

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 checked="" type="checkbox"/> Approval	<input type="checkbox"/> Registration	<input type="checkbox"/> Authorization	<input type="checkbox"/> Amendment
		RA19010	NE 27-29-26 W4M

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.

April 15, 2019

Date of signing

Korova Feeders Ltd.

Corporate name (if applicable)

Signature

Douglas Price

Print name

GENERAL INFORMATION REQUIREMENTS

Proposed facilities. List all proposed confined feeding operation facilities and their measurements, including if it is an addition to a an existing facility (attach additional pages if needed)	
Proposed manure collection areas & manure storage facilities	Dimensions (m)
Using existing facilities (as described below) increase head numbers	
from 16,000 head finisher beef feedlot to 32,000 head finisher feedlot (*)	
Rolled compacted concrete (RCC) will be applied to existing liner.	
(*) On July 17, 2019, the applicant requested to lower the animal numbers they are applying for to 20,600 beef finishers.	

Existing facilities. List ALL existing confined feeding operation facilities and their measurements (use additional pages if needed)		
Existing barns, manure collection areas & manure storage facility	Dimensions (m)	NRCB USE ONLY
Pens (45 large and 18 small for ship, receive, and hospital)	490m x 625m	Verified
Catch Basin (circular dimension)	367.62mx55.44m x 5.75m	Verified
Processing Facility	45m x 34m	Verified
Reference County Permit #'s 2189-00, 1879-98, 1939-98		
Entire feedlot dimension including feedlot, catch basin&barn	583m x 646m	
NRCB USE ONLY CFO and its facilities permitted under Kneehill County development permits # 1879-88, 1939-98, and 2189-00. There is no construction of new CFO facilities with this application.		

Last updated: 08 Jan 18	Page XXXXXX
NRCB USE ONLY	

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If a new facility is replacing an old facility, what will be done with the old facility and when? N/A

Proposed construction completion date: November 2022

Additional information:

We hope to start placing Rolled Compacted Concrete (RCC) on the existing pen liner May-October 2019. We only expect to complete 10-20 pens each year. RCC needs to be placed during dry summer months - so it is dependent on weather how many pens we will be able to complete each year. We will not be harming the existing liner but will add clay to pens where needed to get the appropriate grade for drainage before applying the RCC. The RCC will be placed on all large pens at 65% of the pen on top of the existing liner. The remaining 35% of pen will be clay compacted for the bedding pack.

See website below to watch a video on how the RCC will be placed in pens:
<https://concretegenius.ca/concrete-products/feedlot-compacted-concrete/>

Livestock Numbers: (include all livestock)

Note: Livestock numbers in this table will be used when processing the application)

Livestock type/ category	Existing number	Change in number (if applicable)	Total
Finisher beef cattle	16000	16000 4,600	32000 20,600 (*)
AO Comment: In order to meet the minimum distance separation requirement to neighbors' residences, on July 17, 2019, the applicant requested to lower the animal numbers they are applying for to 20,600 beef finishers.			

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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 (or check) 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.

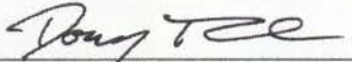
Signed this ____ day of _____, 20____.

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 de-populate the CFO and/or to cease further construction, or to remove "works" or "undertakings" (as defined in the *Water Act*).
6. **CHECK IF 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 15 day of April, 2019.



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 ____ day of _____, 20____.

Signature of Applicant or Agent

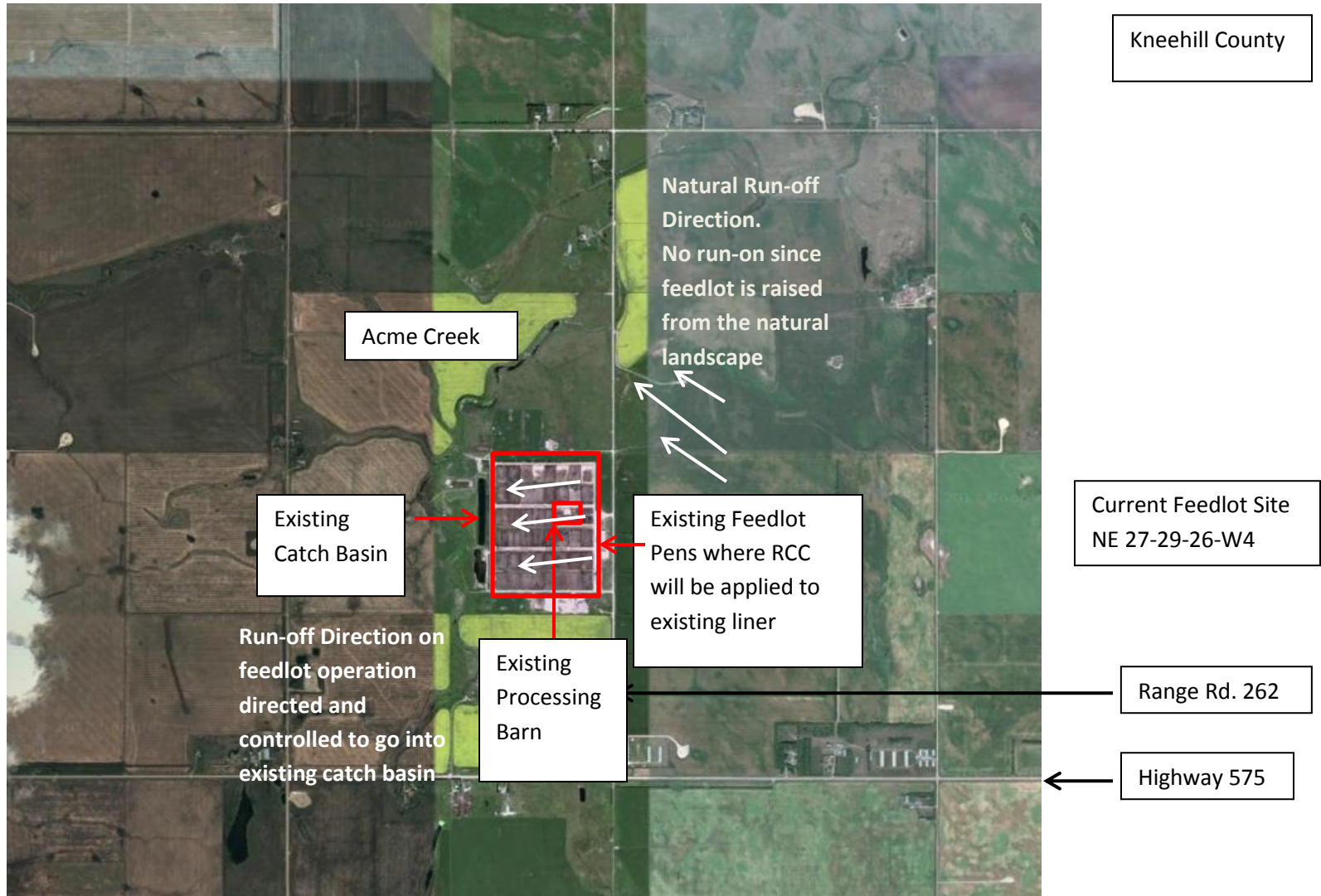
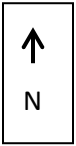
OPTION 4: Uncertain if Water Act licence is needed: acknowledgement of risk (for existing CFOs only)

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 de-populate the CFO and/or to cease further construction, or to remove "works" or "undertakings" (as defined in the *Water Act*).
6. **CHECK IF 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.

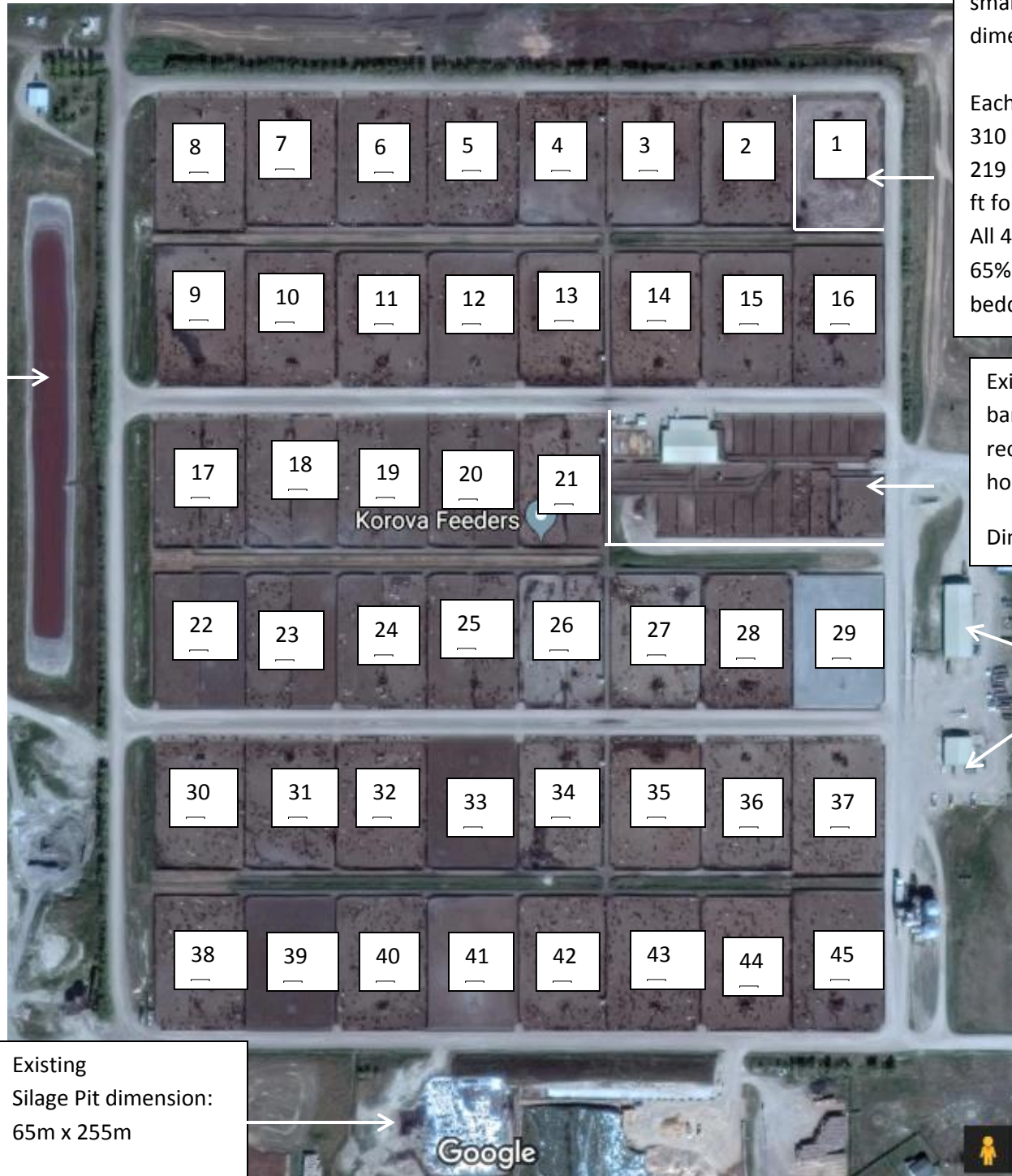
Signed this ____ day of _____, 20____.

