

Technical Document RA24007



Part 2 – Technical Requirements

Application under the *Agricultural Operation Practices Act* for a confined feeding operation, manure collection area, and/or manure storage facility(ies)

NRCB USE ONLY		Application number	Legal land description
<input type="checkbox"/> Approval	<input type="checkbox"/> Registration	RA24007	SW 25-33-27 W4M
<input checked="" type="checkbox"/> Authorization			
<input type="checkbox"/> Amendment			

APPLICATION DISCLOSURE

This information is collected under the authority of the *Agricultural Operation Practices Act (AOPA)*, and is subject to the provisions of the *Freedom of Information and Protection of Privacy Act*. This information is public unless the NRCB grants a written request that certain sections remain private.

Any construction prior to obtaining an NRCB permit is an offence and is subject to enforcement action, including prosecution.

I, the applicant, or applicant's agent, have read and understand the statements above, and I acknowledge that the information provided in this application is true to the best of my knowledge.

5-3 2024 _____
 Date of signing _____ Signature _____
 Bueckman Hayfork Hld. _____
 Corporate name (if applicable) _____ Print name _____

GENERAL INFORMATION REQUIREMENTS

Proposed facilities: list all proposed confined feeding operation facilities and their dimensions. Indicate whether any of the proposed facilities are additions to existing facilities. (attach additional pages if needed)	
Proposed facilities	Dimensions (m) (length, width, and depth)
166 x 84 1/2 finisher barn	35.4 m x 25.8 m
6 x 80 alley connecting alley	24.4 m x 1.8 m

Existing facilities: list ALL existing confined feeding operation facilities and their dimensions		
Existing facilities	Dimensions (m) (length, width, and depth)	NRCB USE ONLY
300 x 84 1/2 finisher barn		
154 x 34 finisher barn		
120 x 81 weaner and finishing		
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NRCB Natural Resources Conservation Board

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Existing facilities continued	Dimensions (m) (length, width, and depth)	NRCB USE ONLY
64x54 breeding barn.		
80x72 dry sow barn.		Existing facilities confirmed on site
24x22 office + machinery room.		
Lagoon 1		
Lagoon 2		

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If a new facility is replacing an old facility, please explain what will happen to the old facility and when. N/A

Construction completion date for proposed facilities end of 2027

Additional information

Livestock numbers: Complete only if livestock numbers are different from what was identified in the Part 1 application. Note: if livestock numbers increase in your Part 2 application, a new Part 1 application must be submitted which may result in a loss of priority for minimum distance separation (MDS).

Livestock category and type (Available in the Schedule 2 of the Part 2 Matters Regulation)	Permitted number	Proposed increase or decrease in number (if applicable)	Total
lanrow to finish:	330	0	330
No increase in livestock			

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DECLARATION AND ACKNOWLEDGMENT OF APPLICANT CONCERNING WATER ACT LICENCE Issued by Alberta Environment and Protected Areas (EPA) for a confined feeding operation (CFO) Date and sign one of the following four options

OPTION 1: Applying through the NRCB for both the AOPA permit and the Water Act licence

I **DO** want my water licence application coupled to my AOPA permit application.

Signed this ____ day of _____, 20____.

Signature of Applicant or Agent

OPTION 2: Processing the AOPA permit and Water Act licence separately

1. I (we) acknowledge that the CFO will need a new water licence from EPA under the *Water Act* for the development or activity proposed in this AOPA application.
2. I (we) request that the NRCB process the AOPA application **independently** of EPA's processing of the CFO's application for a water licence.
3. In making this request, I (we) recognize that, if this AOPA application is granted by the NRCB, the NRCB's decision will not be considered by EPA as improving or enhancing the CFO's eligibility for a water licence under the *Water Act*.
4. I (we) acknowledge that any construction or actions to populate the CFO with livestock pursuant to an AOPA permit in the absence of a *Water Act* licence will **not** be relevant to EPA's consideration of whether to grant the *Water Act* licence application.
5. I (we) acknowledge that any such construction or livestock populating will be at the CFO's sole risk if the *Water Act* licence application is denied or if the operation of the CFO is otherwise deemed to be in violation of the *Water Act*. This risk includes being required to depopulate the CFO and/or to cease further construction, or to remove "works" or "undertakings" (as defined in the *Water Act*).
6. **AS RELEVANT:** I (we) acknowledge that the CFO is located in the South Saskatchewan River Basin and that, pursuant to the *Bow, Oldman and South Saskatchewan River Basin Water Allocation Order* [Alta. Reg. 171/2007], this basin is currently closed to new surface water allocations.
7. **Provide:** Water licence application number(s) _____

