CONDITIONAL USE PERMIT
FORM

FINAL
Revised 10/1/15

Yakima County Public Services
128 North Second Street · Fourth Floor Courthouse · Yakima, Washington 98901
(509) 574-2300 · 1-800 572-7354 · FAX (509) 574-2301 · www.co.yakima.wa.us

Please Answer the Following Questions *(Please attach a separate sheet if needed)*:

1. Are you applying for a: ☐ Type 1 ☒ Type 2 ☐ Type 3 ☐ Type 4
2. What is the proposed use, as listed in YCC Table 19.14-1? CAFO
3. What is the size of the subject property? (Amount of acreage or square feet): 73.3 A
4. What is the size and use of structures currently located on the property? SEE SITE PLAN
5. What is the size, height and use of structures proposed to be placed or constructed? SEE SITE PLAN
6. List other permits and approvals that will be required. BLDG Permits
7. Will the project be conducted entirely within a structure? ☐ Yes ☒ No
   If no, explain what outdoor activities would occur: CATTLE CORRALS
8. Total number of employees? about 25
9. How many parking spaces are you proposing? Existing: 25 Proposed: 25 Surface Type: gravel
10. Will you have a sign? ☐ Yes (if yes, please answer the following questions.) ☒ No
    a. How many signs are proposed? _____
    b. What is the square footage of the sign? _____
    c. What is the height of the sign? _____
    d. Will the sign be illuminated? ☐ Yes ☐ No
    e. If the sign is illuminated, how will it be illuminated? ☐ Internally ☐ Externally
    f. Where will it be located? _____
11. What is the name of the road that the proposed/existing access is located on? West Wapato Road
    a. Is the road a: ☒ County Road ☐ State Highway ☐ Private Road
       If the road is a private road, is there an existing Road Maintenance Agreement? ☐ Yes ☐ No
       (If yes, please provide a copy)
    b. Is the road constructed out of: ☒ Pavement ☐ Gravel ☐ Dirt
    c. How wide is the Right-of-Way/Easement? 50 ft
    d. How wide is the surface of the road? 28 ft
12. How will you manage storm water runoff? Retain on Site

13. Fencing (If applicable check both)? ☐ New ☐ Existing

a. Fence Material: DRILL STEM + SUCKER ROD

b. Will the fence be view obscuring fence? ☐ Yes ☒ No

c. Will you be placing barbed wire on the top of the fence? ☐ Yes ☒ No

d. What is the total height of the fence (including the barbed wire if proposed)? 60"

14. Are you proposing any site screening or landscaping? ☐ Yes ☒ No

If yes, what type and what is the location? _____

15. What is the proposed source of irrigation water? WAPATO Irrigation District.

16. What are the days & hours of operation? Days: 7 Hours: 24

17. Will the operation be seasonal? If so list months of operation: NO

18. Is any outdoor lighting proposed? ☒ Yes ☐ No

If yes, what is the proposed location(s)? Corral Lighting

19. What is the proposed source of domestic water?

a. ☐ Public Water: Name of provider: _____

b. ☐ Community Well: What is the well number: _____

i. Where is the well located? _____

ii. Is there an existing Well Maintenance Agreement? ☐ Yes ☐ No

(If yes, please provide a copy)

c. ☒ Individual Well

20. What is the proposed method of sewage disposal?

a. ☐ Public Sewer: Name of provider: _____

b. ☐ Community Septic System: Where is the septic system located? _____

c. ☒ Individual Septic System

d. ☒ Other explain: portable toilets

ANIMAL FEEDING OPERATION
FORM

FINAL
Revised: 10/1/15

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Please Answer the Following Questions:

1. Are you proposing an:
   - ☐ Animal Feeding Operation (AFO)
   - ☒ Concentrated Animal Feeding Operation (CAFO)
   - ☐ Dairy
2. When was your Dairy Nutrient Management Plan last updated and approved? 2013
3. How many employees: Full Time: 25 Part Time: _____
4. Describe the type of deliveries to and from the property: Cattle, Feed, Milk Waste, Employees
5. What type of vehicles will be visiting the site? Passenger Vehicles, Trucks tractors
6. How many vehicle trips will be made to the property per day? about 40
7. What sign(s) are planned to be installed on the site? NONE
8. Where will the sign(s) be located? NA
9. Are you proposing any off-site sign(s) ☐ Yes ☒ No If yes, describe their location:

   _____
10. How many parking spaces are: Existing: 25 Proposed: 0
11. What is the existing/proposed surface type for the parking spaces? ☐ Paved ☒ Gravel
12. Where will the loading zone be located? ON THE FARM
13. How will storm water runoff be managed? retained on site
14. What type of fencing, screening or landscaping is proposed? Drill Stem + Sucker rod
15. Is any outdoor lighting proposed? ☒ Yes ☐ No

    If yes, describe the type and location: Corral Lighting, operations Lighting
16. Indicate the source of irrigation: WAPATO ID

17. What is the proposed source of domestic water?

- ☐ Public Water System (City, Nob Hill Water, County)
- ☒ On-site individual well
- ☐ On-site shared or community well Name: _____
  ID#: _____
  Location: _____
- ☐ Other: _____

