farm:

FRUIT OR VEGETABLES

Crop	Yield Unit	Yield	%DM	N	P	K
Beans, dry edible	cwt	100	100	3.13	0.45	0.85
Blueberries	ton	2000	100	13.93	1.30	11.57
Caneberries	ton	2000	100	11.43	7.42	11.43
Carrots	ton	2000	100	3.8	0.8	5.0
Corn, Sweet	ton	2000	100	20.67	5.60	13.66
Grapes	ton	2000	100	11.39	1.07	20.43
Mixed Vegetables & Fruit	ton	2000	100	8.33	2.08	10.20
Onions	cwt	100	100	0.18	0.04	0.13
Orchard, Fruit	ton	2000	100	13.00	2.00	16.00
Pea, edible	ton	2000	100	73.60	8.00	18.00
Potatoes	ton	2000	100	30.0	5.45	47.27
Squash	ton	2000	100	21.33	6.80	11.40

GRAIN, SEED OR OIL CROPS

Crop	Yield Unit	Yield	%DM	N	P	K
Barley	bushels	48	100	0.87	0.16	0.21
Beets, sugar	ton	2000	100	4.00	0.60	2.78
Bluegrass, Seed	cwt	100	100	2.88	0.43	1.98
Canola	ton	2000	100	70.00	12.00	18.00
Corn, grain shelled	bushels	56	100	0.90	0.16	0.22
Crimson Clover seed	lb	1	100	0.05	0.01	0.02

Fescue Seed, Straw Removed	cwt	100	100	1.97	0.20	2.00
Fescue, seed (Fine or Tall)	lb	1	100	1.47	0.31	1.67
Oats, grain	bushels	32	100	0.62	0.11	0.16
Orchardgrass seed	lb	1	100	0.016	0.002	0.004
Peppermint for Oil	ton	2000	100	4.20	1.80	2.80
Peppermint for Oil, Leaves & Stems Removed	ton	2000	100	87.23	36.80	57.80
Pumpkins	ton	2000	100	4.00	1.40	6.60
Rapeseed	bushels	50	100	1.38	0.30	0.30
Red Clover seed	cwt	100	100	4.55	1.00	2.00
Ryegrass seed	cwt	100	100	1.67	0.27	1.42
Ryegrass Seed, Straw Removed	ton	2000	100	30.00	18.80	37.60
Ryegrass, Perennial seed	lb	1	100	0.02	0.002	0.004
Wheat, Soft White for grain	bushels	60	100	1.00	0.24	0.21
Wheat, Soft White, Straw Removed	ton	2000	100	43.40	8.90	20.90
Wheat, Hard Red for grain	bushels	60	100	1.60	0.37	0.31
Wheat, Hard Red, Straw Removed	ton	2000	100	53.36	10.96	23.76

HAY AND PASTURE CROPS

Crop	Yield Unit	Yield	%DM	N	P	K
Alfalfa, Hay	ton	2000	100	54.40	6.83	35.70
Alfalfa, Seed	cwt	100	100	6.12	0.70	2.34
Alta Fescue Hay/Pasture	ton	2000	100	32.98	6.88	37.60
Grass Legume Hay/Pasture	ton	2000	100	33.92	5.30	7.56
Meadow Fescue Hay/Pasture	ton	2000	100	41.56	8.70	47.43
Oats Hay/Pasture	ton	2000	100	26.01	10.20	14.79
Orchardgrass Hay/Pasture	ton	2000	100	53.21	8.58	18.62
Perennial Grass Hay/Pasture	ton	2000	100	58.00	8.00	40.00
Reed Canary Grass	ton	2000	100	27.00	3.57	41.57
Ryegrass Hay	ton	2000	100	33.41	5.44	28.39
Ryegrass, Perennial Pasture	ton	2000	100	58.00	8.00	48.00
Sorghum-Sudan Haylage	ton	2000	100	54.40	6.40	58.00
Tall Fescue Hay/Pasture	ton	2000	100	39.40	4.00	40.00
Vetch Hay	ton	2000	100	51.93	7.20	44.76

SILAGE AND HAYLAGE CROPS

Crop	Yield Unit	Yield	%DM	N	P	K
Alfalfa/Grass Haylage	ton	2000	100	15.60	1.02	6.84
Corn for Silage	ton	2000	100	25.00	4.00	20.00
Crimson Clover forage	ton	2000	100	40.00	4.48	33.28
Field Pea, Forage	ton	2000	100	73.60	8.00	18.00
Mustard, White	ton	2000	100	38.55	0.0	0.0
Oat haylage	ton	2000	100	26.0	10.2	14.8
Oats & Peas/ Green Beans	ton	2000	100	32.03	5.58	18.65

Perennial Grass Haylage	ton	2000	100	15.00	2.40	12.78
Red Clover forage	ton	2000	100	40.00	4.41	32.98
Ryegrass Haylage	ton	2000	100	15.00	2.40	12.78
Sorghum-Sudan Haylage	ton	2000	100	16.32	1.92	17.40
Triticale Haylage	ton	2000	100	49.00	6.80	11.40
Vetch Haylage	ton	2000	100	59.67	6.57	50.00
Wheat Haylage	ton	2000	100	41.30	5.00	57.30
Wheatgrass Hay/Pasture	ton	2000	100	49.59	6.21	68.76

OTHER CROPS

Crop	Yield Unit	Yield	%DM	N	P	K
Filberts	ton	2000	100	41.70	7.30	39.29
Hops, Cones	bale	200	100	9.00	0.96	5.00
Natural Area (Trees & Grass)	ton	2000	100	10.52	1.56	9.20
Nursery Stock	ton	2000	100	8.33	2.08	10.20
Poplars, Pulpwood	ton	2000	100	0.30	0.09	0.12
Hemp/Cannabis	ton	2000	100	31.09	3.37	36.23

Note: Nutrient uptake values are taken from the NRCS National Agricultural Waste Management Field Handbook and updated with more current information from the Extension Service when available. When nutrient uptake values are not available from NRCS or Extension references, then nutrient uptake data from the NRCS Plant Database or other approved data sources is used.

Nutrient Applications

Nutrient Applications Report

Stafford Lot

Culver

West Field

Date	Source	Equipment Used	% of Field	Amount Applied	N lbs/ac	P_2O_5 lbs/ac	K_2O lbs/ac
05/01	Grazing activity	Beef Cow	100	4,559 CF	13	15	13
				West Field Totals:	13	15	13

Sampling Guidance

Manure and Soil Sampling Frequency

For large concentrated animal feeding operations, sample liquids and solids containing manure during applications in early spring annually and have each sample analyzed for Total Nitrogen (TKN), Ammonium Nitrogen (NH_4-N), Phosphorus (P_2O_5) and Potassium (K_2O) plus percent moisture. Ask the lab to report results in pounds per ton for the solids containing manure and in pounds per thousand gallons for liquids containing manure. Analyses of solids and liquids containing manure should be performed by a laboratory that meets the requirements and performance standards of the Manure Testing Laboratory Certification Program (MTLCP), http://www2.mda.state.mn.us/webapp/lis/manurelabs.jsp.

For small and medium animal feeding operations, if no samples of liquids and solids containing manure have been taken, take a sample of liquids and solids during applications in early spring once a year for three consecutive years to develop a cumulative manure analysis history as a basis for nutrient allocation to the fields. If there is a sampling history of liquids and solids containing manure, take a sample of liquids and solids during applications in early spring once every 5 years or whenever a significant change in animal numbers or in the manure handling system occurs. Have each sample analyzed for Total Nitrogen (TKN), Ammonium Nitrogen (NH_4-N), Phosphorus (P_2O_5) and Potassium (K_2O) plus percent moisture. Ask the lab to report results in pounds per ton for the solids containing manure and in pounds per thousand gallons for liquids containing manure. Analyses of solids and liquids containing manure should be performed by a laboratory that meets the requirements and performance standards of the Manure Testing Laboratory Certification Program (MTLCP), **http://www2.mda.state.mn.us/webapp/lis/manurelabs.jsp**.

Large CAFO's are required to test a minimum of 20 percent of their fields annually which would result in all of the fields being tested once every 5 years. Small and Medium CAFO's are only required to test all of their fields once every 5 years. However, from a management standpoint, more frequent soil testing offers good information on the nutrient status of your soils.

Collect soil samples from 20 percent of the fields receiving solids or liquids containing manure **annually** in the fall after harvest or before rains begin(typically September 15-October 15) in accordance with **Pacific Northwest (PNW) Extension publication 570-E, "Monitoring Soil Nutrients Using a Management Unit Approach",** https://catalog.extension.oregonstate.edu/pnw570. Have the soil samples analyzed for Total Nitrogen (TKN) and Phosphorus (P) and ask the lab to report results in parts per million (ppm). Soil test analyses should be performed by laboratories that meet the requirements and performance standards of the North American Proficiency Testing Program (NAPT) Proficiency Assessment Program (PAP); http://www.naptprogram.org/pap/.

How to Sample Liquid Manure

Obtain a composite following one of the procedures listed below and thoroughly mix. Using a plunger, an up-and-down action works well for mixing liquid manure in a five-gallon bucket. Fill a one-quart plastic bottle not more than three-quarters full with the composite sample. Store sample in freezer if not delivered to the lab immediately.

Procedure 1. Sampling from storage- Agitate storage facility thoroughly before sampling. Collect at least five samples from the storage facility or during loading using a five-gallon bucket. Place a sub sample of the composite sample in a one-quart plastic container. Sampling a liquid manure storage facility without proper agitation (2-4 hrs. minimum) is not recommended due to nutrient stratification, which occurs in liquid systems. If manure is sampled from a lagoon that was not properly agitated, typically the nitrogen and potassium will be more concentrated in the top liquid, while the phosphorus will be more concentrated in the bottom solids.

Procedure 2. Sampling during application- Place buckets around field to catch manure from spreader or irrigation equipment. Combine and mix samples into one composite sub sample in a one-quart plastic container.

How to Sample Solid Manure

Collect a composite sample by following one of the procedures listed below. A method for mixing a composite sample is to pile the manure and then shovel from the outside to the inside of the pile until well mixed. Fill a one-gallon plastic heavy-duty zip lock bag approximately one-half full with the composite sample, squeeze out excess air, close and seal. Store sample in freezer if not delivered to the laboratory immediately.

Procedure 1. Sampling while loading - Recommended method for sampling from a stack or bedded pack. Take at least ten samples while loading several spreader loads and combine to form one composite sample. Thoroughly mix the composite sample and take an approximately one pound sub sample using a one-gallon plastic bag. Sampling directly from a stack or bedded pack is not recommended.

Procedure 2. Sampling during spreading - Spread a tarp in field and catch the manure from one pass. Sample from several locations and create a composite sample. Thoroughly mix the composite sample together and take a one-pound sub sample using a one-gallon plastic bag.

Procedure 3. Sampling daily haul - Place a five-gallon bucket under the barn cleaner 4-5 times while loading a spreader. Thoroughly mix the composite sample together and take a one-pound sub sample using a one-gallon plastic bag. Repeat sampling 2-3 times over a period of time and test separately to determine variability.

Procedure 4. Sampling poultry in-house - Collect 8-10 samples from throughout the house to the depth the litter will be removed. Samples near feeders and waterers may not be indicative of the entire house and sub samples taken near here should be proportionate to their space occupied in the whole house. Mix the samples well in a five-gallon pail and take a one-pound sub sample, place it in a one-gallon zip lock bag.

Procedure 5. Sampling stockpiled litter - Take ten sub samples from different locations around the pile at least 18 inches below the surface. Mix in a five-gallon pail and place a one-pound composite sample in a gallon zip lock bag.

Sample Identification and Delivery

Identify the sample container with information regarding the farm, animal species and date. This information should also be included on the sample information sheet along with application method, which is important in determining first year availability of nitrogen.

Keep all manure samples frozen until shipped or delivered to a laboratory. Ship early in the week (Mon.-Wed.) and avoid holidays and weekends.

How to Sample Soils

Current soil tests must be used in the development and editing of nutrient management plans. A current soil test is one that is no older than 5 years that is used to represent the nutrient status of the entire field. Soil analysis must be performed by laboratories successfully meeting the requirements and performance standards of the North American Proficiency Testing Program-Performance Assessment Program (NAPT-PAP). Results of these analysis will be used to determine application rates for manure, litter, and process wastewater. Guidance for soil sampling can be found in the **Pacific Northwest (PNW) Extension publication 570-E, "Monitoring Soil Nutrients Using a Management Unit Approach"**, https://catalog.extension.oregonstate.edu/pnw570. **Oregon State University Extension publication EC1478, "Soil Test Interpretation Guide",** https://catalog.extension.oregonstate.edu/ec1478 provides guidance on how to determine soil nutrient concentrations and how to adjust soil pH to improve nutrient availability.

Field Area. A composite soil sample should represent a uniform field area. Each area should have similar crop and fertility history. Soil characteristics (color, slope, texture, drainage) should be

similar. Exclude small areas within a field that are obviously different. The field area represented by a single composite sample should represent no more than 40 irrigated acres or 100 dry land acres.

Sampling Depth. Laboratory tests are calibrated to specific depths. It is vital to collect samples from appropriate depths. Sampling depth for most soils is the rooting depth in 6-inch intervals. In Oregon, as a minimum, soil samples should be collected from the 0-12” depth. The 0-6” surface soil samples are normally used for conventional tests of organic matter, nitrogen, phosphorus, potassium, pH and salt levels. Additionally, subsurface samples from the 6-24” depth are needed to estimate nitrogen availability for crops grown in dry land areas.

Post Harvest Soil Testing for Evaluating Nutrient Applications. Refer to **Pacific Northwest (PNW) Extension publication 570-E, “Monitoring Soil Nutrients Using a Management Unit Approach”**, https://catalog.extension.oregonstate.edu/pnw570, for guidance on how to evaluate nutrient applications and crop uptake of nutrients.

