## **Technical Document RA24037**

# **Part 2** — Technical Requirements



NRCB USE ONLY	Application number	Legal	land description		
☐ Approval ☐ Registration ☐ Authorization ☐ Amendment	RA24037	SE 21-4	41-24 W4M		
APPLICATION DISCLOSURE					
This information is collected under the authority of the <i>Ag</i> provisions of the <i>Freedom of Information and Protection o</i> 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		
, the applicant, or applicant's agent, have read and under provided in this application is true to the best of my know August 28 2024		[ acknowledge	e that the information		
Date of signing	Signature				
Wilpshaar Dairy Ltd	Herco Wilpshaar				
Corporate name <mark>(if applicable)</mark>	Print name				
GENERAL INFORMATION REQUIREMENTS					
Proposed facilities: list all proposed confined feeding of	operation facilities and their dimens	sions. Indicate	e whether any of the		
proposed facilities are additions to existing facilities. (att	tach additional pages if needed)		Dimensions (m)		
Proposed facilities		(length			
renovation to sawdust room to Sand Bedding re	ecycling room	4	.5m x 3m x 2m		
no new building to be constructed					
Existing facilities: list ALL existing confined feeding op	peration facilities and their dimensi	ons			
Existing facilities	Dimensions (length, width, a		NRCB USE ONLY		
heifer barn	67mx30.	ōm	confirmed		
dry cow shed	29.75mx1	6m	confirmed		
free stall barn	92.7mx32	2m	confirmed		
NRCB USE ONLY Also recently permitted in RA24005 for an eand a synthetically lined liquid manure stora		(total dime	ensions: 180.1m x 3		



Existing facilities continued	Dimensions (m) (length, width, and depth)	NRCB USE ONLY
lagoon	60mx60mx4.5m	confirmed
milking parlor	67m x29m	confirmed
manure pit	3.1m x 3.1m x 3.1m	confirmed



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

slopes to center drain, drain runs to reception		, 2 pits to be dug and p	oured in room, floor
Construction completion date for proposed facility	Sept 2024 ties		
Additional information			
Unauthorized construction: the sawdust stora recycling room	age room has already	been converted into the	ne sand bedding
Livestock numbers: Complete only if livestock numl livestock numbers increase in your Part 2 application, priority for minimum distance separation (MDS).  Livestock category and type (Available in the Schedule 2 of the Part 2 Matters		Proposed increase or decrease in number	
Regulation) dairy cows plus replacement	500	(if applicable)	500
There is no proposed change 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

	Date and sight one of the following four options	
<u>OPTIO</u>	I 1: Applying through the NRCB for both the AOPA permit and the Water Act lie	<u>cence</u>
	want my water licence application coupled to my AOPA permit application.	
Sianed t	isday of, 20	
Jigiica (	Signature of Applicant of Signature of Applicant of Appli	or Agent
OPTIO	2: Processing the AOPA permit and Water Act licence separately	
-	e) acknowledge that the CFO will need a new water licence from EPA under the <i>Water a</i> elopment or activity proposed in this AOPA application.	Act for the
2. I (\	e) request that the NRCB process the AOPA application <b>independently of</b> EPA's proce 's application for a water licence.	ssing of the
NR	naking this request, I (we) recognize that, if this AOPA application is granted by the NR B's decision will not be considered by EPA as improving or enhancing the CFO's eligibilier licence under the Water Act.	•
AO	e) acknowledge that any construction or actions to populate the CFO with livestock pur A permit in the absence of a <i>Water Act</i> licence will <b>not</b> be relevant to EPA's considerati ther to grant the <i>Water Act</i> licence application.	
5. I (\ the	e) acknowledge that any such construction or livestock populating will be at the CFO's Water Act licence application is denied or if the operation of the CFO is otherwise deem ation of the Water Act. This risk includes being required to depopulate the CFO and/or	ed to be in
6. <b>AS</b>	ner construction, or to remove "works" or "undertakings" (as defined in the <i>Water Act</i> ). <b>RELEVANT:</b> I (we) acknowledge that the CFO is located in the South Saskatchewan River that, pursuant to the <i>Bow, Oldman and South Saskatchewan River Basin Water Allocat</i> a. Reg. 171/2007], this basin is currently closed to new surface water allocations.	ver Basin
_	vide: Water licence application number(s)	
Signed t	nis day of, 20	or Agent
<u>OPTIO</u>	I 3: Additional water licence not required	
	e) declare that the CFO will not need a new licence from EPA under the Water Act for t	he
	elopment or activity proposed in this AOPA application.  vide: Water license number(s) or water conveyance agreement details	
 Signed	his <u>28</u> day of, 20 <del>24</del> .	
	Signature of Applicant	or Agent

