

Technical Document RA25027

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 RA25027	Legal land description Pt. NE 20-50-18 W4M
<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.

March 7 2025
Date of signing
FASNA FARMS
Corporate name (if applicable)

[Redacted Signature]
Signature
AM Barmentloo
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)
Addition on BARN #1	12,2 X 27,43 M
total dimensions:	122.6 m x 12.2 m x 0.6 m deep

Existing facilities: list ALL existing confined feeding operation facilities and their dimensions		
Existing facilities	Dimensions (m) (length, width, and depth)	NRCB USE ONLY
Barn #1	40' x 240'	95.2 m x 12.2 m
BARN #2	44 x 258'	13.4 m x 78.6 m
BARN #3	106 x 244	32.3 m x 74.4 m
NRCB USE ONLY Lagoon	78 M x 64 M x 5,5 M.	
Existing facilities confirmed		

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

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 December 2025

Additional information

new addition For older Weaning Age, Better animal health and Better welfare .

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
400 Sow Farrow To Finish	400	0	400
No proposed increase in livestock			

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

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 _____

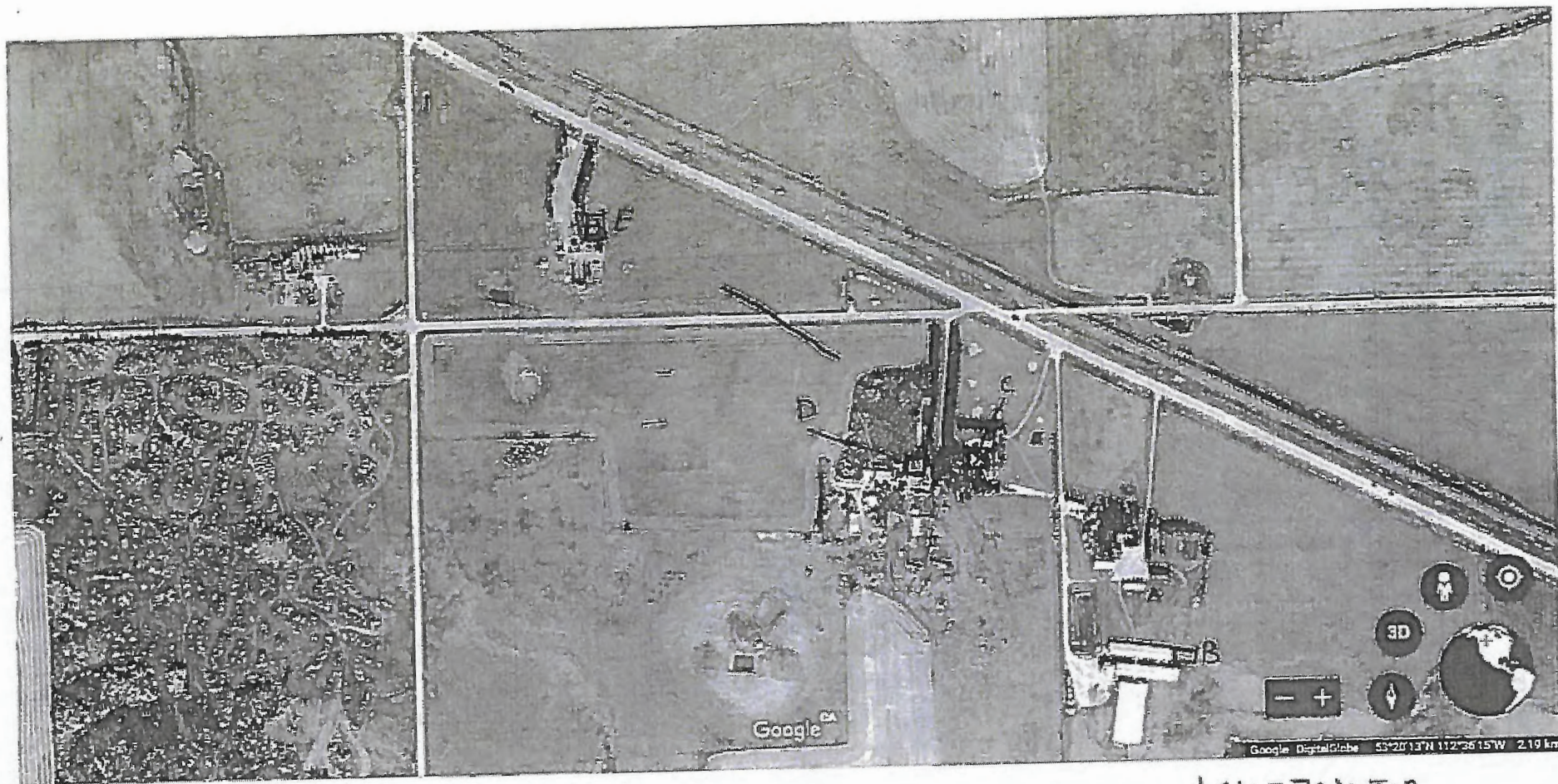
Signed this 7 day of march, 2025.