Manure Tests



Nutrient Analysis Report

Stafford Lot

Culver

Sample Date	Storage Name	Units	Total N	P_2O_5	K_2O	NH_4-N	NO_3-N	Org N	Density Lbs/CF	Excluded Y/N
07/13/2026	Feedlot Pens	lbs/Ton	43.2	23.9	32.4	0.51	1.41	41.28	36.0	

Soil Tests

Soils Testing Report

Stafford Lot

9950 SW Culver Hwy, Culver

Soils Testing Report - Stafford Lot

Test Date	Lab #	Sample ID	Depth	pH	BpH	SS (ppm)	OM %	Ex Carb	Bray P	Olsen P	K (ppm)	Mg	Ca	Na	NO3-N	NH4-N	S (ppm)	B (ppm)	Zn (ppm)	Mn (ppm)	Cu (ppm)	Fe (ppm)	Al (ppm)	Cl (ppm)
West Field																								
9/24/2026	S26-22252		12.0	6.6	7.4		0.0			16.0	614.0				29.0 lbs/Ac	18.0 lbs/Ac	4.0	0.11	0.6	7.3	0.7	18.0		

Soil test analyses should be performed by laboratories that meet the requirements and performance standards of the North American Proficiency Testing Program (NAPT) Proficiency Assessment Program (PAP);
http://www.naptprogram.org/pap/

Nutrient Balances

Nutrient Balances Report

Stafford Lot

Culver

Field	Acres	Crop	Yield	Nutrient Uptake (lbs/ac)			Nutrient Applied (lbs/ac)			Nutrient Balance (lbs/ac)		
				N	P_2O_5	K_2O	N	P_2O_5	K_2O	N	P_2O_5	K_2O
West Field	75.0	Grass Hay/Pasture	0.2 Ton	12	4	10	13	15	13	0	11	3

SECTION 3 - UTILIZATION AREA

Transferred Nutrients



Transfers Report

Stafford Lot

Culver

Exported from	Date Transferred	Quantity	Analysis Available	Total N lbs	P_2O_5 lbs	K_2O lbs	Exported to
Feedlot Pens	07/01	1,469,320 CF	Yes	1,142,543.25	275,906.34	711,126.5	Neighboring farms
	Sub Totals:	1,469,320 CF		1,142,543.25	275,906.34	711,126.5	

Imported from	Date Transferred	Quantity	Analysis Available	Total N lbs	P_2O_5 lbs	K_2O lbs	Imported to
No Imports.				0	0	0	
	Sub Totals:	CF		0	0	0	
	Totals:	1,469,320 CF		1,142,543	275,906	711,126	

Grazing History



Grazing Report

Stafford Lot -

Culver

NMPT

11/03/2026

Date	Field	Crop	Animals	Count	Grazing Time	Forage Removed (lbs)	Nutrient Removed (lbs/ac) N	P_2O_5	K_2O
05/01	West Field	Grass Hay/Pasture	Beef Cow	70	1.0 Months	32,000	12	2	9
	West Field Totals:			70	720.0 Hours	32,000	12	2	9

SECTION 3 - UTILIZATION AREA

Cropping History



Cropping Report

Stafford Lot

Culver

Planted	Field	Acres	Crop	Yield	Nutrient Uptake (lbs/ac) N	P_2O_5	K_2O
01/01	West Field	75.0	Grass Hay/Pasture	0.2 Ton	58	18	48
	West Field Totals:				58	18	48

SECTION 3 - UTILIZATION AREA

Irrigation Water Management

The application of Irrigation Water Management to the irrigated fields as shown on the Field Map will manage soil moisture to promote the desired crop response, optimize the available water supplies, minimize irrigation induced erosion, decrease non-point source pollution of surface and groundwater sources, manage salts in the crop root zone and manage the crop micro climate.

Permits: Under Oregon law all water is publicly owned, and anyone planning to store or divert surface or groundwater for the purpose of irrigation must obtain a permit or water right from the Oregon Water Resources Department. These permits or water rights must be obtained prior to the use of the water. It is the responsibility of the Farmer to file for the necessary permits or water rights. More information about Oregon water rights can be found at http://www.oregon.gov/owrd/Pages/wr/index.aspx.

The irrigation system used to irrigate crops should be adapted for site conditions (soil, slope, crop grown, climate, water quantity and quality, etc.) and capable of applying water and wastewater to meet the consumptive use of the crop. The following table shows the estimated Available Water Holding Capacity (AWHC) and sprinkler intake rates by soil texture that should be considered in the design of the irrigation system.1/

Symbol	Soil Texture	AWHC Range (in/in)	Sprinkler Intake Rate Range (in/hour)
COS	Coarse Sand	0.01-0.03	1.0+
S	Sand	0.01-0.03	0.5+
FS	Fine Sand	0.05-0.07	0.5+
VFS	Very Fine Sand	0.05-0.07	0.5+
LCOS	Loamy Coarse Sand	0.06-0.08	1.0+
LS	Loamy Sand	0.06-0.08	0.4-1.5
LFS	Loamy Fine Sand	0.09-0.11	0.4-1.5
LVFS	Loamy Very Fine Sand	0.10-0.12	0.3-1.25
COSL	Coarse Sandy Loam	0.10-0.12	0.3-1.25
SL	Sandy Loam	0.11-0.13	0.3-1.25
FSL	Fine Sandy Loam	0.13-0.15	0.3-1.0
VFSL	Very Fine Sandy Loam	0.15-0.17	0.3-1.0
L	Loam	0.16-0.18	0.6-0.7
SIL	Silt Loam	0.19-0.21	0.5-0.7
SI	Silt Loam	0.16-0.18	0.5-0.7
SCL	Sandy Clay Loam	0.14-0.16	0.1-0.5
CL	Clay Loam	0.19-0.21	0.1-0.5
SICL	Silty Clay Loam	0.19-0.21	0.1-0.4
SC	Sandy Clay	0.15-0.17	0.1-0.4
SIC	Silty Clay	0.15-0.17	0.1-0.2
C	Clay	0.14-0.16	0.1-0.2

1/ Values in this table are taken from the Natural Resources Conservation Service National Engineering Handbook, Part 652, Irrigation Guide and are estimates based on soil texture and should only be used where local data is unavailable.

Irrigation water management requires knowledge, skills, and desire to determine when irrigation water should be applied. The main factors influencing IWM are irrigation interval (time between irrigations), irrigation set time (time water is applied), and application rate (rate at which water is applied). These parameters define the timing and duration of irrigation and the amount of water applied. System design and maintenance are also important factors influencing irrigation water management.

Guidance given in the irrigation water requirements worksheets was developed based on Oregon State

University Extension Miscellaneous 8530, Oregon Crop Water Use and Irrigation Requirements publication. For additional information on irrigation water management contact a professional with the required knowledge and skill. The following average monthly evapotranspiration and precipitation graphs can be used to estimate when to irrigate and how much to apply:

SECTION 3 - UTILIZATION AREA

Irrigation Water Flows, Volumes, and Relationships

Equation 1 -

$$Q \times T = D \times A$$

where:

Q = flow rate (acre-in/hr or cfs)
T = time (hr)
D = gross depth applied (in)
A = area (acres)

Equation 2 -

$$Q = \frac{453 \times A \times D}{F \times H}$$

where:

Q = flow rate (acre-in/hr or cfs)
A = area (acres)
D = gross depth applied (in)
F = irrigation period (days)
H = Hours of operation per day

Water Flow Rates:

1 cubic foot per second (cfs)
= 448.8 gallons per minute
1 cfs for 1 hour = 0.99 acre-inch
1 cfs for 24 hr = 1.98 acre-ft
1,000 gpm = 2.23 cfs
1,000 gpm for 24 hr = 4.42 ac-ft
1 gpm/acre =0.053 ac-in/ac/day
1 cfs = 40 miner's inches in OR, No CA
1 cfs = 50 miner's inches in ID, WA
1 miner's inch = 11.22 gpm in OR
1 miner's inch = 9 gpm in ID, WA
1 cfs = 28.32 liters/sec
1 cubic meter/sec = 35.3 cfs
1 liter/sec = 15.85 gpm

Q x T = D x A where:

Q = cfs, T = hr, D = inches depth; A = acres

Gpm for 5 ft/s velocity in PVC pipe:

6"	8"	10"	12"	14"
480	800	1250	1750	2150

Water Volumes & Weights:

1 cubic foot = 7.48 gallons
= 62.4 lbs = 28.3 liters
1 acre-foot = 43,560 cubic feet
(1 acre covered 1 ft deep)
12 acre-in = 1 acre-ft = 325,829 gal
1 million gallons = 3.07 acre-ft
1 acre-ft = 1,234 cubic meters
1 cu meter = 1,000 liters = 35.3 cu ft

Pressure and Pressure Head:

1 psi = 2.31 ft of pressure head
1 atmosphere (sea level)
= 14.7 psi = 33.9 ft of head

Lengths and Areas:

1 mile = 5,280 ft = 1.61 km
1 meter = 3.28 ft = 39.37 inches
1 acre = 43,560 square ft
1 hectare = 2.47 acres

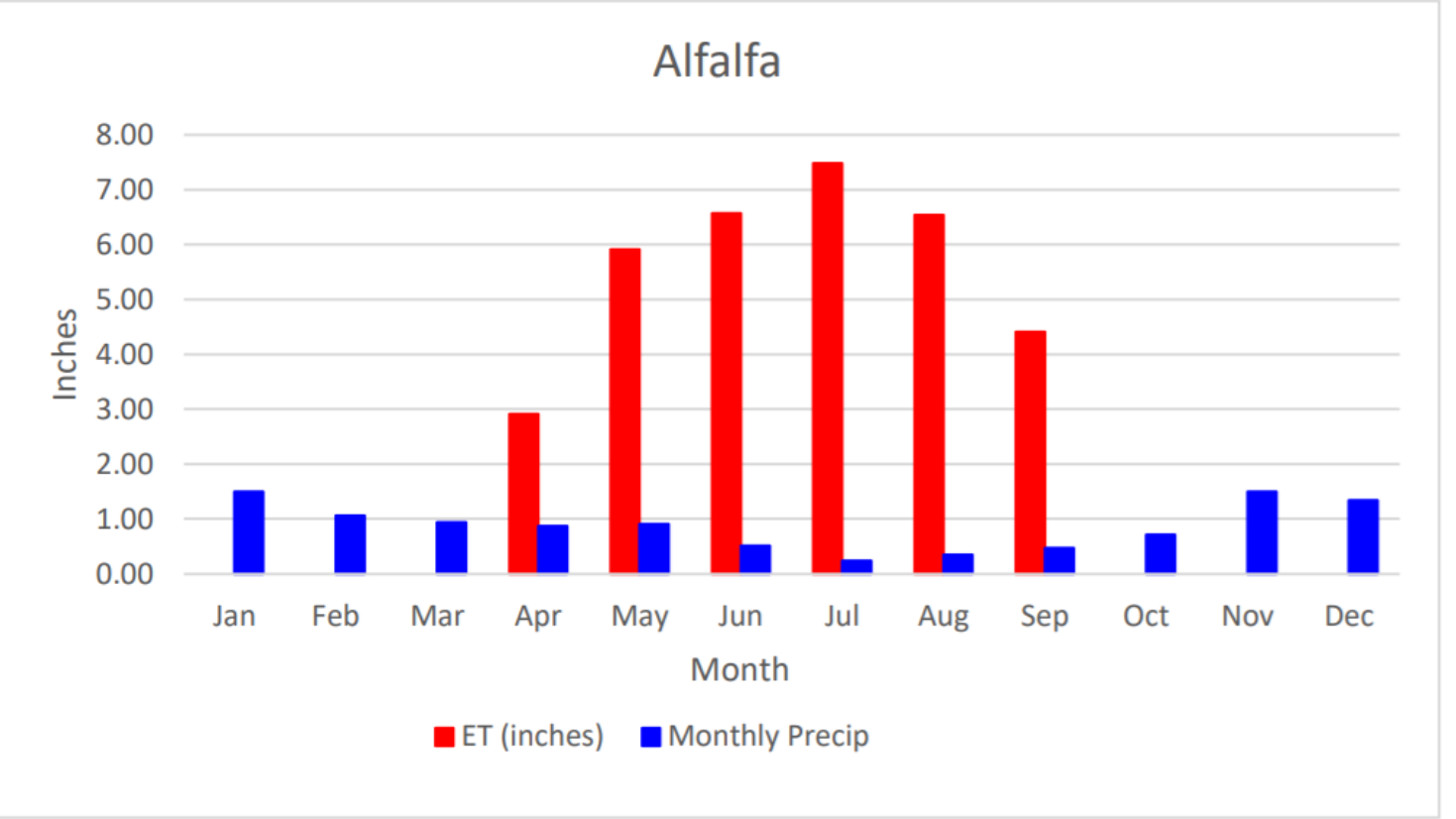
Pump Power Requirement

$$Horsepower = \frac{Pump\ \ Head\ \ in\ \ ft\ \ x\ \ gpm}{39.6 \times \%\ Pump\ \ Efficiency}$$

SECTION 3 - UTILIZATION AREA

Crop- Alfalfa
Region- North Central

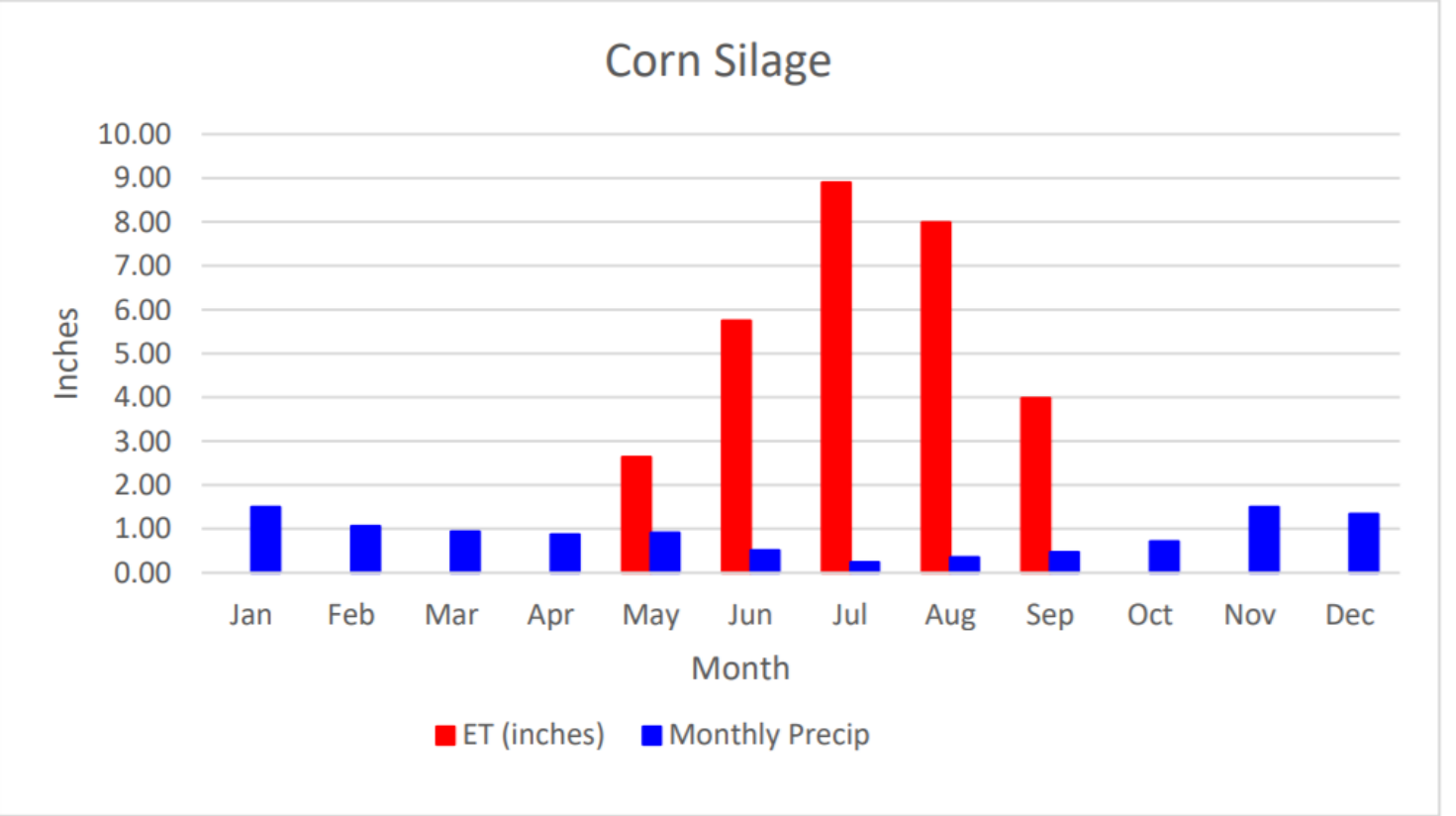
Total Seasonal Evapotranspiration-	33.82	Inches
Peak Evapotranspiration Rate-	0.25	Inches/Day
Maximum Allowed Depletion-	50	%
Critical Moisture Deficit Period-	Jul	