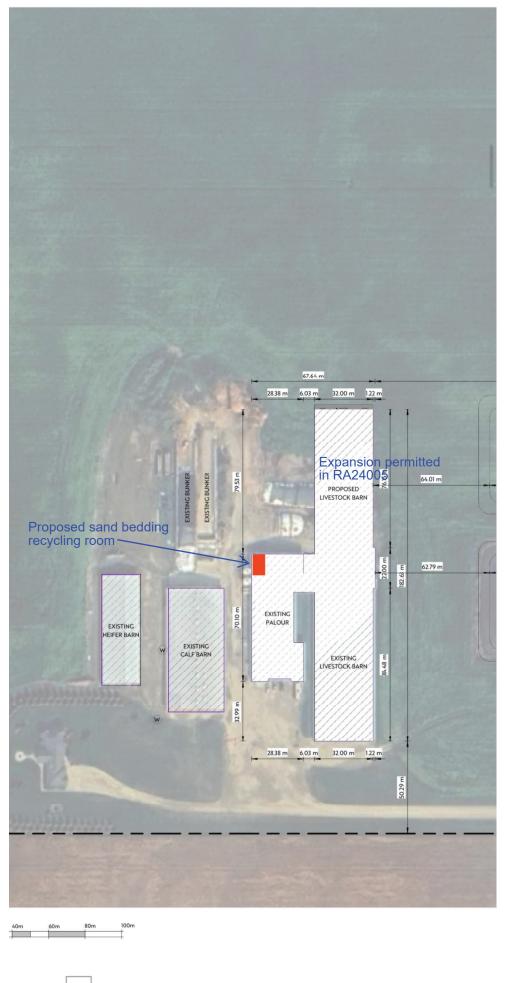


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# <u>OPTION 4: Uncertain if Water Act licence is needed; acknowledgement of risk (for existing CFOs only)</u>

- 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*).

Signed this	day of	, 20 .	
	,	_,	Signature of Applicant or Agent





Om 20m 40m 60m 80m 100m

DO NOT SCHUL SEXHING-YESEY ALL DHENGONE, DATUM AND LEVELS FROM TO COMMENCENE

# Proposed sand bedding recycling room

DO HOT SOUL DRIVING - YESEY ALL DHENGOMS, SAFUHG AND LIVELS FROM TO COHMENCING



exemption

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#### **GENERAL ENVIRONMENTAL INFORMATION**

Freestall Barn

draw water from?

(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: Freestall Barn				Proposed 1: Sand bedding recycling room			
Propose	d 2:			Propose	d 3:		
Facili	ty and environmental risk		Facilities				NRCB USE ONLY
1 4011	information	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?	✓ >1 m ■ ≤ 1 m	>1 m ■ ≤ 1 m	□ >1 m □ ≤1 m	☐ > 1 m ☐ ≤ 1 m	YES NO YES with exemption	>1m above flood plain
e u	How many springs are within 100 m of the manure storage facility or manure collection area?	0	0			YES NO YES with exemption	None observed
Surface water information	How many water wells are within 100 m of the manure storage facility or manure collection area?	1	0			YES NO YES with exemption	One WW located within 100m of barn. Exemption already granted in 2018.
Su	What is the shortest distance from the manure collection or storage facility to a surface water body? (e.g., lake, creek, slough, seasonal)	2249m	2249m			YES NO YES with exemption	500m to slough S of CFO
water lation	What is the depth to the water table?	more then 4	more then 4m			YES NO YES with exemption	Water table at 4.5m below grade
Groundwater	What is the depth to the groundwater resource/aquifer you	8.5m	8.5m			YES NO	UGR identified a t 8.5m in WW ID 1590128

