**SCHRACK FARM CERTIFICATION REQUEST**

 **REQUIRED DOCUMENTATION**

Schrack Farms is a dairy operation located in Clinton County. The dairy operation itself is located in Greene Township. The farmland supporting the dairy operation is located in Greene Township, Logan Township, and the Borough of Loganton.

 Currently, there are 1,250 mature cows, 304 heifers, and 195 calves. All mature cows and calves are confined 100% of the time. The replacement heifers are confined 95% of the time. There are also a few 4-H animals on the operation. There are 6 sheep, 4 pigs, 5 horses, 6 sheep and 10 goats (5 does and 5 kids). All 4-H animals are pastured year round, except the pigs and horses. The pigs are housed indoors only and the horses are inside, but they do have continuous access to pasture.

There are several crop rotations used on the farm. The basic rotation is a variation of 3 years of corn silage, 1 year of corn grain, and 4 years of alfalfa or mixed grass hay. Soybeans are sometimes added to the rotation instead of corn, as is rye.

Bed pack manure is used on the fields that are far from the main farm and liquid manure is used close to the main farm. Liquid manure application in the NMP is based on the maximum allowed to be spread based on crop needs, but the operator applies manure based on the field moisture conditions. Because of this, liquid manure is almost never applied at the maximum level.

**CERTIFICATION REQUEST DOCUMENTATION RQUIREMENTS**

1. **Baseline and Threshold (25 Pa Code 96.8)**

Schrack Farms meets baseline requirements of 025 PA Code 96.8 by having the following required items:

1. CAFO permit (025 PA 92a.29 and 025 PA 91.36)
2. Nutrient Management Plans for all tracts receiving manure (025 PA 83 Subchapter D)
3. Conservation Plans for all tracts (025 PA 102)

Schrack Farms is in full compliance of the requirements of its CAFO permit, Conservation Plans, and Nutrient Management Plan.

Schrack Farms meets the threshold needed to generate credits by the requirement states as, “Manure is not mechanically applied within 100 feet of a perennial or intermittent stream with a defined bed or bank, a lake or a pond”. Schrack Farms also applies commercial fertilizer at or below agronomic rates contained in the current *Penn State University Agronomy Guide* published by Pennsylvania State University.

**Credit Generation**

Schrack Farms is an entirely no-till operation. The only time discing might be done is if the fields are rutted up due to bad weather. In addition to no-till, Schrack Farms generates credits by planting cover crops on all corn silage acres and as many corn grain and soybean acres as it can every year. RUSLE2 calculations were run for each field over the entire operation. All credits generated by Schrack Farms are generated by going beyond the baseline tillage and/cover cropping requirements to meet the tolerable soil loss rate.

**Credit Calculation Method**

All credits for this certification request will be for Nitrogen (N) credits only. To do this, the current version of the Nonpoint Source Nitrogen Calculation Spreadsheet found on the PA DEP Nutrient Trading Webpage was used. The manure figures used include the manure application rates and manure analysis found in the original certification.

 All cropland associated with this certification lies within Watershed Segment 60. The watershed segment has a Nitrogen delivery ratio of 0.93. The Nitrogen Edge of Stream Ratios for this watershed is 55% for conventional tillage, 31% for conservation tillage, 78% for hay, and 15% for pasture.

Originally, 7,460 gallons was used because it was the average gallons per acre spread the previous year. Since Schrack Farms applies liquid manure based on soil saturation rates, this is a more appropriate starting point than to pick a random gallon per acre rate. The manure analysis rate of 17.5 #N /1000 gallons was used again for this certification request because it was the highest N rate that we have seen from this operation. Using the highest N rate also gave us the largest amount of credits possible. The gallons per acre amounts used in the spreadsheets was the highest rate that could be applied and still be under the crop’s agronomical needs according to the *Penn State Agronomy Guide*.

1. **Location Maps of the Proposed Prevention Reduction Activity (PRA)**

The following maps have been submitted to show the locations of the proposed PRA for each tract:

1. An FSA map showing the farm boundaries, the field boundaries of tracts that generate credits, adjacent or nearby road names, and any visible receiving streams.
2. A soil map showing the soils in the fields generating credits. A chart with all of the operation’s soil type symbols and their names is also attached with this proposal.
3. A topographic map which shows a tract’s general location, topography, and a latitude and longitude coordinate of the center of the tract’s PRA activities.
4. **Details on the Timing of Credits**

Credits will be verified twice annually. The first time credits will be verified is as soon after April 15th as possible for fields that had a cover crop. To receive credit for having a successful cover crop, there must be a minimum of 50% ground cover by April 15th of that year. The second verification will take place after the spring crops have been planted to verify what type of tillage was used.

