DEQ - Copy ✓

DEQ Montana Department of Environmental Quality

WATER PROTECTION BUREAU

Agency Use	
Permit No.:	MTG010156
Date Rec'd	2-25-25
Amount Rec'd	0
Check No.	0
Rec'd By	FMF

FORM NOI-NMP CAFO	**Notice of Intent (NOI) and Nutrient Management Plan (NMP) Concentrated Animal Feeding Operation General Permit MTG010000**

This application form is comprised of the **NOI (Sections 1 – 5)** and the **NMP (Sections 6 – 10)**. Before completing the NOI-NMP form, Concentrated Animal Feeding Operation (CAFO) operators must read the CAFO General Permit. CAFO operators are also advised to read the attached NOI-NMP instructions before completing this form. You must print or type legibly; forms that are not legible, not complete, or unsigned will be rejected. You must maintain a copy of the completed NOI-NMP form for your records.

CAFO Status and Fee

Permit Authorization Number: M T G 0 1 0 1 5 6

Select Appropriate Fee:

- ☐ New Application: $1200
- ☒ Renewal Application: $600
- ☐ Permit Modification: $600

Sections 1 through 5 consist of the NOI. The application form is to be completed by the owner or operator of a Concentrated Animal Feeding Operation (CAFO).

Section 1 – Facility/Site Information

Facility Name	Golden Valley Colony
Location (Physical address or Directions)	100 Colony Lane
Nearest City or Town	Ryegate
Zip Code, County	59074 Golden Valley County
Facility Latitude, Longitude	46.25821, -109.27369
Date facility began operation	4-1978
Status of Applicant	☐ Federal ☐ State ☐ No ☒ Private ☐ Other
Located on Tribal Lands?	☒ No ☐ Yes *(If yes, obtain the permit through EPA, not DEQ)*

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Section 2 – Representatives

2.1 Applicant (Owner/Operator)

The owner/operator assumes all liability for site discharges and compliance with the terms and conditions of the permit. The signatory/responsible official must meet certification requirements listed in the Certification Section at this end of this form.

Owner/Operator Formal Name: Golden Valley Colony

Mailing Address: 100 Colony Lane

City, State, Zip Code: Ryegate, MT 59074

Signatory/Responsible Official: Name Ben P Wipf Title Sec / Treasurer

Contact Information: Phone 406-568-2210 Email

2.2 Authorized Representative

For future reports (including NetDMR) to be signed by anyone other than the signatory/responsible official, a duly authorized individual(s) or position must be identified. If one is not designated, than all reports must be signed by the signatory until such designation is made in writing [ARM 17.30.1232(2)].

Select Appropriate Box:

☐ No authorized representative for this permit is designated at this time (continue to Section 3)

☒ I designate the following duly authorized representative for this permit (provide the information below):

Authorized Representative Information:

Authorized Representative: Name Ben. P Wipf Title Sec / Treasurer

Company Name: Golden Valley Colony

Mailing Address: 100 Colony Lane

City, State, Zip Code: Ryegate, MT 59074

Contact Information: Phone 406-568-2210 Email

Section 3 – Business Description

3.1 SIC Codes and NAICS Codes

Provide at least one Standard Industrial Classification (SIC) code and one North American Industry Classification System (NAICS) code which best reflects the products or services provided by the CAFO.

SIC Code		Description
(1)	213	Hogs
(2)	241	Dairy Farm
(3)	251	Broilers
(4)	252	Chicken egg

NAICS Code		Description
(1)	11221	Hogs
(2)	11212	Dairy
(3)	11232	Broilers
(4)	11234	Chicken egg

SIC Code Examples:

211 Beef Cattle Feedlots
212 Beef Cattle, Except Feedlots
213 Hogs
214 Sheep and Goats
241 Dairy Farms
251 Broiler, Fryer and Roaster Chickens
252 Chicken Eggs
253 Turkeys and Turkey Eggs
254 Poultry Hatcheries
259 Poultry and Eggs, not elsewhere classified (Ducks)
272 Horses and other Equines

NAICS Code Examples:

112112 Cattle Feedlots
112111 Beef Cattle Ranching and Farming
11221 Hog and Pig Farming
11240 Sheep Farming
11212 Dairy Cattle and Milk Production
11232 Broilers and other Meat-Type Chickens
11234 Chicken Egg Production
11233 Turkey Production
11234 Poultry Hatcheries
112390 Other Poultry Production
112920 Horses and other Equine Production

3.2 Facility or Operation Description

Provide a brief description of the nature of the facility (feedlot, stockyard, sale barn, etc.)
Multi-species livestock facility Swine, Poultry, Dairy.

3.3 Existing or Pending Permits, Certification, or Approvals

☐ None
☒ MPDES CAFO Discharge
☐ PSD (Air Emissions)_____
☐ 404 Permit (Dredge and Fill)_____
☐ RCRA_____
☐ Other_____
☐ Other_____

Section 4 – Outfalls

4.1 Receiving Water

For each outfall, provide the latitude and longitude (to the nearest decimal degree) and the name of the receiving water. If the receiving water/drainage is unnamed, indicate the closest named drainage it flows into (i.e., "unnamed tributary to Clear Creek"). Attach additional sheets if necessary for more outfalls. This section must not be left blank, and "N/A" is not acceptable.

Outfall	Latitude	Longitude	Name of Receiving Water
001	46.2572	-109.2698	Rock Creek

Section 5 – Characteristics

5.1 Impaired Waters 303(d)

Identify whether the receiving water is impaired for nutrients. Check the Clean Water Act Information Center database at https://deq.mt.gov/water/resources to determine if the receiving water is impaired for nutrients (total nitrogen and/or total phosphorus).

☐ The receiving water is impaired for nutrients
☒ The receiving water is NOT impaired for nutrients

Continue to Page 4

5.2 Animal Confinement

Report the maximum number of each type of animal confined at any one time in open confinement and/or housed under a roof.

Animal type	Number in Open Confinement	Number Housed Under Roof
Mature Dairy Cows	6110	
Veal Calves	45	
Cattle including dairy Heifers	200	
Swine 55 lbs. or over		1250
Swine 55 lbs. or under		40,000
Horses		
Sheep or Lambs		
Turkeys		2500
Chicken broilers –includes juveniles		8000
Chicken layers –includes juveniles		26000
Ducks		750
Other Specify:		
Other Specify:		

5.3 Rain Gage Location

Identify the nearest gage station or onsite rain gage. Provide either the Station ID of the gage or a latitude and longitude.

Station ID _____ OR

Latitude, Longitude 46.25821 , -109.27369

5.4 Containment Structures

Were the containment structures built after February 2006?

☐ Yes. Skip the following 3 questions and continue to the table below.

☒ No. Complete the questions and table below.

Do the livestock waste control facilities have 10 feet of separation between the pond bottom and any bedrock formations?

☒ Yes ☐ No

Do the waste containment structures have 4 feet of separation from the pond bottom to any ground water?

☒ Yes ☐ No

Do the livestock waste control facilities comply with the applicable well setbacks?

☒ Yes ☐ No

Continue to Page 5

Identify the type of containment/storage, the total capacity with units, and the number of days of storage in each:

Type of Containment/Storage	Total Capacity	Units (gallons or tons)	Days of Storage
Anaerobic Lagoon			
Storage Pond #1	800,000	ga	180
Storage Pond #2	557,000	ga	180
Storage Pond #3	800,000	ga	180
Storage Pond #4	229,000	ga	180
Storage Pond #5			
Above Ground Storage Tank #1			
Above Ground Storage Tank #2			
Above Ground Storage Tank #3			
Underfloor Pits ISO Weans	2,000,000	ga	180
Below Ground Storage Tank			
Roofed Storage Shed			
Concrete Pad	252,000	Cu/Ft	180
Impervious Soil Pad	397,000	Cu/Ft	180
Other Specify:			
Other Specify:			

5.5 Sage Grouse Habitat

Visit the Montana Sage Grouse Habitat Conservation Program (Program) website at https://sagegrouse.mt.gov/ to determine if the proposed operation is located in designated sage grouse core, general, or connectivity habitat.

☒ Yes. Submit an application to the Program and **attach the required consultation letter**.

☐ No. No additional information is required. See attached Letter

5.6 New Source/Operation

Is this a new source and/or operation? New sources must obtain analyses from the Montana Natural Heritage Program (MTNHP) and Montana State Historic Preservation Office (SHPO) demonstrating possible impacts to wildlife and cultural resources, respectively.

☐ Yes. Attach project review analyses from MTNHP and SHPO.

☒ No. No additional information is required

Continue to Page 6

Sections 6 through 10 consist of the Nutrient Management Plan (NMP). These sections are intended to help CAFO operators develop a site-specific NMP required by the CAFO General Permit. Your NMP must be kept at the operation. Attach additional pages as necessary, indicating the corresponding section number on this NMP form.

