



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	<input checked="" type="checkbox"/> Authorization	LA20035	S1/2 31-10-6 W4M
<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>Aug 17 2020</u>	<u>Richard Hofer</u>
Date of signing	Signature
<u>Murray Lake Colony</u>	<u>Richard Hofer</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)
30 x 80 Foot Layer Barn to House 300 Birds	9.1 m x 24.4 m
AO note: addition to existing permitted animal shelter	
AO: note: Murray Lake proposes to construct an addition to an existing animal shelter (permitted under Authorization LA17013)	

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

Existing facilities	Dimensions (m) (length, width, and depth)	NRCB USE ONLY
LA07023 A - Feedlot (see next page)		
LA17013 - Dairy		

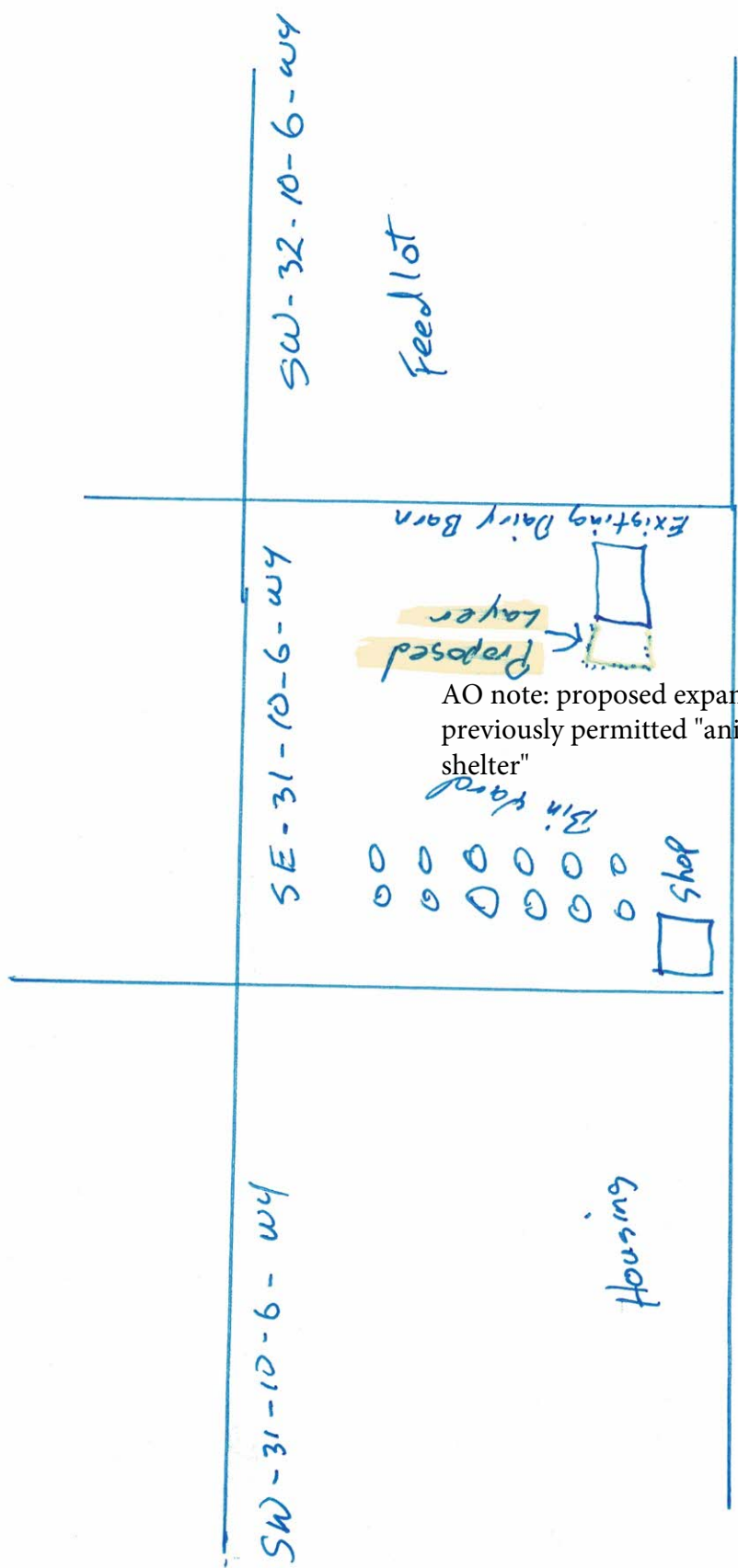
NRCB USE ONLY

AO note: all existing permitted facilities are listed in the Appendix to Approval LA18047 which amalgamated all past AOPA permits.