SECTION 3 - UTILIZATION AREA

Crop- Corn Silage
Region- North Central

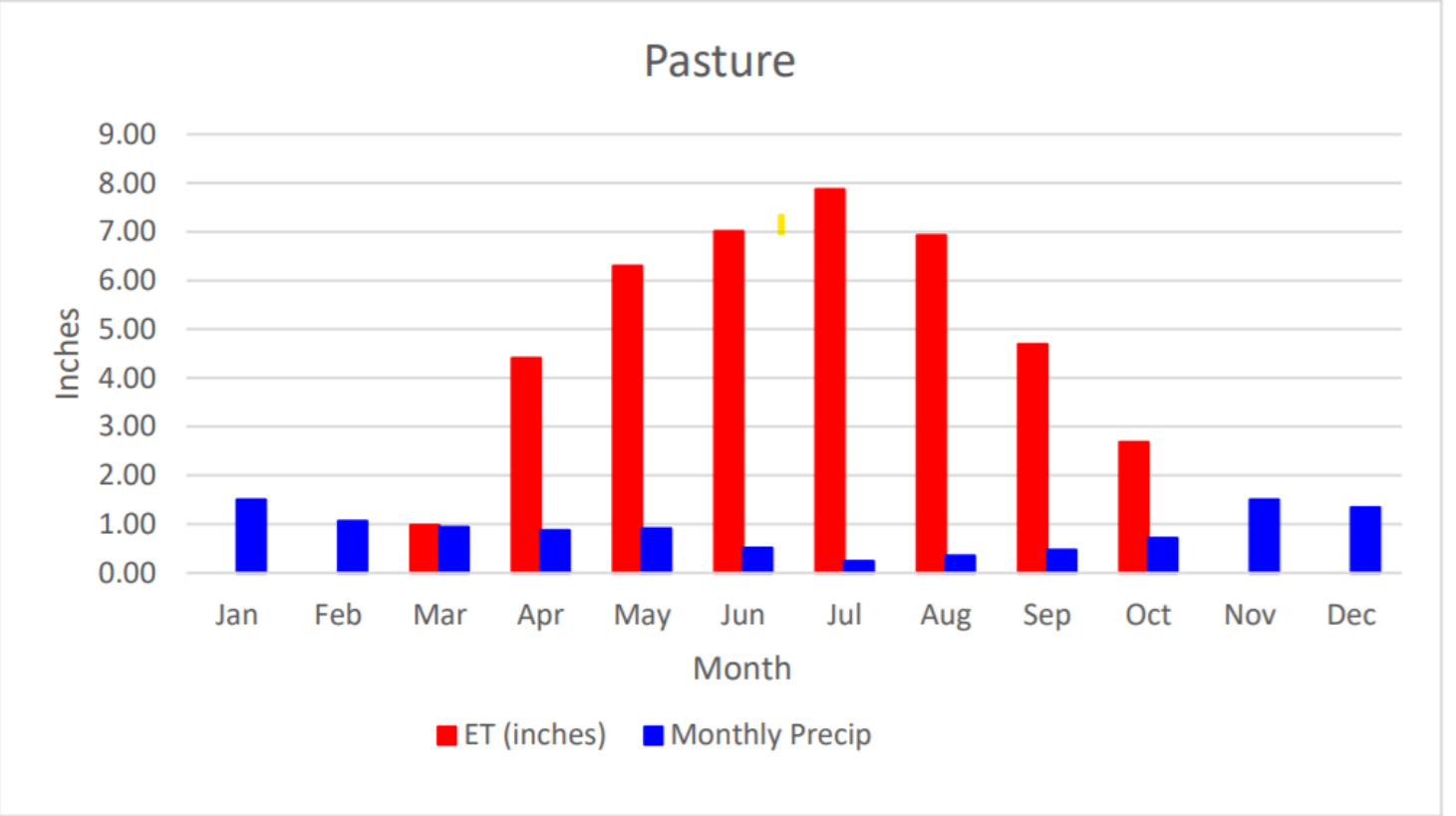
Total Seasonal Evapotranspiration-	29.26	Inches
Peak Evapotranspiration Rate-	0.30	Inches/Day
Maximum Allowed Depletion-	50	%
Critical Moisture Deficit Period-	Jul	



SECTION 3 - UTILIZATION AREA

Crop- Pasture
Region- North Central

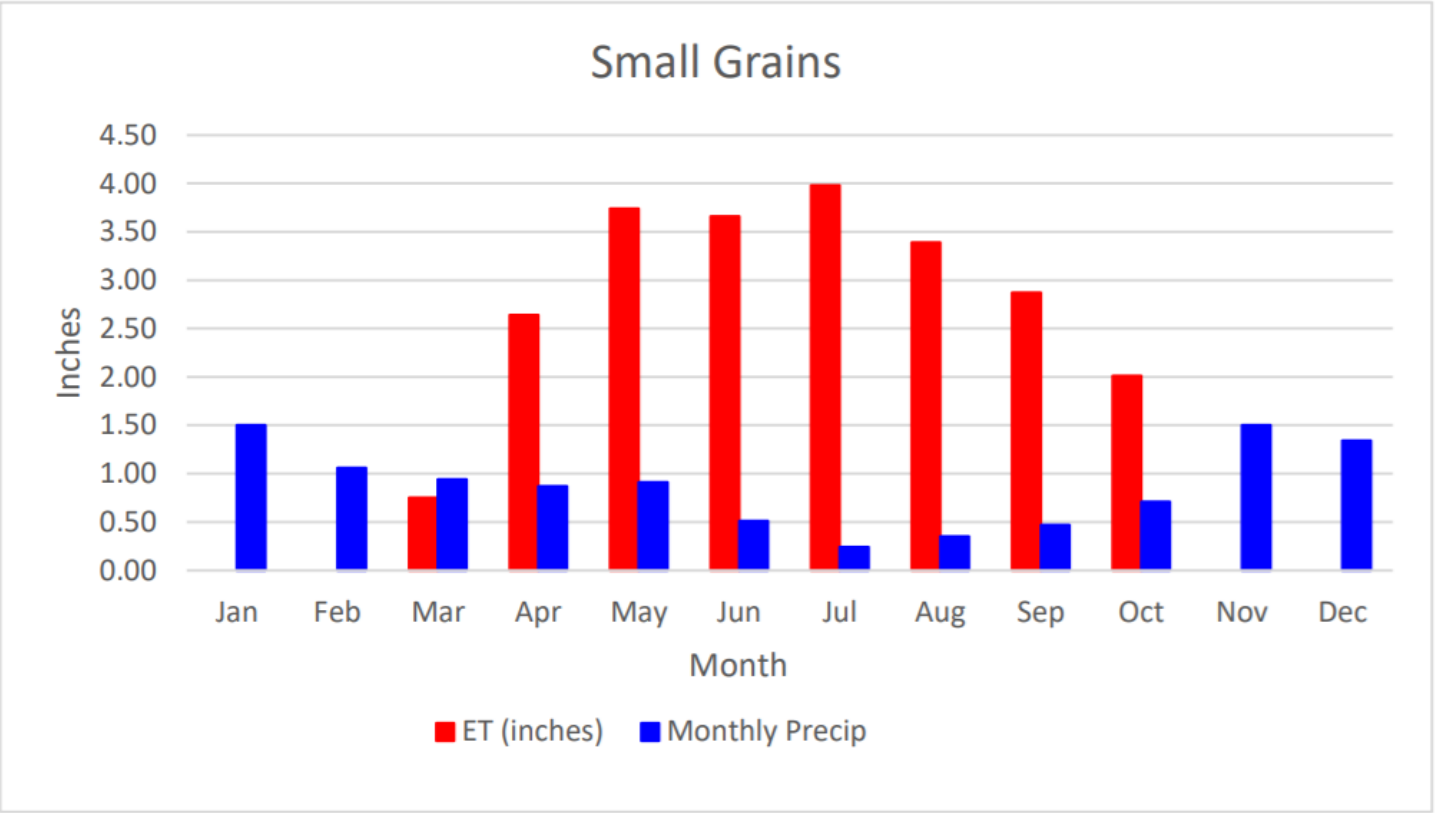
Total Seasonal Evapotranspiration-	40.87	Inches
Peak Evapotranspiration Rate-	0.26	Inches/Day
Maximum Allowed Depletion-	50	%
Critical Moisture Deficit Period-	Jul	



SECTION 3 - UTILIZATION AREA

Crop- Small Grains
Region- North Central

Total Seasonal Evapotranspiration-	23.04	Inches
Peak Evapotranspiration Rate-	0.13	Inches/Day
Maximum Allowed Depletion-	50	%
Critical Moisture Deficit Period-	Jul	



SECTION 4 - SOIL AND RISK ASSESSMENT

Soil Maps for Stafford Lot

Soils Map #2



Soils

STAFFORD LOT

Operator	Martin Livestock, LLC
Prepared by	Elizabeth Kittle, TSP-24-24977
Prepared	Jul 2026
Location	T:12S R:13E Sec:32 Jefferson County, Oregon 44.490°N 121.203°W
SWCD	Jefferson County SWCD
Area	120 acres

LEGEND

Source: USDA/NRCS Web Soil Survey, 2026

30C	**Cullius loam** 8–15% slopes	50 ac	42%
110D	**Schrier-Tub complex** 15–30% north slopes	62 ac	52%
110E	**Schrier-Tub complex** 30–60% north slopes	8 ac	6%

Soil Reports

Stafford Lot Soils
OR620 — Upper Deschutes River Soil Survey

OR620
Unit name
Slope
Acres
%
30C
Cullius loam
8–15%
50 ac
41.7%
110D
Schrier-Tub complex north slope
15–30%
62 ac
51.7%
110E
Schrier-Tub complex north slope
30–60%
8 ac
6.6%
Totals
120 ac

30C—Cullius loam, 8 to 15 percent slopes

- National map unit symbol: 245t
- Elevation: 2,500 to 3,000 feet
- Mean annual precipitation: 8–11 in.; air temp.: 47–52°F; 110–140 days frost-free
- Farmland of statewide importance

85% Cullius
Setting

- Lava plains on backslopes (2D) and side slopes (3D)
- Linear down- and across-slope shapes
- Parent material: Loess over colluvium over residuum derived from semiconsolidated sediments of the Deschutes Formation

Typical profile

- H1 0–6 in. loam
- H2 6–9 in. clay loam
- H3 9–17 in. clay
- H4 17–18 in. weathered bedrock
- H5 18–28 in. unweathered bedrock

Properties and qualities

- 10–20 in. to paralithic bedrock; 11–21 in. to lithic bedrock; more than 80 in. to water table
- Well-drained; no flooding or ponding

- Capacity of most limiting layer to transmit water (Ksat): Mod. low to mod. high (0.06–0.20 in/hr)
- Available water supply, 0–60 in.: Very low (about 2.8 in.)

Interpretive groups

- Land capability classification: 4e (irrigated); 4e (nonirrigated)
- Hydrologic Soil Group: D; no hydric soil rating
- Ecological site: R010XA001OR - loamy 8-10 PZ

110D—Schrier-Tub complex, 15 to 30 percent north slopes

- National map unit symbol: 23z1
- Elevation: 2,600 to 4,500 feet
- Mean annual precipitation: 12–14 in.; air temp.: 47–50°F; 110–130 days frost-free
- Farmland of statewide importance

45% Schrier, north

Setting

- Hillslopes on backslopes (2D) and side slopes (3D)
- Linear down- and across-slope shapes
- Parent material: Loess over colluvium derived from volcanic rock

Typical profile

- H1 0–16 in. silt loam
- H2 16–21 in. very gravelly silt loam
- H3 21–36 in. silt loam
- H4 36–42 in. silt loam
- H5 42–60 in. extremely gravelly fine sand

Properties and qualities

- More than 80 in. to restrictive feature; more than 80 in. to water table
- Well-drained; no flooding or ponding
- Capacity of most limiting layer to transmit water (Ksat): Moderately high to high (0.57–1.98 in/hr)
- Calcium carbonate, maximum content: 10 percent
- Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
- Available water supply, 0–60 in.: Moderate (about 8.0 in.)

Interpretive groups

- Land capability classification: none (irrigated); 4e (nonirrigated)
- Hydrologic Soil Group: B; no hydric soil rating
- Ecological site: R010XB083OR - JD shrubby shallow 12-16 PZ

40% Tub, north

Setting

- Hillslopes on backslopes (2D) and side slopes (3D)
- Linear down- and across-slope shapes
- Parent material: Loess over colluvium derived from andesite

Typical profile

- H1 0–14 in. loam
- H2 14–24 in. clay loam
- H3 24–28 in. very cobbly clay
- H4 28–41 in. cobbly clay
- H5 41–51 in. unweathered bedrock

Properties and qualities

- 20–40 in. to abrupt textural change; 40–60 in. to lithic bedrock; more than 80 in. to water table

- Well drained; no flooding or ponding
- Capacity of most limiting layer to transmit water (Ksat): Very low to mod. high (0–0.20 in/hr)
- Calcium carbonate, maximum content: 10%
- Maximum salinity: Nonsaline to very slightly saline (0.0–2.0 mmhos/cm)
- Available water supply, 0–60 in.: Low (about 4.0 in.)

Interpretive groups

- Land capability classification: none (irrigated); 4e (nonirrigated)
- Hydrologic Soil Group: C; no hydric soil rating
- Ecological site: R010XB083OR - JD shrubby shallow 12-16 PZ

110E—Schrier-Tub complex, 30 to 60 percent north slopes

- National map unit symbol: 23z2
- Elevation: 2,600 to 4,500 feet
- Mean annual precipitation: 12–14 in.; air temp.: 47–50°F; 110–130 days frost-free
- Farmland of statewide importance

45% Schrier, north

Setting

- Hillslopes on backslopes (2D) and side slopes (3D)
- Concave down- and linear across-slope shapes
- Parent material: Loess over colluvium derived from volcanic rock

Typical profile

- H1 0–16 in. silt loam
- H2 16–21 in. very gravelly silt loam
- H3 21–36 in. silt loam
- H4 36–42 in. silt loam
- H5 42–60 in. extremely gravelly fine sand

Properties and qualities

- More than 80 in. to restrictive feature; more than 80 in. to water table
- Well-drained; no flooding or ponding
- Capacity of most limiting layer to transmit water (Ksat): Moderately high to high (0.57–1.98 in/hr)
- Calcium carbonate, maximum content: 10 percent
- Maximum salinity: Nonsaline to very slightly saline (0.0–2.0 mmhos/cm)
- Available water supply, 0–60 in.: Moderate (about 8.0 in.)

Interpretive groups

- Land capability classification: none (irrigated); 6e (nonirrigated)
- Hydrologic Soil Group: B; no hydric soil rating
- Ecological site: R010XB083OR - JD shrubby shallow 12-16 PZ

40% Tub, north

Setting

- Hillslopes on backslopes (2D) and side slopes (3D)
- Concave down- and linear across-slope shapes
- Parent material: Loess over colluvium derived from andesite

Typical profile

- H1 0–14 in. loam
- H2 14–24 in. clay loam
- H3 24–28 in. very cobbly clay
- H4 28–41 in. cobbly clay
- H5 41–51 in. unweathered bedrock

Properties and qualities

- 20–40 in. to abrupt textural change; 40–60 in. to lithic bedrock; more than 80 in. to water table
- Well drained; no flooding or ponding
- Capacity of most limiting layer to transmit water (Ksat): Very low to mod. high (0–0.20 in/hr)
- Calcium carbonate, maximum content: 10%
- Maximum salinity: Nonsaline to very slightly saline (0.0–2.0 mmhos/cm)
- Available water supply, 0–60 in.: Low (about 4.0 in.)