18. What is the proposed method of domestic sewage disposal?

- ☐ Public Sewer System (City, County)
- ☒ On-site individual septic system
- ☐ On-site shared or community septic system Location: _____
- ☒ Other: portable toilets

19. How many gallons of water are expected to be used per day? 90,000

Please provide the following information in your attached narrative:

- ☒ Proposed methods of waste management
- ☒ Odor Control
- ☒ Vector Control
- ☒ Silage Management
- ☒ Track-Out Control
- ☒ Howe the waste water systems/lagoons are lined

CUP16-26

Castle Grove Dairy
Capital Improvements

Type II Review Submittal

Prepared by: B7 Engineering
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B7 job number 14109

Castle Grove Dairy
Capital Improvements

Contents **Page**

Attention

Dairies and Feedlots are subject to the following RCW regarding sharing of information. If you are providing information to a member of the public make sure you are in compliance.

RCW42.56.610

Certain information from dairies and feedlots limited-rules.

The following information plans, records, and reports obtained by state and local agencies from dairies, animal feeding operations, and concentrated animal feeding operations, not required to apply for a national pollutant discharge elimination system permit is disclosable only in ranges that provide meaningful information to the public while ensuring confidentiality of business information regarding: (1) Number of animals; (2) volume of livestock nutrients generated; (3) number of acres covered by the plan or used for land application of livestock nutrients; (4) livestock nutrients transferred to other persons; (5) crop yields. The department of agriculture shall adopt rules to implement this section in consultation with affected state and local agencies.

[2005 c 510 § 5. Formerly REC 42.17.31923.]

Castle Grove Dairy
Capital Improvements

Introduction

The Castle Grove Dairy is owned by Case Vandenberg. The farm property is owned by CCC Farms LLC which is also controlled by Case Vandenberg as a land holding company which rents the farm property to the dairy. The main dairy is located on deeded parcels within the Yakima Indian Reservation bringing it under the jurisdiction of Yakima County regarding land use and building permits. The dairy is located about 8 miles west of Wapato, at 8053 West Wapato Road. The dairy operation affects five parcels totaling about 200 acres. The actual dairy operation occupies about 72.0 acres most of which occupies Parcels 181108-31001 and 32001.

The Castle Grove Dairy wants to add cow shades to new corrals, and waste management facilities. This not an expansion because the current milk production contract penalized excess production. These corrals and shelters are intended to improve herd health by reducing crowding. The benefits of the project includes better herd health.

The castle grove dairy is a concentrated animal feeding operation (CAFO) in the AG land use zone. Chapter 15 of YCC requires a Type II review and a conditional use permit. Prior to this set of capital improvements, castle grove has not needed to obtain these land use permits.

It is not uncommon for dairies in Yakima Valley to be operating without the proper land use permits. Many dairies began as small operations and grew to a CAFO status without trigging a review by the Yakima County Planning Department. But when capital improvement require building permits, the building permits force the land use permits.

This submittal describes the Castle Grove Dairy operation and the intended capital improvements as part of the information needed to do this land use review and obtain the required conditional use permit.

These capital improvements planned for the dairy will add the following structures and facilities to the dairy operation as soon as permits can be obtained:

1. Three 12,300 SF Cow shades and one 9730 SF Cow shade to be built inside four new corrals.
2. 900 SF manure separator building.
3. Install synthetic liner in existing lagoons.

The proposed new roof area is about 46,630 SF. The Washington State Environmental Protection Act requires that all projects that exceed 30,000 SF of impervious surface undergo a SEPA review to minimize environmental damage due to land development.

This submittal is intended to provide the necessary information to satisfy both the land use authorization and the SEPA review.

Authorizations

This section discusses regulatory authorizations for Castle Grove Dairy to exist and operate as a Dairy. Independent verification of these authorizations is left to the reviewer.

Water Source

Dairies have exempt water rights for stock watering. There are two wells registered with Washington Department of Ecology, AFE-062 and BCF-024. Both wells are 6" diameter, well AFE-062 is 130 feet deep with static head near 26 feet below the surface and well BCF-024 is 165 feet deep with static head near 42 feet below the surface. Both wells are located in the Toppenish Hydrogeological unit. A review of the well logs indicate that both wells pull from the aquifer on top of the Saddle Mountain basalt layer. Daily withdrawal to operate the dairy is near 90,000 gallons per day.

Milk Producer Licenses

Castle Grove Dairy is licensed as a Milk Producer by the Washington Department of Agriculture, Food Safety and Animal Health Division, license number 9910.

Dairy Nutrient Management Plan

The dairy manages manure waste in accordance with an approved Dairy Nutrient Management Plan (DNMP). The DNMP was prepared by the South Yakima Conservation District and originally approved and certified in 1995 and most recently updated in 2013.

The DNMP is a confidential document protected from general public dissemination by RCW42.56.610, Certain information from dairies and feedlots limited-rules.

The DNMP is based on the number of animal units on the dairy at the time the DNMP was prepared. Language in the DNMP required that it be amended if the total animal units exceed 110% of the animal units when the DNMP was prepared.