1. **Water Quality Uses Under Chapter 93**

|  |  |  |  |
| --- | --- | --- | --- |
| Tract number(s) | Local Watershed Name | Watershed Name | Major Basin |
| 641and 643 | Gann Run and Tributaries | Antes and Lycoming Creeks | Susquehanna River |
| 638, 639 and 641 | Rockey Run and Tributaries | Antes and Lycoming Creeks | Susquehanna River |
| 547 & 548  | Jamison Run and Tributaries | Kettle and McEllhattan Creeks | Susquehanna River |
| 555, 558, 10346, 10455, and 10505 | McEllhattan Creek and Tributaries | Kettle and McEllhattan Creeks | Susquehanna River |
| 579, 583 and 588 | Bull Run and Tributaries | Bull Run and Fishing Creeks | Susquehanna River |
| 10455 | Cooper Run | Bull Run and Fishing Creek | Susquehanna River |
| 335, 343, 462, 463, 464, 579, 583, 643, 648, 649, 657, 660, 662, 664, 665, 666, 675, 678, 693, 10069, 10188, 10222, 10258, 10390 and 10484 | Fishing Creek and Tributaries | Bull Run and Fishing Creeks | Susquehanna River |
| 566, 570, 10497 and 10505 | Mill Creek and Tributaries | Bull Run and Fishing Creeks | Susquehanna River |
| 555, 558, 566, 567 and 10216 | Pepper Run and Tributaries | Bull Run and Fishing Creeks | Susquehanna River |
| 10491 and 10492 | Wolf Gap Run | Bull Run and Fishing Creeks | Susquehanna River |

All tracts are listed is Chapter 93 as having a designated use of HQ-CWF (High Quality- Cold Water Fishes).

Certain Segments of Fishing Creek are listed as impaired. The following table shows information related to the tracts that drain to an impaired stream segment.

|  |  |  |  |
| --- | --- | --- | --- |
| **Receiving Stream** | **Reach Code** | **Tract Number(s)** | **Source and Cause of Impairment** |
| Fishing Creek | 02050204001074 | 335 | Crop Related Agric. - Siltation |
| Fishing Creek | 02050204000115 | 583 | Crop Related Agric. - Siltation ; On site Wastewater - Nutrients |
| Fishing Creek | 0205020400116 | 579 & 10222 | Crop Related Agric. - Siltation ; On site Wastewater - Nutrients |
| Fishing Creek | 0205020400117 | 10069 & 10222 | Crop Related Agric. - Siltation ; On site Wastewater - Nutrients |
| Fishing Creek | 0205020400495 | 479 | Crop Related Agric. - Siltation ; On site Wastewater - Nutrients |

1. **Funding Source Information**

Schrack Farms’ has not received any public funding sources to generate these credits. All credits are free and clear financially.

1. **Risk Reduction Plan**

Provisions have been put into place to minimize the operator from not producing the credits through a contract with him, the Lycoming County Conservation District, and the County of Lycoming. The contract states that if the operator is under contract for future credits, he must supply them or provide the money required to pay the Lycoming County Nutrient Trading Program the amount it would cost to buy the amount of credits he did not generate. In most cases, we recommend that our producers sign one year contracts for practices that are not permanent like the CREP BMPs. In addition to this provision, the Lycoming Nutrient Trading Program has a fund set aside equal to 25%-30% of all previously sold credits in case there is a credit generator who defaults on contracted credits by no fault of his own. This fund could also be used to produce contracted credits for a generator instead of having a generator purchase them if he defaults depending on the circumstance of the credit default.

1. **Preservation and Conservation Easement Information**

Tracts 558 and 10505 are enrolled in the Clinton County Agricultural Preservation Program.

1. **Confidential Business Information**

N/A

1. **Submitting Person and PRA Participants**

**Submitter’s Information**

Submitting Agency: Lycoming County Conservation District

Address: 542 County Farm Road, Suite 202

 Montoursville, PA 17754

Contact Name: Rod Morehart, Chesapeake Bay Technician

Contact Phone #: 1(570) 329-1619

**PRA Participants Information**

Operation Information: Schrack Farms

Address: 860 W. Valley Road

 Loganton, PA 17747

Contact Name: Jim Harbach, Partner

Other PRA Participants: Employees of Schrack Farms planting, harvesting, applying manure and fertilizer under the guidance of Mr. Harbach.

1. **Professional Qualifications**

Rod Morehart received a B.S.in Wildlife Management from Delaware State University in 2001. He has worked in the conservation field full time since May 2001. He has been nutrient management certified in Maryland, Delaware or Pennsylvania since 2002. He is also a certified conservation planner through the NRCS’s training program. Rod has been involved with the Lycoming County Nutrient Trading Program since its inception. He has written most of the proposals that have been submitted to date. He has completed all of the annual field verification and credit verification submission work since the program started selling credits.

