Plan Recommendations for EQIP application & cost-share

Manure & Wastewater Storage & Handling

Producer is looking to apply for permanent manure transfer pipeline to reach across a small creek to reach nearly 200 acres of good, flat ground that will be better from an erosion perspective on the other fields (and are needed in order to have enough ground to apply on), as well as these fields are in greater need of fertility. In order to be eligible for cost share for the transfer pipe land treatment, and nutrient management recommendations would need to be implemented.

Land Treatment Practices

All fields seem to be in good condition as far as gullies, etc. However, some significant changes are required in order to meet T for sheet & rill erosion. Specifically,

- Field #13 & #26 need to have beans no-tilled into cornstalks in a corn-bean rotation.
- Field #3 must be changed to a corn-soy-wheat rotation AND contour with at least 4% row grade.
- Fields 1, 2, 4, 5, & 7, 8 & 9, 10 & 11, 14 & 15, 22, 27, Far North West, Far North East, East 80, and North 80 all must change rotations to either a: Corn-Corn-Beans, with no-till beans and at least 5% row grade contour, or Corn-Corn-Beans, with no-till beans & 1st yr corn, with manure & sfcult after 1st yr corn, or Corn-Beans-Corn-Beans-Wheat, with no-till beans, and injecting & sfcult before corn & fall chiseling & sfcult wheat stubble

Nutrient Management

This producer can receive waste utilization incentive by updating soil testing information AND obeying 200' setbacks from surface water.

Producer Signature

I certify that all information contained within this plan is truthful and accurate to the best of my knowledge.

Pinnacle Genetics

Signature: _____

Date: _____

NOTES TO REVIEWERS

Manure & Wastewater Storage & Handling

Pipeline is recommended in order to reach fields that are currently rented by Clee Dixon & out of feasible reach of current drag hose system. These fields are good, flat fields that will relieve erosion concerns on closer ground, and allow for more correct rate applications on all fields. This also crosses a small creek that is safer in a permanent line, than in a drag hose.

Land Treatment

Sheet & rill erosion concerns require changes in management & rotations.

Nutrient Management

Manure applications were planned at N application rates for Corn and P application rates for manure to be applied prior to bean planting. The facility needs more acreage or to switch some of the corn/bean acres to continuous corn rotation. In order to remove enough manure annually from the facility manure is planned on all acreage every year. In addition to more acres the facility needs to get updated soil tests for the fields currently in the plan. If the soil tests indicate values greater than 300 lbs per acre all applications will need to switch to P application rates. This will make the facility even shorter on acreage. Manure applications every year force some of the acres to exceed soil loss T. With the changes required for sheet & rill erosion, this producer would need to discontinue manure applications in consecutive years.

IL 600.5 – EXHIBIT IL 1 CNMP Documentation Index

(See CNMP Statement of Work for specific information)

1. Manure and Wastewater Handling and Storage

	Documentation	Required for CNMP Planned	Required for CNMP Applied	Location in CNMP Document
	Narrative (brief description) of operation, existing & proposed	X	X	Section 6
	Types of animals and phases of production that exist/will exist at the facility.	X	X	Section 6 & 7
	Numbers of each animal type, average weight, and period of confinement for each phase of production.	X	X	Section 7
	Total estimated manure, bedding and wastewater volumes produced at facility.	X	X	Section 7
	Existing/planned manure storage type, volume, and length of storage. (Include appropriate geologic investigation reports for planned storage or transfer facilities. Include inspection reports and photographic evidence of physical state of existing facilities.)	X	X	Section 6 & 7
	Existing/planned collection and transfer equipment, system, and procedures.	X	X	Section 2 & 6
	Existing/planned mortality management	X	X	Section 6 & 12
	Contour map of site showing sources and directions of clean water flow and polluted runoff through and around facilities	X	X	Section 4 & 6
	Map showing location of 100 year floodplain, if known	X	X	Section 4
	Animal waste system plan maps and sketches – existing and planned	X	X	Section 6
	Animal waste system preliminary design information (include estimated quantities for proposed practices using NRCS payment scenarios and planned schedule of application.)	X		Section 1 & 6
	Animal waste system practice designs		X	Section 5
	Operation and maintenance requirements	X	X	Section 10
	Emergency action plan to address spills and catastrophic events.	X	X	Section 8
	Air quality and pathogen considerations			Section 10 & 12

2. Land Treatment Practices

	Documentation	Required for CNMP Planned	Required for CNMP Applied	Location in CNMP Document
	Planned Conservation System (Meets Quality Criteria for Soil Loss and Water Quality) including:			
	Individual field maps **for all fields the operator owns/controls** and where manure application is planned / applied, showing ephemeral and gully erosion concerns, buffers, waterways, and locations of other existing/planned conservation practices.	X	X	Individual Field Sections
	Soil maps and information such as features, limitations, soil loss calculations and capability **for each field the operator owns/controls** and where manure application is planned / applied.	X	X	Section 15