The DNMP describes manure quantities, lagoon storage requirements, and field application methods at agronomic rates. Total waste quantities are calculated based on the following factors: herd size, cow wash water volume, and storm water runoff including runoff from a 24-hour, 25- year storm event.

The DNMP addresses three principle nutrients: nitrogen, phosphorus, and potassium. Generally, phosphorus and potassium will precipitate in the soil and become relatively immobile. Potassium is generally not considered a pollutant. Phosphorus pollution is controlled by controlling soil erosion.

Nitrogen sourced from the dairy nutrients is primarily in the form of Organic Matter. Organic nitrogen is a natural slow release material. The second form of nitrogen is Ammonia in the ion form (NH_4^+) which can bond with multiple soil components rendering it immobile. The third form of nitrogen and the minority component is Nitrate ion (NO_3^-) which is water soluble. It does not bond readily with soil components and with excessive soil moisture will migrate with the moisture below the root capture zone.

Nitrate Nitrogen is the nutrient of most concern, due to its ability to migrate into ground water aquifers. Concentrations of all three macronutrients are tested at the application fields and these records are inspected by WSDA along with the entire facility on an annual basis. Applications of nutrients are timed to match crop growth and rates to match plant needs, at agronomic rates. Many dairy fields are double cropped in a system with winter triticale as the fall/winter crop, and silage corn or Sudan grass as the spring/summer crop to maximize feed production, nutrient efficiency and nutrient removal.

Specific nutrient tests required include: nitrate-N, ammonia-N, phosphorus (P_2O_2), and potassium (K_2O). Soil testing is conducted bi-annually on all fields, generally in the spring and fall.

The total nitrogen available in the liquid waste depends upon feed mixtures, cleaning water used, and the weather. Testing of the nitrogen concentration in the pond is taken in accordance with the DNMP. Liquid waste is applied to application fields via irrigation or by shanking (direct soil injection) at agronomic rates as specified by the DNMP. Solid wastes are hauled to nearby fields where it is applied at agronomic rates.

The use of solid animal manure as a nutrient source, generally, benefits the soil better than inorganic salt fertilizers. Manure ads organic matter to the soil, which improves soil structure, air and water infiltration, and general tilth. Soil erosion is reduced and the moisture holding capacity is increased. Another benefit is that nitrogen and phosphorus are released slowly by action of microorganisms. This benefit conserves these elements and makes them available throughout the year as they are needed for plant growth.

The DNMP includes a listing of land areas designated for application of solid and liquid manure at agronomic rates.

Operations

This section discusses normal operations and efforts to mitigate nuisances generally associated with dairy operations.

Open Corrals

The dairy herd is currently housed in open corrals. Cows wander freely within their corral and move to the feed lockups as desired. Cows are directed to the milking parlors along paved walkways.

Manure is deposited throughout the corral area, paved walkways and milking parlor. Most of the manure is deposited in the feeding alleys where cows stand to feed. These areas are cleaned as needed to remove the accumulated solids. Cleaning is typically done with tractor pulling a three-point rubber scraper.

Cows spend most of their time in the corrals. During the summer, dairy workers pile manure in the center of the corral so that it can dry in the sun. As needed the manure piles are collected and spread over fields or stock piled for composting.

Milking Parlor

The dairy herd is milked three times per day. Parlor size and milk storage capacity typically define the maximum herd size.

The parlor holds 60 head and is described as a double 32 parallel. This type of parlor has two sets of 32 milking stalls, one set on each side of the milking platform. Cows ready for milking transit from their resident corral to a holding corral at the parlor via paved transit alleys. A group of 60 cows enter a transit alley leading the cows to one of 64 individual milking stalls. When the group of cows is positioned, gates close confining the cows with utters accessible to workmen on the milking platform. After proper cleaning and milking, gates open allowing the cows to transit to a holding corral for later return to their resident corral. The parlor can milk up to 320 cows per hour.

The parlor operates in three shifts, seven days per week to consistently milk two times daily. Milk storage capacity is about 150,000 pounds. Milk is shipped to processers by truck. Milk is picked up 2 to three a day.

Manure and Wastewater Management

The DNMP describes manure and wastewater management in detail. Waste water comes from four sources: the cleaning water from the parlor, urine from the herd, precipitation (storm water) falling on the dairy, and leachate from the silage bunkers.

All cleaning water from the parlor flows by gravity to a sump in the milking parlor. It is then pumped to a settling basin and then flows to the storage ponds. Liquids from the storage ponds are applied to on-site application fields at agronomic rates.

The waste water storage ponds were built to the standards prescribed for by the US Soil Conservation Service. These ponds were also lined with bentonite to reduce the potential for ground water contamination.

The storage pond is cleaned as needed.

Manure solids from corrals and feeding alleys are scraped and placed in dry stacks, then spread on application fields at agronomic rates as specified in the DNMP. Dried manure may also be used as bedding in the pen areas.

Runoff from application fields is unlikely due to farming practices and irrigation practices. To reduce runoff potential manure is typically incorporated into the soil. Berms are created around application fields that are sprinkled.