Interpretive groups

- Land capability classification: none (irrigated); 6e (nonirrigated)
- Hydrologic Soil Group: C; no hydric soil rating
- Ecological site: R010XB083OR - JD shrubby shallow 12-16 PZ



Phosphorus Index Report

Stafford Lot -

Culver

Phosphorus Index is included for advisement puposes and is not (yet) currently a regulary tool.

Field	Acres	Soil	Soil Test Date	Bray P (ppm)	Olsen (ppm)	K (ppm)	pH	TFS	SFS	Score	Rating
West Field	75.0	110D, Schrier	09/24/2026		16.0	614.0	6.6	4.0	8.3056	33.22	Low

PI Interpretations

P-Index Rating	Interpretation for Oregon	Recommended Nutrient Limitation
West PI Score<=25 or East PI Score<=100	The site has a LOW potential for P movement from the site. If farming practices are maintained at current levels, the probability of an adverse impact to surface water resources from P losses from this site are low.Phosphorus can be applied at rates greater than crop requirement	Nitrogen
West PI Score 25.1 to 50 or East PI Score 100.1 to 400	The site has a MEDIUM potential for P movement from the site. The probability for an adverse impact to surface water resources is greater than that from a LOW vulnerability rated site. Some remedial action should be taken to lessen the probability of P movement. Phosphorus can be applied not to exceed the crop requirement rate for phosphorus.	Phosphorus
West PI Score 50.1 to 75 or East PI Score 400.1 to 600	The site has a HIGH potential for P movement from the site. There is a high probability for an adverse impact to surface water resources unless action is taken to reduce the risk of P movement and probable water quality degradation. Phosphorus can be applied not to exceed the crop removal rate of phosphorus if the following requirements are met: A soil phosphorus drawdown strategy has been implemented, and a site assessment for nutrients and soil loss has been conducted to determine if mitigation practices are required to protect water quality.	Phosphorus
West PI Score >75 or East PI Score >600	ZERO OUT- The environmental threshold above which the risk of P loss from a field is too great to warrant the application of phosphorus for plant production.	No Manure

SECTION 5 - SUPPLEMENTAL DOCUMENTS

Supplemental Documents

CAFO NPDES General Permit #01-2026
Issuance Date: May 15, 2026
Effective Date: June 4, 2026
Expiration Date: June 4, 2031

OREGON CONFINED ANIMAL FEEDING OPERATION
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
GENERAL PERMIT NUMBER #01

OREGON DEPARTMENT OF AGRICULTURE

State of Oregon
Department of Agriculture
Confined Animal Feeding Operation
Program
and
Department of Environmental Quality
Water Quality Division

DEQ
State of Oregon Department of Environmental Quality

In compliance with the provisions of Oregon Revised Statutes (ORS) Chapter 468B,
Oregon Administrative Rules (OAR) Chapter 340, Divisions 40, 41, 45, 51 and 52, and
Chapter 603, Division 74,
the Federal Water Pollution Control Act as amended (the Clean Water Act or the CWA),
Title 33 United States Code, Section 1251 et seq., and
the National Pollutant Discharge Elimination System (NPDES) program.

Until this permit expires or is modified or revoked, permittees who have properly obtained coverage under this permit are authorized to discharge to waters of the state in accordance with the special and general conditions that follow.

Isaak Stapleton, Director
Natural Resources Division
Oregon Department of Agriculture

Jennifer Wigal, Administrator
Water Quality Division
Oregon Department of Environmental Quality

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DEFINITIONS

1. "25-year, 24-hour rainfall event" means an event with a probable recurrence interval of once in twenty-five years as defined by the National Weather Service in Technical Paper Number 40, "Rainfall Frequency Atlas of the United States," May 1961, or equivalent regional or state rainfall probability information developed from a more current dataset.
2. "40 CFR" means Title 40 of the Code of Federal Regulations.
3. "Agricultural stormwater" means a precipitation-related discharge of manure, litter or process wastewater from land areas under the control of a CAFO when manure, litter or process wastewater has been applied in accordance with site specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the manure, litter or process wastewater, as specified in 40 CFR § 122.42(e)(1)(vi)-(ix).
4. "Agronomic application rate" means the application rate or range of application rates of fertilizer required to achieve estimated crop yield with no or minimal leaching of nitrate beyond the crop root zone.
5. "Animal unit" means a unit of measure used to compare animals of different species, equal to 1,000 pounds of live weight.
6. "Authorized representative" means a person detailed in 40 CFR § 122.22.
7. "Bedding" means any absorbent material that is used to provide animal cleanliness and comfort in a confinement system. Bedding materials include but are not limited to: straw; sawdust; wood shavings; grass seed cleanings; recycled, composted, or dried manure solids; and recycled paper products. Bedding that is contaminated by contact with animals, manure, litter, or process wastewater is manure, litter, or process wastewater.
8. "Compliance" means meeting the requirements of this permit, and ORS Chapter 468 or 468B and any rule, order, or permit adopted thereunder and relating to the control and prevention of water pollution from a CAFO.
9. "Confined animal feeding operation" or "CAFO" means:
   (a) An operation that engages in the feeding or holding of animals:
   (A) In buildings or in pens or lots not sustaining vegetative growth in the normal growing season for 12 hours or more per day for more than 120 days in a 12-month period, and has animal numbers as referred to in OAR 603-074-0011; or
   (B) With a waste water control facility and generates 100 gallons per day or more of liquid manure, process wastewater, or contaminated production area drainage; or
   (C) That discharge any wastes into waters of the state.
   (b) An animal feeding operation that is subject to regulation as a concentrated animal feeding operation pursuant to the definition of 40 CFR § 122.23.
10. "Department" means the Oregon Department of Agriculture (ODA) or the Oregon Department of Environmental Quality (DEQ). References to the Department may refer to both agencies working together.
11. "Director" means the director of the State of Oregon Department of Environmental Quality or director of the State of Oregon Department of Agriculture or their authorized designee(s).
12. "Discharge" means the placement of wastes into "waters of the state," on land, or otherwise into the environment in a manner that affects or may tend to affect the quality of the "waters of the state" or the "waters of the U.S.". Where the discharge or disposal is to "waters of the U.S." the term when used without qualification means the "discharge of a pollutant." "Discharge of a pollutant" is defined at 40 CFR § 122.2.
13. "Dry waste" means any solid manure, litter, soiled bedding, or waste feed that cannot be transferred or applied with a pump or pipe system. Dry waste may contain urine, manure, leachate or incidental process wastewater that has been absorbed into the feces and used bedding materials in amounts that allow the waste to retain the dry characteristic so that the material cannot be transferred or applied with a pump or through a pipe.
14. "Dry weather discharge" means a discharge of manure, litter, or process wastewater from a land application area that is not defined as Agricultural Stormwater and where the land application of manure, litter, or process wastewater has not met all the site-specific nutrient management practices contained in the Nutrient Management Plan and specified in 40 CFR § 122.42(e)(1)(vi)-(ix). Dry weather discharges include but are

not limited to: discharges through tile drains, discharges caused by excessive irrigation, leaching of nutrients below the crop root zone, and discharges due to failure of manure application or irrigation equipment.

15. “Expanding CAFO” means a CAFO that is expanding operational size into a new tier as described in OAR 603-074-0011 and Table 1 of this permit.
16. “Expanding large CAFO” means a large CAFO in the largest tier described in OAR 603-074-0011 that is expanding the capacity of the large CAFO to manage animal wastes, consistent with the conditions of a permit issued under ORS 468B.050, to more than 20 percent of the capacity of the large CAFO.
17. “Field capacity” means the content of water, on a mass or volume basis, remaining in a soil two or three days after having been wetted with water and after free drainage is negligible.
18. “Frozen soil” means soil with a frozen surface crust of 2 inches or deeper, or if the soil is at or below zero degrees Celsius (32 degrees Fahrenheit).
19. “Groundwater” means water in a saturated zone or stratum beneath the surface of land or below a surface water body.
20. “Ground water management area” or “GWMA” means an area in which contaminants in the ground water have exceeded the levels established under ORS 468B.165, and that the affected area has been declared under ORS 468B.180.
21. “Large CAFO” means, unless specified, both Large Tier I and Large Tier II CAFOs.
22. "Manure" means livestock excreta and soiled bedding, compost, or other materials commingled with livestock excreta.
23. "New CAFO" means a confined animal feeding operation that is seeking a permit under ORS 468B.050 to operate on a parcel of land on which no confined animal feeding operation has previously operated.
24. “New large CAFO” means a large confined animal feeding operation that is seeking a permit under ORS 468B.050 to operate on a parcel of land on which no confined animal feeding operation has previously operated.
25. “Nutrient Management Plan (NMP)” means a written document containing the minimum elements necessary (40 CFR § 122.42(e)(1); Permit Section S3.C) to manage manure, litter, and process wastewater from operations covered by this permit, as well as all nitrogen and phosphorus sources, in accordance with the terms and conditions of this permit.
26. “OAR” means Oregon Administrative Rule.
27. “Operator” has the meaning given in ORS 568.900(2).
28. “ORS” means Oregon Revised Statute.
29. “Overflow” means a discharge resulting from the filling of wastewater or manure storage structures beyond the point at which no more manure, process wastewater, or stormwater can be contained by the structure.
30. “Permittee” means the person authorized by this permit to construct, install, operate, or conduct a CAFO in compliance with all terms and conditions of the permit. A permittee must be an owner or operator of the CAFO, or an authorized representative who assumes liability for the operation.
31. "Person" means any individual, the United States and agencies thereof, any state, public or private corporation, political subdivision, governmental agency, municipality, co-partnership, association, firm, trust, estate or any other legal entity whatever.
32. “Point source” is defined at 40 CFR § 122.2.
33. “Pollutant” is defined at 40 CFR § 122.2; and OAR 340-045-0010(18).
34. "Pollution" or "water pollution" means such alteration of the physical, chemical or biological properties of any waters of the state, including change in temperature, taste, color, turbidity, silt or odor of the waters, or such discharge of any liquid, gaseous, solid, radioactive or other substance into any waters of the state, which will or tends to, either by itself or in connection with any other substance, create a public nuisance or which will or tends to render such waters harmful, detrimental or injurious to public health, safety or welfare, or to domestic, commercial, industrial, agricultural, recreational or other legitimate beneficial uses or to livestock, wildlife, fish or other aquatic life or the habitat thereof.
35. “Pre-population inspection” means an inspection of newly constructed or installed facilities of a CAFO prior to the introduction of animals to those facilities.
36. “Preliminary consultation” means a meeting in which a CAFO operator or potential applicant and state agencies discuss requirements and plans of a CAFO. Consultation must occur before an expanding large

CAFO can submit an animal number modification request or a new large CAFO can submit a CAFO application package.

37. "Process wastewater" or "process wastes" means water directly or indirectly used or liquids created in the operation of the CAFO including but not limited to: spillage or overflow from animal or poultry watering systems; washing, cleaning or flushing pens, barns, manure pits, or other facilities; direct contact swimming, washing, or spray cooling of animals; and dust control. Process wastewater or process wastes also includes any water that comes into contact with any raw materials, products, or byproducts including manure, litter, feed, milk, eggs, or bedding.
38. "Production area" means that part of a CAFO that includes the animal confinement area, the manure storage area, the raw materials storage area, and the waste containment areas. The animal confinement area includes but is not limited to open lots, housed lots, feedlots, confinement houses, stall barns, free stall barns, milk rooms, milking centers, cow yards, barnyards, medication pens, walkers, animal walkways, and stables. The manure storage area includes but is not limited to lagoons, runoff ponds, storage sheds, stockpiles, under house or pit storages, liquid impoundments, static piles, and composting piles. The raw materials storage area includes but is not limited to feed silos, silage bunkers, and bedding materials. The waste containment areas include but are not limited to settling basins, and areas within berms and diversions that separate uncontaminated storm water. Also included in the production area is any egg washing or egg processing facility, and any area used in the storage, handling, treatment, or disposal of animal mortalities.
39. “Quantitation Limits (QLs)” The QL is the minimum level, concentration or quantity of a target analyte that can be reported with a specified degree of confidence. It is the lowest level at which the entire analytical system gives a recognizable signal and acceptable calibration for the analyte. It is normally equivalent to the concentration of the lowest calibration standard adjusted for sample weights, volumes, preparation and cleanup procedures employed. The QL as reported by a laboratory is also sometimes referred to as the Method Reporting Limit (MRL) or Limit of Quantitation (LOQ).
40. “Saturated soil” means soil with all available pore space filled by water.
41. “Setback” as defined at 40 CFR § 412.4(b)(1) means a specified distance from surface water or potential conduits to surface water where manure, litter, and process wastewater may not be land applied. Examples of conduits to surface water include but are not limited to: Open tile line intake structures, sinkholes, and agricultural well heads.
42. “Vegetative buffer” as defined at 40 CFR § 412.4(b)(2) means a narrow, permanent strip of dense perennial vegetation established parallel to the contours of and perpendicular to the dominant slope of the field for the purposes of slowing water runoff, enhancing water infiltration, and minimizing the risk of any potential nutrients or pollutants from leaving the field and reaching surface water.
43. “Waste storage facilities” means the physical system used for the isolation and retention of process wastes on the CAFO until their ultimate utilization or export.
44. "Wastewater disposal system,” “wastewater treatment works,” or “waste water control facility" means a "disposal system" or “treatment works,” as defined in ORS 468B.005, that may cause pollution of surface water or groundwater and is used for collecting, conveying, treating, stabilizing or storing liquid manure, process wastewater, or contaminated production area drainage (e.g., silage leachate, contaminated storm water runoff, etc.) at confined animal feeding operations.
45. “Wastes” means sewage, industrial wastes, agricultural wastes, and all other liquid, gaseous, solid, radioactive or other substances which will or may cause pollution or tend to cause pollution of any waters of the state.
46. "Water" or "the waters of the state" include lakes, bays, ponds, impounding reservoirs, springs, wells, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Pacific Ocean within the territorial limits of the State of Oregon and all other bodies of surface or underground waters, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters which do not combine or effect a junction with natural surface or underground waters), which are wholly or partially within or bordering the state or within its jurisdiction.
47. “Water Supply Plan (WSP)” means a form that lists estimated water needs and sources to supply those needs for aspects of the CAFO including irrigation, agricultural commercial industrial water, and stockwater.

S1. PERMIT COVERAGE

S1.A. Operations Required to Seek Permit Coverage

1. Any person who owns or operates a confined animal feeding operation (CAFO) that has the potential to discharge to surface water of the state is required to obtain NPDES permit coverage. Any person who owns or operates a CAFO that only has the potential to discharge to groundwater may seek coverage under a Water Pollution Control Facilities (WPCF) permit. NPDES General Permit #01-2025 is issued under ORS 468B.050(2) and provides coverage for the types of CAFOs listed in Table 1 upon registration of the permittee to this permit. This includes animal feeding operations subject to regulation as concentrated animal feeding operations defined at 40 CFR § 122.23.

2. Any person may apply for an NPDES individual permit in lieu of this general permit in accordance with OAR 340-045-0030. In addition, the director may require coverage under an NPDES individual permit pursuant to the provisions in OAR 340-045-0033 and OAR 603-074-0012.

(a) Notwithstanding S1.A. –1, any person who is seeking permit coverage for a new large CAFO that is located in a ground water management area (GWMA) and applies manure, litter, wastewater or processed waste to land within a GWMA must obtain an individual NPDES or individual WPCF Permit.