⊗ wells

proposed addition

1889042 well



1 CM = 79 Meter.

- A = Well > 100 Meters.
- B = Proposed Building
- C = FAN BOSMA. $\approx \pm 300$ M Dist. To Barn
- D = FAN M. SPRUYT $\approx \pm 350$ M Dist To Barn.
- E = Residence - ≈ 830 M Dist To Barn.

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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: Addition to 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	From Records. > 3.0 Meter. Not located in a flood plain
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 identified
	How many water wells are within 100 m of the manure storage facility or manure collection area?	0	0			<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES with exemption	One well ~90 m from 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)	> 100 Meter	Slough.			<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES with exemption	Slough ~192 m to the SW of proposed construction
Groundwater information	What is the depth to the water table?	17.37m > 3.0	17.37 > 3.0			<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES with exemption	Estimate. > 3 m from drilling reports
	What is the depth to the groundwater resource/aquifer you draw water from?	9.14.	9.14.			<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES with exemption	Drilling report. 9.14 m in WWID 1889047

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: 1889047 91229 (not in use) 91228 (not in use)
91230 (decommissioned)

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
1889047	13 = continue to next section	7 = exemption more likely	Barn addition

Groundwater or surface water related comments:

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NRCB USE ONLY

ENVIRONMENTAL RISK SCREENING INFORMATION

ERST for proposed facilities

Facility	Groundwater score	Surface water score	File number
Barn addition	low	low	RA25027

ERST for existing facilities

Facility	Groundwater score	Surface water score	File number
Barn 1 addition with pit	low	low	RA18048
Hog barn 1	↓	↓	↓
Hog barn 2	↓	↓	↓
Hog barn 3	↓	↓	↓
EMS	↓	↓	↓

ERST related comments:



Water Well Drilling Report

View in Imperial Export to Excel

GIC Well ID 1889047
GoA Well Tag No.
Drilling Company Well ID
Date Report Received 2011/11/03

The driller supplies the data contained in this report. The Province disclaims responsibility for its accuracy. The information on this report will be retained in a public database.

GOWN ID

Well Identification and Location											
Owner Name		Address		Town		Province		Country		Measurement in Metric	
BOSMALTA FARMS LTD.		R.R. 3		TOFIELD		ALBERTA		CANADA		Postal Code T0B 4J0	
Location	1/4 or LSD	SEC	TWP	RGE	W of MER	Lot	Block	Plan	Additional Description		
	15	20	50	18	4						
Measured from Boundary of					GPS Coordinates in Decimal Degrees (NAD 83)						
_____ m from					Latitude 53.334790 Longitude -112.597510					Elevation 690.37 m	
_____ m from					How Location Obtained					How Elevation Obtained	
					Differential corrected handheld GPS 5-10m					Differential corrected handheld GPS 5-10m	