After pumping waste water, clean irrigation water is used to flush clean the irrigation piping and sprinklers. Clean irrigation water is also used to flush the waste water ponds several times during the irrigation season.

The new separator building will improve the ability to remove suspended solids from the waste water streams.

The existing lagoons are clay lined approved by the NRCS. Clay lined lagoons have been shown to be adequately water light to prevent pollution of ground water when there is at least 5 feet of vadose zone. The vadose zone for these lagoons is at least 15 feet. The effectiveness of the vadose zone is controversial. The new lagoon will be lined with a synthetic liner and the design will be approved by the NRSC.

Storm water Management

Most storm water falling on the dairy is absorbed by the exposed soil in the resident corrals and evaporated when the storm subsides. All areas potentially contaminated with dairy nutrients including corrals, roads, feed storage areas, and waste handling areas, are either: bermed, graded, or curbed to contain and appropriately treat storm water. On-site storm water from paved areas, building roofs, and corrals is collected and directed or transferred to waste water ponds. Dispersion fields are graded and have berms to guard against release of storm water.

Off-site storm water is generally not a concern. The topography is flat enough to effectively hold storm water at its source. Fence boundaries are bermed to ensure storm water is confined and ensure off site sources are controlled.

Employee Training

Employees receive training appropriate to their assigned tasks. Employees involved in manure and wastewater management are trained in the relevant procedures and requirements of the Dairy Nutrient Management Plan.

All employees are trained to correct or notify the owner if they observe conditions requiring corrective action. Areas emphasized in training include storm water management controls, manure and wastewater management controls, fly control, noise control, vehicle track-out prevention, work place safety, and spill prevention control and countermeasures plan.

Nuisance Mitigations

This section addresses perceived nuisances and methods used to mitigate these nuisances.

Odor Control

Some odor is a natural part of any dairy operation. Manure production and land application involves manure handling at the storage site, hauling to the application site, and land application. These processes can lead to potential sources of odor. For controlling odors during manure application the following practices to minimize odor are used:

- Corrals are kept as dry as possible to provide the least favorable environment for odors and fly pupae (eggs)
- The disposition of dead animals is accomplished in a sanitary manner and in accordance with all state and local laws.
- Feed spillage around feed bunks is kept to a minimum, especially under moist conditions.
- All animal holding areas are kept clean of excess manure. This provides a less desirable environment for disease organisms to thrive and proliferate.
- Manure is only applied on days when the wind is relatively calm so that the aerosols and odors are minimized from drifting onto neighboring areas

Wastewater from the storage ponds is diluted with clean irrigation water to reduce the smell during field applications. Clean irrigation water is pumped through the field wastewater piping system periodically to flush out any accumulated sediment and remove odor generating material. Clean irrigation water is also applied to fields after liquid manure application to further reduce odor generated from the fields.

Storage pond odor is controlled in several ways. The waste water pond is flushed frequently with clean water to reduce the nutrient concentrations and the waste water ponds are positioned to provide a stand-off distance from residences. This feature reduces the intensity of the odor sensed at the property boundaries due to dilution with moving air.

Silage is stored in a silage pit and covered with plastic to reduce excess moisture and fermentation and minimize emissions of odors. Silage leachate is collected and routed or

transferred to the wastewater storage pond. The area that the silage is stored on is paved with asphalt to prevent leachate from reaching ground water.

Vector Control

Castle Grove Dairy employs biological fly management which uses Trichogramma Wasps as predatory insects to destroy fly eggs. Weekly shipments of the wasps are released in areas that will likely harbor fly larva. These tiny wasps are about the sizes of a gnat and lay their eggs in fly eggs. The resultant wasp larva eats the fly egg. To force the biological equilibrium between the flys and the wasp to a low fly population, the population of the wasp is restocked regularly. The systems has proven to be effective, visitors to the dairy will quickly notice a very low fly population.

Another method of vector control reduces the potential larvae nurseries in the waste handling area. Because weeds along the edge of the lagoons can create pockets ideal for fly larvae, weeds are controlled at the surface interface zone of the storage ponds.

Manure solids are maintained in as dry as possible to reduce the suitability of manure as growth medium for larval development. This also promotes good habitat for fly predator reproduction.

Dust Control

The most frequently traveled roadways and cattle walks on the property are paved with concrete, asphalt, or gravel. Other roadways are gravel-surfaced with lignite binders to reduce dust generation.

Fields are irrigated and usually have some type of ground cover to prevent wind erosion.

Vehicle Parking

Vehicle parking is provided on-site for all employees and visitors. Visitors park in front of the milk barn. Employees park near where they work. About 5 parking places are marked. Other employee parking places are not marked but chosen as a matter of convenience. There are over 25 places in which employees can park their personal vehicles. Trucks picking up or delivering products park at the appropriate facility until they are loaded or unloaded. Although very informal, parking at the dairy has not proven to be a problem, and when it becomes a problem, a more formal parking policy can and will be executed.

Vehicle Track-out

Dairy operations are currently supported by a system of gravel-surfaced roadways within the dairy operation area. Use of these internal roadways substantially reduces the frequency of dairy operation vehicles entering onto the public roads from the dairy. The most frequently used internal roadways are gravel and inaccessible to livestock. This minimizes mud or manure from being carried onto surrounding public roads.