Section 6 – NMP Minimum Elements

Facility Photos and Maps

Facilities must attach photos and maps depicting the following:

- The production area that shows the locations of all animal confinement structures described in the **Animal Type, Storage Location, and Generation Rates Table.**
- The flow direction of storm water and wastewater for all animal confinement structures described in the **Animal Type, Storage Location, and Generation Rates Table.**
- Manure and wastewater handling and storage areas
- Raw material handling and storage areas
- Storage and disposal areas of chemicals or other contaminants handled on site
- All land application areas (include topography and soil types)
- Environmentally sensitive areas (sinkholes, wells, drinking water sources, tile drain outlets, etc.) for the production area
- Illustrate the facility/activity boundaries, receiving water, and major drainage patterns
- Identify the specific location of the production area and the land application area(s)

☒ I have attached photos and maps (aerial and topographic) that meet the above requirements. See original Maps from 2019

6.1 Ensure Adequate Storage Capacity

Complete the table below: Be sure to identify each type of animal confined at this facility. This could include animals of a given species, weight class, or housed for a specific purpose.

Livestock Statistics and Manure, Litter, and Process Wastewater Generation Rates

	Animal Type	Waste Storage Location	Maximum Number of Animals at Any Time	Number of Days/Year on Site	Annual manure, litter, and process wastewater production	
					Dry (tons/yr)	Liquid (gallons/yr)
1.	Dairy All	Storage Pond system	155	365	3150	550,000
2.	Cattle/heifers	open lots	200	365	600	
3.	Swine 55 lb+	Pond system	1250	365		1,646,000
4.	Turkeys	open lots	2500	150	35	
5.	chickens - Broilers	open lots	8000	365	4	
6.	chickens - layers	lots & Ponds	24000	365	396	200,000
7.	Ducks	open lots	750	120	2	
8.						
9.						
10.						
11.						

MONTANA SAGE GROUSE
HABITAT CONSERVATION PROGRAM

STEVE BULLOCK, GOVERNOR
1539 ELEVENTH AVENUE
STATE OF MONTANA
PHONE: (406) 444-0554
FAX: (406) 444-6721
PO BOX 201601
HELENA, MONTANA 59620-1601

Project Number 3355
Governor's Executive Orders 12-2015 and 21-2015
GV Colony CAFO Permit Renewal

Rueben Kleinsasser
100 Colony Lane
Ryegate, MT 59074

January 3, 2019

Dear Mr. Kleinsasser,

The Montana Sage Grouse Habitat Conservation Program received a request for consultation and review of your project or proposed activity on January 3, 2019. Based on the information provided, all or a portion of this project is located within General Habitat for sage grouse.

Executive Orders 12-2015 and 21-2015 set forth Montana's Sage Grouse Conservation Strategy. Montana's goal is to maintain viable sage grouse populations and conserve habitat so that Montana maintains flexibility to manage our own lands, our wildlife, and our economy and a listing under the federal Endangered Species Act is not warranted in the future.

The Program has completed its review, including:

Project Description:

Project Type: Agriculture - Land
Project Disturbance: No New Disturbance
Construction Timeframes: January 2019 to February 2019, Temporary (< 1 Year)
Disturbance Timeframes: January 2019 to January 2025, Short Term (6-10 Years)

Project Location:

Legal: Township 6 North, Range 20 East, Section 19
County: Golden Valley
Ownership: Private

Executive Orders 12-2015 and 21-2015 Consistency:

The project proposes to renew a livestock feeding permit in designated General Habitat for sage grouse.

The purpose of this project is to renew an existing Department of Environmental Quality permit for a Concentrated Animal Feeding Operation (CAFO) in Golden Valley County, Montana. The feedlot is located approximately 2.5 miles southwest of Ryegate, Montana.

No new activity or construction is associated with this project.

Based on the information you provided, your project is not within two miles of an active sage grouse lek.

Recommendations:

The following stipulations are taken from Montana Executive Order 12-2015. These stipulations are designed to maintain existing levels of suitable sage grouse habitat by managing uses and activities in sage grouse habitat to ensure the maintenance of sage grouse abundance and distribution in Montana. Development should be designed and managed to maintain populations and sage grouse habitats.

- Weed management is required within General Habitat for sage grouse. Reclamation of disturbed areas must include control of noxious weeds and invasive plant species, including cheatgrass (*Bromus tectorum*) and Japanese brome (*Bromus japonicas*).

Your activities are consistent with the Montana Sage Grouse Conservation Strategy. Your proposed project or activity may need to obtain additional permits or authorization from other Montana state agencies or possibly federal agencies. They are very likely to request a copy of this consultation letter, so please retain it for your records.

Please be aware that if the location or boundaries of your proposed project or activity change in the future, or if new activities are proposed within one of the designated sage grouse habitat areas, please visit https://sagegrouse.mt.gov/projects/ and submit the new information.

Thanks for your interest in sage grouse and your commitment to taking the steps necessary to ensure Montana's Sage Grouse Conservation Strategy is successful.

Sincerely,

Carolyn Sime

Carolyn Sime
Montana Sage Grouse Habitat Conservation Program Manager

Methods for estimating animal manure, litter, and process wastewater production

Describe the methods used for estimating animal manure, litter, and process wastewater production: Include all formulas, factors, references to tables, and other resources used to calculate manure, litter, and wastewater production. Be sure to account for soiled bedding materials.

Prior years' Production

Manure handling:

Identify manure, litter, and process wastewater handling at the CAFO. Mark all that apply:

- ☒ Stored in pens
- ☒ Stored on stacking pad
- ☒ Composting on site
- ☐ Other _____
- ☒ Direct pipe to liquid impoundment
- ☒ Stored under floor pit
- ☐ Separator

Frequency of manure removal from confinement areas:

- ☒ Bi-annually
- ☐ Annually
- ☐ As needed
- ☐ Other _____

Is the manure, litter, or process wastewater temporarily stored in any location other than the production area?

- ☒ No.
- ☐ Yes. Explain how and where _____

Is dry manure and/or litter stored on an impervious surface?

- ☐ No.
- ☒ Yes. Describe the type and characteristics of this surface Impervious soil pad & Concrete pad

Waste control structures:

Provide the 24-hr-25-yr storm event at your facility location. Refer to the map provided in the instructions. 3.0 in/hr

Provide the annual precipitation during critical winter storage period (180 days from mid-October to mid-April) 7.0 in

Provide the area within clean water diversions. This is the area that is inside the BMPs used for clean water diversions and is used to calculate volume required to hold the 24-hr-25-yr storm event and the volume of your critical storage period. 10.0 acres

Check all the surface types within the clean water diversion area and provide the coverage in acres or ft^2. Be sure to circle the correct units.

- ☒ Dirt 7.0 (acres) or ft^2 (circle correct unit)
- ☐ Concrete _____ acres or ft^2 (circle correct unit)
- ☐ Paved _____ acres
- ☐ Under roof _____ acres or ft^2 (circle correct unit) – check if runoff is not part of clean water BMPs
- ☒ Gravel 3.0 (acres) or ft^2 (circle correct unit)
- ☐ Pasture _____ acres or ft^2 (circle correct unit)
- ☐ Other _____ _____acres or ft^2 (circle one)

Use the Table below to identify and describe all production area waste control structures for the production area of each animal type identified in the table "Livestock Statistics and Manure, Litter, and Process Wastewater Generation Rates" above (Section 6.1). Waste control structures may include but are not limited to: manure lagoons, manure ponds, evaporation ponds, wastewater retention ponds, contaminated runoff retention ponds, settling basins, underground storage tanks, underfloor pits, manure solids stacking pads, vegetative treatment strips, composting facilities, and dry stack facilities. Berms, dikes, concrete curbs, ditches, and waste transfer pipelines are also waste control structures and must be listed, though some of the requested measurements may not apply.

Production Area Waste Control Structures Description				
Production area Waste Control Structure (For Corresponding Animal Type Identified in Table Above)	Volume (gal if liquid) (ft^3 if dry)	Number of days of storage	Winter storage depth (ft)	The 24hr-25 yr storm event depth (ft)
1. storage pond	800,000	180	8	10
2. storage ponds	1,586,000	180	3	5
3. pads	265,000	180	8	8
4. Beef pens	154,000	180	1	.5
5. ISO-Barn Pit	2,000,000 g	365	8	NA - Inside
6.				
7.				
8.				
9.				
10.				
11.				

6.2 Mortality Management

Check the box that describes how mortalities are disposed of at this CAFO.

- ☒ Burial
- ☒ Composted
- ☐ Incineration
- ☐ Landfill
- ☐ Contractor removal
- ☐ Other_____

Provide the location where mortalities are disposed of, if part of the production area:

compost on pad

6.3 Clean Water Diversion Practices

Check all that apply for how clean water is diverted from the production area.

- ☒ Ditches
- ☒ Earthen berms
- ☒ Culverts
- ☒ Site grading
- ☒ Gutters and spouts
- ☐ Other _____

6.4 Prohibiting Animals and Wastes from Direct Contact with State Waters

Check all that apply for how animals and wastes are prohibited from direct contact with sate waters.

- ☒ Fencing
- ☐ Wall
- ☒ Inside building
- ☐ Other _____

6.5 Chemicals and Contaminants

List all major chemicals or other contaminants handled on site as part of your CAFO operation, including, but not limited to: pesticides, herbicides, animal dips, disinfectants, etc. Specify the method of disposal and location stored for each contaminant. Ensure a corresponding map has been attached, as required in Section 6, Facility Photos and Maps.

None

6.6 Conservation Practices

Check all temporary, permanent, and structural BMPs which will be used to control runnoff of pollutants from the facility's **production area**. Be sure to include them on the map described above in Section 6. If BMPs are not installed, include a schedule for implementation of each of the following measures. Provide details and specifications to suplement the BMP descriptions. Attach additional sheets if necessary.