Signature of Applicant or Agent

Site Plan



Site Plan



Existing Catch Basin
 Circular dimension:
 367.62m Length
 55.44m Width
 5.75m Depth

45 Existing Large and small pens total dimension: 490m x 625m

Each large pen is:
 310 ft to back of pen.
 219 ft along bunk less 19 ft for gate (200ft of bunk).
 All 45 large pens will have 65% RCC and 35% clay for bedding pack.

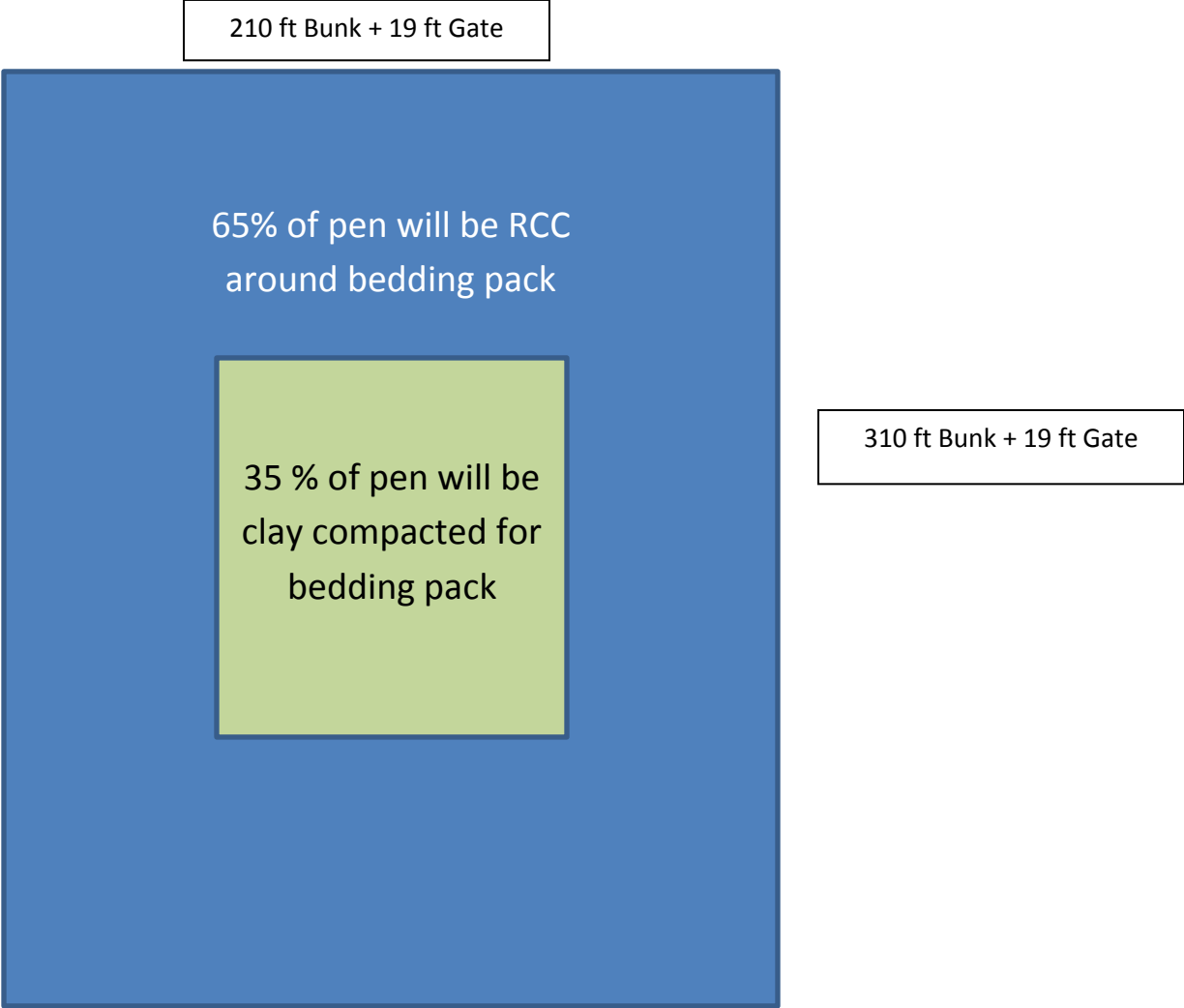
Existing Office, Processing barn and 18 small pens for receiving, shipping & hospital.
 Dimension: 310ft by 657ft

Existing Storage Shop dimension: 18m x 50m
 Mechanic shop dimension: 18mx18m

Existing Silage Pit dimension: 65m x 255m

Site Plan

Existing pen - design for RCC and Clay bedding pack;



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GENERAL WATER INFORMATION – EXISTING

Use the existing manure storage facility that is closest to a common body of water or water well

			NRCB USE ONLY	
			Comments	Meets regulations
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)	<input checked="" type="checkbox"/> Estimated <input type="checkbox"/> From records	>1m	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES with exemption
Springs, wells, and surface water information				
a. How many springs are within 100 m of manure storage facilities or manure collection areas?		0	None observed during site visits	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES with exemption
b. How many water wells are within 100 m of the manure storage facilities or manure collection areas?		0	There are no water wells within 100m of the CFO facilities	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES with exemption
c. What is the shortest distance from an manure collection or storage facility to a surface water body? (ie, lake, creek, slough, seasonal, etc.)		100m	Acme Creek is located 50m west of the catch basin	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES with exemption
Groundwater information				
a. What is the depth to bedrock?	>6 (m)	<input checked="" type="checkbox"/> Estimated <input type="checkbox"/> Measured <input type="checkbox"/> Drilling reports	N/A	
c. What is the shallowest depth to the uppermost groundwater resource?	>7 (m)	<input checked="" type="checkbox"/> Estimated <input type="checkbox"/> Measured <input type="checkbox"/> Drilling reports	UGR identified at 6.4 m in WW ID# 1471088	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> YES with exemption

Additional information: (attach borehole logs and records, as required)

See attached Chris Ullmann, CFO Specialist report. This report estimates the measurements listed above included that the site is at least 1m above the flood plain. Feedlot was built prior to 2000 and has never had flooding issues.

As part of Chris Ullmann report, you will see attached well diagram showing the wells on site. One well site ID#: 9901001 has been decommissioned.

Technical Document

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

WELL INFORMATION:

Well IDs: 288493, 288492, 1471088, 288494, 288495, 288496, 235575, 299270, 299272, and 299271

Surface water related concerns from directly affected parties or referral agencies: YES NO

Ground water related concerns from directly affected parties or referral agencies: YES NO

Water Wells

If applicable, exemption for 100 m distance requirements applied: YES NO Condition required: YES NO

Surface Water

If applicable, exemption for 30 m distance requirements applied: YES NO Condition required: YES NO

ERST for proposed facilities

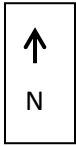
Facility	Groundwater score	Surface water score	File Number
N/A as there is no new construction proposed with this application			

ERST for existing facilities

Facility	Groundwater score	Surface water score	File Number
Catch basin	Low (51.7)	Low (39.6)	RA19010
Feedlot pens	Low (49.5)	Low (31.2)	RA19010

Groundwater or surface water related comments, see next page

Area Plan



Kneehill County

Current Feedlot Site
NE 27-29-26-W4

Range Rd. 262

Highway 575

Residence existing when 16,000 head feedlot was built:
 Residence A (Category 1) – 1150 meters
 Residence B (Category 1) – 1480 meters
 Residence E (Category 1) – 940 meters
 Residence F (Category 1) – 903 meters
 Residence G (Category 1) – Property Owned by Korova Feeders
 Residence H (Category 1) – Property Owned by related party Sunterra Farms
 Residence I (Category 1) – 906 meters
 Residence J (Category 1) – 977 meters
 Residence K (Category 1) – 986 meters
 Residence L (Category 1) – 1080 meters

New Residence outside of MDS
When applying expansion factor:
 Residence D (Category 1) – 1060 meters
 Residence C (Category 1) – 1620 meters
 Residence L (Category 1) – 1080 meters
 Residence M (Category 1) – 1690 meters



April 30, 2019

Korova Feeders Ltd.
Attn: Kendra Donnelly
Box 65
Acme, AB T0M 0A0

Dear Mrs. Donnelly,

RE: Developments within 1050m of NE 27-29-26 W4M since 2000

As per your request, the table below notes the developments around the above referenced lands since 2000.