	Documentation	Required for CNMP Planned	Required for CNMP Applied	Location in CNMP Document
	Nitrogen and phosphorus risk assessments **for each field the operator owns/controls** and where manure application is planned /applied.	X	X	Section 16
	Conservation practices needed to solve identified resource problems including: rotation, tillage, farming direction and soil erosion and water runoff control practices on all fields where manure application is planned (include estimated quantities for proposed practices using NRCS payment scenarios and planned schedule of application by field.)	X		Section 15
	Conservation practice design and implementation information for all fields where manure is applied.		X	Individual Field Sections
	Identification of sensitive areas such as sinkholes, streams, springs, lakes, ponds, wells, gullies, and drinking water sources.	X	X	Individual Field Sections
	Other site features of significance, such as property boundaries, residences and populated areas.	X	X	Individual Field Sections
	Operation and Maintenance (O&M) Plans for practices and/or activities.	X	X	Section 10

3. Nutrient Management

	Documentation	Required for CNMP Planned	Required for CNMP Applied	Location in CNMP Document
	Individual field maps **for all fields the operator owns/controls** and where manure application is planned / applied, showing setbacks from wells, sinkholes, and open water areas, along with areas where application restrictions exist.	X	X	Individual Field Sections
	Table or list of total field acres and acres for manure application, **for all fields the operator owns/controls** and where manure application is planned / applied.	X	X	Section 22
	Current soil test results for pH, phosphorus, and potassium **for all fields the operator owns/controls** and where manure application is planned / applied.	X	X	Section 22 & 24
	Manure and organic by-product source nutrient "book value" or test results (Planned). Manure and organic by-product source testing results (Applied). Indicate source of values used.	X	X	Section 19 & 24
	A general nutient budget that identifies number of acres needed for waste utilization. The budget should contain a separate calculation for nutrient uptake for each combination of crop rotation and yield the operator proposes.	X	X	Section 9
	Nutrient budget for nitrogen, phosphorus, and potassium that includes all potential sources of nutrients **for all fields the operator owns/controls** and where manure application is planned / applied.	X	X	Section 9
	Supplemental nutrient needs when manure does not meet nutrient needs, for setbacks, and years when manure not applied.	X		Section 19 & 20

	Documentation	Required for CNMP Planned	Required for CNMP Applied	Location in CNMP Document
	Form, source, amount, timing, and method of application of nutrients, by field.	X	X	Section 19& 25-30
	P buildup potential where nutrient applications are in excess of P use.	X		Section 20
	Manure transfers planned / applied	X	X	Section 19
	Operation & maintenance activities (soil & manure tests, equipment calibration, etc.)	X	X	Section 10
	Air quality, Pathogen, and Salt / heavy metal buildup considerations	X	X	Section 12

4. Recordkeeping

	Documentation	Required for CNMP Planned	Required for CNMP Applied	Location in CNMP Document
	Current soil test results, in accordance with Nutrient Management (Code 590) and Waste Utilization (Code 633).	X	X	Section 24
	Mortality disposal records.		X	
	Records of storage containment structures operation and maintenance, including: Dates of emptying, levels before and after emptying, and discharge or overflow events, including level before and after event.		X	
	For Each Application Event, Records of:			
	Field(s) where manure or organic by-products are applied or will be applied.	X	X	Section 30
	Amount applied per acre, source, and application method/equipment used.		X	
	Time and date of application.		X	
	Weather and general soil moisture conditions during nutrient application.		X	
	For manure transferred off-site or to third parties:			
	Source and nutrient content		X	
	Amount and date of manure transferred.		X	
	Recipient of manure.		X	
	Copies of all reporting of waste releases filed with Illinois EPA		X	
	Forms for documenting inspections and maintenance	X		Section 31
	Records of maintenance performed associated with operation and maintenance plans.		X	
	Records of nutrient application equipment calibration.		X	
	Changes made in CNMP.		X	

5. Feed Management

	Documentation	Required for CNMP Planned	Required for CNMP Applied	Location in CNMP Document
	Feed management plan.			

6. Other Utilization Activities

	Documentation	Required for CNMP Planned	Required for CNMP Applied	Location in CNMP Document
	More efficient and cost-effective methods (such as the following):			
	Improved systems for solids removal from liquid manure.			
	Improved manure handling, storage, and treatment methods to reduce ammonia volatilization.			
	Treatment systems that transform and/or capture nutrients, trace elements, and pharmaceutically active compounds from manure.			
	Improved composting and other manure stabilization techniques.			
	Treatment systems to remediate or replace anaerobic lagoons.			

7. Certification

	Documentation	Required for CNMP Planned	Required for CNMP Applied	Location in CNMP Document
	Producer's selection of alternatives (include written concurrence from producer on all planned practices)	X	X	
	Signature(s) of CNMP developer(s)	X	X	

NOTES:

CNMP Planned: The Comprehensive Nutrient Management Plan - a documented record of producer's decisions for manure and waste water handling and storage, land treatment and nutrient management.

CNMP Applied: After the planned measures in the CNMP have been implemented - the documentation for CNMP Applied includes the CNMP + field specific nutrient management and land treatment designs; any applicable designs for facilities for manure and waste water handling and storage; necessary records; feed management plans and documentation of other utilization options.