Drilling Information	
Method of Drilling Bored	Type of Work New Well
Proposed Well Use Stock	

Formation Log		Measurement in Metric	
Depth from ground level (m)	Water Bearing	Lithology Description	
3.66		Brown Clay	
4.88		Brown Sand & Clay	
13.72		Light Brown Sand	
15.24	Yes	Brownish Gray Coarse Grained Sand	
17.37		Gray Clay	
18.29		Greenish Gray Shale	

Yield Test Summary			Measurement in Metric	
Recommend	45.46 L/min			
Test Date	Water Removal Rate (L/min)	Static Water Level (m)		
2011/10/21	100.01	7.13		

Well Completion				Measurement in Metric	
Total Depth Drilled	Finished Well Depth	Start Date	End Date		
18.29 m	18.29 m	2011/10/20	2011/10/20		

Borehole		
Diameter (cm)	From (m)	To (m)
106.68	0.00	18.29

Surface Casing (if applicable)		Well Casing/Liner	
		Plastic	
Size OD	cm	Size OD	73.66 cm
Wall Thickness	cm	Wall Thickness	6.350 cm
Bottom at	m	Top at	-0.61 m
		Bottom at	18.29 m

Perforations				
From (m)	To (m)	Diameter or Slot Width (cm)	Slot Length (cm)	Hole or Slot Interval (cm)
9.14	15.24	0.318		5.08

Perforated by		Saw	
---------------	--	-----	--

Annular Seal		Bentonite Chips/Tablets	
Placed from	3.05 m	to	4.57 m
Amount	10.00 Bags		

Other Seals	
Type	At (m)

Screen Type	
Size OD	cm
From (m)	To (m)
	Slot Size (cm)
Attachment	
Top Filings	Bottom Filings

Pack	
Type	Silica Sand
Grain Size	5/16 X 6MM
Amount	10.00 Yards

Contractor Certification	
Name of Journeyman responsible for drilling/construction of well DWIGHT HILL	Certification No. VB8143
Company Name HILL DRILLING LTD.	Copy of Well report provided to owner Yes
	Date approval holder signed 2011/11/03

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Water Well Drilling Report

View in Imperial Export to Excel

GIC Well ID 1889047

GoA Well Tag No.

Drilling Company Well ID

Date Report Received 2011/11/03

GOWN ID

The driller supplies the data contained in this report. The Province disclaims responsibility for its accuracy. The information on this report will be retained in a public database

Well Identification and Location											
Owner Name BOSMALTA FARMS LTD.		Address R.R. 3		Town TOFIELD		Province ALBERTA		Country CANADA		Postal Code T0B 4J0	
Location	1/4 or LSD 15	SEC 20	TWP 50	RGE 18	W of MER 4	Lot	Block	Plan	Additional Description		
Measured from Boundary of					GPS Coordinates in Decimal Degrees (NAD 83)					Measurement in Metric	
_____ m from					Latitude 53.334790 Longitude -112.597510					Elevation 690.37 m	
_____ m from					How Location Obtained					How Elevation Obtained	
					Differential corrected handheld GPS 5-10m					Differential corrected handheld GPS 5-10m	

Additional Information									
Distance From Top of Casing to Ground Level 60.96 cm					Measurement in Metric				
Is Artesian Flow					Is Flow Control Installed				
Rate _____ L/min					Describe _____				
Recommended Pump Rate 45.46 L/min					Pump Installed _____				
Recommended Pump Intake Depth (From TOC) 17.07 m					Depth _____ m				
					Type _____				
					Make _____ H.P.				
					Model (Output Rating) _____				
Did you Encounter Saline Water (>1000 ppm TDS)					Well Disinfected Upon Completion Yes				
Gas _____					Geophysical Log Taken _____				
					Submitted to ESRD _____				
Additional Comments on Well					Sample Collected for Potability _____				
					Submitted to ESRD _____				