Residence D
NON-RESIDENCE
NON-RESIDENCE
NON-RESIDENCE
Residence M
Residence L
Residence C

Legal	Development	Notes
SE 33-29-26 W4	Single Family Dwelling with Garage	File No. 3628-17
SE 28-29-26 W4, Plan 0811867, Blk 1, Lot 1	Horse Barn	File No. 3585-16
NE 34-29-26 W4	Goat Building/Office Creamery	File No. 3480-15
SE 3-30-26 W4	Carport & Decks	File No. 3508-15
SE 28-29-26 W4 Plan 0811867, Blk 1, Lot 1	House and Garage	File No. 2935-08
NW 22-29-26 W4	Replace Single Family Dwelling	File No. 2965-08
NE 34-29-26 W4	Single Family Dwelling	File No. 2530-04

**The last 2 digits of the file number are the year when the development was applied for.*

If you require any further information, please contact our office.

Kind regards,
KNEEHILL COUNTY

Brandy Hay-Morgan
Planning & Development Officer

PO Box 400, 1600 - 2nd Street NE, Three Hills, AB T0M 2A0
Telephone 403-443-5541 • Toll Free 1-866-443-5541 • Fax 403-443-5115
Email: office@kneehillcounty.com • www.kneehillcounty.com

TOTAL DRAINAGE
AREA= 340860.810 sq.m.



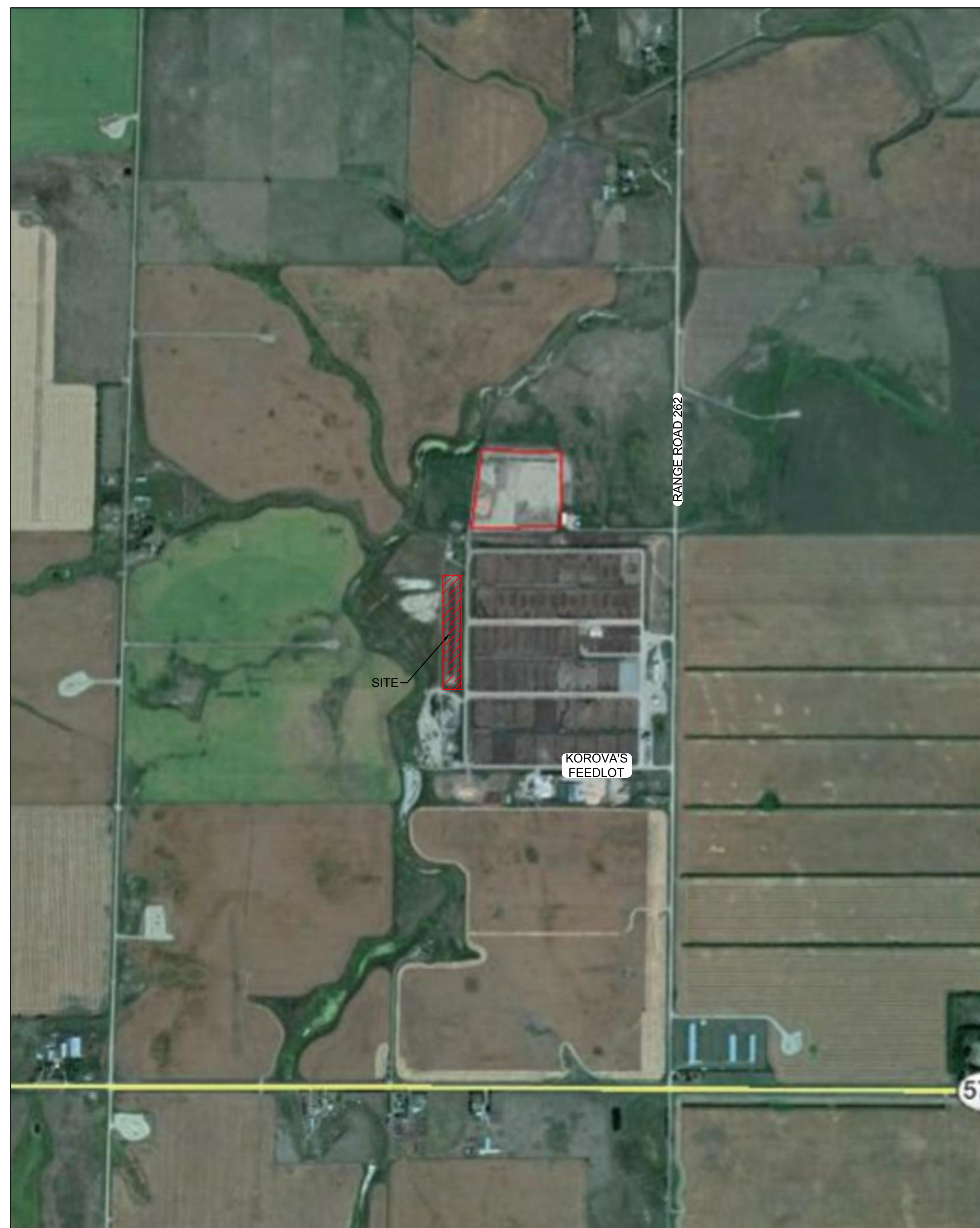
Site: Korova's West Feedlot Development Facility: Runoff Control Catch Basin																				
ANNUAL RUNOFF				CATCHBASIN STORAGE CAPACITY (As-Built Survey Sept 2018)																
Contributing Drainage Area (Ha)	One Day Rainfall (mm)	Weighted Runoff Coefficient (unitless)	Rainfall Runoff Estimated (m ³)	Contour Surface Elevation (m)	Contour Surface Area (m ²)	Depth (m)	Ave. End Area Vol. (m ³)	Ave. End Area Total Vol. (m ³)												
34.086	105.00	0.85	30,422	906.1	5,665	0	0	0												
References: Province of Alberta, Agricultural Operation Practices Act Schedule 2 - Table 2 Precipitation Data Schedule 2 Determination of Catch Basin Volume One Day Rainfall (mm): A one day rainfall that has a 1 in 30 year probability. One Day Rainfall Runoff Volume = Drainage Area x One Day Rainfall x Runoff Coefficient Table 1 Runoff Coefficients for Paved and Unpaved Drainage Areas <table border="1"> <thead> <tr> <th>One Day Rainfall (mm) 1 in 30 year probability</th> <th>Runoff Coefficient Unpaved Drainage Area</th> <th>Runoff Coefficient Paved Drainage Area</th> </tr> </thead> <tbody> <tr> <td>35 - 50</td> <td>0.80</td> <td>1.0</td> </tr> <tr> <td>37 - 95</td> <td>0.85</td> <td>1.0</td> </tr> <tr> <td>91 - 103</td> <td>0.90</td> <td>1.0</td> </tr> </tbody> </table>				One Day Rainfall (mm) 1 in 30 year probability	Runoff Coefficient Unpaved Drainage Area	Runoff Coefficient Paved Drainage Area	35 - 50	0.80	1.0	37 - 95	0.85	1.0	91 - 103	0.90	1.0	906.3	6,395	0.2	1206	1,206
				One Day Rainfall (mm) 1 in 30 year probability	Runoff Coefficient Unpaved Drainage Area	Runoff Coefficient Paved Drainage Area														
				35 - 50	0.80	1.0														
				37 - 95	0.85	1.0														
				91 - 103	0.90	1.0														
				906.5	7,051	0.2	1345	2,551												
				906.7	7,729	0.2	1478	4,029												
				906.9	8,447	0.2	1618	5,646												
				907.1	9,132	0.2	1758	7,404												
				907.3	9,785	0.2	1892	9,296												
				907.5	10,464	0.2	2025	11,321												
				907.7	11,170	0.2	2163	13,484												
				907.9	11,903	0.2	2307	15,791												
				908.1	12,660	0.2	2456	18,248												
				908.3	13,389	0.2	2605	20,853												
				908.5	14,094	0.2	2748	23,601												
				908.7	14,836	0.2	2893	26,494												
				908.9	15,541	0.2	3038	29,532												
			30,422				1:30yr Rainfall													
							At freeboard													
								Spill Elevation												

NOTES: The pens will be cemented 65% of their gross area.

