

## 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)

<b>NRCB USE ONLY</b>	Application number <u>RA25037</u>	Legal land description <u>NE 15-40-1 W5M</u>
<input type="checkbox"/> Approval <input type="checkbox"/> Registration <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.

<u>May 28th, 2025</u>	
Date of signing	Signature
<u>Kingdom Farms inc.</u>	<u>Will Kingma</u>
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)
<u>New gilt barn</u> <u>Rebuilt</u>	<u>64m x 17.4 x 0.6m</u> deep
AO note: west portion of existing barn 1 will be decommissioned and replaced by the new gilt barn. Dimensions listed are for the new portion only.	

**Existing facilities:** list ALL existing confined feeding operation facilities and their dimensions

Existing facilities	Dimensions (m) (length, width, and depth)	NRCB USE ONLY
<u>barn #1 200' x 55'</u> 67 m x 17	(to be partially decommissioned and rebuilt)	
<u>barn #2 400' x 52'</u> 122 m x 16		
<u>barn #3 360' x 60'</u> 109 m x 18.3		
<b>NRCB USE ONLY</b>		
Existing facilities existed since 1997, as they were permitted by Lacombe County Permit 113-97. A renovation for barn 3 and an addition to barn 6 were permitted under Authorization RA14024. Barn 5 was rebuilt and permitted under Authorization RA19040.		



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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

Yes farthest barn to the SW on NW15-40-1-W5 included as new barn on site map.

Construction completion date for proposed facilities Nov 30 2025

**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
Sows farrow to finish	2300	0	2300
No proposed increase in animal numbers			

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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 \_\_\_\_\_

Signed this 28 day of May, 2025.

\_\_\_\_\_  
*Signature of Applicant or Agent*

NT

Slightly down hill  
Towards west



Range Rd #12

well

Seed Mill  
bins

existing  
burn

Fresh  
water  
disposal

well

New  
construction

First stage lagoon

Main lagoon

NE15-40-1-W5



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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: Barn #1 Proposed 1: New gilt barn  
 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	Not in a known floodplain
	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
	How many water wells are within 100 m of the manure storage facility or manure collection area?	2	2			<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES with exemption	2 wells located within 100 m of proposed construction
	What is the shortest distance from the manure collection or storage facility to a surface water body? (e.g., lake, creek, slough, seasonal)	approx 1/2 mile	approx 1/2 mile			<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES with exemption	Blindman River ~813 m west of CFO
Groundwater information	What is the depth to the water table?		approx 16'			<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES with exemption	~7 meters
	What is the depth to the groundwater resource/aquifer you draw water from?	approx 160'	160'			<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES with exemption	13.3 m in WW ID 437050

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: 351652, 362078, 437051 and 361068 (not in use; located on NW-14-040-01-W5)

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
362078	14 = continue to next section	8 = exemption more likely	New gilt barn
351652	23 = continue to next section	21 = exemption less likely	New gilt barn

**Groundwater or surface water related comments:**

A condition was included in Authorization RA14024 (further amended in RA14024B) to test the water wells within 100m of the CFO facilities. This condition remains in place and thus no further monitoring conditions will be included in this authorization.

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**NRCB USE ONLY**  
**ENVIRONMENTAL RISK SCREENING INFORMATION**

**ERST** for proposed facilities

Facility	Groundwater score	Surface water score	File number
Gilt barn	low	low	RA25037

**ERST** for existing facilities

Facility	Groundwater score	Surface water score	File number
Barn 3 renovation	low	low	RA14024
Barn 6 addition	low	low	RA14024
Barn 5	low	low	RA19040
Catch basin area	moderate	high	RBC 2013
EMS-1	moderate	high	RBC 2013
EMS-2	moderate	low	RBC 2013
EMS-3	moderate	high	RCB 2013
Barn 2	moderate	low	RBC 2013

**ERST related comments:**

The compliance division of the NRCB is conducting further investigations, including electromagnetic EM31 and EM38 surveys, before determining what further action needs to be taken to address the identified moderate and high risks. As mentioned above, a condition was included in Authorization RA14024 (further amended in RA14024B) to test the water wells within 100m of the CFO facilities which will remain in effect.

Since the compliance division is addressing the identified high and moderate risks for surface and groundwater from the facilities, and due to the water well monitoring condition already in place, no further conditions or actions will be included on this Authorization to address these concerns.

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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	MDS category (1-4)	Distance (m)	Waiver attached (if required)	Meets regulations
Mr & Mrs Bond	PT NW 14-40-1-W5		Ag	1	1,200	N/A	
unknown	PT NE 22-40-1-W5		Ag	1	655	↓	Yes, w exemption
unknown	SE-10-40-1-W5		Ag	1	1,400		
Town of Bentley			Town	4	1,400		

## 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)

AO note: The proposed barn will be built within the existing footprint of the CFO, and away from the nearest neighboring residence and the Town of Bentley, without encroaching outside the MDS radius. The nearest residence was built after 1997, when Lacombe County issued a permit for the CFO. There will be no increase in animal numbers or annual manure production; therefore, according to Section 3(5)(c) of the Standards and Administration Regulation, an authorization can be issued even if the application does not meet the MDS.

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## NRCB USE ONLY

### MINIMUM DISTANCE SEPARATION

Methods used to determine distance (if applicable): Google Earth

Margin of error (if applicable): +/- 3 m

Requirements (m): Category 1: 1,139 Category 2: 1,519 Category 3: 1,899 Category 4: 3,038

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 RA14024

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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. New gilt barn
2. \_\_\_\_\_
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)	<b>NRCB USE ONLY</b> Calculated storage capacity (m <sup>3</sup> )
1.	<u>64(m)</u>	<u>17.4(m)</u>	<u>0.6(m)</u>	<u>0.6(m)</u>	
2.	64 m	17.4 m			
3.					
TOTAL CAPACITY					Sufficient capacity with barn pits and EMS'

### Concrete liner details

Scrape alleys or unslatted portions of barn floors (if applicable)	Concrete thickness		Method of sulphate protection	
	Concrete strength		Concrete reinforcement size and spacing	
In-barn manure pit floors	Concrete thickness <u>6"</u>		Method of sulphate protection <u>Type 50 concrete</u>	
	Concrete strength <u>32 MPa</u>		Concrete reinforcement size and spacing <u>15M 16" O.C</u>	
In-barn manure pit walls	Concrete thickness <u>6"</u>		Method of sulphate protection <u>Type 50 concrete</u>	
	Concrete strength <u>32 MPa</u>	Horizontal reinforcement size and spacing <u>15M low T-o-B</u>	Vertical reinforcement size and spacing <u>15M 4" O.C.</u>	

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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

Water stop cast into the walls

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

Sika Seal on drain penetration

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 50 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: 7 m Requirements met:  YES  NO

Depth to uppermost groundwater resource: 13.3 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

Applicant to provide proof that concrete liner meets AOPA requirements.

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**NRCB USE ONLY**

**ALL SIGNATURES IN FILE**

YES  NO

**DATES OF APPROVAL OFFICER SITE VISITS**

May 28, 2025	

**CORRESPONDENCE WITH MUNICIPALITIES AND REFERRAL AGENCIES**

Date deeming letters sent: June 2, 2025

**Municipality:** Lacombe 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:** ATCO Gas and Pipelines Ltd., Gull Lake Deer Creek Gas Co-op Ltd., and EQUS       N/A

letter sent       response received       written/email       verbal       no comments received

**Other:** Town of Bentley (Sent July 17, 2025)       N/A

letter sent       response received       written/email       verbal       no comments received