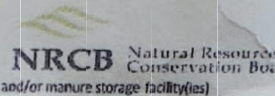


Technical Document RA24033



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 RA24033	Legal land description SE 18-34-1 W5
<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.

Date of signing: 1-8-2024

Signature: 

Corporate name (if applicable): Costara Holsteins Ltd

Print name: Johan de Haan

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)
Heifer/dry cow barn	ft 70 x 180 m 21 ³ x 54 ⁹
On August 19, 2024, the app advised they would like to build the barn 80' x 180' (24.38 m x 54.86 m)	

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

Existing facilities	Dimensions (m) (length, width, and depth)	NRCB USE ONLY
Cowbarn	200 x 100 x 14 ft	61 m x 31m
Parlor/holding area/calf area	126 x 66 x 14 ft	37 m x 20 m
Synthetically lined liquid manure storage (31 m x 62 m x 3.4 m)		

NRCB USE ONLY
 Solid manure pad clay lined (61 m x 38 m)
 Outdoor pens (irregularly shaped; approx 92 m x 87 m at largest)

Part 2 – Technical Requirements

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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 license number(s) or water conveyance agreement details _____
App are new owners of site; currently working with EPA to confirm water licence status

Signed this 1st day of August, 2024.

Signature of Applicant or Agent

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)

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: Main barn

Proposed 1: Heifer/Dry cow 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	Confirmed
	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 visible on site
	How many water wells are within 100 m of the manure storage facility or manure collection area?	1	1			<input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> YES with exemption	One water well within 100 m of proposed facilities
	What is the shortest distance from the manure collection or storage facility to a surface water body? (e.g., lake, creek, slough, seasonal)	0	0			<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES with exemption	No surface water observed within 800 m
Groundwater information	What is the depth to the water table?	>10mtr	>10mtr			<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES with exemption	Confirmed
	What is the depth to the groundwater resource/aquifer you draw water from?	>60mtr	>60mtr			<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES with exemption	UGR at 46.33 m WWID 1245255

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

Untitled Map

Write a description for your map.



RRR20

RRS

RRS

TWP 342

Google Earth

Image © 2024 Airbus

900 m

Untitled Map

Write a description for your map.

North property line

Legend

Solid manure →



Liquid manure ←

Proposed barn will be located parallel to the existing barn, in an east-west orientation



Google Earth

Image © 2024 Airbus



100 m

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			
ENVIRONMENTAL RISK SCREENING INFORMATION			
ERST for <u>proposed</u> facilities			
Facility	Groundwater score	Surface water score	File number
Heifer/dry barn	low	low	RA24033
ERST for <u>existing</u> facilities			
Facility	Groundwater score	Surface water score	File number
Milking barn	Low	Low	RA24033
Synthetically lined liquid manure storage	Low	Low	2016 RBC
Barn pit	Low	Low	2016 RBC
Outdoor pens	Low	Low	RA24033
ERST related comments:			

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
WATER WELL AND SURFACE WATER INFORMATION

Well IDs: 1245255 353880 394199
469450 2091083 2091082 (observation)

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
1245255	6		Heifer/dry barn

Groundwater or surface water related comments:

Water well exemption more likely; do not continue to secondary screening

Part 2 – Technical Requirements

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NRCB USE ONLY

MINIMUM DISTANCE SEPARATION

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

Margin of error (if applicable): +/- 2 m

Requirements (m): Category 1: 271 m Category 2: 361 m Category 3: 452 m Category 4: 722 m

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: N/A for authorizations

Land base listed: _____

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 _____

See DS 24033

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

August 1, 2024	

CORRESPONDENCE WITH MUNICIPALITIES AND REFERRAL AGENCIES

Date deeming letters sent: August 2, 2024

Municipality: _____

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: Fortis N/A

letter sent response received written/email verbal no comments received

Other: Foothills Natural Gas Coop N/A

letter sent response received written/email verbal no comments received

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)

SOLID MANURE, COMPOST, & COMPOSTING MATERIALS: Barns, feedlots, & storage facilities - Concrete liner

(complete a copy of this section for **EACH** barn, feedlot, and storage facility for solid manure, composting materials, or compost with a concrete liner)

Facility description / name (as indicated on site plan)

1. Heifer/Dry cow barn
2. _____

Manure storage capacity

	Length (m) ft	Width (m) ft	Depth below grade to the bottom of the liner (m)	NRCB USE ONLY Estimated storage capacity (m ³)
1.	180	70	0	
2.	(54.9 m by 24.3 m)			
TOTAL CAPACITY				Sufficient storage

I plan to use a short-term solid manure storage (STMS) as part of my manure storage and handling plan for this CFO. The AOPA requirements for STMS are set out in the NRCB [Short-Term Solid Manure Storage Requirements Fact Sheet](#).

Surface water control systems

Describe the run-on and runoff control system

covered barn

Liner protection

Describe how the physical integrity of the liner will be maintained

check for cracks → repair

NRCB USE ONLY

Requirements met: YES NO

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)

SOLID MANURE, COMPOST, & COMPOSTING MATERIALS: Barns, feedlots, & storage facilities - Concrete liner (cont.)

Concrete liner details

Concrete thickness 5"	Method of sulphate protection: HS blend
Concrete strength 30 MPA	Concrete reinforcement size and spacing 10 mm Rebar 15" spacing

Concrete requirements can be found in Technical Guideline Agdex 096-93

Guideline minimums:
Solid manure: 25MPa (D)
Solid manure (wet): 30MPa (C)
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
Report attached: YES NO

Additional information (attach as required)

NRCB USE ONLY

Nine month manure storage volume requirements met YES YES With STMS NO
Depth to water table: **> 10 m** Requirements met: YES NO
Depth to Uppermost groundwater resource: **46.33 m** Requirements met: YES NO
ERST completed: see ERST page for details

Surface water control systems

Requirements met YES NO Details/comments:
Indoor facility

Concrete liner details

A condition will be added requiring applicant to provide proof that concrete liner meets NRCB technical guidelines

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