Manure trucks are loaded outside the pens and other areas manure is collected. When trucks spread manure in the fields they start at the far end of the field and work their way to the entrance to avoid driving on spread manure. If manure gets on the wheels or other parts of the truck where it could potentially fall onto the road it is cleaned prior to entering public roads.

Noise Control

Commodities delivered by truck are completed between the hours of 5:00 a.m. to 5:00 p.m., Monday through Saturday. No deliveries are made on Sunday.

Dairy vehicle equipment is well maintained, including repair and replacement of exhaust systems and mufflers as necessary. Backing up of equipment is minimized as much as possible to reduce noise from backup alarms.

The dairy does not have a public address system or other source of load outside noise. Employees communicate by radio or cell phone as necessary.

Glare

The dairy is equipped with a night lighting system consistent with practices at other dairies in the Yakima Valley. Any future lighting will include shields and lenses to prevent direct lighting trespass to off-site properties and public roads.

Reflective Glare from roofs is not generally a concern. The dairy does not use highly reflective metal finishes for roofing panels.

Communications and Complaint Resolution

Case Vandenberg, the owner, is responsible for communications with neighbors and regulatory agencies, and for responding to any inquiries or complaints.

Compatibility with Neighboring Land Uses and Critical Areas

This proposal is to provide facilities for a more efficient dairy operation by increasing storage capacity for cow feed, providing shade for the cows, and relieving herd pressure with new corrals.

The dairy is an existing facility and is compatible with neighboring land uses. The site has been in continuous use as a dairy for over 30 years. Land uses on surrounding parcels include row crops, horticulture, and some hobby farms.

The Yakima Critical Area Map (Yakima County GIS Mapping) identifies potential wetlands south of the corrals over the lagoons and the surrounding area, one potential wetland southeast of the property, and an undetermined stream along the southeast property line. See Site Map.

No construction is proposed within 200 feet of any identified critical areas.

Relevant sections of the zoning ordinance are quoted below, with notations as to the proposal's consistency.

The parcels that compose the dairy are zoned "Agricultural, (AG)":

> 15.2 1.01 Purpose. The Agriculture (AG) Zoning District is intended to preserve and maintain area for the continued practice of agriculture and to permit only those new uses that are compatible with agricultural activities. (The proposal expands the facilities of an existing agricultural operation, helping to ensure the continued practice of agriculture through use of more modern and productive dairying facilities and practices. It would not introduce any new use incompatible with other agricultural activities). The specific intent of this zoning it to:
>
> > (1) Implement the comprehensive plan which calls for the preservation of agricultural lands; (*The dairy's investment in the proposed facility upgrades will improve it survivability as a viable dairy and continue as an agriculture use*).
> >
> > (2) Provide a zoning district to protect, stabilize and enhance the land base devoted to, or important for, the long-term commercial production of agricultural goods in Yakima County and to protect the best agricultural areas from conflicting uses and influences; (*Although the proposal will not increase the land base devoted to agriculture production, it will help protect and stabilize agriculture practice of an existing land use*).
> >
> > (*The remaining intent provisions of the zoning ordinance do not pertain to the proposal.*)

The only Policy of the Comprehensive Plan that is relevant to the proposal is LU-ER-AG 1. "Encourage conservation of the County's high quality agricultural lands for productive agricultural use and protect the opportunity for these lands to support the widest variety of agricultural crops."

The proposal is consistent with this provision and other policies of Comprehensive Plan 2015 last amended 2007. The existing dairy is currently a productive agricultural land use, has many employees, and a multimillion dollar operating budget, thereby contributing significantly to the local economy. The proposed capital improvements will help the dairy achieve a greater level of efficiency, and reduce costs to the environment. Enhance efficiency with economic and environmental resources is consistent with the County's goals of preserving productive agricultural lands and protecting farmers from nuisance complaints and lawsuits.

Appendix M
Maps

CUP16-26

SITE PLAN - CASTLE GROVE DAIRY

Scale 1"=200 ft

(BASED ON ORTHOPHOTOGRAPHY)

NORTH

Public Services
APR 07 2016
Vern Gary Lynn
Dave Lisa Carmen
Tribal Lands

PARCEL 181108-22001
73.08 acres
Gasseling

PARCEL 181108-24001
39.16 acres
Gasseling

PARCEL 181108-32001
39.12 acres
OWNER: CCC Farms LLC (Castel Grove)
(Dimensional Data can be obtained by scaling)

Affected Area –	72.0 A
Roof Areas	
Hard Roofs –	122,465 SF
Cloth shades –	19,730 SF
New Roofs –	46,630 SF
Total Hard Roofs –	169,095 SF
Total covered –	188,825 SF
Paving (estimated)	120,113 SF
Impervious Surface	289,208 SF
% Impervious	9.2%