Weighted Runoff Coefficient Calculations

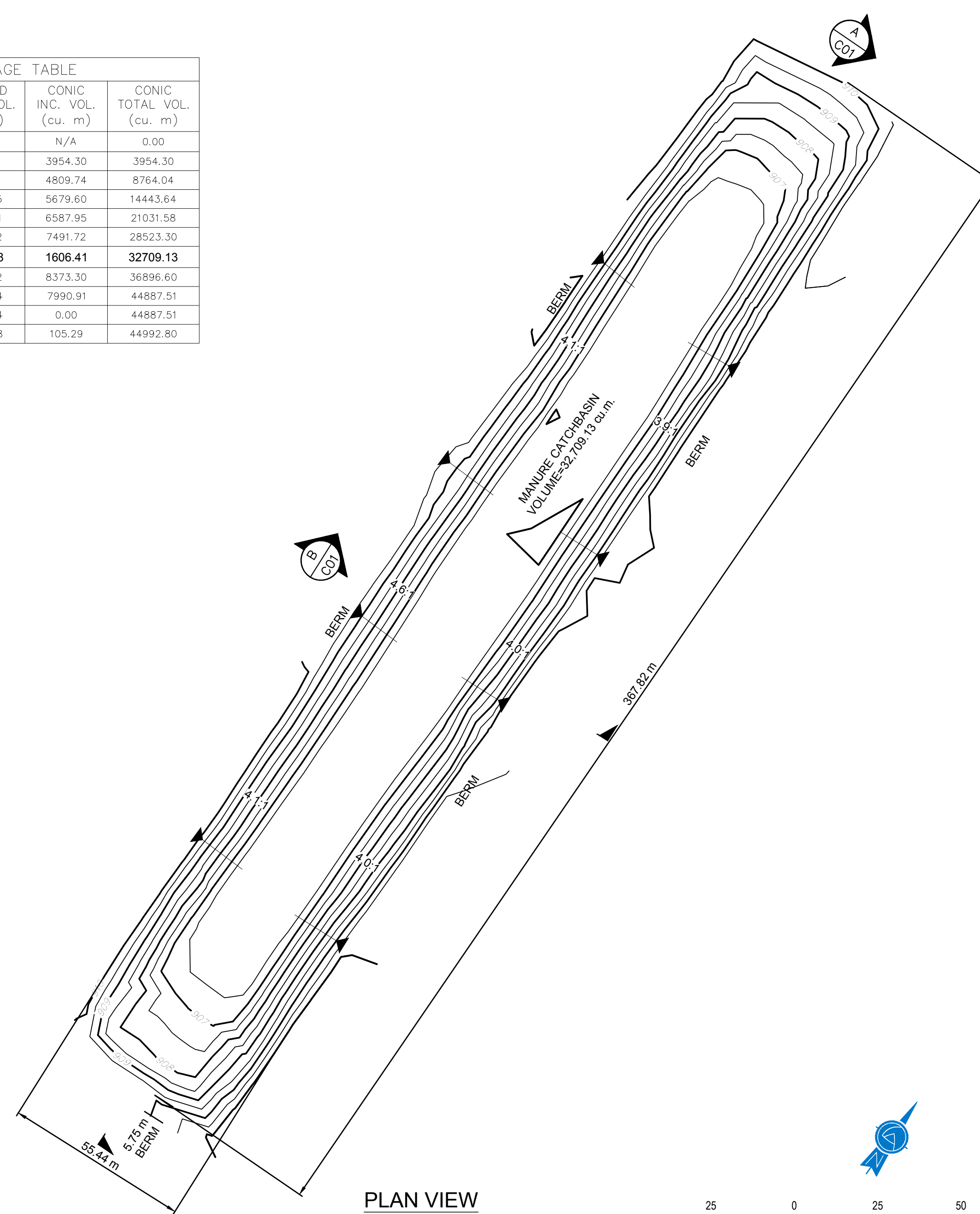
Surface Type	Area (m ²)	Runoff Coefficient	Weighted Runoff Coefficient
Cemented Pens	172,696	1	172696
Unpaved Areas	168,165	0.70	117715.7
Total	340,861		0.85

$$\text{Composite } C = \frac{\sum (C_{\text{Individual Areas}})(A_{\text{Individual Areas}})}{A_{\text{Total Area}}}$$

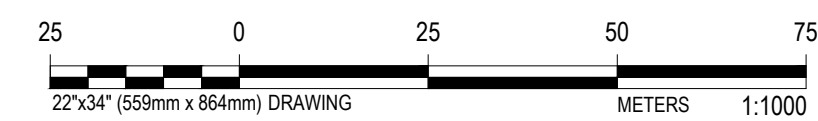


SITE LOCATION
N.T.S.

MANURE CATCHBASIN STORAGE TABLE						
ELEV	AREA (sq. m)	DEPT H (m)	AVG END INC. VOL. (cu. m)	AVG END TOTAL VOL. (cu. m)	CONIC INC. VOL. (cu. m)	CONIC TOTAL VOL. (cu. m)
906.500	7,050.60	N/A	N/A	0.00	N/A	0.00
907.000	8,798.83	0.500	3962.36	3962.36	3954.30	3954.30
907.500	10,464.16	0.500	4815.75	8778.10	4809.74	8764.04
908.000	12,278.41	0.500	5685.64	14463.75	5679.60	14443.64
908.500	14,094.24	0.500	6593.16	21056.91	6587.95	21031.58
909.000	15,890.59	0.500	7496.21	28553.12	7491.72	28523.30
909.100	16,238.22	0.100	1606.44	32710.68	1606.41	32709.13
909.500	17,617.44	0.500	8377.01	36930.12	8373.30	36896.60
910.000	14,400.21	0.500	8004.41	44934.54	7990.91	44887.51
910.000	264.13	0.000	0.00	44934.54	0.00	44887.51
910.500	161.25	0.500	106.35	45040.88	105.29	44992.80



PLAN VIEW
SCALE 1:1000



LEGEND

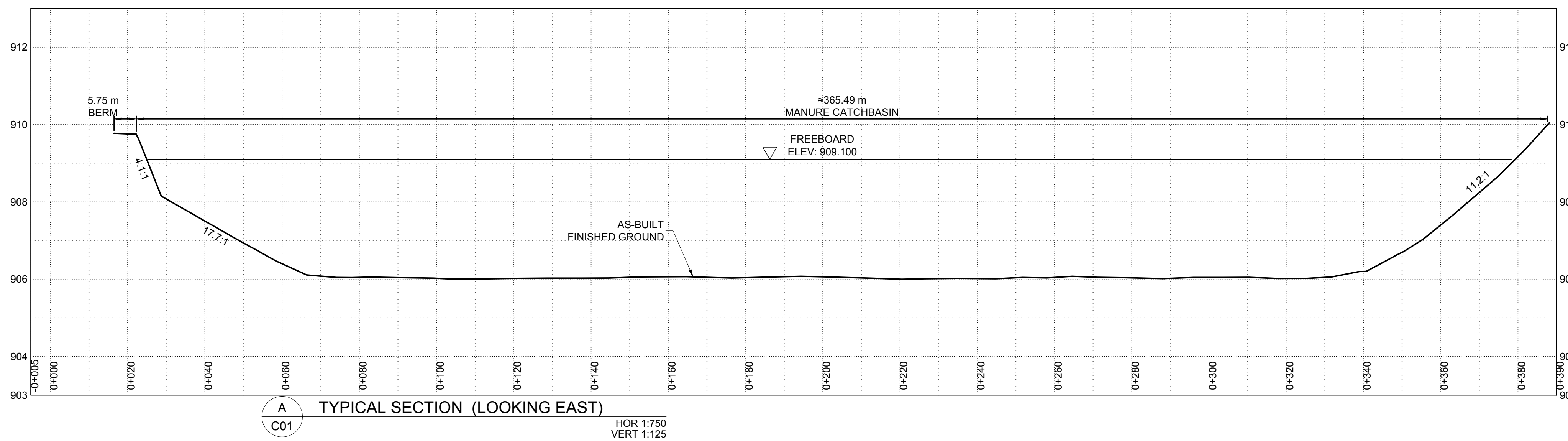
GRADING SLOPE

AS-BUILTS SURVEY CONDUCTED BY CLIFTON ASSOCIATES ON SEPTEMBER 19, 2018.

NAD 83 COORDINATES

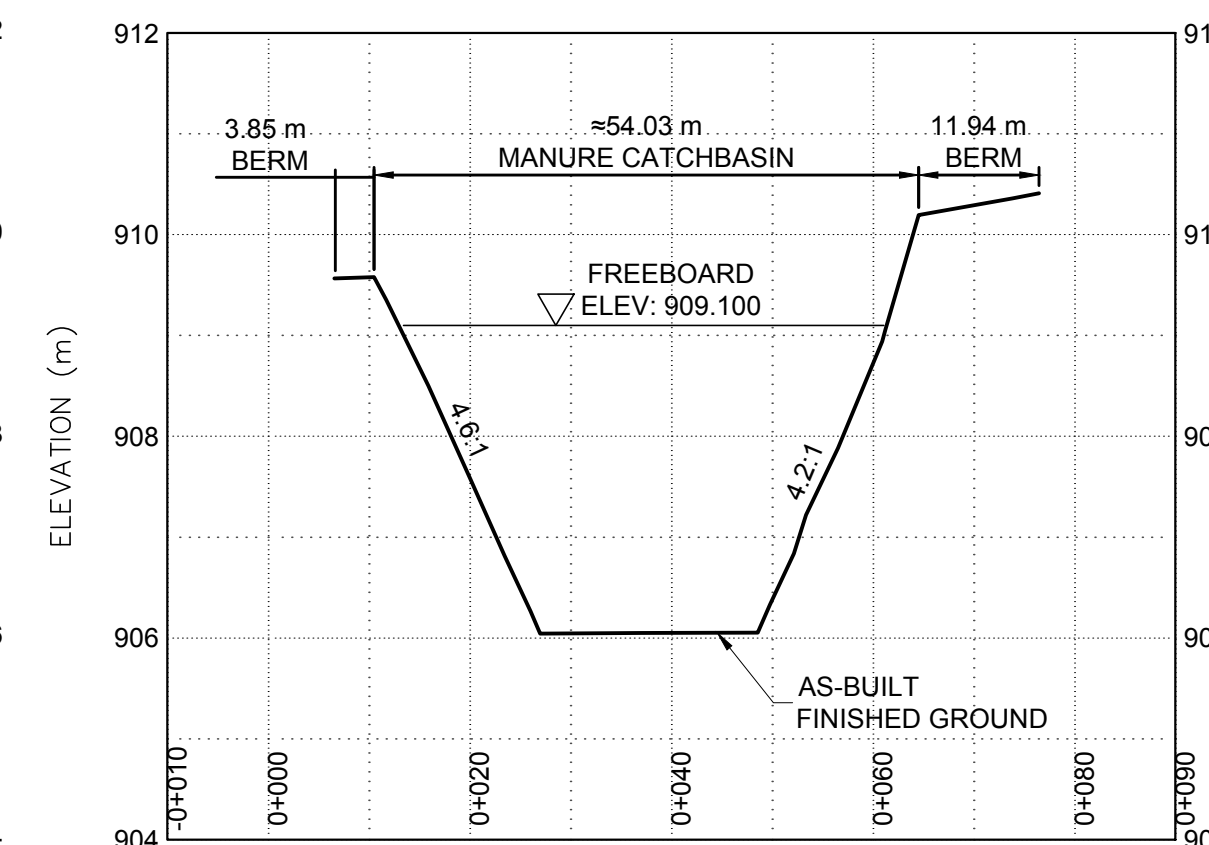
ALL DIMENSIONS ARE METRIC

DRAWING REVISIONS			
REV	DESCRIPTION	BY	DATE
01	ISSUED FOR RECORD	OSP	2019-09-24



TYPICAL SECTION (LOOKING EAST)