- ☒ Ditches
- ☒ Earthen berms
- ☒ Culverts and pipes
- ☒ Buffers
- ☒ Site grading
- ☒ Gutters and spouts
- ☒ Covered Pens
- ☐ Other _____

6.7 Sampling and Analysis Procedures for Manure, Litter, Process Wastewater, and Soil

Representative samples of manure, litter, and process wastewater must be analyzed a minimum of once per year for total nitrogen and total phosphorus. Results should be reported in lbs/ton for solids and lbs/1000 gal for liquids. Results will be used to determine rates for manure, litter, and process wastewater. Indicate your method for samping. Be sure to provide a description if you select "other."

- ☒ Sample collection will occur according to CAFO General Permit Section II.D.
- ☐ Other _____

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Section 7 – NMP Land Application

Identify whether manure will be land applied to land that is owned, rented, or leased by the owner or operator of the facility.

☐ No. Explain how animal waste will be managed by the operation, including protocol for transfers of manure, litter, and process wastewater. Skip to Section 10.

_____

_____

☒ Yes. Continue below.

7.1 Land Application Photos and Maps

Facilities that land apply must attach photos/maps clearly identify the following items. If an item is not applicable, check the box "None."

- Individual field boundaries for all planned land application areas
- A name, number, letter or other means of identifying each individual land application field
- The soil type(s) present and their locations within the individual land application field(s)
- The location of any downgradient surface waters
- The specific manure/waste handling or nutrient management restrictions associated with each land application field i.e. setbacks
- Buffers and setbacks around state surface waters, well heads, etc.
- Any downgradient open tile line intake structures
  ☒ None. Not included on map
- Any downgradient sinkholes
  ☒ None. Not included on map
- Any downgradient agricultural well heads
  ☒ None. Not included on map
- All conduits to surface waters
- All temporary, permanent, and structural BMPs used to control runoff of pollutants from the land application area

☒ I have attached photos and maps of the site where manure is to be applied. See attached Map set

7.2 Protocols to Land Apply Manure, Litter, or Process Wastewater

Check all temporary, permanent, and structural BMPs which will be used to control runoff of pollutants from the CAFO's **land application area.** If not already in use, include a schedule for implementation of each of these measures. You may supplement this description by attaching details and specifications.

☒ Buffers
☐ Constructed wetlands
☐ Infiltration field
☒ Setbacks
☐ Other _____
☒ Conservation tillage
☐ Grass Filter
☒ Residue Management
☐ Terrance

7.3 Soil Phosphorus Sampling and Analysis

Representative **soil** (composite) samples from the top 6 inches layer of soil for each field where manure will be applied must be analyzed for phosphorus content at least once every three years. Analyses will be conducted by a qualified laboratory, using the Olsen P test. Results will be reported in parts per million (ppm) and will be used in determining application rates for manure, litter, and process wastewater.

☒ Sample collection will occur according to Part II.D of the CAFO General Permit.
☐ Other (describe)_____

7.4 Soil Nitrogen Sampling and Analysis

Representative composite soil samples for total nitrogen and nitrate must be collected for each field where manure will be applied. Composite samples for total nitrogen must be collected from a soil depth of 0 to 6 inches and must be analyzed at least once every 3 years. Composite samples for nitrate must be collected from a soil depth of 6 to 24 inches and must be analyzed at least once every 3 years. All samples must be analyzed according to method code 4H2al-3 in NRCS Soil Survey Laboratory Methods Manual, Soil Survey Investigation Report No. 42. Results must be reported as mg/kg total nitrogen and pounds per acre will be used in determining application rates for manure, litter, and process wastewater.

☒ Sample collection will occur according to Part II.D of the CAFO General Permit.

☐ Other _____

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Section 8. NMP Application Rates

The applicant has 2 ways in which to report how manure or process wastewater application rates can be reported to DEQ. Select one:

☐ **Linear Approach**. Expresses rates of application as pounds of nitrogen and phosphorus. Complete Section 8.1, then continue to Section 9. See page 8 of the NOI-NMP Instructions for guidance on the Linear Approach.

☒ **Narrative Rate Approach**. Expresses a narrative rate of application that results in the amount, in tons or gallons, of manure, litter, and process wastewater to be land applied. Complete Section 8.2, then continue to section 9. See page 9 of the NOI-NMP Instructions for guidance on the Narrative Rate Approach.

8.1 Linear Approach

Expresses rates of application as pounds of nitrogen and phosphorus. CAFOs selecting the linear approach to address rates of application must include in the NMP submitted to the Department the following information for each crop, field, and year covered by the NMP:

1. The maximum application rate (pounds/acre/year of nitrogen and phosphorus) from manure, litter, and process wastewater.
2. The outcome of the field-specific assessment of the potential for phosphorus transport from each field. The Department does not have an N transport risk assessment, therefore the NMP must document any basis for assuming that nitrogen will be fully used by crops. The CAFO must specify any conservation practices used in calculating the risk rating.
3. The crops to be planted or any other uses of a field such as pasture or fallow fields.
4. The realistic annual yield goal for each crop or use identified for each field.
5. The nitrogen and phosphorus recommendations from Department acceptable sources for each crop or use identified for each field.
6. Credits for all residual nitrogen in each field that will be plant available.
7. Consideration of multi-year phosphorus application. For any field where nutrients are applied at a rate based on the crop phosphorus requirement, the NMP must account for single-year nutrient applications that supply more than the crop's annual phosphorus requirement.
8. All other additions of plant available nitrogen and phosphorus (i.e., from sources other than manure, litter, or process wastewater or credits for residual nitrogen).
9. The form and source of manure, litter, and process wastewater to be land-applied.
10. The timing and method of land application. The NMP also must include storage capacities needed to ensure adequate storage that accommodates the timing indicated.
11. The methodology that will be used to account for the amount of nitrogen and phosphorus in the manure, litter, and wastewater to be applied.
12. Any other factors necessary to determine the maximum application rate identified in accordance with this Linear Approach. See example budget - attached

Budgets completed prior to application each year by field

See Spreadsheet for Narrative

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Fields Available for Land Application

Field ID	Total Acres
FC1	50.9
FC2	14.1
FC3	5.4
FC8	75.5
FC9	37
FC10	85.63
FC11	28.6
FC12	201.6
FC16	59.4
FC17	8
FC18	124.9
FC19	67.2
WC1	112.9
WC2	138.8
WC3	112.7
WC4	110.9
PIVOT 3	84.9
V1	92.6
V2	78.7
V3	26.1
B1	233.9
B4	276.9
B5	172.3
B6	176.1
B7	1578.5
B11	115.8
B12	141.1
B13	115.5
OP2	164.6
PIVOT 2	99.4
OP11	202.9

Outcome of the Field-Specific Assessment of the Potential for N and P Transport from Each Field and Maximum Amount of Nitrogen and Phosphorus Derived from All Sources

Field ID	Year	Crop	Olsen P Soil Test Results (ppm)	Recommended Rate Basis	Max N Derived from all sources	Max P_2O_5 Derived from all sources
					(lbs/acre)	
FC1	2024-2028	WHEAT	5	Nitrogen Needs of Crop	182	48
FC2	2024-2028	WHEAT	9	Nitrogen Needs of Crop	182	43
FC3	2024-2028	WHEAT	9	Nitrogen Needs of Crop	182	43
FC8	2024-2028	WHEAT	14	Nitrogen Needs of Crop	182	38
FC9	2024-2028	WHEAT	14	Nitrogen Needs of Crop	182	38
FC10	2024-2028	WHEAT	14	Nitrogen Needs of Crop	182	38
FC11	2024-2028	WHEAT	33	Phosphorus Needs of Crop	182	43
FC12	2024-2028	WHEAT	17	Nitrogen Needs of Crop	182	43
FC16	2024-2028	WHEAT	33	Phosphorus Needs of Crop	182	43
FC17	2024-2028	WHEAT	33	Phosphorus Needs of Crop	182	43
FC18	2024-2028	WHEAT	26	Phosphorus Needs of Crop	182	43
FC19	2024-2028	WHEAT	26	Phosphorus Needs of Crop	182	43
WC1	2024-2028	WHEAT	38	Phosphorus Needs of Crop	182	43
WC2	2024-2028	WHEAT	38	Phosphorus Needs of Crop	182	43
WC3	2024-2028	WHEAT	56	Phosphorus Needs of Crop	182	43
WC4	2024-2028	WHEAT	142	Phosphorus Needs up to Crop Removal Rate	182	43
PIVOT 3	2024-2028	WHEAT	62	Phosphorus Needs of Crop	182	43
V1	2024-2028	WHEAT	4	Nitrogen Needs of Crop	182	50
V2	2024-2028	WHEAT	4	Nitrogen Needs of Crop	182	50
V3	2024-2028	WHEAT	4	Nitrogen Needs of Crop	182	50
B1	2024-2028	WHEAT	4	Nitrogen Needs of Crop	182	50
B4	2024-2028	WHEAT	12	Nitrogen Needs of Crop	182	40
B5	2024-2028	WHEAT	22	Nitrogen Needs of Crop	182	43
B6	2024-2028	WHEAT	10	Nitrogen Needs of Crop	182	42
B7	2024-2028	WHEAT	10	Nitrogen Needs of Crop	182	42
B11	2024-2028	WHEAT	4	Nitrogen Needs of Crop	182	50
B12	2024-2028	WHEAT	4	Nitrogen Needs of Crop	182	50