OSS – On-Site Sewer
Res – Residence
SF – Square Feet

PARCEL 181108-31001
39.16 acres
Castle Grove

PARCEL 181108-34001
18.82 acres
Castle Grove

PARCEL 181108-43001
18.82 acres
Castle Grove

NORTH BROWNSTOWN ROAD

BROWNSTOWN ROAD APPROACH

Tribal Lands

IRRIGATION PIVOT

NEW CORRAL

NEW SEPARATOR 900 SF

Sheet: 1
Drawn by: TWB

Revisions:
23 Sept 2014
22 Dec 2014
2 Mar 2015
2 Feb 2016
14 Mar 2016
4 APR 2016

CASTLE GROVE DAIRY

B7 Job 14109

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6 APR 2016
TIMOTHY W BARDELL
STATE OF WASHINGTON
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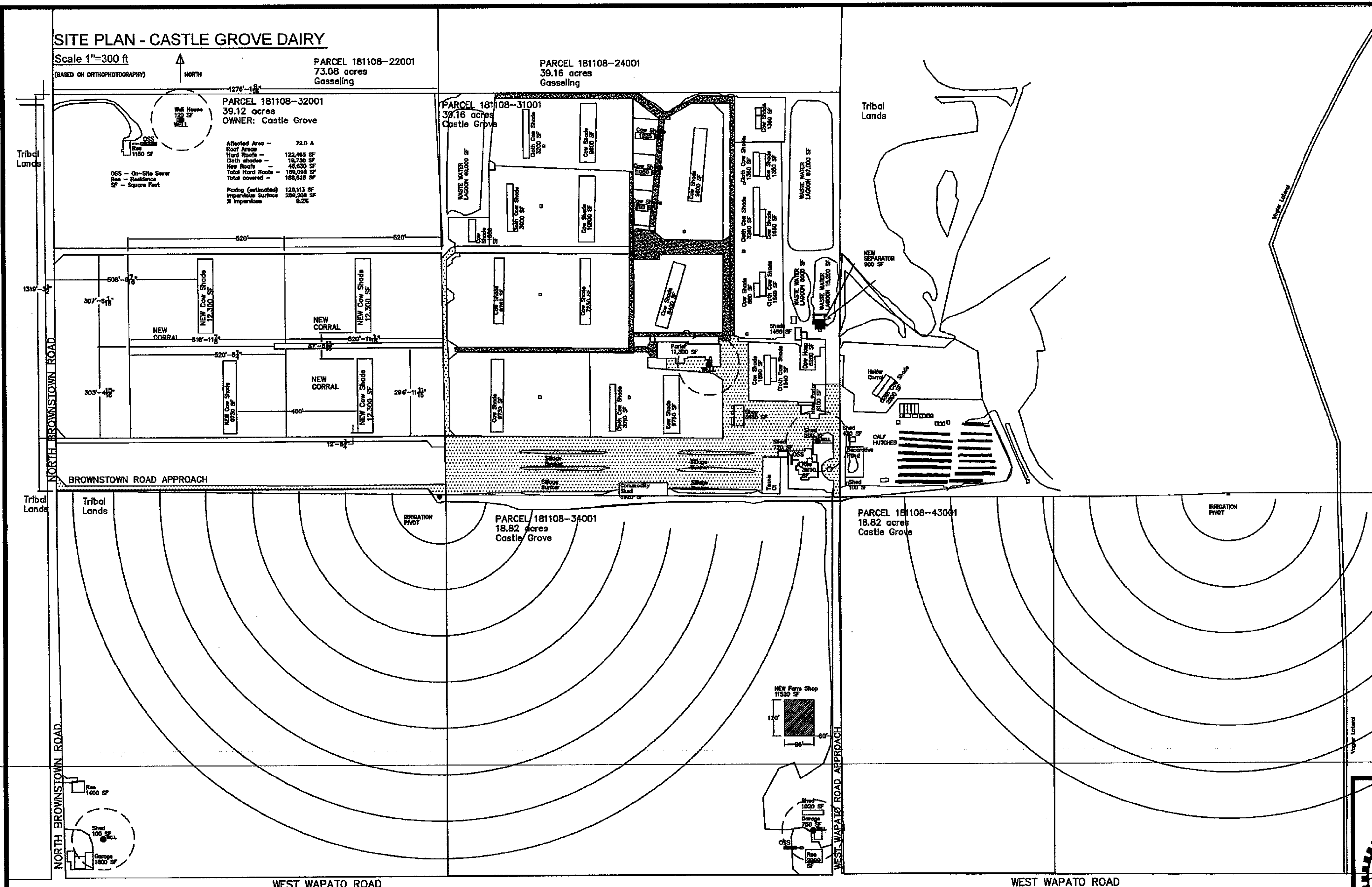

Two Approaches
1. West Wapato Road
2. North Brownstown Road

Sheet: 2
Drawn by: TWB

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23 Sept 2014
22 Dec 2014
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CASTLE GROVE DAIRY

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TIMOTHY W BARDELL
STATE OF WASHINGTON
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REGISTERED
PROFESSIONAL ENGINEER
6 April 2016

SEPA
ENVIRONMENTAL CHECKLIST
SUBMITTAL SUPPLEMENTAL

Form # PLN ENR 003-SS1-A
Revised: 8/12/14

Public Services

SEP 16-012

APR 06 2016

Yakima County Public Services
128 North Second Street · Fourth Floor Courthouse · Yakima, Washington 98901
(509) 574-2300 · 1-800 572-7354 · FAX (509) 574-2301 · www.co.yakima.wa.us

Vern Gary Don Lynn
~~Dave Lisa Carmen~~

(For Staff Use Only)
DATE:
REVIEWED BY:
PROJECT #:
CASE #: CUP 16-26
RELATED FILES:

WAC 197-11-960 Environmental checklist.