HOR 1:750
VERT 1:125



TYPICAL SECTION (LOOKING NORTH)

HOR 1:750
VERT 1:125

AS-BUILT

ENGINEER
4 Clifton Associates

CLIENT
PROJECT
MANURE STORAGE AND CATCHBASIN DEVELOPMENT
ACME, ALBERTA

TITLE
NE 27-29-26-W4M
MANURE CATCHBASIN
AS-BUILT PLAN

DESIGNED	SCALE	AS NOTED	DATE
			2018-09-24
DRAWN	PROJECT NO.	DWG NO.	
RSD	CG2992	Page 14 of 443	
CHECKED	FILE NO.	SHEET NO.	
BG	CG2992.2C03 ASB	02 OF 02	

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LAND BASE FOR MANURE AND COMPOST APPLICATION (for approvals and registrations only)

Name of landowner(s)*	Legal Land Description	Area ** (usable hectares)	Soil Zone	NRCB USE ONLY Area unsuitable:
Doug & Helga Price	NE-30-29-25-W4	52.21	Black	(*)
Doug & Helga Price	NW-30-29-25-W4	56.64	Black	
Doug & Helga Price	NE-35-29-26-W4	61.70	Black	
Doug & Helga Price	NW-35-29-26-W4	63.72	Black	
Doug & Helga Price	SE-35-29-26-W4	62.11	Black	
TOTAL		296.38		

*If you are **not** the registered land owner, please attach copies of land use agreements signed by all landowners.

** Available manure spreading area (do not include required setback areas from residences, common bodies of water, water wells, etc.) (to convert from acres to hectares divide acres by 2.47)

Additional information: (attach copies of all signed land use agreements)

See attached worksheet and signed land use agreements

NRCB USE ONLY

Land base required: 1,612 hectares

Land base listed: 2,570 hectares

Area not suitable: (*) Applicant provided more than 60% extra land available for manure application

Available area _____ Requirement Met: YES NO

Land spreading agreements required: YES NO If yes, Agreements in file: Agreements attached:

Manure Management Plan: YES NO Plan attached: Plan in file:

The following pages list the land available for manure application

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LAND BASE FOR MANURE AND COMPOST APPLICATION (for approvals and registrations only)

Name of landowner(s)*	Legal Land Description	Area ** (usable hectares)	Soil Zone	NRCB USE ONLY Area unsuitable:
Doug & Helga Price	SW-35-29-26-W4	64.41	Black	
2031062 Alberta Ltd.	SW-7-30-25-W4	53.77	Black	
Echo Sand Ranching Ltd.	SE-12-30-26-W4	61.96	Black	
Echo Sand Ranching Ltd.	NE-1-30-26-W4	64.29	Black	
Echo Sand Ranching Ltd.	SE-11-30-26-W4	64.78	Black	
TOTAL		309.21		

*If you are **not** the registered land owner, please attach copies of land use agreements signed by all landowners.

** Available manure spreading area (do not include required setback areas from residences, common bodies of water, water wells, etc.) (to convert from acres to hectares divide acres by 2.47)

Additional information: (attach copies of all signed land use agreements)

See attached worksheet and signed land use agreements

NRCB USE ONLY

Land base required: _____

Land base listed: _____

Area not suitable: _____

Available area _____ Requirement Met: YES NO

Land spreading agreements required: YES NO If yes, Agreements in file: Agreements attached:

Manure Management Plan: YES NO Plan attached: Plan in file:

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LAND BASE FOR MANURE AND COMPOST APPLICATION (for approvals and registrations only)

Name of landowner(s)*	Legal Land Description	Area ** (usable hectares)	Soil Zone	NRCB USE ONLY Area unsuitable:
Echo Sand Ranching Ltd.	SW-2-30-26-W4	57.52	Black	
Echo Sand Ranching Ltd.	NE-2-30-26-W4	63.89	Black	
Echo Sand Ranching Ltd.	SE-2-30-26-W4	55.49	Black	
Echo Sand Ranching Ltd.	NW-22-29-26-W4	57.03	Black	
Echo Sand Ranching Ltd.	SE-34-29-26-W4	58.19	Black	
TOTAL		292.13		

*If you are **not** the registered land owner, please attach copies of land use agreements signed by all landowners.

** Available manure spreading area (do not include required setback areas from residences, common bodies of water, water wells, etc.) (to convert from acres to hectares divide acres by 2.47)

Additional information: (attach copies of all signed land use agreements)

See attached worksheet and signed land use agreements

NRCB USE ONLY

Land base required: _____

Land base listed: _____

Area not suitable: _____

Available area _____ Requirement Met: YES NO

Land spreading agreements required: YES NO If yes, Agreements in file: Agreements attached:

Manure Management Plan: YES NO Plan attached: Plan in file:

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)

LAND BASE FOR MANURE AND COMPOST APPLICATION (for approvals and registrations only)

Name of landowner(s)*	Legal Land Description	Area ** (usable hectares)	Soil Zone	NRCB USE ONLY Area unsuitable:
Lindac Farms Ltd.	NW-14-30-26-W4	48.99	Black	
Lindac Farms Ltd.	NE-14-30-26-W4	52.53	Black	
Lindac Farms Ltd.	SW-25-30-26-W4	52.15	Black	
Bill and Jean Taylor	NW-25-30-26-W4	40.08	Black	
Bill and Jean Taylor	NW-23-30-26-W4	48.58	Black	
TOTAL		242.32		

*If you are **not** the registered land owner, please attach copies of land use agreements signed by all landowners.

** Available manure spreading area (do not include required setback areas from residences, common bodies of water, water wells, etc.) (to convert from acres to hectares divide acres by 2.47)

Additional information: (attach copies of all signed land use agreements)

See attached worksheet and signed land use agreements

NRCB USE ONLY

Land base required: _____

Land base listed: _____

Area not suitable: _____

Available area _____ Requirement Met: YES NO

Land spreading agreements required: YES NO If yes, Agreements in file: Agreements attached:

Manure Management Plan: YES NO Plan attached: Plan in file:

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)

LAND BASE FOR MANURE AND COMPOST APPLICATION (for approvals and registrations only)

Name of landowner(s)*	Legal Land Description	Area ** (usable hectares)	Soil Zone	NRCB USE ONLY Area unsuitable:
Bill and Jean Taylor	NE-22-30-26-W4	12.15	Black	
Bill and Jean Taylor	SE-22-30-26-W4	54.37	Black	
Bill and Jean Taylor	SW-23-30-26-W4	32.39	Black	
Bill and Jean Taylor	SE-23-30-26-W4	24.29	Black	
Sunterra Farms	NE-28-29-26-W4	58.7	Black	
TOTAL		181.9		

*If you are **not** the registered land owner, please attach copies of land use agreements signed by all landowners.

** Available manure spreading area (do not include required setback areas from residences, common bodies of water, water wells, etc.) (to convert from acres to hectares divide acres by 2.47)

Additional information: (attach copies of all signed land use agreements)

See attached worksheet and signed land use agreements

NRCB USE ONLY

Land base required: _____

Land base listed: _____

Area not suitable: _____

Available area _____ Requirement Met: YES NO

Land spreading agreements required: YES NO If yes, Agreements in file: Agreements attached:

Manure Management Plan: YES NO Plan attached: Plan in file:

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)

LAND BASE FOR MANURE AND COMPOST APPLICATION (for approvals and registrations only)

Name of landowner(s)*	Legal Land Description	Area ** (usable hectares)	Soil Zone	NRCB USE ONLY Area unsuitable:
Sunterra Farms	SW-34-29-26-W4	42.51	Black	
Sunterra Farms	NW-27-29-26-W4	60.73	Black	
Sunterra Farms	SW-27-29-26-W4	58.70	Black	
Sunterra Farms	SE-27-29-26-W4	60.73	Black	
Sunterra Farms	SE-22-29-26-W4	63.97	Black	
TOTAL		286.64		

*If you are **not** the registered land owner, please attach copies of land use agreements signed by all landowners.

** Available manure spreading area (do not include required setback areas from residences, common bodies of water, water wells, etc.) (to convert from acres to hectares divide acres by 2.47)

Additional information: (attach copies of all signed land use agreements)

See attached worksheet and signed land use agreements

NRCB USE ONLY

Land base required: _____

Land base listed: _____

Area not suitable: _____

Available area _____ Requirement Met: YES NO

Land spreading agreements required: YES NO If yes, Agreements in file: Agreements attached:

Manure Management Plan: YES NO Plan attached: Plan in file:

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)

LAND BASE FOR MANURE AND COMPOST APPLICATION (for approvals and registrations only)

Name of landowner(s)*	Legal Land Description	Area ** (usable hectares)	Soil Zone	NRCB USE ONLY Area unsuitable:
Sunterra Farms	SW-30-29-25-W4	44.53	Black	
Arda Farms	NE-15-29-26-W4	59.88	Black	59.88 (*)
Arda Farms	SE-15-29-26-W4	48.58	Black	48.58 (*)
Arda Farms	SW-15-29-26-W4	48.58	Black	48.58 (*)
Arda Farms	S1/2-21-29-26-W4	128.66	Black	
TOTAL		330.24		

(*) Lands already included for Korova East

*If you are **not** the registered land owner, please attach copies of land use agreements signed by all landowners.