Table 1: Permit Designations

	General Permit				Individual Permit	
Operations that require permit	**Small Tier**	**Medium Tier**	**Large Tier I[1]**	**Large Tier II**	**Individual Tier I**	**Individual Tier II**
mature dairy cows[2]	20-199	200-699	700-2,499	2,500 or more	Up to 9,999	10,000 or more
veal calves	30-299	300-999	1,000-3,499	3,500 or more	Up to 12,249	12,250 or more
cattle[3]	40-299	300-999	1,000-3,499	3,500 or more	Up to 12,249	12,250 or more
swine ≥ 55 lbs	75-749	750-2,499	2,500-7,999	8,000 or more	Up to 19,999	20,000 or more
swine < 55 lbs	300-2,999	3,000-9,999	10,000-29,999	30,000 or more	Up to 49,999	50,000 or more
horses	40-149	150-499	500-1,499	1,500 or more	Up to 2,499	2,500 or more
sheep, lambs, or goats	300-2,999	3,000-9,999	10,000-39,999	40,000 or more	Up to 74,499	75,000 or more
turkeys	1,650-16,499	16,500-54,999	55,000-199,999	200,000 or more	Up to 349,999	350,000 or more
chickens, including laying hens or broilers, w/wet waste system	900-8,999	9,000-29,999	30,000-124,999	125,000 or more	Up to 199,999	200,000 or more
laying hens w/dry waste system	2,500-24,999	25,000-81,999	82,000-299,999	300,000 or more	Up to 449,999	450,000 or more
broiler chickens w/dry waste system	3,750-37,499	37,500-124,999	125,000-349,999	350,000 or more	Up to 499,999	500,000 or more
ducks w/dry waste system	1,000-9,999	10,000-29,999	30,000-124,999	125,000 or more	Up to 199,999	20,000 or more
ducks w/wet waste system	150-1,499	1,500-4,999	5,000 - 19,999	20,000 or more	Up to 49,999	50,000 or more
other animal type[4] or animal combination greater than 30 animal units	As determined by the director					

[1] Also includes all large livestock auction yards and seasonal feedlots.
[2] Whether milked or dry.
[3] Other than mature dairy cows or veal calves; cattle includes but is not limited to heifers, steers, bulls and cow/calf pairs.
[4] To determine the number of animals that require permit coverage, ODA will compare the operation to the most similar animal type in the table.

S1.B. Operations Electing Permit Coverage

A CAFO permit is required as established under ORS 468B.050. Any person who owns or operates a

CAFO, as defined in OAR 603-074-0010, requires a water quality permit in the state of Oregon (ORS 468B.050). A CAFO that does not have the potential to discharge to surface water of the state may voluntarily elect to be covered under this permit. Any person making such an election is subject to all applicable requirements of this permit upon registration.

S1.C. Requirements to Obtain Permit Coverage

1. Preliminary Consultation

   Before submitting an application to register a new large CAFO or a permit modification request as an expanding large CAFO, a potential applicant must request a preliminary consultation with the Department. The consultation will include the potential applicant, ODA, DEQ, Oregon Water Resources Department (OWRD), and any other relevant state agencies the Department identifies. Only after participating in the consultation may a potential applicant for a new large CAFO apply or an expanding large CAFO submit a modification request.

2. Application Package

   To obtain coverage under this general permit, an applicant must submit to the Department a complete application package consisting of:

   (a) Application to Register (ATR);
   (b) Land Use Compatibility Statement (LUCS);
   (c) Nutrient Management Plan (NMP, see S3);
   (d) Water Supply Plan (WSP);
   (e) Signed Declaration of Consultation if applicable (see S1.C.–1);
   (f) Construction Approval Package (OAR 603-074-0018(3)); and
   (g) Application Fee (OAR 603-074-0011).

   The complete application package must be submitted to the Department at least 180 days prior to the time the CAFO intends to commence operation or as specified by the Department. The permit may be issued more than 180 days after a complete application is submitted, and the applicant may only commence operations when registered to the general permit by the Department.

3. Application to Register (ATR)

   Applicants must provide the following information and certify that the information provided in the ATR is true, accurate, and complete:

   (a) Legal name and mailing address of the permit applicant and a point of contact, if different;
   (b) Legal name and mailing address of the legal landowner of the production area and a attestation of a property interest by the permit applicant, if different;
   (c) Facility information, including name, address, and latitude and longitude of production area or entrance to production area and diagram or map of the operation;
   (d) A topographic map of the geographic area in which the CAFO is located showing the specific location of the production and application areas;
   (e) Specific information about the number and type of animals, whether in open confinement and/or housed under roof (for example, beef cattle, broilers, layers, swine weighing 55 pounds or more, swine weighing less than 55 pounds, mature dairy cows, dairy heifers, veal calves, sheep and lambs, horses, ducks, turkeys, other);
   (f) The type of containment and storage (for example, anaerobic lagoon, roofed storage shed, storage ponds, underfloor pits, above ground storage tanks, below ground storage tanks, concrete pad, compacted soil pad, other) and total capacity for manure, litter, and process wastewater storage (tons/gallons);
   (g) The total number and location of acres under control of the applicant available for land application of manure, litter, or process wastewater;
   (h) Estimated amount of manure, litter, and process wastewater generated per year (tons/gallons);

(i) Estimated amount of manure, litter, and process wastewater transferred to other persons per year (tons/gallons);
(j) NMP for review and approval;
(k) Closest water body or receiving stream; and
(l) Additional information as requested by the Department.

4. Land Use Compatibility Statement (LUCS)
An approved LUCS from the city or county, that authorizes that the proposed location of the CAFO is authorized for that land use, is required for permit coverage (ORS 197.80 and 468B.212).

5. Water Supply Plan (WSP)
Applicants must complete a WSP form provided by the Department and certify that the information provided in the WSP is true, accurate, and complete. The WSP will be reviewed by OWRD to determine whether the water uses identified in the plan are legally authorized and allowable. The Department may condition a permit on the recommendation of OWRD. The plan must account for the following:
(a) Estimated irrigation water needs if applying manure, litter, or process wastewater to irrigated land;
(b) Estimated agricultural commercial/industrial water needs;
(c) Estimated stockwater needs based on permitted animal numbers plus 10% or 25 animals, whichever is greater, and the Department's Livestock Water Consumption Table; and
(d) The sources and authorizations, if applicable, to supply each of the water needs of the CAFO.

6. Renewal of Permit Coverage
To renew permit coverage, the permittee must submit a renewal application at least 180 days before the expiration date of this permit or as specified by the Department in the renewal notice but no later than the expiration date of this permit.
(a) Applicants must certify on their renewal application whether an NMP is new, updated, or current and on file. New and updated NMPs must be submitted with the renewal application.
(b) Applicants must include a WSP if not previously submitted or certify that the WSP on file is accurate and reflective of the renewing operation.

7. Notification of Permit Coverage
The Department shall review a complete application package and, if applicable, send the WSP to OWRD for review. OWRD will determine if the water described in the plan is legally authorized and allowable and may recommend that the Department impose conditions on the permit including but not limited to water use monitoring and or metering. The Department shall provide written notification to the applicant indicating whether permit coverage has been approved or denied. If the application package is complete and approvable, the written notice confirming registration will include the following information:
(a) The permittee's legal name;
(b) Facility name and location;
(c) Contact information, including mailing address and telephone number;
(d) Effective date of permit coverage;
(e) Maximum number of animals allowed at the facility and the corresponding size designation; and
(f) Any conditions imposed on the permit, if applicable.

8. New Construction

A Notification of Permit Registration is required prior to the construction of a new CAFO and Department approval is required prior to the construction of new facilities at an existing CAFO. Newly constructed facilities are required to follow a two-step review process prior to the occupation of animals:

(a) The Department first reviews the construction approval package in accordance with OAR 603-074-0018 and provides written notification to the permittee indicating whether construction has been approved or denied. If approved, the permittee may construct the facilities according to the Department-approved designs, and if denied, the permittee receives itemized deficiencies; and

(b) Upon completion of construction, the permittee must request a pre-population inspection from the Department to determine if animals can occupy the newly constructed facilities. The Department performs the inspection within 30 days of the request to determine if construction meets CAFO permit conditions and the Department-approved designs. The Department provides written notification to the applicant indicating whether occupation by animals has been approved or denied.

S1.D. Transferring Permit Coverage

1. A permittee may request, in writing to ODA, to transfer permit coverage, provided that all of the following conditions apply:
   (a) The existing permittee has no outstanding compliance issues;
   (b) The new permittee has a property interest in the CAFO;
   (c) The new permittee agrees to operate the CAFO in accordance with the permit, including the existing NMP or has submitted a new NMP for review and approval by the Department; and
   (d) The new permittee agrees to assume liability of all compliance issues moving forward as well as possible remediation from the previous permittee should environmental degradation be found after the date of transfer.

2. The existing permittee, new permittee, and landowner if different must complete and sign a transfer form and submit it to the Department along with the transfer fee for approval at least 30 days before the intended date of transfer or as specified by the Department.

3. Should the existing permittee be unable to sign due to extenuating circumstances, only an authorized representative may sign the transfer form.

4. The Department shall respond to the request for transfer by conducting a site inspection and a review of the permit file. The Department shall provide written notification to the previous permittee, new permittee, and landowner if different indicating whether the permit transfer has been approved or denied.

S1.E. Activities Covered Under this Permit

1. This permit covers the construction, installation, operation, and conduct of a CAFO under ORS 468B.050.

2. This permit covers the discharge of pollutants only in accordance with S2. resulting from processes, wastes, and operations that are properly identified by the registrant through its NMP.

3. This permit covers the application of manure, litter, and process wastewater to land within a GWMA only for an existing CAFO or a new small or medium CAFO. New large CAFOs located within a GWMA and applying CAFO nutrients within a GWMA are not covered by this permit and must apply for an individual permit.

4. This permit does not cover disposal of human wastes or treatment works that mix human and animal wastes.

5. Pursuant to 40 CFR § 122.23(e), precipitation-related discharges that qualify as agricultural stormwater discharges from land application areas are not subject to NPDES permit requirements. For discharges from the land application area to meet the definition of agricultural stormwater, manure, litter, and process wastewater must be applied in accordance with site specific practices listed in the NMP that ensure appropriate agricultural utilization of nutrients.

S1.F. Cancelling Permit Coverage

1. The Department shall cancel coverage under this permit upon issuance of an individual permit, coverage under the WPCF General Permit #01 (if applicable), or for any other lawful reason.

2. A permittee may request, in writing to ODA, that coverage under this permit be cancelled, provided there are no outstanding compliance issues and one of the following conditions apply:
   (a) Operations or standards have changed such that the CAFO no longer qualifies for or is no longer required to maintain permit coverage; or
   (b) The permittee no longer has animals on site, and all waste storage and control facilities have been either cleaned and re-purposed or decommissioned in accordance with the following requirements:
      (i) Cleaning/Re-purposing Requirements
         (1) All manure, litter, and process wastewater have been removed from the structure(s) and either land applied according to the NMP or exported according to S2.K.
         (2) All liquid storage facilities capable of collecting rain water have been flushed with clean water, the flush water has been land applied or exported according to S2.K, and the remaining liquid in the structure has been tested to confirm the *E. coli* level is at or below the water quality standard of 406 Colony Forming Units (CFU) per 100ml of sample.
         (3) All liquid transfer systems have been cleaned and modified to ensure they do not act as conduits for any pollutant to enter surface water or groundwater.
      (ii) Decommissioning Requirements
         (1) All manure, litter, and process wastewater must have been removed from the structure(s) and either land applied according to the NMP or exported according to S2.K.
         (2) If the structure had a synthetic liner, the liner must have been removed and lawfully disposed or recycled.
         (3) Following completion of item (ii)(*1*), any earthen structure must have been filled with soil and returned to the grade matching the surrounding area and seeded with site-appropriate grass or ground cover to prevent erosion.

3. The permittee must also certify that they will not resume CAFO operations at the same location until the appropriate NPDES or WPCF permit coverage has been obtained.

4. The Department will respond to the request for cancellation by conducting a site inspection and reviewing the permit file. The Department shall provide written notification to the permittee indicating whether termination of permit coverage has been approved or denied.

S1.G. Confidentiality

The name, address, application materials, permit, and discharge data of a permit applicant or permittee cannot be kept confidential pursuant to 40 CFR § 122.7(b) and (c), ORS 468.095(1), and ORS 192.311-338. The permit applicant or permittee may request that the Director classify other records as confidential upon a proper showing that the record is a trade secret pursuant to ORS 468.095(2).

S1.H. Public Notice and Participation Process

1. Prior to approving new permit coverage, renewing permit coverage, or approving proposed substantial changes to a NMP, the Department will provide public notice and participation as detailed in Table 2. The Department may batch multiple notices as regionally appropriate.
   (a) Any applicant seeking permit coverage for a new large CAFO shall send individual notice of the public comment period, by mail, to all persons on record as owning property within one-half mile of the parcel of land on which the production area of the new CAFO is proposed to be located.
   (b) The Department shall not consider a neighbor's lack of individual receipt of notice when determining permit coverage.

2. Application and permit documents will be available for public review at ODA Headquarters and on ODA's website. Electronic copies of documents shall be provided upon receipt of a public records request.

3. The Department shall schedule a public hearing if requested in writing during the public comment period from at least 10 persons or from an organization representing at least 10 persons. If a hearing is scheduled, the Department shall provide at least 30 days notice before the hearing is held. The public comment period shall remain open for additional comments for at least five days after the public hearing.

Table 2: Public Notice Requirements for Permit Coverage

	New Application	Renewal Application	NMP Changes
Permit Action	(a) Receipt of an ATR for a newly proposed CAFO or an existing CAFO not currently under an NPDES permit.	(b) Receipt of a renewal application for an existing CAFO.	(c) Receipt of a proposed substantial change to an existing CAFO's NMP. See S3.D.
Public Participation Process	(i) Public notice of a comment period of at least 35 days provided as follows: • Available on the Department websites; • Emailed to interested persons list maintained by the Department; and • Mailed by the applicant to all individuals owning property within one half-mile of proposed production area for new large CAFOs. (ii) Public notice of a hearing provided at least 30 days in advance. (iii) A written response to relevant comments will be developed by the Department and made available to interested persons.	(i) Public notice of a comment period of at least 35 days provided as follows: • Available on the Department websites; and • Emailed to interested persons list maintained by the Department. (ii) Public notice of a hearing provided at least 30 days in advance. (iii) A written response to relevant comments will be developed by the Department and made available to interested persons.	(i) Public notice of a comment period of at least 35 days provided as follows: • Available on the Department websites; and • Emailed to interested persons list maintained by the Department. (ii) Public notice of a hearing provided at least 30 days in advance. (iii) A written response to relevant comments will be developed by the Department and made available to interested persons.

Contents of Public Notice	• Name of operation • Name of permit applicant, mailing address, and telephone number • Physical address of operation • Type of operation • Number of animals proposed • How and where to access permitting documents (ATR, LUCS, NMP, WSP, etc.)	• Name of operation • City, county, and zip code • Permit registration number • Type of operation • How and where to access permitting documents (NMP, WSP)	• Name of operation • City, county, and zip code • Permit registration number • Type of operation • Overview of proposed substantial change • How and where to access the NMP and any other relevant permitting documents

S1.I. Method to Submit Applications

1. The applicant or permittee may submit a paper copy of the complete application package, transfer form, and cancellation form to ODA Headquarters until directed by the Department to submit them electronically on a Department-approved website.
   (a) The applicant or permittee must sign and certify all paper and electronic submissions in accordance with the requirements of G12 of this permit.
   (b) Notwithstanding a requirement by the Department for electronic submissions, an applicant may request a waiver to submit a paper copy of documents to the Department according to 40 CFR § 127.15 and 40 CFR § 127.24.