1. **Verification Plan**

Credit verification will start with a cover crop field check in the spring of every year. Successful cover crop fields will have their credits generated and sent in once all of the cover crop credit work is completed for all program participants. Another field verification visit will be made to inspect the tillage used on all fields that can generate tillage related credits after the spring planting has occurred. Those credits will be sent in as a separate verification request after the credit calculation work is completed. This will occur no sooner than June of each Compliance Year.

**Attachments to Supplement the Certification Request Form and**

**The Certified Request Required Documentation Word Document**

1. **Maps Folder (Each folder listed below contains an FSA map, Soil Map, and a Topographic Map)**

Tract 335 Tract 343 Tract 462 Tract 463 Tract 464 Tract 479

Tract 547 Tract 548 Tract 555 Tract 558 Tract 566 Tract 567

Tract 570 Tract 579 Tract 583 Tract 588 Tract 638 Tract 639

Tract 641 Tract 643 Tract 648 Tract 649 Tract 657 Tract 660

Tract 662 Tract 664 Tract 665 Tract 666 Tract 675 Tract 693

Tract 10069 Tract 10188 Tract 10216 Tract 10222 Tract 10258 Tract 10346

Tract 10390 Tract 10455 Tract 10484 Tract 10491 Tract 10492 Tract 10497

Tract 10505

1. **RUSLE2 Folder (Each folder listed has one PDF file for all the fields that generate credits)**

Tract 335 Tract 343 Tract 462 Tract 463 Tract 464 Tract 479

Tract 547 Tract 548 Tract 555 Tract 558 Tract 566 Tract 567

Tract 570 Tract 579 Tract 583 Tract 588 Tract 638 Tract 639

Tract 641 Tract 643 Tract 648 Tract 649 Tract 657 Tract 660

Tract 662 Tract 664 Tract 665 Tract 666 Tract 675 Tract 693

Tract 10069 Tract 10188 Tract 10216 Tract 10222 Tract 10258 Tract 10346

Tract 10390 Tract 10455 Tract 10484 Tract 10491 Tract 10492 Tract 10497

Tract 10505

1. **Spreadsheet Folder**

Schrack T 335 F 1 Schrack T 335 F 2 & 3 Schrack T 335 F 4

 Schrack T 343 F 1 & 4 Schrack T 343 F 2 Schrack T 462 F 1

Schrack T 462 F 2 Schrack T 462 F 3 Schrack T 462 F 4

Schrack T 463 F 1 Schrack T 463 F 2 Schrack T 464 F 1

Schrack T 479 F 1 Schrack T 547 F 1 Schrack T 548 F 1

Schrack T 548 F 2, 3 & 6 Schrack T 555 F1 Schrack T 558 F 1

Schrack T 566 F 1 & 2 Schrack T 567 F 2 & 3 Schrack T 570 F 1

Schrack T 579 F 2 & 7 Schrack T 579 F 5, 9 & 11 Schrack T 579 F 6 & 13

Schrack T 579 F 8 Schrack T 579 F 10 & 12 Schrack T 579 F 14

Schrack T 579 F 15 Schrack T 583 F 1 Schrack T 588 F 1

Schrack T 588 F 3 Schrack T 638 F 1 Schrack T 639 F 1

Schrack T 641 F 1 & 3-5 Schrack T 643 F 1 Schrack T 648 F 1-3

Schrack T 649 F 2 Schrack T 657 F 2-5 Schrack T 660 F 1

Schrack T 662 F 1 Schrack T 662 F 2 Schrack T 664 F 1

Schrack T 665 F 1 Schrack T 666 F 1 Schrack T 666 F 2

Schrack T 666 F 3 Schrack T 675 F 1 Schrack T 693 F 1

Schrack T 693 F2 & 3 Schrack T 10222 F 1 Schrack T 10069 F 1

Schrack T 10188 F 2 Schrack T 10216 F 1 & 2 Schrack T 10222 F 2

Schrack T 10258 F 1 Schrack T 10346 F 3-9 & 11-14

Schrack T 10390 F 1 Schrack T 10455 F 2 & 8 Schrack T 10484 F 1

Schrack T 10491 F 4 Schrack T 10492 F 1 & 3 Schrack T 10497 F 1

Schrack T 10497 F 12 Schrack T 10505 F 3 Schrack T 10505 F 4

1. **BMP Summary Spreadsheet**
2. **Spreadsheet Summary**
3. **Soil Type List**