FIELD ID	Year	Crop	Olsen P Soil Test Results (ppm)	Recommended Rate Basis	Max N Derived from all sources	Max P_2O_5 Derived from all sources
					(lbs/acre)	
PIVOT 2	2024-2028	WHEAT	8	Nitrogen Needs of Crop	182	45
OP11	2024-2028	WHEAT	21	Nitrogen Needs of Crop	182	43
R1	2024-2028	WHEAT	15	Nitrogen Needs of Crop	182	38
R2	2024-2028	WHEAT	15	Nitrogen Needs of Crop	182	38
R5	2024-2028	WHEAT	49	Phosphorus Needs of Crop	182	43
R6	2024-2028	WHEAT	49	Phosphorus Needs of Crop	182	43
R7	2024-20248	WHEAT	49	Phosphorus Needs of Crop	182	43
R8	2024-2028	WHEAT	30	Phosphorus Needs of Crop	182	43
B13	2024-2028	WHEAT	4	Nitrogen Needs of Crop	182	50
OP2	2024-2028	WHEAT	5	Nitrogen Needs of Crop	182	48

Alternative Crops

Field	Potential Alternative Crop(s)	Yield Goal (unit/acres)	N rec.	P_2O_5 rec.
			(lbs/acre)	
ALL FIELD	BARLEY	50	80	18
ALL FIELD	PEAS	45	0	30
ALL FIELD	LENTILS	25	0	17
ALL FIELD	CORN GRAIN	190	220	114
ALL FIELD	CORN SILAGE	20T	180	176

Methodology

Rates of application that are expressed using the narrative rate approach must include the *methodology* for calculating the amount of manure to be land applied.

In the text box below, provide the methodology that will be used to account for:
- Soil test results
- Credits for plant available nitrogen in the field
- Amount of nitrogen and phosphorus in the manure, litter, and process wastewater to be applied
- Consideration of multi-year phosphorus application
- Accounting for all other additions of plant available nitrogen and phosphorus to the field
- Form and source of manure, litter, and process wastewater
- Timing and method of land application
- Volatilization of nitrogen and mineralization of organic nitrogen

Attach additional sheets as necessary.

All applications of manure are either nitrogen- or phosphorus-based. Winter wheat is the default crop for all fields in this plan. Nitrogen is calculated based on 2.6 lbs N per bushel of target yield. A manure analysis for each source applied is completed annually. Soil tests are completed a minimum of once every 3 years for every field that receives manure. Phosphorus requirements are calculated above or below 16 ppm. Anything above 16 ppm (Table 21) was utilized; at or below 16 ppm (Table 18) was utilized.
Alternative crops will be fertilized and will receive manure based on values listed on the alternative crop tab by crop.
See the spreadsheet for fields for nitrogen- or phosphorous-based applications.
All phosphorus recommendations are based on Table 21 for alternative crops.
Starter fertilizer is the only source used for all fields receiving manure.
Manure is applied in the spring or fall before planting. Liquid is injected into the soil, and dry manure is spread using a manure spreader.
volatilization is control, and mineralization is enhanced by liquid injection and/or planting incorporation.

Field identification: FC12 Year: 2024 Crop: Winter wheat					
Expected Crop Yield: 70 bushels					
Phosphorus index results or Phosphorus application from soil test: 17ppm					
Method of Land Application: Injection Plow					
When will application occur: Fall and spring application					
		Nutrient Budget	Nitrogen-based Application	Phosphorus-based Application	Source of information
1		Crop Nutrient Needs, lbs/acre	182	43	EB-161
2	(-)	Credits from previous legume crops, or soil test lbs/ac	25	0.00	
3	(-)	Residuals from past manure production lbs/acre (if no new soil test)	0	0	
4	(-)	Nutrients from commercial fertilizer and biosolids, lbs/acre	0	0	
5	(-)	Nutrients supplied in irrigation water, lbs/acre	0	0	
6		**= Additional Nutrients Needed, lbs/acre**	157.00	43.40	
7		Total Nitrogen and Phosphorus in manure, lbs/ton or lbs/1000 gal (from manure test)	22	12	
8	(x)	Nutrient Availability factor, for Phosphorus based application use 1.0	0.90	1	
9		**= Available Nutrients in Manure, lbs/ton or lbs/1000 gal**	19.35	12.40	
10		Additional Nutrients needed, lbs/acre (calculated above)	157.00	43.40	
11	(/)	Available Nutrients in Manure, lbs/ton or lbs/1000 gal (calculated above)	19.35	12.40	
12		**= Manure Application Rate, tons/acre or 1000 gal/acre**	8.114	3.500	

Comments

Actual application 2,000,000 on 201.6 acres for rate of 9,920 gallons per acre.
this is an over application for field FC-12 will not receive any form of phos application for three years in order to budget nutrient properly.

Section 9 – NMP Phosphorus

Phosphorus Risk Assessment: The permittee shall assess the risk of phosphorus contamination of state waters. An assessment shall be conducted for each field, under the control of the operator, to which manure, litter or process wastewater will or may be applied. If a new field is added in the future, then the permittee must submit a revised (modified) NMP. The permittee has the option of using Method A or Method B (below) to complete the assessment, unless the receiving water is impaired for nutrients, then you must use method B below for phosphorus risk assessment. Copies of all tables and calculations used to complete the assessments, as well as the results of the assessments, shall be submitted to the Department and copies shall be maintained onsite at the facility and available for Departmental review. The results of the assessments shall be used to determine the appropriate basis for land application of wastes from the facility.

Indicate which method will be used to determine phosphorus application:

☒ **Method A** – Representative Soil Sample. Complete Section 9.1, then continue to Section 10.

☐ **Method B** – Phosphorus Index. Complete Section 9.2, then continue to Section 10.

9.1 Method A – Representative Soil Sample

Obtain one or more representative soil sample(s) from the field per ARM 17.30.1334
Have the sample analyzed for phosphorus by a qualified lab. The "Olsen P test" must be used for the analysis, and the result must be reported in parts per million (ppm). Using the results of the Olsen P test, determine application basis according to the Table below.

Olsen P Soil Test Results (ppm)	Application Basis
<25.0	Nitrogen Needs of Crop
25.1 - 100.0	Phosphorus Needs of Crop
100.0 – 150.0	Phosphorus Needs up to Crop Removal Rate
>150.0	No Application allowed

Olsen P Test Result: < 25.0 ppm

End of Method A. Continue to Section 10

Using the calculated Total Phosphorus Index Value, assign the overall site/field vulnerability to phosphorus loss according to the table below.

Total Phosphorus Index Value	Site Vulnerability to Phosphorus Loss
<11	Low
11-21	Medium
22-43	High
>43	Very High

Using the calculated Site Vulnerability to Phosphorus Loss, determine the appropriate application basis according to the table below.

Site Vulnerability to Phosphorus Loss	Application Basis
Low	Nitrogen Needs
Medium	Nitrogen Needs
High	Phosphorus Need Up to Crop Removal
Very High	Phosphorus Crop Removal or No Application

Phosphorus Index Value: _____

Section 10 – NMP Guidance

Land Application Equipment Calibration

Describe the type of equipment used to land apply wastes and the calibration procedures:

dry spread w/ spreader - DEQ9
injection plow for liquid by flow meter

Implementation, Operation, Maintenance and Recordkeeping

The permittee is required to develop protocols for implementation of the NMP, proper operation and maintenance of the livestock waste control facilities, and recordkeeping as described in Part 2 of the permit.

Have protocols been developed for the operation? ☒ Yes ☐ No

The documents below are maintained:

Implementation of the NMP:	☒ Yes ☐ No
Facility operation and maintenance:	☒ Yes ☐ No
Recordkeeping and reporting	☒ Yes ☐ No
Sample collection and analysis	☒ Yes ☐ No
Manure transfer	☐ Yes ☒ No

If your answer to any of the above question is no, provide explanation:

NO manure transfered

Provide date and location of most recent documentation:

Date: 12/23

Location: farm basis office

The NOI Form certification must be completed by the applicant (owner/operator) responsible for the authorization as identified in Section C. Certification of this NOI is certification that the applicant will comply with the applicable terms of the CAFO General Permit.

Permittee Information: This form must be completed, signed, and certified as follows:

- For a corporation, by a principal officer of at least the level of vice president;
- For a partnership or sole proprietorship, by a general partner or the proprietor, respectively; or
- For a municipality, state, federal, or other public facility, by either a principal executive officer or ranking elected official.

All Permittees Must Complete the Following Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information; including the possibility of fine and imprisonment for knowing violations. [75-5-633, MCA].

Certification of this form indicates conformance with the CAFO General Permit.

Name (Type or Print)	
Ben P. Wipf	
Title (Type or Print)	Phone Number
Sec Treas	406-568-2210
Signature	Date Signed
Ben P Wipf	1-22-2024

DEQ will not process this form until all the requested information is supplied, and the appropriate fees are paid.

