

Technical Document LA25054

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 <input type="checkbox"/> Amendment	<u>LA25054</u>	<u>Sec. 28-10-25 W4M</u>

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.

July 23/25
Date of signing

[Redacted Signature]
Signature

HB Chuck of Jumbo Valley
Corporate name (if applicable)

MARK TSCHETTER
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)
Catch Basin	43m x 31m x 2.4m (deep)

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

Existing facilities	Dimensions (m) (length, width, and depth)	NRCB USE ONLY
See next page		

NRCB USE ONLY

All facilities confirmed

Last updated: 31 Mar 2020

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Existing
facilities

Facility	Dimensions (m)	Permit
Dairy barn	65 m x 35 m	Deemed permit (converted) xxxxxxx
Parlour	51 m x 12 m	Deemed permit
Calving barn	24 m x 24 m	Deemed permit
Replacement pens	56 m x 23 m 54 m x 6 m 57 m x 18 m 131 m x 45 m 89 m x 43 m	Deemed permit
Open shelter	48 m x 6.5 m	Deemed permit
Catch basin	7 m x 5 m x 2 m deep	Deemed permit
Concrete pad	10 m x 9 m	Deemed permit
Lagoon	61 m x 32 m x 6.5 m deep	Deemed permit (decommissioned)
Mixed poultry barn	42.7 m x 12.2 m	Approval LA17016
Broiler barn	121.9 m x 24.5 m	Approval LA16050

Other existing facilities:

Permitted under Approval LA 180222:

Turkey barn (158.5 m x 24.4 m)

Calf barn (33.5 m x 15.8 m)

Facilities permitted under Authorization LA21013:

Heifer shed (174 m x 24.5 m)

Exercise pen (174 m x 30.5 m)

Catch basin (43 m x 31 m x 2.4 m) proposed to be replaced with catch basin at alternate location

Solid manure storage pad (152 m x 152 m)

~~The old dairy barn is proposed to be converted into a dry cow barn.~~
~~The old lagoon will be decommissioned.~~

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NRCB | Natural Resources
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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

Decomision Catch basin at heifer Barn

Construction completion date for proposed facilities December 2025

Additional information

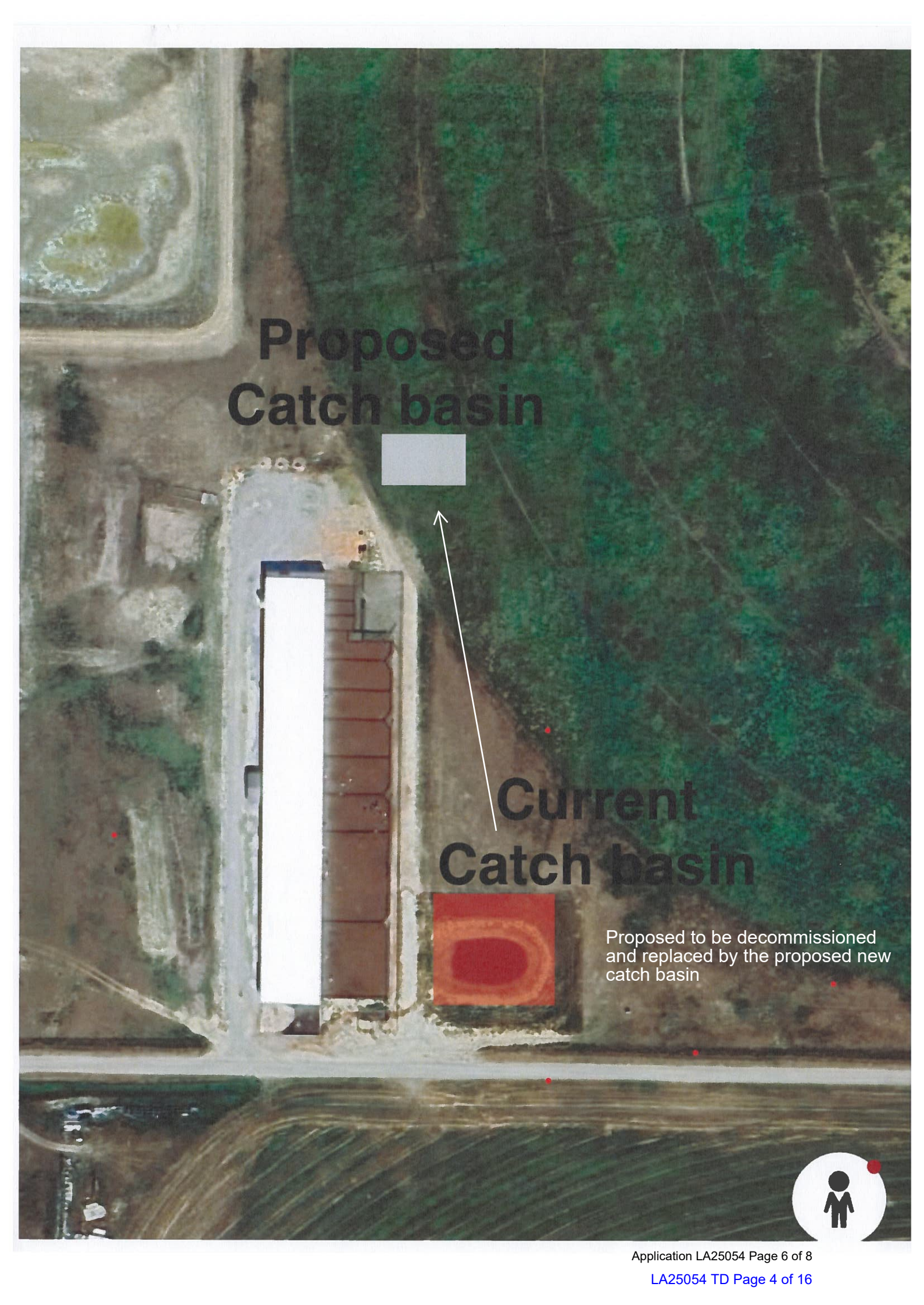
Livestock numbers: Complete only if livestock numbers are different from what was identified in the Part 1 application. Note: if livestock numbers increase in your Part 2 application, a new Part 1 application must be submitted which may result in a loss of priority for minimum distance separation (MDS).