** Available manure spreading area (do not include required setback areas from residences, common bodies of water, water wells, etc.) (to convert from acres to hectares divide acres by 2.47)

Additional information: (attach copies of all signed land use agreements)

See attached worksheet and signed land use agreements

NRCB USE ONLY			
Land base required:	<input type="text"/>		
Land base listed:	<input type="text"/>		
Area not suitable:	<input type="text"/>		
Available area	<input type="text"/>	Requirement Met:	<input type="checkbox"/> YES <input type="checkbox"/> NO
Land spreading agreements required:	<input type="checkbox"/> YES <input type="checkbox"/> NO	If yes, Agreements in file:	<input type="checkbox"/> Agreements attached: <input type="checkbox"/>
Manure Management Plan:	<input type="checkbox"/> YES <input type="checkbox"/> NO	Plan attached:	<input type="checkbox"/> Plan in file: <input type="checkbox"/>

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)

LAND BASE FOR MANURE AND COMPOST APPLICATION (for approvals and registrations only)

Name of landowner(s)*	Legal Land Description	Area ** (usable hectares)	Soil Zone	NRCB USE ONLY Area unsuitable:
Arda Farms	NW-16-29-26-W4	52.19	Black	
Woodridge Farms Ltd.	SE-6-30-26-W4	54.66	Black	
Woodridge Farms Ltd.	SW-7-30-26-W4	63.85	Black	
Woodridge Farms Ltd.	SE-31-29-26-W4	63.68	Black	
Woodridge Farms Ltd.	SW-31-29-26-W4	63.52	Black	
TOTAL		297.89		

*If you are **not** the registered land owner, please attach copies of land use agreements signed by all landowners.

** Available manure spreading area (do not include required setback areas from residences, common bodies of water, water wells, etc.) (to convert from acres to hectares divide acres by 2.47)

Additional information: (attach copies of all signed land use agreements)

See attached worksheet and signed land use agreements

NRCB USE ONLY

Land base required: _____

Land base listed: _____

Area not suitable: _____

Available area _____ Requirement Met: YES NO

Land spreading agreements required: YES NO If yes, Agreements in file: Agreements attached:

Manure Management Plan: YES NO Plan attached: Plan in file:

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)

LAND BASE FOR MANURE AND COMPOST APPLICATION (for approvals and registrations only)

Name of landowner(s)*	Legal Land Description	Area ** (usable hectares)	Soil Zone	NRCB USE ONLY Area unsuitable:
Woodridge Farms Ltd.	SE-30-29-26-W4	64.78	Black	
Woodridge Farms Ltd.	SW-30-29-26-W4	64.78	Black	
Sawyer Farms Ltd.	N1/2-32-29-26-W4	97.17	Black	
Sawyer Farms Ltd.	N1/2-33-29-26-W4	95.55	Black	
Sawyer Farms Ltd.	S1/2-33-29-26-W4	123.48	Black	
TOTAL		445.75		

*If you are **not** the registered land owner, please attach copies of land use agreements signed by all landowners.

** Available manure spreading area (do not include required setback areas from residences, common bodies of water, water wells, etc.) (to convert from acres to hectares divide acres by 2.47)

Additional information: (attach copies of all signed land use agreements)

See attached worksheet and signed land use agreements

NRCB USE ONLY

Land base required: _____

Land base listed: _____

Area not suitable: _____

Available area _____ Requirement Met: YES NO

Land spreading agreements required: YES NO If yes, Agreements in file: Agreements attached:

Manure Management Plan: YES NO Plan attached: Plan in file:

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)

LAND BASE FOR MANURE AND COMPOST APPLICATION (for approvals and registrations only)

Name of landowner(s)*	Legal Land Description	Area ** (usable hectares)	Soil Zone	NRCB USE ONLY Area unsuitable:
Bryan and Kendra Donnelly	SW-6-30-26-W4	44.67	Black	
TOTAL		44.67		

*If you are **not** the registered land owner, please attach copies of land use agreements signed by all landowners.

** Available manure spreading area (do not include required setback areas from residences, common bodies of water, water wells, etc.) (to convert from acres to hectares divide acres by 2.47)

Additional information: (attach copies of all signed land use agreements)

See attached worksheet and signed land use agreements

NRCB USE ONLY

Land base required: _____

Land base listed: _____

Area not suitable: _____

Available area _____ Requirement Met: YES NO

Land spreading agreements required: YES NO If yes, Agreements in file: Agreements attached:

Manure Management Plan: YES NO Plan attached: Plan in file:

Korova Feeders Ltd.

Land for Manure

Usable Area Calculation - as per google maps estimated usable area calculation

Owner	Legal Land	Total Area	Less slough/creeks, trees, tree line, farmyards, etc.	Usable Area (acres)	Usable Area (hectares)	Soil type
Doug & Helga Price	NE-30-29-25-W4	128.97	0	128.97	52.21	black
Doug & Helga Price	NW-30-29-25-W4	139.89	0	139.89	56.64	black
Doug & Helga Price	NE-35-29-26-W4	160	7.6	152.4	61.70	black
Doug & Helga Price	NW-35-29-26-W4	158.6	1.2	157.4	63.72	black
Doug & Helga Price	SE-35-29-26-W4	160	6.5988	153.4012	62.11	black
Doug & Helga Price	SW-35-29-26-W4	160.12	1.02	159.1	64.41	black
2031062 Alberta Ltd. (100% owned by Doug & Helga Price)						
	SW-7-30-25-W4	160	27.18	132.82	53.77	black
Echo Sand Ranching Ltd.	SE-12-30-26-W4	160	6.97	153.03	61.96	black
Echo Sand Ranching Ltd.	NE-1-30-26-W4	160	1.2	158.8	64.29	black
Echo Sand Ranching Ltd.	SE-11-30-26-W4	160	0	160	64.78	black
Echo Sand Ranching Ltd.	SW-2-30-26-W4	142.08	0	142.08	57.52	black
Echo Sand Ranching Ltd.	NE-2-30-26-W4	160	2.2	157.8	63.89	black
Echo Sand Ranching Ltd.	SE-2-30-26-W4	154.44	17.37	137.07	55.49	black
Echo Sand Ranching Ltd.	NW-22-29-26-W4	140.87	0	140.87	57.03	black
Echo Sand Ranching Ltd.	SE-34-29-26-W4	160	16.26	143.74	58.19	black
Lindac Farms Ltd.	NW-14-30-26-W4	130	9	121	48.99	black
Lindac Farms Ltd.	NE-14-30-26-W4	140	10.26	129.74	52.53	black
Lindac Farms Ltd.	SW-25-30-26-W4	130	1.2	128.8	52.15	black
Bill and Jean Taylor	NW-25-30-26-W4	100	1	99	40.08	black
Bill and Jean Taylor	NW-23-30-26-W4	120	0	120	48.58	black
Bill and Jean Taylor	NE-22-30-26-W4	30	0	30	12.15	black
Bill and Jean Taylor	SE-22-30-26-W4	140	5.7	134.3	54.37	black
Bill and Jean Taylor	SW-23-30-26-W4	80	0	80	32.39	black
Bill and Jean Taylor	SE-23-30-26-W4	60	0	60	24.29	black
Sunterra Farms	NE-28-29-26-W4	145	0	145	58.70	black
Sunterra Farms	SW-34-29-26-W4	105	0	105	42.51	black
Sunterra Farms	NW-27-29-26-W4	150	0	150	60.73	black
Sunterra Farms	SW-27-29-26-W4	145	0	145	58.70	black
Sunterra Farms	SE-27-29-26-W4	150	0	150	60.73	black
Sunterra Farms	SE-22-29-26-W4	158	0	158	63.97	black
Sunterra Farms	SW-30-29-25-W4	110	0	110	44.53	black
Arda Farms	NE-15-29-26-W4	150	2.1	147.9	59.88	black
Arda Farms	SE-15-29-26-W4	120	0	120	48.58	black
Arda Farms	SW-15-29-26-W4	120	0	120	48.58	black
Arda Farms	S1/2-21-29-26-W4	320	2.2	317.8	128.66	black
Arda Farms	NW-16-29-26-W4	140	11.1	128.9	52.19	black
Woodridge Farms Ltd.	SE-6-30-26-W4	135	0	135	54.66	black
Woodridge Farms Ltd.	SW-7-30-26-W4	160	2.3	157.7	63.85	black
Woodridge Farms Ltd.	SE-31-29-26-W4	160	2.7	157.3	63.68	black
Woodridge Farms Ltd.	SW-31-29-26-W4	160	3.1	156.9	63.52	black
Woodridge Farms Ltd.	SE-30-29-26-W4	160	0	160	64.78	black
Woodridge Farms Ltd.	SW-30-29-26-W4	160	0	160	64.78	black
Sawyer Farms Ltd.	N1/2-32-29-26-W4	240	0	240	97.17	black
Sawyer Farms Ltd.	N1/2-33-29-26-W4	236	0	236	95.55	black
Sawyer Farms Ltd.	S1/2-33-29-26-W4	305	0	305	123.48	black
Bryan and Kendra Donnelly	SW-6-30-26-W4	160	49.67	110.33	44.67	black
		6,923.97	187.93	6,736.04	2,727.14	

Technical Document

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

PLANS

Submitted and attached construction plans YES NO

Submitted aerial photos YES NO

Submitted photos YES NO

GRANDFATHERING:

On this application: Yes No

Comments:

The operation, and its facilities, were permitted by Kneehill County through three development permits. The last development permit issued by the county in 2000 was for 16,000 heads of beef cattle. Details of the deeming capacity and grandfathering determination are included in an appendix to Decision Summary RA19010

On a previous application/decision: Yes No If yes, list application/decision number _____

Comments:

DEEMING CAPACITY: Yes No

Comments:

Details of the deeming capacity and grandfathering determination are included in an appendix to Decision Summary RA19010

Technical Document

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

ALL SIGNATURES IN FILE: Yes No

DATES OF APPROVAL OFFICER SITE VISITS:

March 22, 2019	
June 25, 2019	
July 31, 2019	

CORRESPONDENCE WITH MUNICIPALITIES AND REFERRAL AGENCIES:

Date deeming letters sent May 14, 2019

Municipality: Kneehill 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: Mountain View County

Letter sent
 Response received
 written/email
 verbal
 no comments received

Other: _____

Letter sent
 Response received
 written/email
 verbal
 no comments received

Echo Sand Ranching Ltd.
Doug and Helga Price
PO Box 179 Acme Alberta T0M0A0



To whom it may concern;

RE: Approval for Korova Feeders Ltd. to spread manure on Echo Sand Ranching Ltd. and Doug & Helga Price owned land.