Yield Test			Taken From Top of Casing Depth to water level		Measurement in Metric	
Test Date 2011/10/21	Start Time 11:00 AM	Static Water Level 7.13 m	Drawdown (m)	Elapsed Time Minutes:Sec	Recovery (m)	
Method of Water Removal			7.13	0:00	14.94	
Type Baller				1:00	14.63	
Removal Rate 100.01 L/min				2:00	14.33	
Depth Withdrawn From 18.29 m				3:00	14.11	
				4:00	13.81	
				5:00	13.56	
				6:00	13.32	
				7:00	12.83	
				8:00	12.83	
				9:00	12.65	
				10:00	12.47	
				12:00	12.04	
				14:00	11.64	
				16:00	11.31	
				20:00	10.67	
				35:00	9.11	
				40:00	8.78	
				50:00	8.26	
				75:00	7.41	

Water Diverted for Drilling		
Water Source THORILD TRUCK FILL	Amount Taken 18184.37 L	Diversion Date & Time 2011/10/20 7:00 AM

Contractor Certification	
Name of Journeyman responsible for drilling/construction of well DWIGHT HILL	Certification No. VB8143
Company Name HILL DRILLING LTD.	Copy of Well report provided to owner Yes
	Data approval holder signed 2011/11/03

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

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
Bosma	nw 4-18-50-20 W4 Lot 1	300	Ag	1	283	yes*	yes
SPRUYT	nw 4-18-50-20 W4	350	Ag	1	331	yes*	yes
unknown	SW 4-18-5-20 W4	830	Ag	1	825		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					
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 application does not result in an increase in manure production, and the CFO footprint will not be extending closer to any neighboring residences. Therefore, an MDS waiver is not required; however, the applicant has provided waivers which are included below.

Minimum Distance Separation (MDS) Waiver (declaration)

Applicant information

NRCB application number: _____

Operator/operation name:

FASNA FARMS LTD

Address:

18413 Hwy 14 Beaver County

Postal Code:

T0B 4J3

Legal land location of confined feeding operation:

NE-20-50-18 W^{4th}

I have requested the residence owner(s) named below to waive the required minimum distance separation (MDS) to their residence for the *Agricultural Operation Practices Act* (AOPA) permit application identified above. In making this request, I have provided the owner(s) with an opportunity to review my permit application and a copy of the Natural Resources Conservation Board (NRCB) Fact Sheet "Minimum Distance Separation (MDS) Waivers" available on the NRCB website at www.nrcb.ca. I have also explained:

- The MDS requirement set out in section 3 of the Standards and Administration Regulation of AOPA. I have advised the owner(s) that section 3(6)(a) of the Standards and Administration Regulation allows this requirement to be waived by the owners of residences, if they agree in writing to grant a waiver;
- That my proposed development does not meet the required MDS to the owner's residence; and,
- That this waiver applies only to this application as described. An increase in livestock capacity, annual manure production, level of odour production, change to the site plan or change to a facility that would increase the MDS would require a new waiver.

Following is a summary of the proposed development:

- The current scope of my confined feeding operation (CFO), including the type, number, and category of livestock, if any, is:

400 SOWS FARROW TO FINISH.

- My application for a new AOPA permit proposes the following changes to the existing livestock category, type and/or capacity at my CFO:

400 SOWS FARROW TO FINISH (NO EXPANSION OF ANIMAL NUMBERS)

- The proposed new CFO facility(ies), or changes to the existing CFO facilities, including manure storage, manure storage volume and any other pertinent details, if any, are (attach a site layout plan if available):

12,2 x 27,43 BARN addition on Sow barn.

I the applicant understand that the waiver is not valid unless ALL registered owners of the residence sign this document.