Signed this ____ day of _____, 20____.

Signature of Applicant or Agent

OPTION 3: Additional water licence not required

1. I (we) declare that the CFO will not need a new licence from EPA under the *Water Act* for the development or activity proposed in this AOPA application.
2. **Provide:** Water license number(s) or water conveyance agreement details _____

1989-03-15-02; 1989-03-15-03
Signed this two day of March, 2024.

Signature of Applicant or Agent

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OPTION 4: Uncertain if Water Act licence is needed; acknowledgement of risk (for existing CFOs only)

1. At this time, I (we) do not know whether a new water licence is needed from EPA under the *Water Act* for the development or activity proposed in this AOPA application.
2. If a new *Water Act* licence is needed, I (we) request that the NRCB process the AOPA application **independently of EPA's** processing of the CFO's application for a water licence.
3. In making this request, I (we) recognize that, if this AOPA application is granted by the NRCB, the NRCB's decision will not be considered by EPA as improving or enhancing the CFO's eligibility for a water licence under the *Water Act*.
4. I (we) acknowledge that any construction or actions to populate the CFO with additional livestock pursuant to an AOPA permit in the absence of a *Water Act* licence will **not** be relevant to EPA's consideration of whether to grant my *Water Act* licence application, if a new water licence is needed.
5. I (we) acknowledge that any such construction or livestock increase will be at the CFO's sole risk if the *Water Act* licence application is denied or if the operation of the CFO is otherwise deemed to be in violation of the *Water Act*. This risk includes being required to depopulate the CFO and/or to cease further construction, or to remove "works" or "undertakings" (as defined in the *Water Act*).
6. **AS RELEVANT:** I (we) acknowledge that the CFO is located in the South Saskatchewan River Basin and that, pursuant to the *Bow, Oldman and South Saskatchewan River Basin Water Allocation Order* [Alta. Reg. 171/2007], this basin is currently closed to new surface water allocations.
7. **Provide:** Water licence number(s) or water conveyance agreement details _____

Signed this ____ day of _____, 20____.

Signature of Applicant or Agent



1 finisher 1
 2 finisher 2
 3 grower + weaner.

4, breeding barn
 5 dry sow barn.

6 Lagoon 1
 7 Lagoon 2.

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GENERAL ENVIRONMENTAL INFORMATION

(complete this section for the worst case of the existing facility which is the closest to water bodies or water wells and for each of the proposed facilities)
 Facility description / name (as indicated on site plan)

Existing: finisher barn 1 Proposed 1: finisher barn 3.
 Proposed 2: _____ Proposed 3: _____

Facility and environmental risk information		Facilities				NRCB USE ONLY	
		Existing	Proposed 1	Proposed 2	Proposed 3	Meets requirements	Comments
Flood plain information	What is the elevation of the floor of the lowest manure storage or collection facility above the 1:25 year flood plain or the highest known flood level?	<input checked="" type="checkbox"/> >1 m <input type="checkbox"/> ≤ 1 m	<input checked="" type="checkbox"/> >1 m <input type="checkbox"/> ≤ 1 m	<input type="checkbox"/> >1 m <input type="checkbox"/> ≤ 1 m	<input type="checkbox"/> >1 m <input type="checkbox"/> ≤ 1 m	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES with exemption	>1 m confirmed
	Surface water information						
Surface water information	How many springs are within 100 m of the manure storage facility or manure collection area?	0	0			<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES with exemption	None observed on site
	How many water wells are within 100 m of the manure storage facility or manure collection area?	105	120 15			<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES with exemption	None, confirmed on site
	What is the shortest distance from the manure collection or storage facility to a surface water body? (e.g., lake, creek, slough, seasonal)	1500	1500			<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES with exemption	Slough ~700 m SW of proposed barn
Groundwater information	What is the depth to the water table?	6m	6m			<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES with exemption	>5 m
	What is the depth to the groundwater resource/aquifer you draw water from?	Housewell 18 m.	Housewell 18 m			<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES with exemption	16.5 m WWID#135846