Purpose of checklist:

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

Instructions for applicants:

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

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

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

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

Use of checklist for nonproject proposals:

For nonproject proposals complete this checklist and the supplemental sheet for nonproject actions (Part D). The lead agency may exclude any question for the environmental elements (Part B) which they determine do not contribute meaningfully to the analysis of the proposal.

For nonproject actions, the references in the checklist to the words "project," "applicant," and "property or site" should be read as "proposal," "proposer," and "affected geographic area," respectively.

STAFF USE ONLY

A. BACKGROUND

1. Name of proposed project, if applicable:

Castle Grove Dairy Capital Improvements 2016

2. Name of applicant:

Castle Grove Dairy

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

Case Vandenberg
8053 W. Wapato Rd.
Wapato WA 98951
509 952-5547

4. Date checklist prepared:

2 Feb 2016

5. Agency requesting checklist:

Yakima County Planning Division

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

Construction Early 2016, to start when permits are secured

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

None

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

SEP 14-045, CUP 14-082 (expired)
SEP 15-001, CUP 15-001 (expired)
CUP 2015-063 (shop)

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

None

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

STAFF USE ONLY

Building Permits, modified Conditional Use Permit

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

The proposed project consists of Two Parts:
Part 1: Add 900 SF separator building for waste management
Install synthetic liner to existing lagoons
Part 2: Add three 12,300 SF Cowshades, and one 9730 SF Cow shade

THIS PROJECT DOES NOT CONSTITUTE A DAIRY HERD EXPANSION, but provides shelter for existing herd, and benefits heard health.

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

Parcels: 181108-34001
Address: 8053 W. Wapato Rd., Wapato WA 98951
Section 08, Township Range 18 East, 08 North
Located approximately 8 miles West of Wapato WA

B. ENVIRONMENTAL ELEMENTS

1. **Earth**

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

Generally flat with natural slope south.

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

About 1 percent to the south.

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.

Two soil types identified by US Dept Ag Soil Conservation Service: Warden Silt Loam (about 71%), and Esquatzel Silt Loam, (about 29%), per websoilsurvey USDA.gov

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

None Identified

e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.

Part 1: Lagoon clean out and adjustments about 800 Cu Yards and minor additional grade adjustments to prepare for separator building.

Part 2: No significant grade adjustments for cow shades.

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

No

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

Total Site Area: Dairy Occupies about 72.0 acres on five parcels

Existing Impervious Surfaces		
Roof surface	122,465 SF =	5.8%
Pavement surface	110,000 SF =	5.2%
TOTAL		**11.0%**

Proposed Improvements		
Added project area	23.92 A	+49.8%
Net added roof surface	46,630 SF =	+27.6%
Net added pavement	10,113 SF=	+11.0%
TOTAL		

Completed Project		
Project Area	72.0 A	
Total hard roof surface	169,095 SF	5.4%
Total pavement surface	120,113 SF	3.8%
TOTAL	**289,208 SF Impervious**	**9.2%**

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

None, except for controls typically associated with, and used during, construction activities.

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2. **Air**

a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.

During construction equipment motor exhaust, limited fugitive soil dust.

During normal operations, some fugitive feed and soil dust, equipment motor exhaust, and emissions associated with animals. No identified changes from previous facility activities.

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

None

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

Liquid waste dispersion performed by shanking to reduce air emissions and apply water for dust control when needed.

3. WATER

a. Surface:

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

None.

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

No.

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

None

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

No.

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

No

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

No

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b. Ground:

1) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well? Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known.

Yes. Water for dairy operation is drawn from two wells. Currently, the facility uses the stock watering exemption. Daily draw about 90,000 gallons. Daily draws vary during the year according to temperature.

The Project will not result in any discharge of waste water to groundwater. The vadose zone is about 30 feet.. No significant net change to water use will occur as part of this improvement. Water is not discharged to ground water, waste water from the dairy is used for crop irrigation.

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals...; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

Human-source sewage is from employees, is collected in portable toilets, pumped and cleaned by service contract. Residential sewage is discharged to ground by an on-site sewer approved by Yakima District Health.

Raw dairy waste water is sometimes discharged directly to crop fields by shanking at agronomic rates.

Dairy waste water is mixed with irrigation water and dispersed on crop fields as irrigation water at agronomic rates

Dairy solid wastes are dispersed on crop fields at agronomic rates.

Dispersion fields are bermed to avoid runoff.

c. Water runoff (including storm water):

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

All storm water is retained onsite as waste water. Storm water runoff from the dairy parcel is collected by natural contours and routed to the waste lagoons. Contents of these lagoons is added to irrigation water and dispersed on growing crops at agronomic rates.