Permit Applicant:

Date: MARCH 7 2025

Residence owner(s) to initial:

SB

Hm

Minimum Distance Separation (MDS) Waiver (declaration)

Residence owner(s) information

ALL Names on land title: Symer and Hennie BOSMA.

[Redacted]

Legal land location of residence(s): 4-18-50-20 NW Lot 1

Telephone number(s) [Redacted] Email address(es)¹: _____

Address(es)¹ and Postal code(s)¹: [Redacted]
[Redacted]

¹ Please note that personal contact information is for NRCB use ONLY and not publicly released

I am/we are the legal landowner(s) of a residence(s) located at the above noted legal land location/address:

- I/we have read the NRCB Fact Sheet "Minimum Distance Separation (MDS) Waivers";
- I/we have discussed this application with the applicant and understand its potential impacts to our residence(s);
- I/we understand that the application **does not** meet the MDS requirement to my/our residence(s), under the *Agricultural Operation Practices Act (AOPA)*;
- **I/we understand that this waiver is not valid unless signed by ALL parties identified on the land title as owners;**
- **I/we are not obligated to waive the MDS requirement to our residence(s);**
- I/we understand that if I/we choose to waive the MDS requirement, I/we can revoke the waiver, by providing written notice to the NRCB approval officer, as set out in the "Minimum Distance Separation (MDS) Waivers" Fact Sheet; and
- I/we understand that this waiver is a public document.

Having considered my/our rights, I/we hereby waive the MDS requirement to my/our residence, with respect to

Application number _____

[Redacted]

Signatures of all residence owner(s) on title

[Redacted]

Symer Bosma

Hennie Bosma

Printed names of all residence owner(s) on title

Date: March 7, 2025

Minimum Distance Separation (MDS) Waiver (declaration)

Applicant information

NRCB application number: _____

Operator/operation name: FASHA Farms Ltd

Address: 18413 HWY 14 Beaver County Postal Code: T0B 4J3

Legal land location of confined feeding operation: NE-20-50-18 W 4th.

I have requested the residence owner(s) named below to waive the required minimum distance separation (MDS) to their residence for the *Agricultural Operation Practices Act* (AOPA) permit application identified above. In making this request, I have provided the owner(s) with an opportunity to review my permit application and a copy of the Natural Resources Conservation Board (NRCB) Fact Sheet "Minimum Distance Separation (MDS) Waivers" available on the NRCB website at www.nrcb.ca. I have also explained:

- The MDS requirement set out in section 3 of the Standards and Administration Regulation of AOPA. I have advised the owner(s) that section 3(6)(a) of the Standards and Administration Regulation allows this requirement to be waived by the owners of residences, if they agree in writing to grant a waiver;
- That my proposed development does not meet the required MDS to the owner's residence; and,
- That this waiver applies only to this application as described. An increase in livestock capacity, annual manure production, level of odour production, change to the site plan or change to a facility that would increase the MDS would require a new waiver.

Following is a summary of the proposed development:

- The current scope of my confined feeding operation (CFO), including the type, number, and category of livestock, if any, is:

400 Sow Farrow To Finish.

- My application for a new AOPA permit proposes the following changes to the existing livestock category, type and/or capacity at my CFO:

400 Sow Farrow To Finish (no expansion of Animal numbers)

- The proposed new CFO facility(ies), or changes to the existing CFO facilities, including manure storage, manure storage volume and any other pertinent details, if any, are (attach a site layout plan if available):

12,2 M x 27,43 M BARN addition on Sow BARN.

I the applicant understand that the waiver is not valid unless ALL registered owners of the residence sign this document.

Permit Applicant: _____

Date: MARCH 7 2025

Residence owner(s) to initial: _____

Signature

Minimum Distance Separation (MDS) Waiver (declaration)

Residence owner(s) information

ALL Names on land title: Matthew Spruyt, Alissa Spruyt

Legal land location of residence(s): NW-20-50-18 W4th.