Return this NOI-NMP-CAFO Form and the applicable fee payment to:

Department of Environmental Quality
Water Protection Bureau PO
Box 200901
Helena, MT 59620-0901
(406) 444-5546

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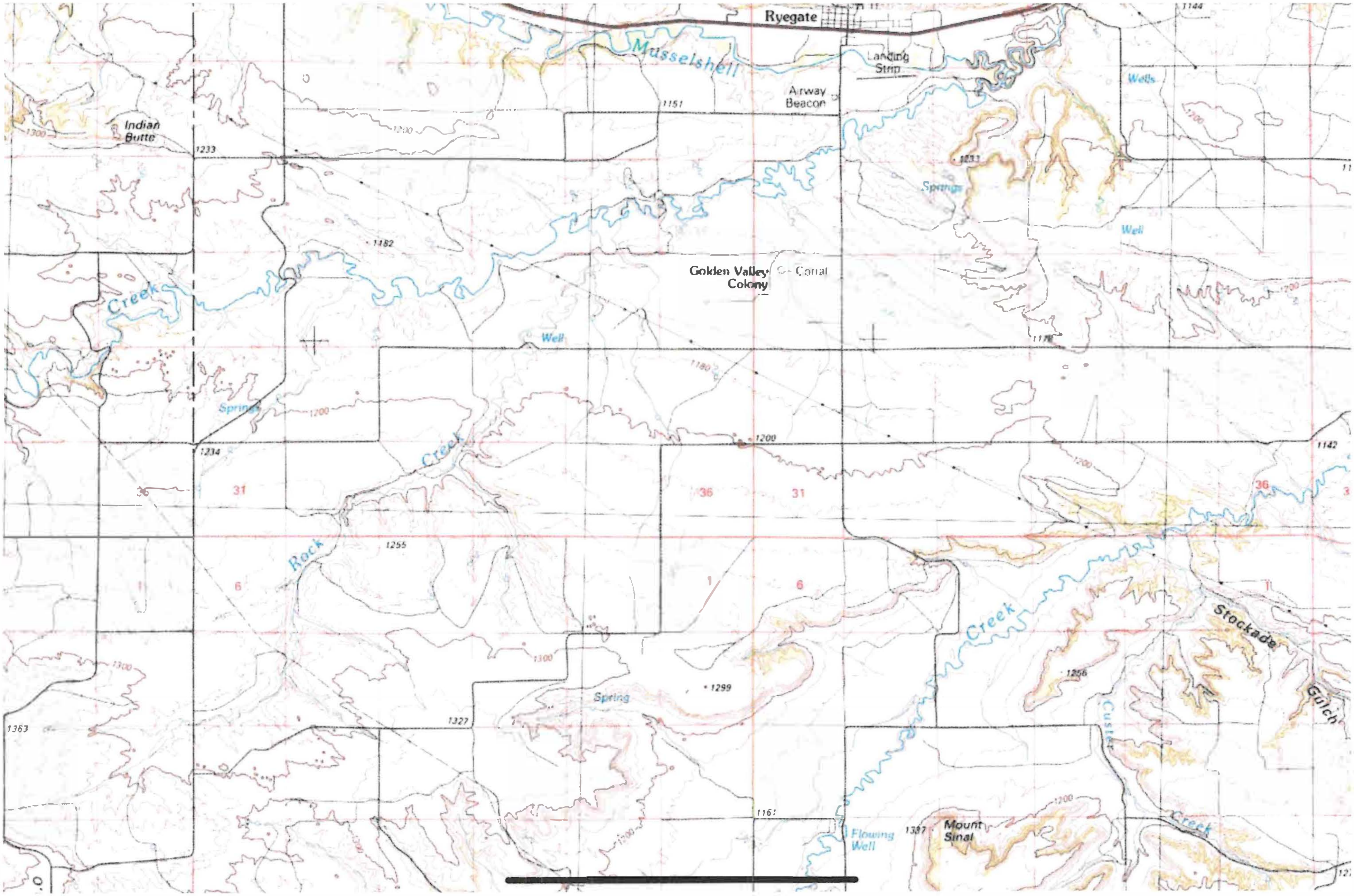

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- Soil Physical Properties
- Soil Qualities and Features
- Vegetative Productivity
- Waste Management
- Water Features
- Water Management

Report — Component Legend

Golden Valley County Area, Montana

Map unit symbol and name	Map unit acres	Pct. of map unit	Component name	Component kind	Pct. slope Low	RV	High
5A—Harlake silty clay, 0 to 2 percent slopes, rarely flooded	1,169						
		75	Harlake	Series	0.0	1.0	2.0
9A—Havre loam, 0 to 2 percent slopes, rarely flooded	2,384						
		85	Havre	Series	0.0	1.0	2.0
9B—Havre, occasionally flooded-Yamacall loams, 0 to 4 percent slopes	3,607						
		55	Havre	Series	0.0	1.0	2.0
		30	Yamacall	Series	0.0	2.0	4.0
10A—Havre loam, 0 to 2 percent slopes, occasionally flooded	1,384						
		75	Havre	Series	0.0	1.0	2.0
11A—Havre-Glendive complex, 0 to 2 percent slopes, rarely flooded	1,910						
		50	Havre	Series	0.0	1.0	2.0
		35	Glendive	Series	0.0	1.0	2.0
12A—Havre-Harlake complex, 0 to 2 percent slopes, occasionally flooded	3,798						
		50	Havre	Series	0.0	1.0	2.0
		30	Harlake	Series	0.0	1.0	2.0
13A—Havre loam, calcareous, 0 to 2 percent slopes, rarely flooded	1,551						
		80	Havre, calcareous	Series	0.0	1.0	2.0
14A—Havre, calcareous-Glendive complex, 0 to 2 percent slopes, rarely flooded	573						
		45	Havre, calcareous	Series	0.0	1.0	2.0
		30	Glendive	Series	0.0	1.0	2.0
15A—Havre-Harlake complex, calcareous, 0 to 2 percent	1,017						

slopes, rarely flooded					
	45	Havre, calcareous	Series	0.0	1.0	2.0
	35	Harlake, calcareous	Series	0.0	1.0	2.0
16A—Havre, occasionally flooded-Yamacall loams, calcareous, 0 to 4 percent slopes	957					
	45	Havre, calcareous	Series	0.0	1.0	2.0
	35	Yamacall, calcareous	Series	0.0	2.0	4.0
21A—McKenzie silty clay, 0 to 2 percent slopes	1,686					
	85	Mckenzie	Series	0.0	1.0	2.0
22B—Nobe-Absher complex, 0 to 4 percent slopes	7,014					
	45	Nobe	Series	0.0	2.0	4.0
	35	Absher	Series	0.0	2.0	4.0
030C—Busby fine sandy loam, 2 to 8 percent slopes	1,449					
	85	Busby	Series	2.0	5.0	8.0
31B—Delpoint loam, 2 to 8 percent slopes	312					
	80	Delpoint	Series	2.0	5.0	8.0
31C—Delpoint-Cabbart-Yamacall loams, 4 to 15 percent slopes	13,394					
	35	Delpoint	Series	4.0	10.0	15.0
	30	Cabbart	Series	4.0	10.0	15.0
	20	Yamacall	Series	4.0	6.0	8.0
32D—Twilight-Blacksheep-Rock outcrop, complex, 4 to 25 percent slopes	8,942					
	40	Twilight	Series	8.0	12.0	15.0
	30	Blacksheep	Series	4.0	15.0	25.0
	15	Rock outcrop	Miscellaneous area			
33B—Yamacall loam, 2 to 8 percent slopes	7,792					
	85	Yamacall	Series	2.0	5.0	8.0
35B—Yamacall-Busby complex, 2 to 8 percent slopes	1,259					
	50	Yamacall	Series	2.0	5.0	8.0

		35 Busby	Series	2.0	5.0	8.0
36B—Yamacall-Delpoint loams, 2 to 8 percent slopes	10,325					
		50 Yamacall	Series	2.0	5.0	8.0
		40 Delpoint	Series	2.0	5.0	8.0
38A—Kobase-Zatoville silty clay loams, 1 to 8 percent slopes	12,077					
		45 Kobase	Series	1.0	4.0	8.0
		35 Zatoville	Series	1.0	4.0	8.0
39C—Delpoint, calcareous-Cabbart-Yamacall, calcareous, loams, 4 to 15 percent slopes	3,646					
		40 Delpoint, calcareous	Series	4.0	9.0	15.0
		25 Cabbart	Series	4.0	9.0	15.0
		20 Yamacall, calcareous	Series	4.0	6.0	8.0
40B—Kobase silty clay loam, 2 to 8 percent slopes	12,524					
		75 Kobase	Series	2.0	5.0	8.0
40C—Kobase silty clay loam, calcareous surface, 1 to 8 percent slopes	4,751					
		75 Kobase, calcareous	Series	1.0	4.0	8.0
41A—Yamacall loam, calcareous, 0 to 2 percent slopes	501					
		80 Yamacall, calcareous	Series	0.0	1.0	2.0
41B—Yamacall loam, calcareous, 2 to 8 percent slopes	3,365					
		80 Yamacall, calcareous	Series	2.0	5.0	8.0
41C—Yamacall-Delpoint loams, calcareous, 2 to 8 percent slopes	3,539					
		45 Yamacall, calcareous	Series	2.0	5.0	8.0
		35 Delpoint, calcareous	Series	2.0	5.0	8.0
50B—Hinterland loam, 2 to 8 percent slopes	2,273					
		80 Hinterland	Series	2.0	5.0	8.0
50D—Hinterland-Delplain complex, 8 to 25 percent slopes	2,423					
		45 Hinterland	Series	8.0	12.0	15.0
		35 Delplain	Series	8.0	17.0	25.0