This letter is to give formal approval to Korova Feeders Ltd. to spread manure on the following land base;

Doug & Helga Price Land

Black Soil Acres

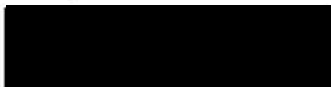
- NE-30-29-25-W4
- NW-30-29-25-W4
- SW-7-30-25-W4
- SE-12-30-26-W4
- NE-1-30-26-W4
- SE-11-30-26-W4
- NE-35-29-26-W4
- NW-35-29-26-W4
- SE-35-29-26-W4
- SW-35-29-26-W4
- SW-2-30-26-W4
- NE-2-30-26-W4
- SE-2-30-26-W4
- NW-22-29-26-W4
- SE-34-29-26-W4

2410

If you require any additional information please contact Doug Price at the following contact information.

Sincerely,

Doug Price



Bill Taylor

KOROVA FEEDERS LTD
BOX 65
ACME, AB. T0M 0A0



I, LINDAC FARM'S LTD, agree to let Korova Feeders Ltd. of Acme, Alberta, spread manure (abiding by NRCB guidelines) from feedlot located on NE-27-29-26-W4M, on the following land:

Legal Land Locations: Acres:

NW 14 30 26 W4	130
NE 14 30 26 W4	140
SW 25 30 26 W4	130
	400

This agreement between Korova Feeders Ltd. and LINDAC FARM'S LTD, will end January 1, 2025, at which time Korova Feeders would like to renew an additional 5 year term contract if agreed upon by signing party.

Date: APRIL 3 2019

Signature: William A. Zyla

Signature: [Handwritten Signature]

KOROVA FEEDERS LTD
BOX 65
ACME, AB. T0M 0A0



I, BILL & JEAN TAYLOR, agree to let Korova Feeders Ltd. of Acme, Alberta, spread manure (abiding by NRCB guidelines) from feedlot located on NE-27-29-26-W4M, on the following land:

Legal Land Locations:

Acres:

NW 25 30 26 W4	100
NW 23 30 26 W4	120
NE 22 30 26 W4	30
SE 22 30 26 W4	140
SW 23 30 26 W4	80
SE 23 30 26 W4	60

430
100

This agreement between Korova Feeders Ltd. and BILL & JEAN TAYLOR, will end January 1, 2025, at which time Korova Feeders would like to renew an additional 5 year term contract if agreed upon by signing party.

Date: APRIL 3 2019

Signature: W. a. s.

Signature: Douglas

KOROVA FEEDERS LTD
BOX 65
ACME, AB. T0M 0A0



I, SUNTERRA FARMS, agree to let Korova Feeders Ltd. of Acme, Alberta, spread manure (abiding by NRCB guidelines) from feedlot located on NE-27-29-26-W4M, on the following land:

Legal Land Locations:

Acres:

NE 28 29 26 W4	145	5 BOYS
SW 34 29 26 W4	105	RAY'S
NW 27 29 26 W4	150	PIDOT.
SW 27 29 26 W4	145	BATES
SE 27 29 26 W4	150	Weibes
SE 22 29 26 W4	158	PIC EAST
SW 30 29 25 W4	110	LUKEY

963

This agreement between Korova Feeders Ltd. and SUNTERRA FARMS, will end January 1, 2025, at which time Korova Feeders would like to renew an additional 5 year term contract if agreed upon by signing party.

Date: APRIL 1 2019

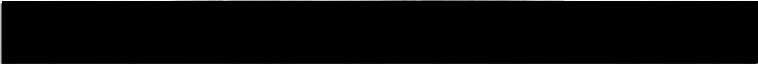
Signature: [Handwritten Signature]

Signature: [Handwritten Signature]

KOROVA FEEDERS LTD

BOX 65

ACME, AB. T0M 0A0



I, ARDA FARM LTD, agree to let Korova Feeders Ltd. of Acme, Alberta, spread manure (abiding by NRCB guidelines) from feedlot located on NE-27-29-26-W4M, on the following land:

Legal Land Locations:

Acres:

<u>NE 15 29 26 W4</u>	<u>150</u>
<u>SE 15 29 26 W4</u>	<u>120</u>
<u>SW 15 29 26 W4</u>	<u>120</u>
<u>S 1/2 21 29 26 W4</u>	<u>320</u>
<u>NW 16 29 26 W4</u>	<u>140</u>
	<u>850</u>

This agreement between Korova Feeders Ltd. and ARDA FARMS LTD, will end January 1, 2025, at which time Korova Feeders would like to renew an additional 5 year term contract if agreed upon by signing party.

Date: MARCH 30th 2014

Signature: Jay A Lewis

Signature: [Signature]

KOROVA FEEDERS LTD
BOX 65
ACME, AB. T0M 0A0



I, Woodridge Farms Ltd., agree to let Korova Feeders Ltd. of Acme, Alberta, spread manure (abiding by NRCB guidelines) from feedlot located on NE-27-29-26-W4M, on the following land:

Legal Land Locations:	Acres:
SE 6-30-26-4	135
8W7 30-26-4	160
SE 31-29-26-4	160
SW 31 29 26-4	160
SE 30-29-26-4	160
SW 30-29-26-4	160

This agreement between Korova Feeders Ltd. and WOODRIDGE FARM LT, will end January 1, 2025, at which time Korova Feeders would like to renew an additional 5 year term contract if agreed upon by signing party.

Date: April 1 / 2019

Signature: [Handwritten Signature]

Signature: [Handwritten Signature]

KOROVA FEEDERS LTD
BOX 65
ACME, AB. T0M 0A0




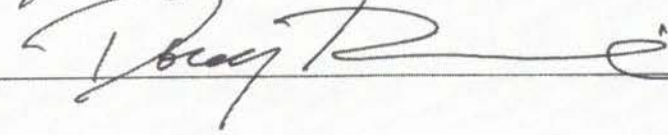
I, Matt Sawyer/Sawyer Farms LTD., agree to let Korova Feeders Ltd. of Acme, Alberta, spread manure (abiding by NRCB guidelines) from feedlot located on NE-27-29-26-W4M, on the following land:

Legal Land Locations:	Acres:
N ¹ / ₂ Section 32 TWP 29 Range 26 W4	240
NE ¹ / ₂ Section 33 TWP 29 Range 26 W4	236
S ¹ / ₂ Section 33 TWP 29 Range 26 W4	305
	781

This agreement between Korova Feeders Ltd. and Sawyer Farms LTD., will end January 1, 2025, at which time Korova Feeders would like to renew an additional 5 year term contract if agreed upon by signing party.

Date: March 31 2019

Signature: 

Signature: 

KOROVA FEEDERS LTD
BOX 65
ACME, AB. T0M 0A0



I, Bryan & Kendra Donnelly, agree to let Korova Feeders Ltd. of Acme, Alberta, spread manure (abiding by NRCB guidelines) from feedlot located on NE-27-29-26-W4M, on the following land:

Legal Land Locations:	Acres:
SW-6-30-26-W4	160

This agreement between Korova Feeders Ltd. and Bryan & Kendra, will end January 1, 2025, at which time Korova Feeders would like to renew an additional 5 year term contract if agreed upon by signing party.

Date: 30-Apr-2019

Signature: K Donnelly

Signature: Doug TEE



April 29, 2019

RE: NRCB Application Support for Korova-West

To Whom It May Concern:

The general recommendation for minimum space per animal for feedlot finishing cattle, housed in open-air, paved/concrete-floor pens, ranges from 50-60 sq ft/animal (1,2,3,4). In pens where only 65% of the surface is paved/concrete-floor, the recommendation equates to a minimum space per animal that is about 77-92 sq ft/animal on a *pro rata* basis. As a result, pens with roller compacted concrete (RCC) on 65% of the pen surface, and a minimum space of 100 sq ft/animal, are in compliance with these recommendations.

The general recommendation for minimum feed bunk space for feedlot finishing cattle fed *ad libitum* is 3-4 inches/animal for 400-800 lb feeder animals and 4-6 inches/animal for larger cattle that are closer to slaughter (3). As a result, pens with RCC that have a minimum feed bunk space per animal of 3-6 inches and provide *ad libitum* access to high-concentrate finishing diets are in compliance with these recommendations.

As it pertains to the effect of RCC on animal health and performance, the interim results from a recent multi-year study in Alberta, funded by Alberta Agriculture and Forestry – Research Branch, have shown a lower incidence of lameness and a trend towards improved feedlot performance in cattle housed in pens with RCC, as compared to pens with conventional clay floors (5).

Based on both compliance with general recommendations for minimum space per animal and minimum feed bunk space per animal for feedlot finishing cattle and the interim results of the RCC feedlot study, pens with RCC on 65% of the pen surface and a minimum space per animal of 100 sq ft/animal and 3-6 inches of bunk space should actually have positive impacts on animal health and performance.

If you have any questions or concerns, please contact me at your convenience.

Sincerely,

Calvin Booker, DVM, MVetSc
Research Manager

References Enclosed

GK Jim DVM · CW Booker DVM MVetSc · BK Wildman DVM · T Perrett BScAgr DVM · RK Fenton DVM · LO Burciaga Robles MVZ MSc PhD · ML May ASc BSc MSc PhD · OC Schunicht BSc DVM · SJ Hannon DVM MVetSc PhD · G Paradis DVM · RE Peterson BSc MSc PhD · EJ Behlke BSc MSc PhD DVM · SL Parr BSc MSc PhD · LE Felix IAZ · DL Johnson BSc MSc DVM · ZD Paddock BSc MSc PhD · BN Warr BSc DVM · RD Rademacher BSc DVM · S van de Pol BEng & Soc DVM · AL Shreck BSc MSc PhD · MJ Quinn BSc MSc PhD · JC Simroth BSc MSc PhD

Feedlot Health
Management Services Ltd.
PO Box 140
Okotoks, Alberta
Canada T1S 2A2

tel: 403 938 5151
fax: 403 938 5175

www.feedlothealth.com

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References

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Site Assessment

TO BE COMPLETED BY ARD STAFF

The purpose of this assessment is to identify missing information in regards to site characteristics in order to support producer decisions. As well it provides an opportunity for operators to increase their awareness and knowledge of facility and management improvements that may benefit their operation.