Telephone number(s)¹: [REDACTED] Email address(es)¹: [REDACTED]

Address(es)¹ and Postal code(s)¹: [REDACTED]

¹ Please note that personal contact information is for NRCB use ONLY and not publicly released

I am/we are the legal landowner(s) of a residence(s) located at the above noted legal land location/address:

- I/we have read the NRCB Fact Sheet "Minimum Distance Separation (MDS) Waivers";
- I/we have discussed this application with the applicant and understand its potential impacts to our residence(s);
- I/we understand that the application **does not** meet the MDS requirement to my/our residence(s), under the *Agricultural Operation Practices Act* (AOPA);
- I/we understand that this waiver is not valid unless signed by ALL parties identified on the land title as owners;
- I/we are not obligated to waive the MDS requirement to our residence(s);
- I/we understand that if I/we choose to waive the MDS requirement, I/we can revoke the waiver, by providing written notice to the NRCB approval officer, as set out in the "Minimum Distance Separation (MDS) Waivers" Fact Sheet; and
- I/we understand that this waiver is a public document.

Having considered my/our rights, I/we hereby waive the MDS requirement to my/our residence, with respect to

Application number _____

[REDACTED] _____
Signatures of all residence owner(s) on title

Matthew Spruyt

Printed names of all residence owner(s) on title

Alissa Spruyt

Date: March 13/25

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NRCB USE ONLY

MINIMUM DISTANCE SEPARATION

Methods used to determine distance (if applicable): aerial imagery

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

Requirements (m): Category 1: 602 Category 2: 802 Category 3: 1,003 Category 4: 1,604

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 RA18048

Part 2 — Technical Requirements



NRCB Natural Resources Conservation Board

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

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. addition to barn 1

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)	NRCB USE ONLY Calculated storage capacity (m ³)
1.	27.4M	12.2	0.6	0.6	
2.					
3.					
TOTAL CAPACITY					Sufficient capacity with pits and EMS

Concrete liner details

Scrape alleys or unslatted portions of barn floors (if applicable)	Concrete thickness <u>BARN IS Fully Slatted.</u>		Method of sulphate protection	
	Concrete strength		Concrete reinforcement size and spacing	
In-barn manure pit floors	Concrete thickness <u>minimal 5" - 0.15 M.</u>		Method of sulphate protection <u>Type 10 with 20+0.25% fly ash Type 50 OR equivalent sulphate resistant concrete</u>	
	Concrete strength <u>minimal 32 MPa 656 DAYS</u>		Concrete reinforcement size and spacing <u>max spacing 15" o/c</u>	
In-barn manure pit walls	Concrete thickness <u>minimal 8" 0.20 M.</u>		Method of sulphate protection <u>Type 10 with 20/25% fly ash Type 50 or equivalent</u>	
	Concrete strength <u>32 MPa</u>	Horizontal reinforcement size and spacing <u>10M reBar max spacing 15" (0.61m)</u>	Vertical reinforcement size and spacing <u>o/c</u>	

Comments in blue added by AO

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)

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

Bentonite strip OR water stop placed prior to concrete wall being poured, OR manure resistant caulk will be used to seal pit joints.

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

Pipe will be poured in place.

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: >3 m

Requirements met: ☒ YES ☐ NO

Depth to uppermost groundwater resource: 9.14 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 added requiring the concrete to meet the requirements for category B (liquid manure) set out in Technical Guideline Agdex 096-93 "Non-Engineered Concrete Liners for Manure Collection and Storage Areas".

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

ALL SIGNATURES IN FILE

☒ YES ☐ NO

DATES OF APPROVAL OFFICER SITE VISITS

April 2, 2025	

CORRESPONDENCE WITH MUNICIPALITIES AND REFERRAL AGENCIES

Date deeming letters sent: March 28, 2025

Municipality: Beaver 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: Sequoia Resources Corp. ☐ 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