Golden Valley County Area, Montana

51A—Ethridge clay loam, 0 to 2 percent slopes	1,611					
		80	Ethridge	Series	0.0	1.0	2.0
52A—Eapa loam, 0 to 2 percent slopes	2,053					
		80	Eapa	Series	0.0	1.0	2.0
52B—Eapa loam, 2 to 8 percent slopes	8,299					
		85	Eapa	Series	2.0	5.0	8.0
53A—Tanna loam, 1 to 6 percent slopes	3,994					
		80	Tanna	Series	1.0	4.0	6.0
55B—Beenom loam, 1 to 8 percent slopes	3,007					
		70	Beenom, calcareous	Series	1.0	5.0	8.0
56A—Crago-Musselshell-Attewan complex, 1 to 4 percent slopes	3,652					
		45	Crago	Series	1.0	1.0	2.0
		30	Musselshell	Series	1.0	2.0	4.0
		20	Attewan	Series	1.0	1.0	2.0
58A—Verson clay loam, 1 to 4 percent slopes	2,209					
		85	Verson	Series	1.0	2.0	4.0
60B—Abor silty clay, 1 to 8 percent slopes	1,029					
		75	Abor	Series	1.0	5.0	8.0
60C—Abor-Neldore silty clays, 2 to 8 percent slopes	6,091					
		45	Abor	Series	2.0	5.0	8.0
		35	Neldore	Series	2.0	5.0	8.0
68C—Megonot-Yawdim silty clay loams, 4 to 15 percent slopes	26,842					
		45	Megonot	Series	4.0	10.0	15.0
		35	Yawdim	Series	4.0	10.0	15.0
73D—Abor-Yawdim complex, 4 to 15 percent slopes	2,780					
		45	Abor	Series	4.0	10.0	15.0
		35	Yawdim	Series	4.0	10.0	15.0
80E—Blacksheep-Rock outcrop-Twilight complex, 8 to 45	5,636					

percent slopes						
		45	Blacksheep	Series	8.0	27.0	45.0
		25	Rock outcrop	Miscellaneous area			
		15	Twilight	Series	8.0	12.0	15.0
81B—Delpoint-Cabbart loams, 2 to 8 percent slopes	8,812						
		60	Delpoint	Series	2.0	5.0	8.0
		30	Cabbart	Series	2.0	5.0	8.0
82C—Cabbart-Delpoint, calcareous-Rock outcrop complex, 4 to 15 percent slopes	4,874						
		45	Cabbart, calcareous	Series	4.0	10.0	15.0
		30	Delpoint, calcareous	Series	4.0	10.0	15.0
		15	Rock outcrop	Miscellaneous area			
82E—Cabbart-Delpoint, calcareous-Rock outcrop complex, 8 to 45 percent slopes	15,213						
		45	Cabbart, calcareous	Series	8.0	27.0	45.0
		25	Delpoint, calcareous	Series	8.0	19.0	25.0
		20	Rock outcrop	Miscellaneous area			
83D—Cabbart-Rock outcrop-Blacksheep complex, 8 to 45 percent slopes	7,103						
		35	Cabbart	Series	8.0	27.0	45.0
		30	Rock outcrop	Miscellaneous area			
		25	Blacksheep	Series	8.0	27.0	45.0
84C—Cabbart-Yawdim-Delpoint complex, 4 to 15 percent slopes	6,003						
		35	Cabbart	Taxadjunct	4.0	10.0	15.0
		30	Yawdim	Series	4.0	10.0	15.0
		20	Delpoint	Series	4.0	10.0	15.0
84D—Cabbart-Yawdim-Badland complex, 4 to 35 percent slopes	23,677						
		35	Cabbart	Taxadjunct	4.0	20.0	35.0
		30	Yawdim	Series	4.0	20.0	35.0

		20	Badland	Miscellaneous area		
84F—Cabbart-Rock outcrop-Yawdim complex, 15 to 60 percent slopes	2,947					
		40	Cabbart	Series	15.0	25.0	60.0
		25	Rock outcrop	Miscellaneous area			
		20	Yawdim	Series	15.0	25.0	60.0
86E—Cabbart-Rock outcrop complex, 4 to 35 percent slopes	2,919					
		60	Cabbart	Series	4.0	20.0	35.0
		25	Rock outcrop	Miscellaneous area			
87B—Delpoint, calcareous-Cabbart loams, 2 to 8 percent slopes	5,942					
		45	Delpoint, calcareous	Series	2.0	5.0	8.0
		40	Cabbart	Taxadjunct	2.0	5.0	8.0
89C—Rentsac fine sandy loam, 2 to 8 percent slopes	17,130					
		80	Rentsac	Series	2.0	5.0	8.0
93A—Crago-Musselshell complex, 1 to 4 percent slopes	1,155					
		50	Crago	Series	1.0	2.0	4.0
		40	Musselshell	Series	1.0	2.0	4.0
107A—Lostriver-Bullhook complex, 0 to 2 percent slopes, rarely flooded	4,999					
		45	Lostriver	Series	0.0	1.0	2.0
		35	Bullhook	Series	0.0	1.0	2.0
108A—Harlake-Havre complex, 0 to 2 percent slopes, rarely flooded	1,777					
		45	Harlake	Series	0.0	1.0	2.0
		40	Havre	Series	0.0	1.0	2.0
111A—Havre-Glendive complex, 0 to 2 percent slopes, occasionally flooded	4,183					
		50	Havre	Series	0.0	1.0	2.0
		35	Glendive	Series	0.0	1.0	2.0

Golden Valley County Area, Montana

131C—Delpoint-Yamacall loams, 2 to 8 percent slopes	2,298					
		55	Delpoint	Series	2.0	5.0	8.0
		30	Yamacall	Series	2.0	5.0	8.0
132B—Twilight-Blacksheep sandy loams, 2 to 8 percent slopes	10,671					
		45	Twilight	Series	2.0	8.0	15.0
		40	Blacksheep	Series	2.0	8.0	15.0
140B—Kobase-Megonot silty clay loams, 1 to 8 percent slopes	7,633					
		45	Kobase	Series	1.0	5.0	8.0
		40	Megonot	Series	1.0	5.0	8.0
142C—Rothiemay-Crago complex, 4 to 15 percent slopes	167					
		55	Rothiemay	Series	4.0	10.0	15.0
		30	Crago	Series	4.0	10.0	15.0
154B—Marmarth-Beenom complex, 2 to 8 percent slopes	2,854					
		50	Marmarth	Series	2.0	5.0	8.0
		35	Beenom	Series	2.0	5.0	8.0
181D—Cabbart-Crago-Delpoint complex, 4 to 15 percent slopes	6,274					
		45	Cabbart	Taxadjunct	4.0	10.0	15.0
		30	Crago	Series	4.0	10.0	15.0
		15	Delpoint	Series	4.0	10.0	15.0
181E—Cabbart, calcareous-Crago-Delpoint, calcareous complex, 8 to 35 percent slopes	8,000					
		40	Cabbart, calcareous	Series	8.0	25.0	35.0
		35	Crago, calcareous	Series	8.0	25.0	35.0
		15	Delpoint, calcareous	Series	8.0	25.0	35.0
182D—Cabbart-Delpoint loams, 4 to 15 percent slopes	28,415					
		45	Cabbart	Series	2.0	10.0	15.0
		40	Delpoint	Series	4.0	6.0	8.0
189C—Rentsac-Cabbart complex, 2 to 15 percent slopes	24,308					
		50	Rentsac	Series	2.0	9.0	15.0
		35	Cabbart	Series	2.0	10.0	15.0