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
Authorization. No change in animal numbers proposed			

Last updated: 31 Mar 2020

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An aerial photograph of a site. In the upper left, there is a rectangular area with some green and yellow patches. In the center, there is a large, irregularly shaped area with a brownish-red color. To the right of this area, there is a smaller, rectangular area with a reddish-brown color. A white arrow points from the text 'Current Catch basin' to this area. Above the arrow, there is a small grey rectangle. The text 'Proposed Catch basin' is positioned above the grey rectangle. The background is a mix of green and brown, suggesting a natural or undeveloped area.

**Proposed
Catch basin**

**Current
Catch basin**

Proposed to be decommissioned
and replaced by the proposed new
catch basin



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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 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 23 day of July, 2025.

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.

Signed this ____ day of _____, 20____.

Signature of Applicant or Agent

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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: Catch basin

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 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 located in known floodplain
	How many springs 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
Surface water information	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
	What is the shortest distance from the manure collection or storage facility to a surface water body? (e.g., lake, creek, slough, seasonal)		600			<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES with exemption	354 m from EMS to canal 464 m from shed to canal (there is also a canal 32 m away from an existing facility)
Groundwater information	What is the depth to the water table?		5m			<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES with exemption	5.2 m below ground level (bgl) (Drilling report LA25019)
	What is the depth to the groundwater resource/aquifer you draw water from?		12m			<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES with exemption	No UGR found within 79 m bgl (Test well 1770010)

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

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NRCB USE ONLY

ENVIRONMENTAL RISK SCREENING INFORMATION

ERST for proposed facilities **See Decision Summary LA25054 for details**

Facility	Groundwater score	Surface water score	File number

ERST for existing facilities **A risk screening was conducted in 2018. All facilities pose a low risk to surface water and groundwater**

Facility	Groundwater score	Surface water score	File number

ERST related comments:

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WATER WELL AND SURFACE WATER INFORMATION

Well IDs:

Test well 1770010 was decommissioned. Well 224504 on the SW without info on depth to UGR

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

Groundwater or surface water related comments:

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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
Goedhart	NE-29-10-25-W4	630	rural general	1	610 m		yes
Veenland	NE-20-10-25-W4	969	rural general	1	737 m		yes
Ashley	NW-22-10-25-W4	1196	rural general	1	950 m		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)
NA					
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)