S2. DISCHARGE LIMITATIONS AND OPERATING REQUIREMENTS

S2.A. Prohibitions and Discharge Limitations

1. The permittee must not discharge manure, litter, or process wastewater to waters of the state except as allowed in S2.B and S2.C and provided any surface water discharges do not exceed the following effluent limits:
   (a) *E. coli* must not exceed zero organisms/100 ml. The quantitation limit for *E. coli* is 2 Colony Forming Units/100 mL or 0.0 most probable number;
   (b) Nitrate plus Nitrite Nitrogen (NO_3+NO_2) must not exceed zero mg/L. The quantitation limit for total Nitrate plus Nitrite Nitrogen (NO_3+NO_2) is 0.1 mg/L; and
   (c) Total Phosphorus (P) must not exceed zero mg/L. The quantitation limit for total Phosphorus (P) is 0.1 mg/L.

2. This permit establishes a minimum quantitation limit for *E. coli*, Nitrate plus Nitrite Nitrogen (NO_3+NO_2), and Total Phosphorus (P). In cases where the daily maximum limit of zero is lower than the quantitation limit, the reported quantitation limit is the compliance evaluation level.

3. If a discharge to surface waters of the state does occur, the permittee must demonstrate compliance with the effluent limits above. Laboratory test results of a representative grab sample of the discharge taken at the time of occurrence are required to determine compliance. If a grab sample is not taken and reported, then the permittee is in violation of the permit.

4. All manure, litter, and process wastewater authorized by this permit must be managed in a manner that will prevent a violation of the Groundwater Quality Protection Rules (OAR Chapter 340, Division 40). At any time, the Department may require a full assessment and/or update of the operation's impact on groundwater quality in accordance with OAR 340-040.

S2.B. Production Area Limitations

1. For all CAFOs, (except large swine, poultry, and veal CAFOs, the construction of which commenced after April 14, 2003):
   The permittee must not discharge manure, litter, or process wastewater to surface waters of the state from the production area, except when:
   (a) Rainfall events cause an overflow of waste management and storage facilities designed, constructed, operated, and maintained to contain all manure, litter, and process wastewater, including the runoff and direct precipitation, from a 25-year, 24-hour rainfall event and
   (b) The production area is operated in accordance with the applicable inspection, maintenance, recordkeeping, and reporting requirements of this permit.

2. For large swine, poultry, and veal CAFOs, the construction of which commenced after April 14, 2003:
   The permittee must not discharge manure, litter, or process wastewater from the production area to surface waters of the state.

3. The permittee must properly land apply manure, litter, and process wastewater from the production area in a manner consistent with S2.C.

4. The permittee must not exceed the seepage design rates approved by the Department for waste storage or animal confinement facilities in the production area and seepage to groundwater from these facilities must not violate state Groundwater Quality Protection Rules. See S2.D for design specifications.

5. The Department shall inform a permittee if any additional limits or controls are necessary to be consistent with the wasteload allocations in an EPA-approved or issued Total Maximum Daily Load (TMDL) for NPDES permit coverage or if registration to an individual NPDES permit is necessary.

6. The permittee must prevent direct animal contact with surface waters of the state in the production area. Direct animal contact means any situation where animals in the production area have free access and are allowed to loiter or drop waste in surface water. Direct contact with surface waters of the state by animals on pasture or rangeland is not, by itself, a violation of this permit, but must be in compliance with Agricultural Water Quality Rules in OAR 603-095.

S2.C. Land Application Limitations

1. The permittee must apply manure, litter, or process wastewater to land application areas at agronomic rates in accordance with the NMP. Land application areas include land under the control of the permittee, to which manure, litter, or process wastewater from the production area is or may be applied.

2. The permittee's discharges to groundwater due to seepage below the root zone of the crop or by other means must not violate state Groundwater Quality Protection Rules.

3. The permittee shall not apply manure, litter, or process wastewater to:
   (a) Fields with frozen soil;
   (b) Fields that are snow covered;
   (c) Fields with soils that are or will become saturated with forecast precipitation prior to infiltration or incorporation;
   (d) Fields where precipitation is forecast in the next 24 hours and it is likely that application will result in surface runoff; or
   (e) Fields that are bare unless a person is preparing the bare fields for the current year's annual

crop or cover crop planting and the application is within 60 days of planting.

4. Applying solid or liquid manure to saturated soils as an alternative to an overflow of waste storage or treatment works is prohibited and in violation of the requirement to maintain adequate storage.

5. Dry weather discharges of manure, litter, or process wastewater to waters of the state as a result of land application are prohibited. This prohibition includes, but is not limited to, discharges to waters of the state through tile drains, ditches, or other conveyances, and irrigation return.

6. The Department will inform a permittee if any additional limits or controls are necessary to be consistent with the wasteload allocations in an EPA-approved or issued TMDL for NPDES permit coverage or if coverage to an individual NPDES permit is necessary.

S2.D. Waste Storage Facilities

1. The permittee must ensure adequate storage capacity for solid and liquid manure such that land application occur only during periods when soil and weather conditions allow for agronomic application in compliance with the NMP and S2.C.

2. The permittee must site, design, construct, operate, and maintain all waste storage facilities to contain all manure, litter, process wastewater, volume of normal precipitation minus evaporation on the structure, runoff from the facility's drainage area from average rainfall events, and stormwater runoff and direct precipitation from a 25-year, 24-hour rainfall event for the storage period established in the NMP.

3. New and modified waste storage facilities must be approved prior to construction by the Department in accordance with ORS 468B.055, OAR 340-051 and 340-052 as applicable to CAFOs, and OAR 603-074. Waste storage facilities must be designed and installed in a manner that will prevent a violation of Groundwater Quality Protection Rules. Maintenance of existing Department-approved waste storage facilities are exempt from this approval requirement.

4. Permittees with a *large* CAFO must have depth markers in all surface liquid impoundments (e.g. lagoons, ponds, tanks), which shall be visible from the top of the levee or tank rim, to clearly indicate the:
   (a) Maximum design volume;
   (b) Minimum capacity necessary to contain the runoff and direct precipitation of the 25-year, 24-hour rainfall event, including additional freeboard requirements; and
   (c) Depth of manure and or process wastewater.

5. For new construction in a GWMA:
   (a) Earthen liquid impoundments must be double lined with a synthetic liner and have leak detection; and
   (b) The Department may impose additional site-specific construction requirements to protect groundwater quality.

S2.E. Maintaining Permitted Animal Numbers

1. The permittee may not increase the number of animals over 25 animals or 10% (whichever is greater) of the maximum number assigned by the Department in the Notice of Registration until an updated NMP has been approved, in writing, by the Department (see S3).

2. Notwithstanding S2.E.1 above, the permittee must ensure that animal numbers do not exceed the capacity of the waste storage facilities described in the NMP.

S2.F. Operating within Allowable Water Supply

1. The permittee must have legal access to the quantity of water needed to supply all water needs of the CAFO such that it can operate in accordance with its NMP and permitted animal numbers plus any allowable animals as described in S2.E.

2. The permittee must report to the Department all presently available legal sources of water being used or planned to be used by the CAFO in the WSP for review by the Department and OWRD. OWRD will issue a determination whether the water uses identified in the plan are legally authorized and allowable, and the Department may impose conditions on the permit based on recommendations from OWRD.

S2.G. Handling of Animal Mortalities

The permittee must not dispose of animal mortalities in liquid waste storage facilities. The permittee must handle animal mortalities to prevent discharge of pollutants to waters of the state and consistent with the NMP.

S2.H. Proper Operation and Maintenance

The permittee must at all times properly operate and maintain all facilities and systems used for manure, litter, and process wastewater collection, storage and utilization, and correct any deficiencies found as soon as practicable.

S2.I. Maintaining Compliance if System Fails

The permittee must control all applications and discharges upon reduction, loss, or failure of the waste storage or utilization facilities until the facilities are restored or an alternative method of storage or utilization is provided. This requirement also applies when the primary source of power is reduced, lost, or fails.

S2.J. Setback Requirement

The permittee must develop and maintain setbacks or vegetated buffers when manure, litter, or process wastewater application occur adjacent to any surface water, open tile intake structures, sinkholes, well heads, or other conduits to waters of the state. The permittee must also include descriptions of setbacks, vegetated buffers, and/or equivalent measures in the NMP. Compliant setbacks, vegetated buffers, or equivalent measures include the following:

1. 100 ft. setbacks (non-vegetated, non-managed buffers);

2. 35 ft. vegetated, managed buffers;

3. Variable-width, seasonal setbacks. These must be approved by the Department and may be approved if implementation of the alternative conservation practices or field-specific conditions will provide equivalent or better environmental protection than the setbacks and buffer described in (1) and (2); and

4. A demonstration that a setback or vegetated buffer is not necessary or may be reduced in size. This must be approved by the Department. This may be approved if implementation of alternative conservation practices or field-specific conditions will provide equivalent or better environmental protection than the setbacks and buffer described in (1) and (2).

S2.K. Manure, Litter, or Process Wastewater Transfers

1. The permittee retains responsibility of the manure, litter, or process wastewater until the transfer or export is completed with the required documentation.

2. The permittee must maintain manure, litter, or process wastewater transfer or export records as required by S4.C.

3. A permittee exporting manure, litter, or process wastewater, to a person or facility that holds a Nutrient Application Permit (NAP) must record the NAP number with the export records.

4. Before transferring or exporting manure, litter, or process wastewater to another person, a permittee operating a large CAFO must provide the recipient with a nutrient analysis of the material, conducted within the previous 12 months.

S2.L. Proper Disposal of Other Wastes

The permittee must dispose of any chemicals or other wastes in accordance with applicable state regulation. The permittee must manage chemicals and wastes to prevent their disposal in any manure, litter, process wastewater, or stormwater storage or treatment system unless specifically designed to treat these wastes and the wastes and treatment systems are identified in the NMP. The permittee must not dispose of toxic or other deleterious substances, chemicals or other wastes to any system used for the control of uncontaminated stormwater.

S2.M. Proper Irrigation Water Management

1. Irrigation water must be managed such that the amount of water applied from the combination of precipitation and irrigation does not exceed the field capacity of the soil beyond the crop root depth.

2. The volume of water to be used for each irrigation event shall be based on at least the following information as practicable:
   (a) Field capacity of the soil for the crop rooting depth;
   (b) Management allowed soil water depletion;
   (c) Current soil moisture status of the soil for the crop rooting depth;
   (d) Distribution uniformity of the irrigation event;
   (e) Water table contribution, if applicable; and
   (f) Computerized irrigation scheduling recommendation, if available.

S3. NUTRIENT MANAGEMENT PLAN (NMP)

S3.A. NMP Submittal and Public Notice

1. An applicant must submit their NMP with all other application materials to the Department for review and approval according to the schedule provided in S1.C.

2. An existing permittee may submit an NMP previously approved by the Department with a renewal application for review and approval according to the requirements in S1.C.

3. NMPs are subject to public notice requirements detailed in S1. Table 2.

S3.B. NMP Implementation and Compliance

1. A permittee must always implement the CAFO's currently approved NMP.

2. Prior to the addition of animals as described in S2.E, a permittee must submit an updated NMP that accommodates the increased animal occupancy of the facility and receive Department approval.

3. The permittee's NMP is incorporated into this permit by reference. The permittee must comply with all terms and conditions of its NMP. Failure to comply with the NMP constitutes a violation of the terms and conditions of this permit.

S3.C. NMP Elements

1. The permittee must ensure that their NMP is adequate for the proposed or existing population of animals, reflective of the proposed or existing operation, and prepared in accordance with the terms and conditions of this permit, OAR 340-051, and OAR 603-074. The permittee may reference NRCS CPS 590 (Appendix A) for applicable requirements while preparing the CAFO's NMP.

2. The NMP must include, to the extent applicable, the following:
   (a) Procedures to ensure collection, handling, and storage of contaminated stormwater runoff from the production area, manure, litter, and process wastewater is in compliance with the requirements of S2. Calculations used to determine that storage capacity is adequate must be provided, including a demonstration that facilities are designed and constructed to contain at least all manure, litter, process wastewater, and stormwater runoff and direct precipitation from a 25-year, 24-hour rainfall event;
   (b) Procedures to ensure proper operation and maintenance of the waste storage facilities;
   (c) Procedures for proper management of animal mortalities. The procedures must ensure that animal mortalities are disposed of legally and are not disposed of in any liquid storage or treatment system that is not specifically designed to treat animal mortalities;
   (d) Procedures to ensure that clean water is diverted, as appropriate, from the production area;
   (e) Procedures to prevent direct contact of confined animals with surface water;
   (f) Identification of appropriate site-specific conservation practices to be implemented, including buffers, setback areas, or equivalent practices, to control runoff of pollutants to surface water and groundwater;
   (g) Protocols to land apply manure, litter, or process wastewater in accordance with site-specific nutrient management practices that ensure: 1) appropriate agricultural utilization of the nutrients in the manure, litter, or process wastewater, and 2) application of nutrients at rates not to exceed the maximum agronomic application rate and in a manner that does not violate Groundwater Quality Protection Rules. The protocols must include the following:
      (i) The NRCS Phosphorus Index, USDA/NRCS Oregon Agronomy Technical Note #26, revised October 2013 (Appendix B) or equivalent calculation must be completed for all fields or management units that receive manure, litter, or process wastewater to determine if nitrogen or phosphorus is the most limiting nutrient. The maximum nutrient application rate must be calculated for the most limiting nutrient and must account for all other nutrient sources;
      (ii) Expected crop yields;
      (iii) Calculations showing the total nitrogen and phosphorus to be applied annually to each field from manure, litter, process wastewater, and all other nitrogen and phosphorus sources;
      (iv) Annual manure application rates and an explanation of the basis for determining these rates. For all large CAFOs, these rates must be based on sampled results. For small and medium CAFOs, data or "book values" from established reference sources (for example, Oregon Animal Waste Management program) may be used instead of actual testing;
      (v) Method(s) used to apply manure, litter, or process wastewater;
      (vi) Timing of manure, litter, and process wastewater applications;
      (vii) A calculated agronomic application rate using all nitrogen and phosphorus sources and that does not exceed the maximum agronomic nutrient application rate of the crops;
      (viii) An agronomic application rate calculation must be completed for each crop; and
      (ix) An agronomic application rate calculation must be kept up to date for each new crop cycle.
   (h) For all CAFOs, protocols for soil testing. For large CAFOs, protocols for testing manure, litter, and process wastewater. For small and medium CAFOs, protocols are not required but the references that are used to characterize manure, litter, or process wastewater must be

included;

(i) Procedures to ensure proper operation and maintenance of composting or anaerobic digestion activities required under OAR 340-096;
(j) Procedures for transfer or export of manure, litter, or process wastewater;
(k) An affirmation to ensure the proper disposal of any chemicals and all other wastes on-site in accordance with S2.L;
(l) Procedures for irrigation water management; and
(m) Identification of specific records that will be maintained to document the implementation and management of the minimum elements described above.