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Golden Valley Colony, MT
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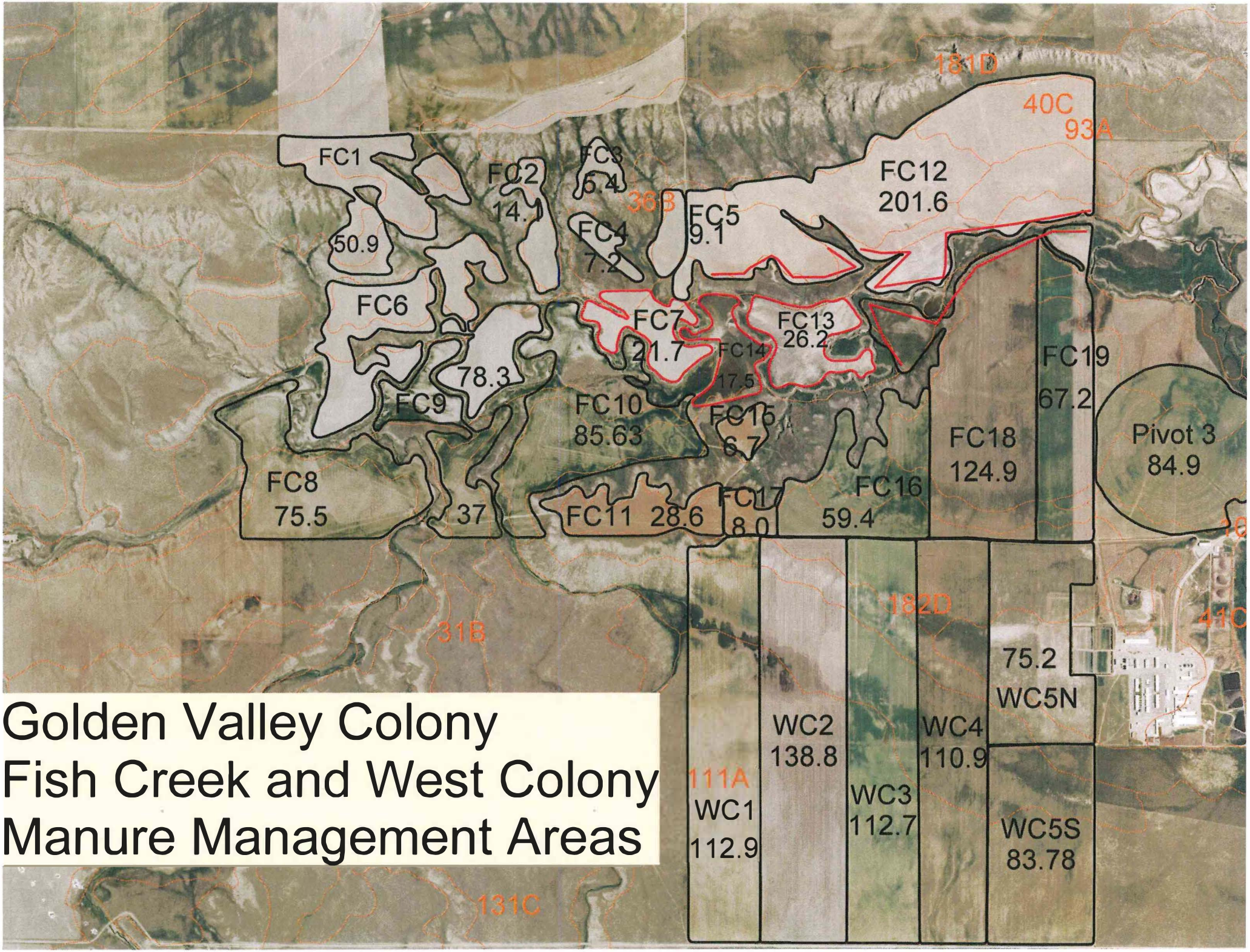
Golden Valley Colony
200 m
3D

Need New Production Area Map
With Iso Barn

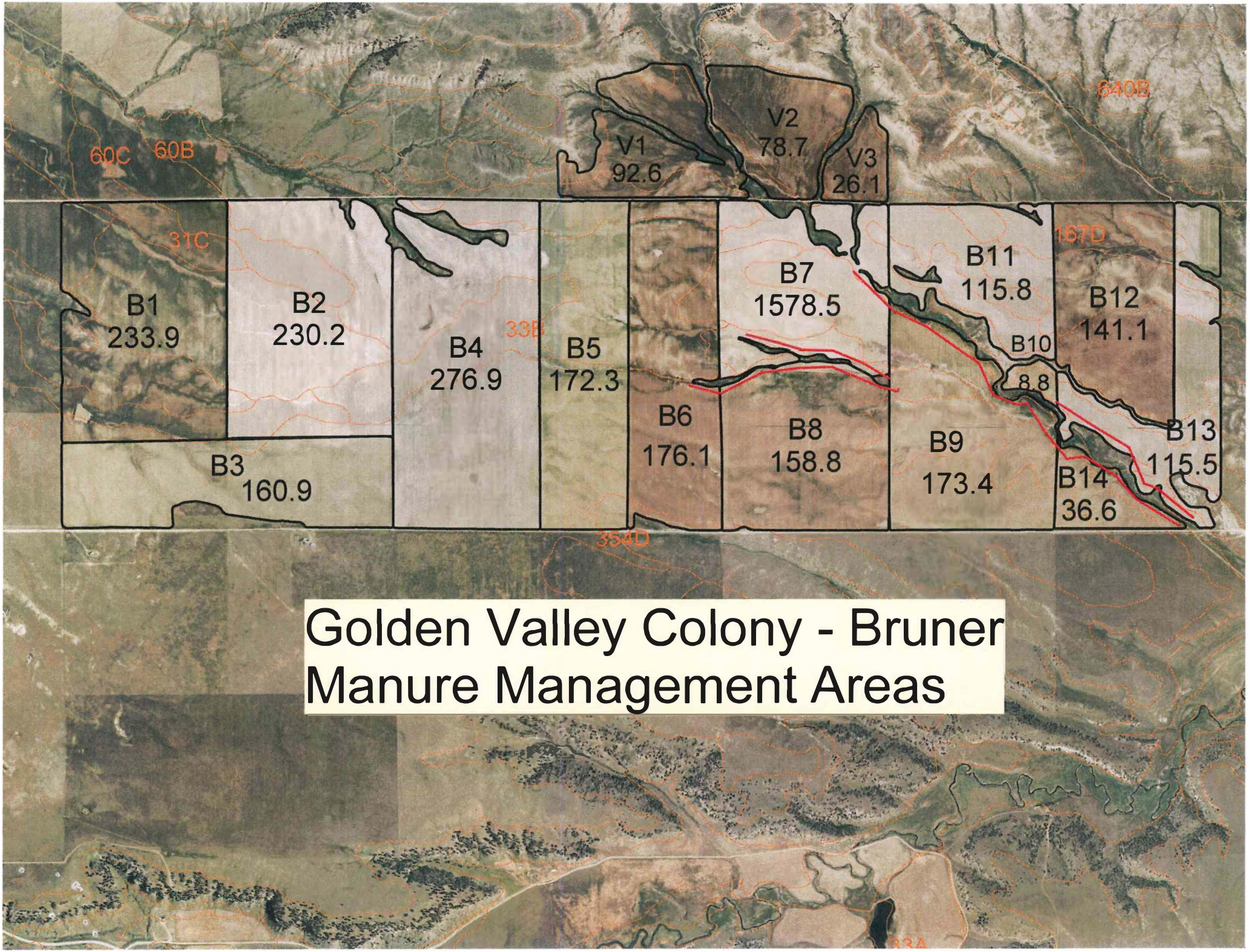
Golden Valley Colony

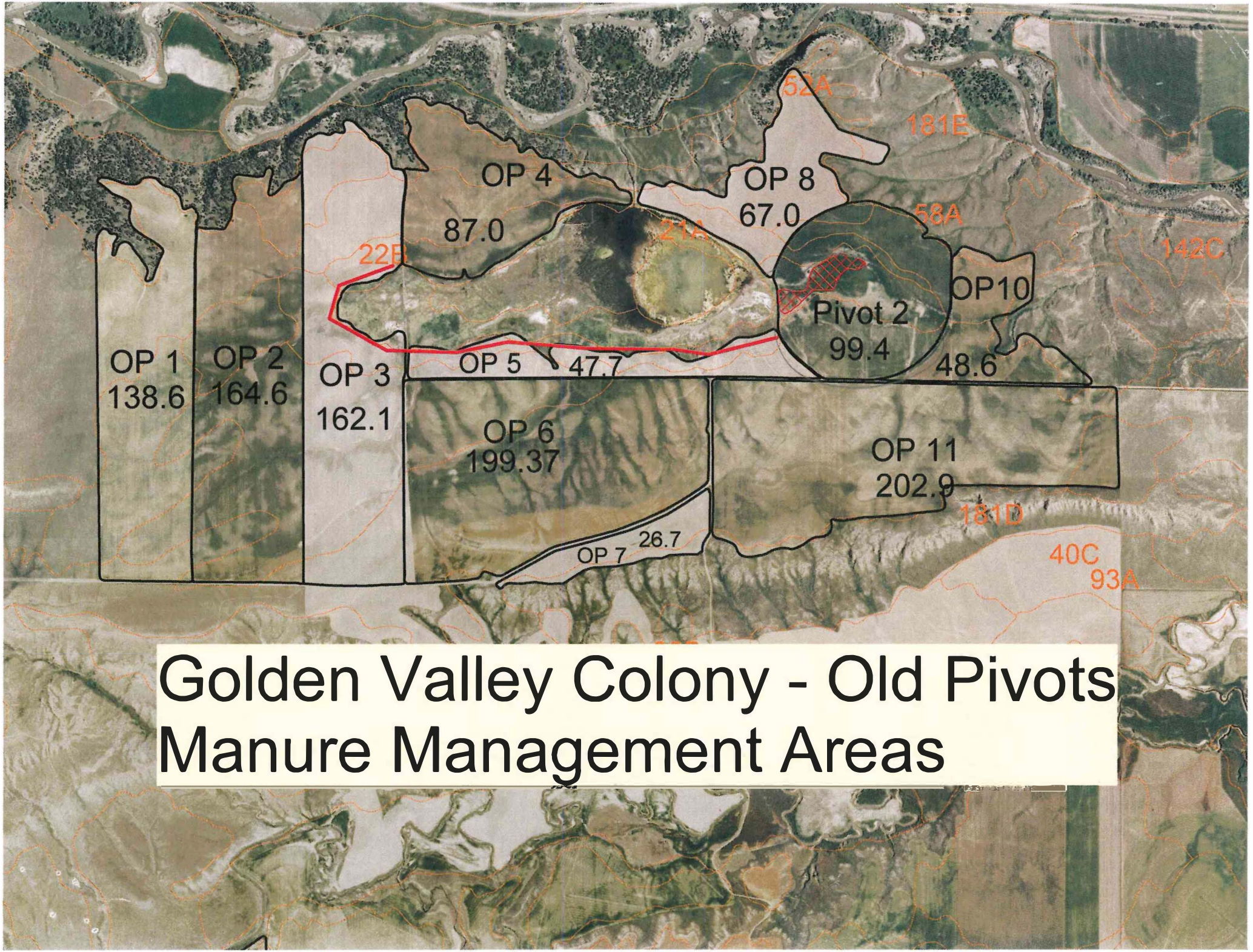
~~~~ = diversion - clean water

---- = berm
~~~~