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



Sand bedding recycling room Low RA24037  RST for existing facilities  Facility Groundwater score Surface water score File number stands and stands and stands are stall barn addition Low Low RA24005  Liquid manure storage (2024) Low Low RA24005  Free stall barn Low Low RA18018  Reifer Barn Low Low RA18018	Sand bedding recycling room Low Low RA24037  ERST for existing facilities  Facility Groundwater score Surface water score File numb  Free stall barn addition Low Low RA24005  Liquid manure storage (2024) Low Low RA24005  Free stall barn Low Low RA18018  Heifer Barn Low Low RA18018
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iquid manure storage (2018) Low Low RA18018	Liquid manure storage (2018) Low Low RA18018
PST related comments:	ERST related comments:



NRCB USE ONL WATER WEL		WATER INFORMATI	ON		
Well IDs:	1590128	2089093			
Surface water re	elated concerns from di	irectly affected parties or ref	erral agencies:		YES NO
		ectly affected parties or refe	rral agencies:		☐ YES ☑ NO
Water wells	☑ N/A				
		cance requirements applied:	YES NO Condition	required:	☐ YES ☐ NO
Surface water					
If applicable, ex	emption for 30 m dista	ince requirements applied: $oxdot$	」YES	required:	☐ YES ☐ NO
Water Well Exc	emption Screening T	ool M/A			
Wat	ter Well ID	Preliminary Screening	Secondary Screening		Facility
		Score	Score		
Groundwater of	or surface water rela	ted comments:			



NRCB USE ONLY						
ALL SIGNATURES	IN FILE	YES [	]no			
DATES OF APPROV	AL OFFICER SITE V	ISITS				
October 3, 2024						
CODDESDONDENC	E WITH MUNICIPAL	TTTEC AN	ID DEEEDDAI	AGENCT	FC	
Date deeming letters sent		TITES AN	ID KLI LKKAL	AGLICI	LS	
Municipality: Lacom				<u> </u>		
letter sent	response received	☑ writter	n/email [	 ] verbal		no comments received
Alberta Health Service	es: 🗹 N/A					
☐ letter sent	response received	☐ writter	n/email [	verbal		no comments received
Alberta Environment a	nd Parks:					
letter sent	☐ response received	☐ writter	n/email [	verbal		no comments received
Alberta Transportation	: 🖾 N/A					
☐ letter sent	☐ response received	☐ writter	n/email [	verbal		no comments received
Alberta Regulatory Ser	vices: AGI N/A					
☑ letter sent	response received	☐ writter	n/email [	verbal		no comments received
Other: Chain Lakes C	Sas Co-op				N/A	
☑ letter sent	response received	☐ writter	n/email [	verbal		no comments received
Other:					N/A	
☐ letter sent	☐ response received	☐ writter	n/email [	verbal		no comments received



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

				ı	NRCB USE ONL	Υ	
Neighbour name(s)	Legal land description	Distance (m)	Zoning (LUB) category	MDS category (1-4)	Distance (m)	Waiver attached (if required)	Meets regulations
Wilpshaar Dairy Ltd	09-21-41-24-W4	690	Agriculture	1	715m		Yes
Sam Catellier	14-15-41-24-w4	870	Agriculture	1	851m		Yes
Law	05-15-41-24-w4	993	Agriculture	1	985m		Yes
Russel Wildeman	11-16-41-24-W4	983	Agriculture	1	966m		Yes
empty house	12-21-41-24-W4	1106	Agriculture	1	1070m		Yes

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

				NRCB US	E ONLY
Name of land owner(s)*	Legal land description	Usable area** (ha)	Soil zone ***	Usable area (ha)	Agreement attached (if required)
Wilpshaar Dairy Ltd	SW/NE/SE 21-41-24-w4	128	Black		
Van Sevenhoven	NE20-41-24-W4	64	Black	Not required for aut	horizations
Wilpshaar Dairy Ltd	SW25-41-24-W4	64	Black	·	
Van Sevenhoven	NW/NE/SE 15-41-24-W4	192	Black		
Van Sevenhoven	NW/SW 14-41-24-W4	128	Black		
			Total		