S3.D. Requirements for NMP Updates and Changes

1. Substantial Changes

The permittee must submit to the Department all proposals to make substantial changes to its NMP to the Department for approval at least 60 days in advance of the proposed changes. The Department will provide public notice on the proposal as described in S1.Table 2. The Department will notify the permittee of its final decision concerning the proposed changes after the public notice period ends. The permittee must not implement a proposed change until the Department has approved it. The following types of changes to an NMP are considered substantial:

(a) Addition of new land application areas not previously included in the NMP, unless the land application area is covered by an existing NMP that has already been incorporated into an existing NPDES permit and the application of manure, litter, or process wastewater on the newly added land application area is in accordance with that existing NPDES permit;
(b) Any changes to the field-specific maximum annual rates for land application;
(c) Any changes to the maximum amounts of nitrogen and phosphorus derived from all sources for each crop;
(d) Addition of any crop or other uses not included in the NMP and corresponding field-specific rates of application; and
(e) Any changes to the site-specific components of the CAFO's NMP which are likely to increase the risk of pollutant transport to waters of the state, including but not limited to switching from a dry to a liquid manure system, or constructing waste storage facilities adjacent to waters of the state.

2. Non-substantial Changes

The permittee must submit any proposal to make non-substantial changes to its NMP to the Department for approval at least 60 days in advance of the proposed changes unless a different timeframe is allowed by the Department. A proposal for a non-substantial change is not subject to public notice. The Department will notify the permittee of its final decision concerning the proposed changes after reviewing the proposal. The permittee must not implement a proposed change until the Department has approved it.

S4. MONITORING, INSPECTION, RECORDKEEPING, AND REPORTING REQUIREMENTS

S4.A. Monitoring Requirements

1. Discharge Monitoring

If a discharge to waters of the state occurs, the permittee must take all reasonable steps to stop the discharge and notify the Department as soon as practicable after discovering the discharge, but no later than 24 hours after discovery. The permittee must monitor the discharge and record the information listed in (a) through (h) below. This information will be included in a written discharge monitoring report to the Department according to S4.D:

(a) A description and cause of the discharge;

(b) The period of discharge including exact date(s), time(s), and duration of discharge;
(c) An estimate of discharge volume;
(d) Name or location of receiving water;
(e) If a grab sample was taken of the discharge;
(f) Corrective steps taken, if appropriate, to reduce, eliminate, or prevent reoccurrence of the discharge; and
(g) For any discharge that may have come in contact with a drinking water intake, confirmation that Oregon Emergency Response System (OERS) was notified.

2. Soil, Manure, Litter, and Process Wastewater Monitoring

The Permittee must conduct the following monitoring activities and retain the results:

Table 3: Soil, Manure, Litter, and Process Wastewater Monitoring for All CAFOs

Sample Type	Analytical Parameter	Minimum Frequency by CAFO Type	Sample Method
(a) Liquid and solid manure, and process wastewater (if handled separately).	Total nitrogen Total phosphorus	• *Larges* – annually • *Smalls and mediums* – upon request by the Department	Sample according to guidance contained in PNW 0533 (Appendix C).
(b) Exported manure, litter, and process wastewater.	Total nitrogen Total phosphorus	• *Larges* – annually • *Smalls and mediums* – upon request by the Department	Sample according to guidance contained in PNW 0533 (Appendix C).
(c) Soil from fields that receive manure, litter, or process wastewater – *pre-planting.*	Total nitrogen Total phosphorus	• *CAFOs in GWMAs* – before spring applications on all fields	Sample according to guidance contained in EC628 (Appendix C).
(d) Soil from fields that receive manure, litter, or process wastewater – *post-harvest* (before 3 inches of rain accumulates and before significant post-harvest irrigation).	Total nitrogen Total phosphorus Nitrate-nitrogen	• *CAFOs in GWMAs* – in the fall on all fields • *Larges* – annually on a minimum of 20% of all fields such that all fields are sampled once every five years • *Smalls and mediums* – once every five years on all fields	Sample according to guidance contained in PNW 570-E, EM 8832-E (Appendix C).
(e) Grab sample of any effluent discharge from production or land application area.	*E. coli,* Total Phosphorus (P), Nitrate plus Nitrite Nitrogen (NO_3+NO_2)	• *All CAFOs* – upon occurrence, see S2.A.3	Grab sample analyzed using test methods in 40 CFR Part 136.

S4.B. Inspection Requirements

1. The permittee must conduct the following inspections and record the outcomes:

Table 4: Inspection Requirements

Item	Minimum Frequency by CAFO Type
(a) Stormwater diversion devices, runoff diversion structures, animal waste storage structures, and devices channeling contaminated stormwater to wastewater and manure storage and containment structures.	• *Larges* – weekly • *Smalls and mediums* – every six months
(b) Water lines, including drinking water or cooling water lines.	• *Larges* – daily • *Smalls and mediums* – every six months
(c) Equipment used for land application of manure, litter, or process wastewater.	• *Larges* – daily when equipment is in use • *Smalls and mediums* – every six months when equipment is in use
(d) Liquid impoundments for manure and process wastewater.	• *Larges* - weekly (include depth using required depth marker, see S2.D.4) • *Smalls and mediums* – monthly

2. The permittee must correct any deficiencies found as a result of these inspections as soon as possible. The permittee must record any actions taken to correct these deficiencies and, if deficiencies are not corrected within 30 days, provide an explanation of the factors preventing immediate correction.

S4.C. Recordkeeping and Availability Requirements

1. The permittee must maintain all information required by this permit at the facility for at least five (5) years and make this information available to the Department upon request.

2. The permittee must record the following information:

Table 5: Recordkeeping Requirements

Item or Parameter	Large CAFO	Small and Medium CAFOs
(a) Date, amount, and nutrient loading of manure, litter, or process wastewater applied to each field.	Required	Required
(b) Weather conditions at the time of application and 24 hours before and after application.	Required	Not required
(c) Total amount of nitrogen and phosphorus actually applied during the previous calendar year to each field, including documentation of calculations of the total amount applied.	Required	Required
(d) Total amount of manure or wastewater transferred or exported to other persons and the Nutrient Application Permit (NAP) registration number of the receiver if applicable.	Required Also include: (a) Date and amount of each transfer or export (b) Name and address of each recipient (c) Copy of the manure nutrient analysis conducted provided to the recipient (See S2.K.4)	Required
(e) Outcomes and dates of inspections.	Required (See S4.B.1)	Required (See S4.B.1)

Item or Parameter	Large CAFO	Small and Medium CAFOs
(f) Description of actions taken to correct deficiencies discovered during inspections.	Required (See S4.B.2)	Required
(g) Practices used for mortalities management.	Required (See S2.G)	Not required
(h) Documentation of current design of any manure or litter storage structures.	Required Also include: (a) Volume for solids accumulation, design treatment, and total design (b) Approximate number of days of storage capacity	Not required

S4.D. Reporting Requirements

1. Discharges - Reporting to the Department and Oregon Emergency Response System (OERS)
   (a) If a discharge to waters of the state occurs, the permittee must take reasonable steps to stop the discharge and notify the Department as soon as possible after discovering the discharge, but no later than 24 hours after discovery.
   (b) The permittee must notify OERS of any discharge that may come in contact with a drinking water system intake as soon as possible after discovering the discharge but no later than 24 hours after discovery. *Notification must be made by calling OERS at 1-800-452-0311.*
   (c) The permittee must submit a discharge monitoring report within five (5) days to the Department. The information to be submitted is listed in the monitoring requirements (See S4.A) of this permit.
   (d) The permittee must submit a follow-up discharge report for an effluent grab sample no later than one month from the date the sample was taken unless a different schedule is established by an administrative order as described in S4.E. The follow-up discharge report must include:
      (i) The date, exact place, and time of sampling or measurements;
      (ii) The individual(s) who performed the sampling or measurements;
      (iii) The date(s) analyses were performed;
      (iv) The individual(s) who performed the analyses;
      (v) The analytical techniques or methods used; and
      (vi) The results of such analyses that includes the sample result and quantitation limit of the analysis.

2. Failures and Noncompliance - Reporting to ODA and OERS
   (a) The permittee must notify the Department as soon as possible after discovering any significant physical failure of waste storage facilities or treatment works required under this permit as described in General Condition D.5, but no later than 24 hours after discovery.
   (b) The permittee must notify the Department as soon as possible after discovering any permit noncompliance that may endanger health or the environment as described in General Condition D.5, but no later than 24 hours after discovery.
   (c) In the event of either a physical failure or a noncompliance as described above, the permittee must submit a written report within five (5) days to the Department that includes the following:
      (i) A description of the failure or noncompliance and its cause;
      (ii) The period of the failure or noncompliance, including exact dates and times;
      (iii) If the failure or noncompliance has not been corrected, the anticipated time it is expected to continue; and
      (iv) The steps taken to reduce, eliminate, and prevent reoccurrence of the failure or noncompliance.

(d) In addition to complying with [2.(b)] above, the permittee must notify (OERS) of any noncompliance that may endanger health or the environment as soon as possible after discovering the noncompliance but no later than 24 hours after discovery. *Notification must be made by calling OERS at 1-800-452-0311.*

3. Annual Report

(a) The permittee must submit an annual report to the Department by March 15th of each year. The annual report must include the following for the previous calendar year:

(i) Maximum number and type of animals approved by ODA in the permittee's Notice of Registration, whether in open confinement or housed under roof (for example, beef cattle, broilers, layers, swine weighing 55 pounds or more, swine weighing less than 55 pounds, mature dairy cows, dairy heifers, veal calves, sheep and lambs, horses, ducks, turkeys, other);

(ii) Number of animals by type averaged over the year;

(iii) Estimated amount of total manure, litter, process wastewater, and other material that comes in contact with manure generated, (in tons, gallons, cubic feet, or cubic yards);

(iv) Estimated amount of total manure, litter, process wastewater, and other material that comes in contact with manure transferred to other persons by the permittee, (in tons, gallons, cubic feet, or cubic yards);

(v) Estimated amount of manure, litter, process wastewater, and other material that comes in contact with manure applied to land by the permittee, (in tons, gallons, cubic feet, or cubic yards);

(vi) Total number of acres for land application covered by the NMP developed in accordance with the terms of this permit;

(vii) Total number of acres under control of the permittee that were used for land application of manure, litter, and process wastewater;

(viii) Summary of all manure, litter, and process wastewater discharges from the production area that have occurred, including date, time, and approximate volume;

(ix) A statement indicating whether the NMP was developed or approved by a certified nutrient management planner; and

(x) Large CAFOs and any small and medium CAFOs that discharge must also report items (*1*) through (*6*) ((40 CFR § 122.42(e)(4)(viii)).

(1) Actual crop(s) planted and actual yield(s) for each field;

(2) Actual nitrogen and phosphorus content of the manure, litter, and process wastewater;

(3) Data used and results of calculations based on protocol in the NMP;

(4) Amount of manure, litter, and process wastewater applied to each field;

(5) Results of soil testing for nitrogen and phosphorus if testing was performed; and

(6) Amount of any supplemental fertilizer applied.

(b) The annual report must be signed and certified by the permittee or permittee's authorized representative with the following statement: "I certify, under penalty of law, that this document and all attachments were prepared under my direct supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations."

4. Method of Reporting
   (a) The permittee must submit an annual report in a paper or electronic format to the Department as specified in S4.D.3 until directed by the Department to do otherwise.
   (b) When the Department directs, the permittee must submit an annual report and other information in an electronic format using approved web-based forms including any pre-approved attachments unless the permittee receives approval for a waiver according to 40 CFR §127.15 and 40 CFR § 127.24.
      i. The permittee must submit monitoring results annually as specified in S4.D.3 unless specified by the Department.
      ii. The permittee must sign and certify all electronic submissions in accordance with General Condition D.8 of this permit.

S4.E. Additional Monitoring Requirements

1. The Department may establish specific monitoring requirements in addition to those contained in this permit by administrative order (ORS 183.310).

2. If a permittee experiences two or more discharges within a 24-month period that are not associated with a 25-year, 24-hour or greater rainfall event, the Department may require surface water and/or groundwater quality monitoring or require the permittee to seek coverage under an individual permit. Monitoring for the following parameters may be required: bacteria, total suspended solids, total Kjeldahl nitrogen, biochemical oxygen demand, and other nutrient indicators. If the Department waives the additional monitoring requirements because such monitoring would be impracticable or not likely to produce useful information, the Department will set out the basis for the decision in writing and make the decision available to interested persons.

CAFO NPDES GENERAL CONDITIONS

Based on the July 31, 2016, Version of "Schedule F"

SECTION A. STANDARD CONDITIONS

A1. Duty to Comply with Permit

The permittee must comply with all conditions of this permit. Failure to comply with any permit condition is a violation of Oregon Revised Statutes (ORS) 468B.025 and the federal Clean Water Act and is grounds for an enforcement action. Failure to comply is also grounds for the Department to terminate, modify and reissue, revoke, or deny renewal of a permit.

A2. Penalties for Water Pollution and Permit Condition Violations

The permit is enforceable by the Department or EPA, and in some circumstances also by third parties under the citizen suit provisions of 33 USC § 1365. Department enforcement is generally based on provisions of state statutes and Environmental Quality Commission (EQC) rules, and EPA enforcement is generally based on provisions of federal statutes and EPA regulations.

ORS 468.140 allows the Department to impose civil penalties up to $25,000 per day for violation of a term, condition, or requirement of a permit.

Under ORS 468.943, unlawful water pollution in the second degree, is a Class A misdemeanor and is punishable by a fine of up to $25,000, imprisonment for not more than one year, or both. Each day on which a violation occurs or continues is a separately punishable offense.

Under ORS 468.946, unlawful water pollution in the first degree is a Class B felony and is punishable by a fine of up to $250,000, imprisonment for not more than 10 years, or both.

The Clean Water Act provides that any person who violates permit condition, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed $25,000 per day for each violation.

The Clean Water Act provides that any person who negligently violates any condition, or any requirement imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of $2,500 to $25,000 per day of violation, or imprisonment of not more than 1 year, or both.

In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than $50,000 per day of violation, or by imprisonment of not more than 2 years, or both.

Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of $5,000 to $50,000 per day of violation, or imprisonment for not more than 3 years, or both.

In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than $100,000 per day of violation, or imprisonment of not more than 6 years, or both.

Any person who knowingly violates section any permit condition, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than $250,000 or imprisonment of not more than 15 years, or both.

In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than $500,000 or by imprisonment of not more than 30 years, or both.

An organization, as defined in section 309(c)(3)(B)(iii) of the CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than $1,000,000 and can be fined up to $2,000,000 for second or subsequent convictions.

Any person may be assessed an administrative penalty by the Administrator for violating any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act.

Administrative penalties for Class I violations are not to exceed $10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed $25,000.

Penalties for Class II violations are not to exceed $10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed $125,000.

A3. Duty to Mitigate

The permittee must take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit. In addition, upon request of the Department, the permittee must correct any adverse impact on the environment or human health resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

A4. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and have the permit renewed. The application must be submitted at least 180 days before the expiration date of this permit.

The Department may grant permission to submit an application less than 180 days in advance but no later than the permit expiration date.

A5. Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause including, but not limited to, the following:

a. Violation of any term, condition, or requirement of this permit, a rule, or a statute.
b. Obtaining this permit by misrepresentation or failure to disclose fully all material facts.
c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.
d. The permittee is identified as a Designated Management Agency or allocated a wasteload under a total maximum daily load (TMDL).
e. New information or regulations.
f. Modification of compliance schedules.
g. Requirements of permit reopener conditions.
h. Correction of technical mistakes made in determining permit conditions.
i. Determination that the permitted activity endangers human health or the environment.
j. Other causes as specified in 40 CFR §§ 122.62, 122.63, 122.64, and 124.5.

The filing of a request by the permittee for a permit modification, revocation or reissuance, termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

A6. Toxic Pollutants
The permittee must comply with any applicable effluent standards or prohibitions established under Oregon Administrative Rules (OAR) 340-041-0033 and 307(a) of the federal Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the federal Clean Water Act within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

A7. Property Rights and Other Legal Requirements
The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege, or authorize any injury to persons or property or invasion of any other private rights, or any infringement of federal, tribal, state, or local laws or regulations.