2) Could waste material enter ground water or surface waters? If so, describe.

No, clay-lined lagoons with an adequate vadose zone have been shown to be highly effective at retaining dairy waste water.

The combination of expansive clay and the fine suspended solids in manure water results in a shallow seep depth and can be considered to be water tight.

3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.

No.

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

None.

4. **Plants**

a. Check the types of vegetation found on the site:

___ Deciduous tree: Alder, maple, aspen, other

___ Evergreen tree: Fir, cedar, pine, other

___ Shrubs

_x_ Grass

_X Pasture

_x Crop or grain

___ Orchards, vineyards or other permanent crops.

___ Wet soil plants: Cattail, buttercup, bullrush, skunk cabbage, other

___ Water plants: Water lily, eelgrass, milfoil, other

_x Other types of vegetation

b. What kind and amount of vegetation will be removed or altered?

None, the buildings will be built on bare ground.

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

None identified

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

None

e. List all noxious weeds and invasive species known to be on or near the site.

Typical for Yakima Valley, including Kosha, Tumble weed, and Wild Mustard, Milkweed, and others.

5. **Animals**

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

Birds: Hawk, heron, eagle, songbirds, other:

Mammals: Deer, bear, elk, beaver, other: None Identified

Fish: Bass, salmon, trout, herring, shellfish, other: NONE

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

None Identified

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

No

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

None judged necessary

e. List any invasive animal species known to be on or near the site.

None identified

6. **Energy and natural resources**

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

Electric power for motors, lighting, and control. Conventional petroleum fueled internal combustion engines for equipment and vehicles. Propane for heating air and water.

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

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No

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

High efficiency lighting, High efficiency motors and soft start motor controllers.

7. **Environmental health**

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

No. These new buildings will not present any new environmental health hazards. Other environmental concerns associated with the dairy are being handled as part of the current operations in accordance with regulations and best management practices.

1) Describe any known or possible contamination at the site from present or past uses.

None known

2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.

None known

3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.

Some corrosive materials are used for parlor cleaning. Numerous potentially hazardous materials are used for herd health management. These are being handled in accordance with regulations and best management practices.

4) Describe special emergency services that might be required.

No new services required.

5) Proposed measures to reduce or control environmental health hazards, if any:

None required as part of these improvements.

b. **Noise**

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

None

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

Animal noise. Equipment operation and motor noise. Traffic noise from deliveries, pickups and employee commutes.

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

Keep equipment and vehicle exhaust systems in good repair. Minimize operations during non-typical working hours.

8. **Land and shoreline use**

a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.

The dairy operation affects 5 parcels totaling 200 acres. Actual land footprint of the dairy is about 72.0 acres. The remaining area of the 200 acres is crop land.

b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?

No active agriculture land will be taken from service as the result of this new building.

1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how:

No

c. Describe any structures on the site.

Various buildings needed to support the dairy operations. See the Site Plan for details.

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

No

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

AG

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

Agriculture resource

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

N/A

h. Has any part of the site been classified critical area by the city or county? If so, specify.

No.

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

25 full time employees.

j. Approximately how many people would the completed project displace?

None

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

None

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

None

m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any:

None

9. **Housing**

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

None

STAFF USE ONLY

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

None

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

None

10. **Aesthetics**

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

About 35 feet, structural rolled metal siding. Concrete and CMU walls.

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

None Identified

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

None

11. **Light and glare**

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

Night lighting, potential solar glare from large roof surfaces.

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

No

c. What existing offsite sources of light or glare may affect your proposal?

None

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

Select low-trespass, high-efficiency luminaires for night lighting.

12. **Recreation**

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

None Identified

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

No

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

None

13. **Historic and cultural preservation**

a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers located on or near the site? If so, specifically describe.

No

b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation. This may include human burials or old cemeteries. Is there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.

None Identified

c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.

None

d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.

None

14. **Transportation**

a. Identify public streets and highways serving the site or affected geographic area, and describe proposed access to the existing street system. Show on site plans, if any.

Road access to the Dairy is provided from West Wapato Road. Traffic going east of West Wapato Road about 8 miles will intercept SR 97 with connections to Interstate 82.

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b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?

No

c. How many additional parking spaces would the completed project or nonproject proposal have? How many would the project or proposal eliminate?

This project will not change the supply of, or demand for, parking places at the dairy. Employee parking is provided on site alongside the parlors and other convenient locations about 25 spaces are provided on the dairy.

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

No

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

No

f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and non-passenger vehicles). What data or transportation models were used to make these estimates?

These new buildings will not affect the number of vehicle trips per day. The Dairy overall has about 40 vehicle trips per day including employee commutes, pick-ups and deliveries. During harvest of feed crops, the number of vehicle trips, mostly trucks, can triple. Most of these vehicle trips during the remainder of the year are passenger cars. About one third are trucks.

g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.

No

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

None

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15. **Public services**

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

No

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

None

16. **Utilities**

a. Circle utilities currently available at the site: Electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

Electricity services provided by Pacific Power and Lighting

C. SIGNATURE

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

Signature: _____

Date Submitted: 6 APR 2016