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

#### Additional information (attach any additional information as required)

Please see RA24005 permit for sign land use agreements

<sup>\*\*</sup> 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)

<sup>\*\*\*</sup> Brown, dark brown, black, grey wooded, or irrigated



Google Earth egory 2: 650 Category	
egory 2: <u>650</u> Category	4200
egory 2: <u>650</u> Category	1200
	3:812 Category 4:
	☐ YES 📈 NO
	☐ YES   NO
referral agencies:	☐ YES ☑ NO
□ NO	uthorizations met:
✓ YES □ NO	
YES NO	
☐ YES ☑ NO	
☐ YES ☐ NO ☑ N/A	
	Not required for au Requirement r NO



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. reception pit	(sand bedding recycling room)
	2. liquid pit	
	3.	

Manure storage capacity (use one row in the table for EACH in-barn storage. Attach additional pages if you require more rows) **NRCB USE ONLY** Depth below ground Length (m) Width (m) Total depth (m) level (m) Calculated storage capacity (m<sup>3</sup>) 1. 4.2 3 2 1.9 25.2 m3 2. 4.2 3 2 1.9 25.2 m3 3. TOTAL CAPACITY

storage requirements met with EMS

#### **Concrete liner details**

Concrete liner details				
	Concrete thickness  NA		Method of sulph	ate protection
Scrape alleys or unslatted portions of barn floors (if applicable)  Concrete strength			Concrete reinforcement size and spacing	
In-barn manure pit	Concrete thickness 8inches		Method of sulph	ate protection
floors Concrete strength 30mpa			Concrete reinforcement size and spacing 24inches	
In-barn manure pit	Concrete thickness 6inches		Method of sulph	ate protection
walls	Concrete strength 30mpa	Horizontal reinfo and spacing 16inches	prcement size	Vertical reinforcement size and spacing 24inches



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LIQUID MANURE COLLECTION AND/OR STORAG	E: 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
pit walls to be poured in place, floor to wall joint to have water floor and wall	er stop sealant before pouring with rebar wet set between
Describe sealing practices for piping, etc. that penetrates the line	r
through wall pipes to be mounted with steel plate anchored t	o wali and sealant
Concrete requirements can be found in Technical Guideline Agdex 096-93	NRCB USE ONLY
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	Requirements met:  YES NO  Condition required:  YES NO
Additional information	

NRCB USE ONLY		2			
Liquid manure storage volume calculator attached: $\square$ YES $\overrightarrow{ extbf{V}}$ NO	storage requirements met with EM				
Depth to water table: > 4m	Requirements met:	YES NO			
Depth to uppermost groundwater resource: 8.5 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				
Condition requiring documentation that the concrete used meet the specifications for category B (liquid manure – pits) in Technical Guideline Agdex 096-93 "Non-Engineered Concrete Liners for Manure Collection and Storage Areas"					

Last updated February 26, 2021

Dolman Construction Ltd Box 1937 Rimbey, AB, T0C 2J0 September 16, 2024

Natural Resources Conservation Board

Re: Wilpshaar Dairy Ltd Pit Construction Details

This letter contains information regarding the construction of the newly constructed pit inside of the existing dairy barn saw dust storage bay. As the contractor I can confirm the following specifications of the pit construction.

Pit Dimensions 9' wide x 26' long x 6' deep

Pit Floor Concrete Thickness: 150 mm (6")

Pit Floor Reinforcement: 10M @ 450 mm e.w.

Pit Wall Concrete Thickness: varies between 200 mm and 350 mm

Pit Wall Reinforcement: 10M @ 300 mm vertical, 450 mm horizontal

Concrete Strength and Type: 32 MPa Type 50

If you have any questions or concerns, you can reach me any time at (403) 704-0802. Thank you very much.

Sincerely, A

Encl.