A8. Permit References
Except for effluent standards or prohibitions established under section 307(a) of the federal Clean Water Act and OAR 340-041-0033 for toxic pollutants, and standards for sewage sludge use or disposal established under section 405(d) of the federal Clean Water Act, all rules and statutes referred to in this permit are those in effect on the date this permit is issued.

A9. Permit Fees
The permittee must pay the fees required by OAR 603-074-0020.

SECTION B. OPERATION AND MAINTENANCE OF POLLUTION CONTROLS

B1. Proper Operation and Maintenance
The permittee must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems that are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

B2. Need to Halt or Reduce Activity Not a Defense
For industrial or commercial facilities, upon reduction, loss, or failure of the treatment facility, the permittee must, to the extent necessary to maintain compliance with its permit, control production or all discharges or both until the facility is restored or an alternative method of treatment is provided. This requirement applies, for example, when the primary source of power of the treatment facility fails or is reduced or lost. It is not a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

B3. Bypass of Treatment Facilities
a. Definitions
(1) "Bypass" means intentional diversion of waste streams from any portion of the treatment facility. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, provided the diversion is to allow essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs b and c of this section.
(2) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
b. Prohibition of bypass.

(1) Bypass is prohibited and the Department may take enforcement action against a permittee for bypass unless:
   i. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
   ii. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventative maintenance; and
   iii. The permittee submitted notices and requests as required under General Condition B3.c.

(2) The Department may approve an anticipated bypass, after considering its adverse effects and any alternatives to bypassing, when the Department determines that it will meet the three conditions listed above in General Condition B3.b(1).

c. Notice and request for bypass.
   (1) Anticipated bypass. If the permittee knows in advance of the need for a bypass, a written notice must be submitted to the Department at least ten days before the date of the bypass.
   (2) Unanticipated bypass. The permittee must submit notice of an unanticipated bypass as required in General Condition D5.

B4. Upset

a. Definition. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operation error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation.

b. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of General Condition B4.c are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

c. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset must demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
   (1) An upset occurred and that the permittee can identify the causes(s) of the upset;
   (2) The permitted facility was at the time being properly operated;
   (3) The permittee submitted notice of the upset as required in General Condition D5, hereof (24-hour notice); and
   (4) The permittee complied with any remedial measures required under General Condition A3 hereof.

d. Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

B5. Treatment of Single Operational Upset

For purposes of this permit, a single operational upset that leads to simultaneous violations of more than one pollutant parameter will be treated as a single violation. A single operational upset is an exceptional incident that causes simultaneous, unintentional, unknowing (not the result of a knowing act or omission), temporary noncompliance with more than one federal Clean Water Act effluent discharge pollutant parameter. A single operational upset does not include federal Clean Water Act violations involving discharge without a NPDES permit or noncompliance to the extent caused by improperly designed or inadequate treatment facilities. Each day of a single operational upset is a violation.

B6. Public Notification of Effluent Violation

If effluent limitations specified in this permit are exceeded or an overflow occurs that threatens public health, the permittee must take such steps as are necessary to alert the public, health agencies and other affected entities (for example, public water systems) about the extent and nature of the discharge in accordance with the notification procedures developed under General Condition B7. Such steps may include, but are not limited to, posting of the river at access points and other places, news releases, and paid announcements on radio and television.

B7. Emergency Response and Public Notification Plan

The permittee must develop and implement an emergency response and public notification plan that identifies measures to protect public health from bypasses or upsets that may endanger public health. At a minimum the plan must include mechanisms to:

a. Ensure that the permittee is aware (to the greatest extent possible) of such events;
b. Ensure notification of appropriate personnel and ensure that they are immediately dispatched for investigation and response;
c. Ensure immediate notification to the public, health agencies, and other affected entities (including public water systems). The response plan must identify the public health and other officials who will receive immediate notification;
d. Ensure that appropriate personnel are aware of and follow the plan and are appropriately trained;
e. Provide emergency operations; and
f. Ensure that the Department is notified of the public notification steps taken.

B8. Removed Substances

Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters must be disposed of in such a manner as to prevent any pollutant from such materials from entering waters of the state, causing nuisance conditions, or creating a public health hazard.

SECTION C. MONITORING AND RECORDS

C1. Representative Sampling

Sampling and measurements taken as required herein must be representative of the volume and nature of the monitored discharge. All samples must be taken at the monitoring points specified in this permit, and must be taken, unless otherwise specified, before the effluent joins or is diluted by any other waste stream, body of water, or substance. Monitoring points must not be changed without notification to and the approval of the Department. Samples must be collected in accordance with requirements in 40 CFR part 122.21 and 40 CFR part 403 Appendix E.

C2. Flow Measurements

If required under this permit, appropriate flow measurement devices and methods consistent with accepted scientific practices must be selected and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices must be installed, calibrated and maintained to ensure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected must be capable of measuring flows with a maximum deviation of less than ± 10 percent from true discharge rates throughout the range of expected discharge volumes.

C3. Monitoring Procedures

Monitoring must be conducted according to test procedures approved under 40 CFR part 136 or, in the case of sludge (biosolids) use and disposal, approved under 40 CFR part 503 unless other test procedures have been specified in this permit.

For monitoring of recycled water with no discharge to waters of the state, monitoring must be conducted according to test procedures approved under 40 CFR part 136 or as specified in the most recent edition of

Standard Methods for the Examination of Water and Wastewater unless other test procedures have been specified in this permit or approved in writing by the Department.

C4. Penalties for Tampering

The federal Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit may, upon conviction, be punished by a fine of not more than $10,000 per violation, imprisonment for not more than two years, or both. If a conviction of a person is for a violation committed after a first conviction of such person, punishment is a fine not more than $20,000 per day of violation, or by imprisonment of not more than four years, or both.

C5. Reporting of Monitoring Results

Monitoring results must be summarized each month on a discharge monitoring report form approved by the Department. The reports must be submitted monthly and are to be mailed, delivered or otherwise transmitted by the 15th day of the following month unless specifically approved otherwise in this permit.

C6. Additional Monitoring by the Permittee

If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR part 136 or, in the case of sludge (biosolids) use and disposal, approved under 40 CFR part 503 or as specified in this permit, the results of this monitoring must be included in the calculation and reporting of the data submitted in the discharge monitoring report. Such increased frequency must also be indicated. For a pollutant parameter that may be sampled more than once per day (for example, total residual chlorine), only the average daily value must be recorded unless otherwise specified in this permit.

C7. Averaging of Measurements

Calculations for all limitations that require averaging of measurements must utilize an arithmetic mean, except for bacteria which must be averaged as specified in this permit.

C8. Retention of Records

Records of monitoring information required by this permit related to the permittee’s sewage sludge use and disposal activities must be retained for a period of at least 5 years (or longer as required by 40 CFR part 503). Records of all monitoring information including all calibration and maintenance records, all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit and records of all data used to complete the application for this permit must be retained for a period of at least 3 years from the date of the sample, measurement, report, or application. This period may be extended by request of the Department at any time.

C9. Records Contents

Records of monitoring information must include:

a. The date, exact place, time, and methods of sampling or measurements;
b. The individual(s) who performed the sampling or measurements;
c. The date(s) analyses were performed;
d. The individual(s) who performed the analyses;
e. The analytical techniques or methods used; and
f. The results of such analyses.

C10. Inspection and Entry

The permittee must allow the Department or EPA upon the presentation of credentials to:

a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
d. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by state law, any substances or parameters at any location.

C11. Confidentiality of Information

Any information relating to this permit that is submitted to or obtained by the Department is available to the public unless classified as confidential by the Director of DEQ under ORS 468.095. The permittee may request that information be classified as confidential if it is a trade secret as defined by that statute. The name and address of the permittee, permit applications, permits, effluent data, and information required by NPDES application forms under 40 CFR § 122.21 are not classified as confidential [40 CFR § 122.7(b)].

SECTION D. REPORTING REQUIREMENTS

D1. Planned Changes

The permittee must comply with OAR 340-052, "Review of Plans and Specifications," OAR 603-074-0018, and 40 CFR § 122.41(l)(1). Except where exempted under OAR 340-052, no construction, installation, or modification involving disposal systems, treatment works, sewerage systems, or common sewers may be commenced until the plans and specifications are submitted to and approved by the Department. The permittee must give notice to the Department as soon as possible of any planned physical alternations or additions to the permitted facility.

D2. Anticipated Noncompliance

The permittee must give advance notice to the Department of any planned changes in the permitted facility or activity that may result in noncompliance with permit requirements.

D3. Transfers

This permit may be transferred to a new permittee provided the transferee acquires a property interest in the permitted activity and agrees in writing to fully comply with all the terms and conditions of the permit and EQC rules. No permit may be transferred to a third party without prior written approval from the Department. The Department may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under 40 CFR § 122.61. The permittee must notify the Department when a transfer of property interest takes place.

D4. Compliance Schedule

Reports of compliance or noncompliance with, or any progress reports on interim and final requirements contained in any compliance schedule of this permit must be submitted no later than 14 days following each schedule date. Any reports of noncompliance must include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirements.

D5. Twenty-Four Hour Reporting

The permittee must report any noncompliance that may endanger health or the environment. Any information must be provided orally (by telephone) within 24 hours from the time the permittee becomes aware of the circumstances, unless a shorter time is specified in the permit. During normal business hours, the ODA regional office must be called. Outside of normal business hours, contact the Oregon Emergency Response System (OERS) at 1-800-452-0311.

a. The following must be included as information that must be reported within 24 hours under this paragraph:
   (1) Any unanticipated bypass that exceeds any effluent limitation in this permit;

(2) Any upset that exceeds any effluent limitation in this permit;
(3) Violation of maximum daily discharge limitation for any of the pollutants listed by the Department in this permit; and
(4) Any noncompliance that may endanger human health or the environment.

b. A written submission must also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission must contain:
(1) A description of noncompliance and its cause;
(2) The period of noncompliance, including exact dates and times;
(3) The estimated time noncompliance is expected to continue if it has not been corrected;
(4) Steps taken or planned to reduce, eliminate and prevent reoccurrence of the noncompliance; and
(5) Public notification steps taken, pursuant to General Condition B7.

The Department may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

D6. Other Noncompliance
The permittee must report all instances of noncompliance not reported under General Condition D4 or D5, at the time monitoring reports are submitted. The reports must contain:
a. A description of the noncompliance and its cause;
b. The period of noncompliance, including exact dates and times;
c. The estimated time noncompliance is expected to continue if it has not been corrected; and
d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

D7. Duty to Provide Information
The permittee must furnish to the Department within a reasonable time any information that the Department may request to determine compliance with the permit or to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit. The permittee must also furnish to the Department, upon request, copies of records required to be kept by this permit.

Other Information: When the permittee becomes aware that it has failed to submit any relevant facts or has submitted incorrect information in a permit application or any report to the Department, it must promptly submit such facts or information.

D8. Signatory Requirements
All applications, reports or information submitted to the Department must be signed and certified in accordance with 40 CFR § 122.22.

D9. Falsification of Information
Under ORS 468.953, any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance, is subject to a Class C felony punishable by a fine not to exceed $125,000 per violation and up to 5 years in prison per ORS chapter 161. Additionally, according to 40 CFR § 122.41(k)(2), any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit including monitoring reports or reports of compliance or non-compliance will, upon conviction, be punished by a federal civil penalty not to exceed $10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

D10. Changes to Discharges of Toxic Pollutant

The permittee must notify the Department as soon as it knows or has reason to believe the following:

a. That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant that is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:
   (1) One hundred micrograms per liter (100 µg/l);
   (2) Two hundred micrograms per liter (200 µg/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;
   (3) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR § 122.21(g)(7); or
   (4) The level established by the Department in accordance with 40 CFR § 122.44(f).

b. That any activity has occurred or will occur that would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant that is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
   (1) Five hundred micrograms per liter (500 µg/l);
   (2) One milligram per liter (1 mg/l) for antimony;
   (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 40 CFR § 122.21(g)(7); or
   (4) The level established by the Department in accordance with 40 CFR § 122.44(f).

SECTION E. DEFINITIONS

E1. *BOD or BOD_5* means five-day biochemical oxygen demand.
E2. *CBOD or $CBOD_5$* means five-day carbonaceous biochemical oxygen demand.
E3. *TSS* means total suspended solids.
E4. *Bacteria* means but is not limited to fecal coliform bacteria, total coliform bacteria, *Escherichia coli* (*E. coli*) bacteria, and *Enterococcus* bacteria.
E5. *FC* means fecal coliform bacteria.
E6. *Total residual chlorine* means combined chlorine forms plus free residual chlorine
E7. *Technology based permit effluent limitations* means technology-based treatment requirements as defined in 40 CFR § 125.3, and concentration and mass load effluent limitations that are based on minimum design criteria specified in OAR 340-041.
E8. *mg/l* means milligrams per liter.
E9. *µg/l* means microgram per liter.
E10. *kg* means kilograms.
E11. *m^3/d* means cubic meters per day.
E12. *MGD* means million gallons per day.
E13. *Average monthly effluent limitation* as defined at 40 CFR § 122.2 means the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.
E14. *Average weekly effluent limitation* as defined at 40 CFR § 122.2 means the highest allowable average of daily discharges over a calendar week, calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.
E15. *Daily discharge* as defined at 40 CFR § 122.2 means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the daily discharge must be calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge must be calculated as the average measurement of the pollutant over the day.

E16. *24-hour composite sample* means a sample formed by collecting and mixing discrete samples taken periodically and based on time or flow.
E17. *Grab sample* means an individual discrete sample collected over a period of time not to exceed 15 minutes.
E18. *Quarter* means January through March, April through June, July through September, or October through December.
E19. *Month* means calendar month.
E20. *Week* means a calendar week of Sunday through Saturday.

NUTRIENT MANAGEMENT PLAN
CERTIFICATION AND SIGNATURE PAGE

Oregon Department of Agriculture – Animal Feeding Operation (AFO) Permit
Facility / Operation Name: Stafford Lot
Permittee / Operator: Kevin Martin
Facility Address: 9950 SW Culver Hwy, Culver, Oregon 97734
ODA Permit Number (if applicable):
Plan Date: November 3, 2026 **Plan Revision Date:** NA

1. Permittee / Operator Certification
I certify that I have reviewed this Nutrient Management Plan and understand the management practices, requirements, and responsibilities described herein.
I agree to implement and maintain the nutrient management practices identified in this plan, including the proper collection, storage, handling, transfer, and land application of manure, process wastewater, and other nutrient sources, as applicable.
I understand that I am responsible for operating the facility in accordance with the applicable Oregon Department of Agriculture permit requirements and conditions.
Printed Name: Kevin Martin **Title:** Owner/Operator

Signature: _____ **Date:**

2. Nutrient Management Plan Preparer Certification
I certify that I prepared this Nutrient Management Plan based on the information made available to me regarding the operation, manure and wastewater management practices, land application areas, soil and crop information, and other applicable site conditions.
The recommendations and management practices presented in this plan are intended to address the nutrient management needs and applicable requirements of the operation, based on the information available at the time of preparation.
Plan Preparer Name: Elizabeth Kittle **TSP Number:** TSP-24-24977

Signature: _____ **Date:** 11/03/26

3. Plan Review / Acknowledgment (if applicable)
Reviewer Name: **Title:**
Agency / Organization:
Signature: _____ **Date:**

Document Control
Plan Version: _____
Effective Date: _____
Supersedes Previous Plan Dated: _____