Additional information (attach supporting information, e.g. borehole logs, records, etc. you consider relevant to your application)

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NRCB USE ONLY
WATER WELL AND SURFACE WATER INFORMATION

Well IDs: 135846 135847 1245138
 2090751 _____ _____

Surface water related concerns from directly affected parties or referral agencies: YES NO
 Groundwater related concerns from directly affected parties or referral agencies: YES NO

Water wells N/A

If applicable, exemption for 100 m distance requirements applied: YES NO Condition required: YES NO

Surface water N/A

If applicable, exemption for 30 m distance requirements applied: YES NO Condition required: YES NO

Water Well Exemption Screening Tool N/A

Water Well ID	Preliminary Screening Score	Secondary Screening Score	Facility

Groundwater or surface water related comments:
 N/A

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ENVIRONMENTAL RISK SCREENING INFORMATION

ERST for **proposed** facilities [See decision summary RA24007](#)

Facility	Groundwater score	Surface water score	File number

ERST for **existing** facilities

Facility	Groundwater score	Surface water score	File number
West EMS	moderate *	low	RA17019
East EMS	moderate *	low	RA17019
Finisher barn 1	low	low	RA17019
Finisher barn 2	low	low	RA17019
Farrow/nursery barn	low	low	RA17019
Breeding barn	low	low	RA17019
Dry sow barn	low	low	RA17019

ERST related comments:

* The NRCB's compliance and enforcement division are actively working with Broekman Hog Farms to better understand and address the moderate risk to groundwater posed by both EMS facilities. Because of this, I will not be further addressing the risks that these facilities pose to the environment in this decision.

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DISTANCE OF ANY MANURE STORAGE FACILITY (EXISTING OR PROPOSED) TO NEIGHBOURING RESIDENCES

Neighbour name(s)	Legal land description	Distance (m)	NRCB USE ONLY				
			Zoning (LUB) category	NDS category (1-4)	Distance (m)	Waiver attached (if required)	Meets regulations
Lavern + Susanne Dedyk	SW-36-33-27W4	1600M	Agriculture	1	1,751		Yes
Patricia Stumpf	SW-30-33-27W4	1600M	Ag	1	1,648		Yes
Howard Schaefer	NW-24-33-27W4	1300M	Ag	1	1,195		Yes

LAND BASE FOR MANURE AND COMPOST APPLICATION (complete only if an increase in livestock or manure production will occur)

Name of land owner(s)*	Legal land description	Usable area** (ha)	Soil zone***	NRCB USE ONLY	
				Usable area (ha)	Agreement attached (if required)
N/A for authorization applications					
Total					

* If you are not the registered landowner, you must attach copies of land use agreements signed by all landowners.

** Available manure spreading area (excluding setback areas from residences, common bodies of water, water wells, etc. as identified in Agdex 096-5 [Manure Spreading Regulations](#))

*** Brown, dark brown, black, grey wooded, or irrigated

Additional Information (attach any additional information as required)

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MINIMUM DISTANCE SEPARATION

Methods used to determine distance (if applicable): Aerial photography

Margin of error (if applicable): +/- 5 m

Requirements (m): Category 1: 561 Category 2: 748 Category 3: 935 Category 4: 1496

Technology factor: YES NO

Expansion factor: YES NO

MDS related concerns from directly affected parties or referral agencies: YES NO

LAND BASE FOR MANURE AND COMPOST APPLICATION

Land base required: _____

Land base listed: N/A for authorization applications

Area not suitable: _____

Available area: _____

Requirement met: YES NO

Land spreading agreements required: YES NO

Manure management plan: YES NO

If yes, plan is attached:

PLANS

Submitted and attached construction plans: YES NO

Submitted aerial photos: YES NO

Submitted photos: YES NO

GRANDFATHERING

Already completed: YES NO N/A

If already completed, see DS RA05011

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LIQUID MANURE COLLECTION AND/OR STORAGE: In-barn - Concrete liner

(complete a copy of this section for EACH proposed in-barn liquid manure storage facility with a concrete liner)

Facility description / name (as indicated on site plan)

1. finished barn.
2. alley between bays.
3. _____

Manure storage capacity (use one row in the table for EACH in-barn storage. Attach additional pages if you require more rows)

	Length (m)	Width (m)	Total depth (m)	Depth below ground level (m)	NRCB USE ONLY Calculated storage capacity (m ³)
1.	35.40 m.	25.8 m	1 m	0.5 m.	
2.	24 m	1.8 m.	0	0	
3.					
TOTAL CAPACITY					913.32 m ³

Concrete liner details

Scrape alleys or unslatted portions of barn floors (if applicable)	Concrete thickness 15 cm, 6"		Method of sulphate protection type 50		
	Concrete strength 32 MPA.		Concrete reinforcement size and spacing 45 cm. 18"		
In-barn manure pit floors	Concrete thickness 15 cm		Method of sulphate protection type 50		
	Concrete strength 32 MPA.		Concrete reinforcement size and spacing 45 cm.		
In-barn manure pit walls	Concrete thickness 15R 20 cm		Method of sulphate protection 50		
	Concrete strength 32 MPA	Horizontal reinforcement size and spacing 40 cm.	Vertical reinforcement size and spacing 45 cm.		

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LIQUID MANURE COLLECTION AND/OR STORAGE: In-barn - Concrete liner (cont.)

Describe how the joints at the junction of the pit walls, pit floors and any other joints will be sealed

Waterstop + caulking

Describe sealing practices for piping, etc. that penetrates the liner

Waterstop + caulking

Concrete requirements can be found in Technical Guideline Agdex 096-93
Guideline minimums:
 Solid manure: 25MPa (D)
 Solid manure (wet): 30MPa (C)
 Liquid manure: 32MPa (B)
 Category A is required to be engineered
 Method of sulphate protection:
 Type SS or Type 10 with fly ash or equivalent

NRCB USE ONLY

Requirements met: YES NO
 Condition required: YES NO

Additional information

NRCB USE ONLY

Liquid manure storage volume calculator attached: YES NO

Depth to water table: >5 m Requirements met: YES NO

Depth to uppermost groundwater resource: 16.5 m Requirements met: YES NO

ERST completed: see ERST page for details

Concrete liner requirements

Leakage detection system required: YES NO If yes, please explain why

A condition will be included requiring the concrete liner to meet the specifications for category B (liquid manure shallow pits) and category C (solid manure - wet) in Technical Guideline Agdex 096-93 "Non-Engineered Concrete Liners for Manure Collection and Storage Areas".

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NRCB USE ONLY

ALL SIGNATURES IN FILE

YES NO

DATES OF APPROVAL OFFICER SITE VISITS

3/5/2024	

CORRESPONDENCE WITH MUNICIPALITIES AND REFERRAL AGENCIES

Date deeming letters sent: 3/11/2024

Municipality: Kneehill County

letter sent response received written/email verbal no comments received

Alberta Health Services: N/A

letter sent response received written/email verbal no comments received

Alberta Environment and Parks: N/A

letter sent response received written/email verbal no comments received

Alberta Transportation: N/A

letter sent response received written/email verbal no comments received

Alberta Regulatory Services: N/A

letter sent response received written/email verbal no comments received

Other: Ember Resources Inc., Crossroads Gas Co-op Ltd. N/A

letter sent response received written/email verbal no comments received

Other: _____ N/A

letter sent response received written/email verbal no comments received