As part of delivery for the Growing Forward CFO Stewardship program, an on-farm visit will be conducted by Alberta Agriculture and Rural Development (ARD) support staff to discuss Program criteria and collect site information.

Producers will be asked to provide information on their livestock operation focusing on manure production, storage, and spreading. After basic site information is collected, and information gaps identified (if any), the operator may decide to apply for funding assistance for environmental improvement projects through the program.

Operators are encouraged to complete environmental improvements projects that better protect surface and groundwater.

KEY MESSAGES:

- 1) ARD STAFF ON SITE FOR INFORMATION COLLECTION ONLY, WILL NOT BE ASSESSING RISK TO THE ENVIRONMENT*
- 2) NRCB PERMIT MAY BE REQUIRED FOR CERTAIN PROJECTS FUNDED THROUGH THIS PROGRAM*

PART A – INFORMATION COLLECTION AND REVIEW – Insert copy of client contact form

AO Comment: This page and the following assessment were issued and completed by Alberta Agriculture in 2013 and 2017. These pages are included as information only, as not all of the information is accurate or reflects the current conditions at the site.

Reset Form

Print Form

Client Contact Report

Initial Date of Client Contact: Reported by:

Initial Client Contact occurred by: Client is a(n):

Client heard of/or was referred to CFO Extension Specialist by:

What are the Client's needs and/or expectations?: (including time frame)

Client Contact Information

Name: Corporate Name:

Address:

City: Province: Postal Code:

Home: Business: Cell: Fax:

E-mail: Other (specify):

MD/County: Legal Land Location:

Deliverables and/or service(s) provided: (some are specific to type of client, check all that apply)

- Information on AOPA Part 2 Regulatory Requirements
- Information on other Legislative Requirements (e.g., Water Licensing, Roadside Development, Dead Disposal, etc.)
- Technical Support to applicant during NRCB permit process
- Technical Support to affected party during NRCB permit process
- Technical Support to Municipality (e.g., MDS calculations, subdivision inquiries, etc.)
- Information on how nuisance complaints are dealt with by AOPA and NRCB
- Management options to address compliance issues
- Technical Review of Municipal Development Plan and Land Use Bylaw
- Referred to NRCB Inspector Referred to Consultant Referred to Other
- Other (specify): _____

Is follow-up required? Yes (directed to follow-up questions below) No Unknown

Client Follow-Up

Date of follow-up: Were client expectations met? Yes No Unknown

Are there any unresolved issues and if so what and what action is required?

Will client require CFO Extension Specialist's services in the future? Yes No Unknown

Other (specify): _____

Producer Information – Information that will be provided by the producer if available.

- Copy of permit and permit application
- Air photo or map of site
- Water well reports
- Geotechnical assessments

Water Information – May supplement with Part 2 Technical requirements application

		Answer: (N/A if info unavailable)	
Water Wells			
1) How many water wells are on the operation?	7		
2) Are any water wells within 100m of a manure storage facility or collection area?	YES		
a) If yes, how is the water well(s) protected from manure entering the casing (berms, upgradient, well house)?	Most wells are protected by distance. One well inactive well is located within the area of the proposed pad		
Groundwater			
1) What is the depth to bedrock?	20'		feet
2) What is the depth to the uppermost groundwater resource?	25'		feet
3) What is the depth to water table?	>10'		feet
Natural Springs			
1) How many springs are on the operation?	0		
2) Are springs within 100m of a manure storage facility of collection area?	n/a		
Surface Water			
1) What is the shortest distance from a manure storage area to a common body of water?	100		meters
2) Is the operation > 1 m above the 1:25 year flood level?	Yes		

Soil Information

1) Information from previous geotechnical investigation?	Not available, however the county required one in the 90s		
2) Describe the local topography	Flat to gently undulating		
3) Describe the quaternary geology (as per Shetson, 1990, ARC)	2a – coarse sediment sand and silt		
4) Are there noticeable sand/gravel layers from surface to 15 m deep (45 feet)	Yes		
5) Has a land survey been completed to determine elevation and slope?	YES		

May 9, 2013 to Jul 3, 2013



PART B – MANURE MANAGEMENT SYSTEMS

Solid Manure Management System

Please list and describe all locations of solid manure collection including pens, pads, barns, and temporary storages sites.

Facility	Age	Prior Expansions	Size (m or ft)	Floor layer or liner type (natural layer, compacted liner, concrete, other)
<i>Feedlot</i>	<i>98</i>	<i>no</i>	<i>625x525 m</i>	<i>Grandfathered CCL</i>

1) Describe how solid manure is stored and handled throughout the year

Until recently manure was stored in pen and hauled to the field. Currently composting on a Temporary site to be developed as a long-term composting site.

2) Describe the protective layer or liner used to protect groundwater from solid manure

The pens were constructed using clay from the existing catchbasin and are maintained from a borrow pit. The quality of this liner is unknown, however pit material appears variable visually.

3) Describe any problems associated with the protective liner or layer for solid manure

Wear and tear maintenance has required much work to maintain the pen floor. It is not known if the grandfathered pen liner would meet AOPA.

4) Are there any challenges with winter handling of manure?

Conditions in the pen deteriorate with in pen storage, resulting in the move to composting. Composting is also desired to reduce volume and result in product moved further from the feedlot.

Areas of Improvement (examples liner, storage capacity, location)	Missing Information
<i>Permanent composting site</i>	Geotechnical information for liner construction

(Will provide more detail on what we are looking for in the responses.)

Liquid Manure Management System

Please list and describe all locations of liquid manure collection including pits, barns, slurry storages and earthen manure storage sites.

Facility	Age	Prior Expansions	Size (m or ft)	Floor layer or liner type (natural layer, compacted liner, concrete, other)
		--		

1) Describe how liquid manure is stored and handled throughout the year?
2) Estimated liquid manure production?
3) Describe the protective layer or liner used to protect groundwater from liquid manure
4) Describe any problems associated with the protective liner or layer for liquid manure
5) Are there any challenges with winter handling of manure?

Areas of Improvement (examples liner, storage capacity, location, EMS management)	Missing Information

Surface Water Management System

Please list and describe all surface water control systems used to manage manure run-on and runoff from manure storage areas including: berms and ditches, catch basins, and filter areas.

Facility	Age	Prior Expansions	Size (m or ft)	Floor layer or liner type (natural layer, compacted liner, concrete, other)
<i>Catchbasin</i>	<i>98</i>	<i>no</i>	<i>300 x 30 m</i>	<i>Compacted clay</i>

1) Describe how surface water run-on into the CFO area is managed
Roads and berms direct clean water out of the pens.
2) Does the CFO area have positive site drainage? Explain any challenges.
Yes.
3) Describe how runoff from the CFO area is managed?
Well maintained drainage system directs run-off into an oversized catch basin. The original permit indicated that a volume of 1.3 million gallons was required however the original contractor indicated that it was constructed larger due to the need for clay to construct the feedlot
4) If a catch basin is used to control runoff from a manure storage area, is it sized appropriately? How is the catch basin managed?
Yes, the catch basin is oversized.
5) Describe how common bodies of water are protected from run-off?
CBW are protected from run-off by a well designed and well maintained run-on run-off control system

Areas of Improvement (example run on, runoff, runoff facility mmgt, pen improvements)	Missing Information
<i>None</i>	

Questions for producers

Based on your assessment what are your areas of improvement that would address any environmental concerns? These will include both facility and management improvements.

A composting pad would allow for frequent removal and help preserve pen floors and thereby pen liner. Run off from this pad would be pumped into the existing catch basin.

Regarding your manure storage and run on runoff control of your facility, what operational concerns do you have?

No operational concerns at this time

What project(s) would you like to proceed with? (Refer to Projects 402-408 funding list)

401 and 404 – construction of a composting site.

What missing information, if any, do you need to proceed with this project? (project 401)

Geotechnical information for the location or construction of a liner. NRCB permit.

Copy of Assessment Completion letter to be completed and attached.

One copy of site assessment and completion letter to be kept on file and one copy to be given to applicant.

13-Feb-17

Korova Feeders
Attention Kendra Donnelly
Box 65
Acme, Alberta, T0M 0A0

Dear Kendra:

Re: Completed site assessment of your confined feeding operation

This letter verifies that I completed the *CFO site assessment checklist* with you on 26-Jan-17. Be sure to save this letter for future reference, as it serves as your record of the completion and is required if you pursue funding under the Growing Forward 2 – CFO Stewardship Program. A duplicate will be maintained on file with Alberta Agriculture and Rural Development until Growing Forward 2 expires on March 31, 2018.

The completion of this *CFO site assessment checklist* indicates that together we:

- ✓ noted the site characteristics of your livestock facility and discussed how you currently manage manure and run-off from the facility;
- ✓ identified additional information that you may need before making decisions about future improvements to your operation;
- ✓ discussed the environmental and operational concerns you have regarding your operation and some possible solutions, including the opportunities available through Growing Forward 2; and
- ✓ explained the permitting and authorization process of the Natural Resources Conservation Board (NRCB), and how it might be involved in any future modifications or improvements you may make on your operation.

Please consider visiting www.agriculture.alberta.ca/aopa as a source of information related to environmentally responsible livestock operations, manure management and the Agricultural Operation Practices Act (AOPA).

And, if there is any way I can assist you further, please do not hesitate to contact me.

Sincerely,



Chris Ullmann
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Alberta Agriculture and Rural Development
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