<p>Approval LA18047 (constructed)</p>	<p>Feedlot pens – 609.6 m x 187.5 m (2,000 ft. x 615 ft.) Catch basin – 64.0 m x 42.7 m x 5.0 m deep</p>
<p>Authorization LA17013 (constructed)</p>	<p>Animal shelter - 24.4 m x 15.2 m Exercise pen - 12.2 m x 12.2 m Wash water transfer pit - 6.1 m x 3.1 m x 3.1 m</p>
<p>Approval LA07023A</p>	<p><i>Permitted, but not yet constructed</i></p> <p>Swine barn (110 m x 60 m) Dairy barn (76 m x 30 m) Poultry barn (ducks, geese, layers) (13 m x 49m) Poultry broiler barn (90 m x 20 m) Dry cow/calf barn (30 m x 15 m) Dry cow/calf exercise pen (108 m x 48 m) Earthen manure storage</p> <ul style="list-style-type: none"> o cell 1: (50 m x 60 m) o cell 2: (90 m x 60 m) <p><i>Already constructed</i></p> <p>Feedlot (533 m x 392 m) 2 runoff catch basins (each 55 m x 42 m x 1.8 m) Secondary runoff catch basin (220 m x 42 m x 2.8 m)</p>

N

E



AO note: proposed expansion to previously permitted "animal shelter"

W

S



Proposed
Construction
Area

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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 Dec 30 2020

Additional information

AO note: proposed completion date does not allow for a complete building season. Condition included in permit will specify construction must be completed by Dec 30, 2021 as this timeline is more feasible considering the potential scope of work.

NO INCREASE IN ANIMALS

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
NRCB comment: Current permitted capacity:			
150 Dairy cows (plus associated dries and replacements)			
12,000 Beef finishers			
600 Swine farrow to finish			
300 Chicken layers			
25,000 Chicken broilers			
800 Ducks			
300 Geese			

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DECLARATION AND ACKNOWLEDGMENT OF APPLICANT CONCERNING WATER ACT LICENCE

issued by Alberta Environment and Parks (AEP) 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 AEP 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** AEP'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 AEP 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 AEP'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.

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 AEP under the *Water Act* for the development or activity proposed in this AOPA application.

Signed this 17 day of August, 2020.

Roland Boff

Signature of Applicant or Agent

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 AEP 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** AEP'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 AEP 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 AEP'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.

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NRCB USE ONLY

ALL SIGNATURES IN FILE YES NO

DATES OF APPROVAL OFFICER SITE VISITS

Sept 27, 2019	

CORRESPONDENCE WITH MUNICIPALITIES AND REFERRAL AGENCIES

Date deeming letters sent: August 18, 2020

Municipality: Cypress County

letter sent response received written/email verbal no comments received

Alberta Health Services:

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: St. Mary River Irrigation District 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

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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: _____ Proposed 1: Animal shelter expansion
 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 height 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 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 located in a known flood plain
	Surface water information						
	How many springs are within 100 m of the manure storage facility or manure collection area?	NO				<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES with exemption	Confirmed on site visit
	How many water wells are within 100 m of the manure storage facility or manure collection area?	0				<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES with exemption	Confirmed on site visit
	What is the shortest distance from the manure collection or storage facility to a surface water body? (e.g., lake, creek, slough, seasonal)	0.75Kms				<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES with exemption	animal shelter 700 m from reservoir, no common body of water within 800 m
Groundwater information	What is the depth to the water table?		1+ m			<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES with exemption	
	What is the depth to the groundwater resource/aquifer you draw water from?		250+ m			<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES with exemption	Well ID1879691 shows water bearing clay 25.9 m but no UGR to 61.0 m depth (well abandoned and reclaimed).

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

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ENVIRONMENTAL RISK SCREENING INFORMATION

Well IDs: Well ID1879691

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

ERST for proposed facilities

Facility	Groundwater score	Surface water score	File number
Animal shelter addition	low	low	LA17013, confirmed LA20035

ERST for existing facilities

Facility	Groundwater score	Surface water score	File number
All existing facilities pose low risk to groundwater and surface water. See technical document LA18047 for details.			

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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
More than 2 Kms							
AO comment: no residences within 3 km of CFO facilities. MDS requirements easily met by the application.							

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)
AO note: no increase in livestock so not applicable to application. Manure spreading lands last proven by Murray Lake in support of application for Approval LA18047.					
Total					

NO INCREASE IN NUMBERS

* 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): Measurement from aerial photo

Margin of error (if applicable): NA

Requirements (m): Category 1: 1,092 m Category 2: 1,456 m Category 3: 1,819 m Category 4: 2,911 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: _____ Application for authorization, not applicable

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 _____

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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. Animal shelter expansion
 2. _____

Manure storage capacity

	Length (m)	Width (m)	Depth below grade to the bottom of the liner (m)	NRCB USE ONLY Estimated storage capacity (m ³)
1.	80ft	50ft	0	Meets AOPA 9 months requirements
2.	AO note: applicant indicated dimensions will be 9.1 m x 24.4 m			
TOTAL CAPACITY				

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

Barn with Roof

Liner protection

Describe how the physical integrity of the liner will be maintained

NRCB USE ONLY
 Requirements met: YES NO

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

Concrete liner details

Concrete thickness 6"	Method of sulphate protection: Type 50 concrete
Concrete strength 25 MPA	Concrete reinforcement size and spacing Rebar 16" 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: **5.0 m+**

Requirements met: YES NO

Depth to Uppermost groundwater resource: **56.0 m+**

Requirements met: YES NO

ERST completed: see ERST page for details

Surface water control systems

Requirements met: YES NO Details/comments:

Concrete liner details

Meets AOPA requirements. Condition included in authorization requiring documentation once construction is complete.

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