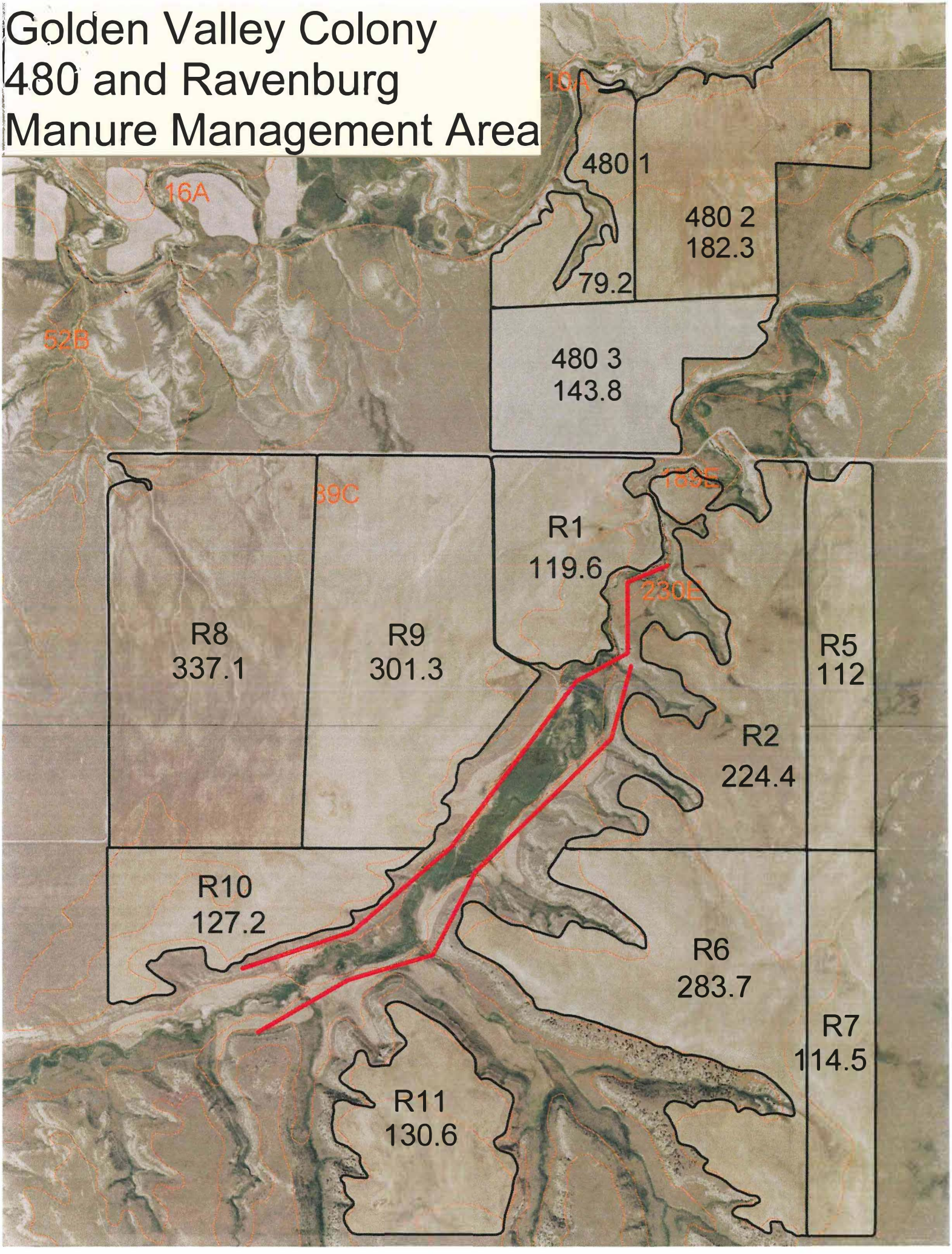


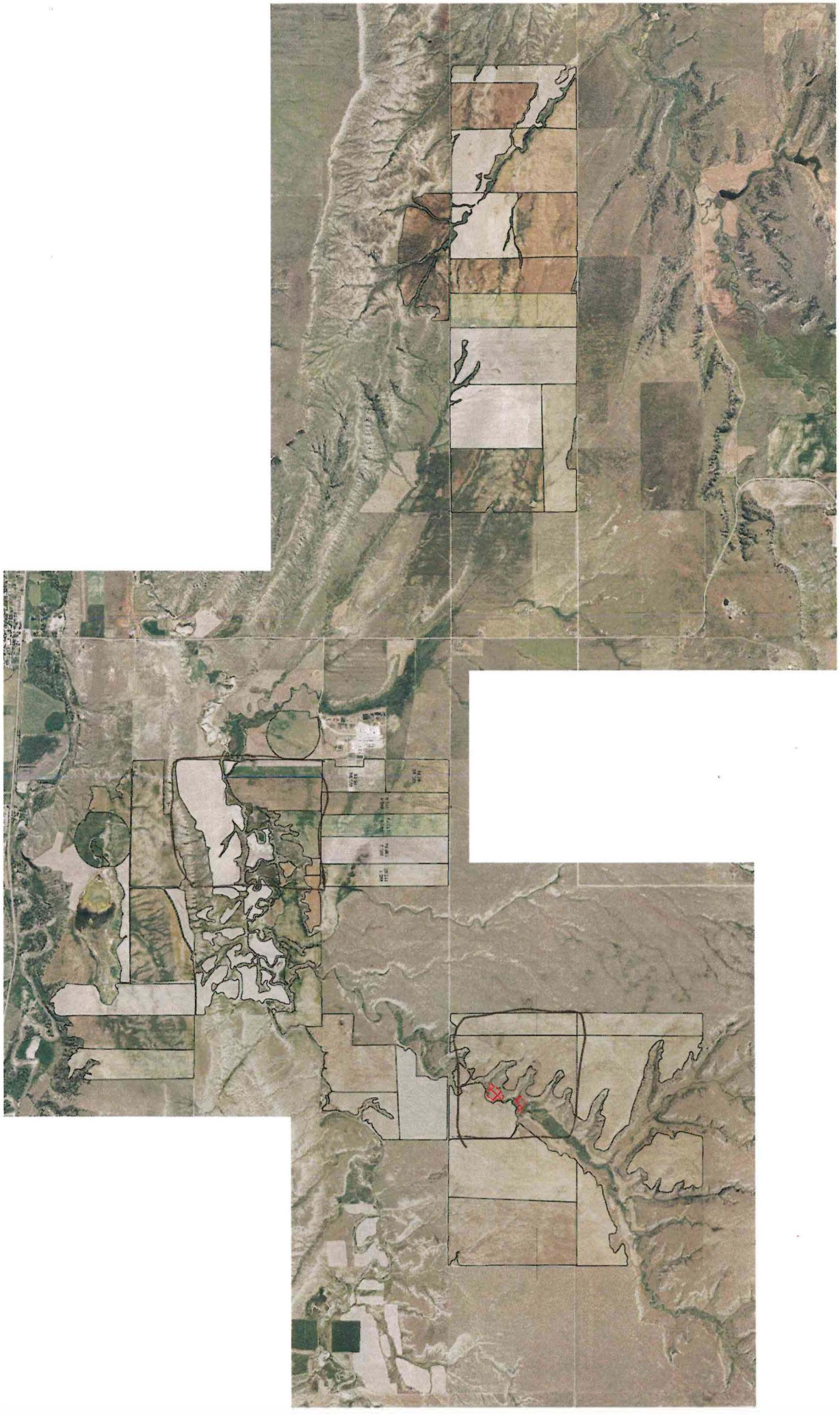
Golden Valley Colony
Fish Creek and West Colony
Manure Management Areas


60C
60B
640B
V1
92.6
V2
78.7
V3
26.1
31C
B1
233.9
B2
230.2
B3
160.9
B4
276.9
33B
B5
172.3
B6
176.1
B7
1578.5
B8
158.8
B9
173.4
B10
8.8
B11
115.8
167D
B12
141.1
B13
115.5
B14
36.6
354D
Golden Valley Colony - Bruner
Manure Management Areas



Golden Valley Colony - Old Pivots Manure Management Areas


Golden Valley Colony
480 and Ravenburg
Manure Management Area
19A
480 1
16A
480 2
182.3
79.2
52B
480 3
143.8
39C
R1
119.6
230E
R8
337.1
R9
301.3
R5
112
R2
224.4
R10
127.2
R6
283.7
R7
114.5
R11
130.6



USDA-NRCS
Assisted by: Landon Krogstad