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MINIMUM DISTANCE SEPARATION

Methods used to determine distance (if applicable): google earth

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

Requirements (m): Category 1: 552 m Category 2: 736 m Category 3: 920 m Category 4: 1472 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: _____

Land base listed: _____

Area not suitable: _____

Available area: _____

Not applicable. No increase in manure production

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 LA16050

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ALL SIGNATURES IN FILE

☒ YES ☐ NO

DATES OF APPROVAL OFFICER SITE VISITS

July 3, 2025	

CORRESPONDENCE WITH MUNICIPALITIES AND REFERRAL AGENCIES

Date deeming letters sent: July 24, 2025

Municipality: MD of Willow Creek

☒ letter sent ☐ response received ☐ written/email ☐ verbal ☒ no comments received

Alberta Health Services: NA

☐ 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: LNID ☐ N/A

☒ letter sent ☒ response received ☒ written/email ☐ verbal ☐ no comments received

Other: Atco Gas and Pipelines, Equus Real Ltd., South Alta Rural Electrification Association Ltd. ☐ N/A

☒ letter sent ☐ response received ☐ written/email ☐ verbal ☒ no comments received

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RUNOFF CONTROL CATCH BASIN: Compacted soil liner

(complete a copy of this section for **EACH proposed** runoff control catch basin with a compacted soil liner)

Facility description / name (as indicated on site plan)

1. Catch basin
2. _____
3. _____

Determination of runoff area

Provide a plan and show how you calculated the area contributing to runoff for each catch basin

See Attached

Catch basin capacity

	Length (m)	Width (m)	Depth (m)	Depth below ground level (m)	Slope run:rise			NRCB USE ONLY Calculated storage capacity (excl. 0.5 m freeboard) (m ³)
					Inside end walls	Inside side walls	Outside walls	
1.	<u>43</u>	<u>31</u>	<u>2.4</u>	<u>2.4</u>	<u>3:1</u>	<u>3:1</u>	<u>Cancel</u>	
2.								
3.								
TOTAL CAPACITY								<u>1474 cubic meters</u>

Compacted soil liner details

Thickness of compacted soil liner	<u>1</u> (m)	Provide details (as required)	
		<u>See report</u>	
Soil texture	_____ % sand	_____ % silt	_____ % clay
Atterberg limits	Plastic limit _____	Liquid limit _____	Plasticity index _____
Hydraulic conductivity	Hydraulic conductivity (cm/s) <u>2.3×10^{-7} cm/s</u>		
	Describe test standard used <u>Lab test</u>		

Catch Basin – Design and management requirements can be found in Technical Guideline Agdex 096-101

NRCB USE ONLY

Requirements met: ☒ YES ☐ NO
 Condition required: ☒ YES ☐ NO
 Report attached: ☒ YES ☐ NO

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RUNOFF CONTROL CATCH BASIN: Compacted soil liner (cont.)

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Catch basin calculator (calculation attached). Total volume @ freeboard: 1474 cubic meters

Runoff capacity requirements met: ☒ YES ☐ NO

Calculation of the volume attached: ☒ YES ☐ NO

Depth to water table: > 5 m below ground level Requirements met: ☒ YES ☐ NO

Depth to Uppermost Groundwater Resource: > 50 m below ground level Requirements met: ☒ YES ☐ NO

ERST completed: ☒ see ERST page for details

Liner specification comments (e.g. compaction required, moisture content, thickness):

The soils submitted for soil testing achieved a hydraulic conductivity of 2.3E-08 cm/sec. With an adjustment of a factor of 10 to account for field conditions, the hydraulic conductivity is 2.3E-07 cm/sec which ensures that liner requirements will be met. A condition will be added to provide compaction test results.

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

Catch Basin Storage Volume Calculator

Construction Dimensions of Catch Basin

* Only cells in blue can be changed.

Overall Dimensions of Catch Basin

Total Length* ₄	43.0	m
Total Width* ₄	31.0	m
Total Depth* ₄	2.4	m
Design Capacity Depth	1.90	m
End Slope* ₄	3	run:rise
Side Slope* ₄	3	run:rise
Length of Bottom	28.6	m
Width of Bottom	16.6	m

Capacity @ top of Bank 2,086 m³

Design Capacity of Catch Basin (freeboard level)

Length (design capacity depth)	40.0	m
Width (design capacity depth)	28.0	m
Total Depth	2.4	m
Design Capacity Depth	1.90	m
End Slope	3	run:rise
Side Slope	3	run:rise

Design Capacity (freeboard level) 1,474 m³

level) 1,120 m²

Catch Basin Dimensions

141	ft
102	ft
8	ft
6	ft
3	run:rise
3	run:rise
94	ft
54	ft

Capacity (@top)
73,679 ft³
458,937 Imp. Gal.

Design Capacity (freeboard level)

131	ft
92	ft
8	ft
6	ft
3	run:rise
3	run:rise

52,049 ft³
324,206 Imp. Gal.
12,056 ft²

CFO Name ₁ (Enter CFO Name Here)

Land Location ₁ 1-1-4-W5

Paved Runoff Catchment Area(s)

Area ₂	Length (m)	Width (m)	Area (m ²)
1			0.0
2			0.0
3			0.0
4			0.0
5			0.0
Total Area (m ²)			0

Unpaved Runoff Catchment Area(s)

Area ₂	Length (m)	Width (m)	Area (m ²)
6	173	31	5,276.5
7			0.0
8			0.0
9			0.0
10			0.0
Total Area (m ²)			5,277

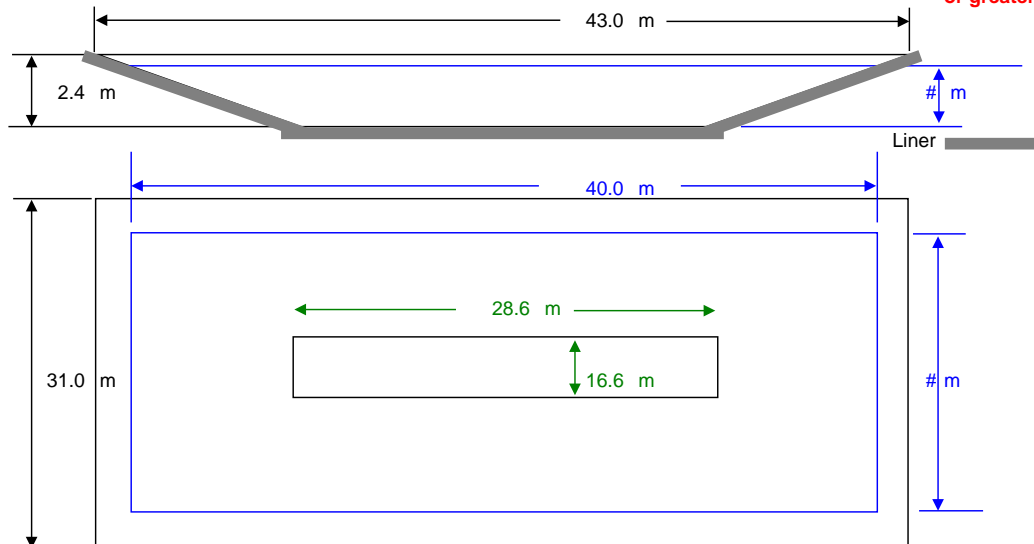
Rainfall (Select Town ₃)

Fort Macleod 90
AOPA Design Rainfall 90 mm

Minimum Catchbasin Storage Volume Required

309 m³ ** 10900.764 ft³
67899.036 Imp. Gal.

** Design capacity of catch basin should be equal to or greater than, minimum storage volume required.



Lines in Black - Overall catch basin dimensions
Lines in Blue - Design capacity depth dimensions (excludes freeboard)

NTS - Not To Scale

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NRCB USE ONLY	
RUNOFF CONTROL CATCH BASIN CAPACITY SUMMARY (if applicable)	
Facility 1	
Name / description Catch basin	Capacity 1474 cubic meters
Facility 2	
Name / description	Capacity
Facility 3	
Name / description	Capacity
Facility 4	
Name / description	Capacity
TOTAL CAPACITY	1474 cubic meters
RUNOFF VOLUME FROM CONTRIBUTING AREAS	309 cubic meters
MEETS AOPA RUNOFF CONTROL VOLUME REQUIREMENTS	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO

wood.

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