Upper Chester River Showcase Watershed Project Farm Assessment Report

Developed and Conducted by:

- Maryland Department of Agriculture
- USDA- Maryland Natural Resources Conservation Service
- Kent Soil and Water Conservation District
- Queen Anne's Soil Conservation District
- Maryland Department of Natural Resources Forestry Service

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Upper Chester River Showcase Watershed Project

Farm Assessment Summary

The Upper Chester River Showcase Watershed Project is a USDA-led effort to focus resources in a small area and work with partners in order to increase conservation adoption. The project seeks to reach out to 100% of all residents in the watershed, and to identify strategies that can be applied successfully in other regions. The project originated from the Strategy for Protecting and Restoring the Chesapeake Bay Watershed (Federal Leadership Committee for the Chesapeake Bay, May 12, 2010) and President Obama's Chesapeake Executive Order. There are three Showcase Watersheds throughout the Chesapeake Region. In addition to the Upper Chester River Watershed, there is also the Conewago River Watershed in Pennsylvania and Smith Creek Watershed in Virginia.

The purpose of the Showcase Watershed Projects is to test and monitor the benefits of a focused, highly-partnered, voluntary approach to conservation. As such, it was important to conduct an assessment at the outset of the project, particularly on agricultural lands, so that progress made throughout the duration of the project could be compared to a meaningful baseline of conservation implementation.

The Upper Chester Farm Assessment was developed by the Project's Assessment Workgroup, with the input of partners of the project. The Assessment form consisted of five pages of questions that were specific to each farm tract. Questions were about the management of croplands, forest lands, pasture lands, wildlife and animal operations; past participation in conservation programs and implemented best management practices; and interest in new, innovative programs.

The Maryland Department of Agriculture provided a grant to fund Assessment Planners in each county. Permanent Conservation District staff also assisted in the assessments. The Assessment was conducted during the period between December 2010 and March 2011. The planners made efforts to contact every farmer in the Showcase Watershed by phone or in person during a field visit. Nearly all farmers in the watershed cooperated with the planners to complete the farm assessment. 53 assessments were completed, representing 87% of the agricultural land in the watershed. The assessments generally took anywhere from 1 hour to ½ day to complete. The results presented in this report are based on the responses from farmers given during the interview process.

Cropland Acreage

The vast majority of agricultural land in the Upper Chester River Watershed is used for grain farming. 86% of the cropland is used for growing corn, soybeans and cereal crops. Hay is grown on about 12% of cropland, vegetables on 2% and nursery stock on 11%.

According to the assessment results, 97% of acreage is covered by a current Nutrient Management Plan. 103 farms (out of 125) have a current Conservation Plan, and another 13 are interested in receiving a plan.

Farm Assessment Facts

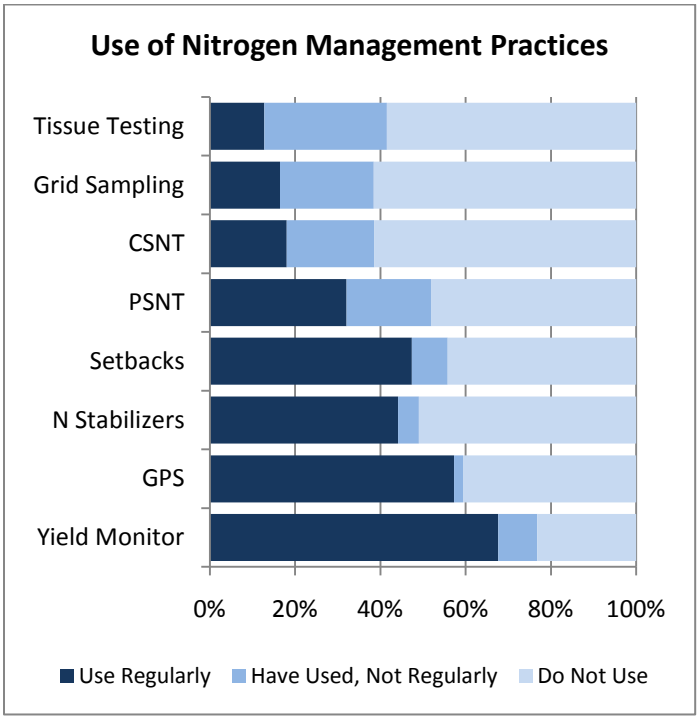
- ✓ 87% of the agricultural land in the Upper Chester Watershed is included in the Farm Assessments

According to Farmers:

- ✓ 85% of agricultural land has a current Conservation Plan
- ✓ 89% of cropland is regularly planted in cover crops
- ✓ Farmers have implemented more than 650 conservation practices- about 1/3 of those were implemented without assistance

89% of cropland acreage is regularly planted in cover crop (i.e. when feasible due to crop rotations and weather). Wheat is the most common cover crop, constituting 60% of the total acreage, followed by barley (16%) and rye (13%). Planting methods are most commonly no-till (41%) and broadcast with light tillage (26%).

53% of the cropland acreage receives manure. Out of these 58 farms, 52 incorporate their manure, 57 use manure analysis and 50 farms calibrate their manure spreader. There are 10 farmers that do not currently apply manure but would be interested.



The table above shows several common nitrogen management practices and their use among farmers in the Showcase Watershed. Most farms (56%) use at least two of these practices regularly. 25% of farms use four or more of these practices regularly.

Animal Operations

There are 13 animal operations in the watershed- 6 dairy, 5 beef and 4 poultry operations- with close to 4,700 animal units. 7 farms said they were a CAFO/MAFO; 6 have applied for a NPDES permit. 10 out of 13 farmers say that their waste storage capacity is adequate. All 13 farmers say that their mortality management system is adequate for their needs.

There are 293 acres of pasture in the watershed. On average, a farm with pasture land has 5.6 paddocks that are 4.8 acres each. There are an average of 42 animals per paddock, spending 7 days in each paddock, except for the farms where animals are grazed year round. 5 farmers said that they have runoff or erosion issues in their pastures. (Note that these figures may exclude smaller farms that were not assessed.)

Practices and Programs

Farmers listed 27 different kinds of conservation practices that they had installed on their own. The most popular non-cost-shared practices were Nutrient Management, Pest Management, Residue Management, Cover Crop, Filter Strips and Sediment Ponds.

40 farmers say that they've participated in Federal/State Cost-Share Programs. Most expressed satisfaction with the programs, but a few farmers cited a lengthy application and approval process, and eligibility as common issues.

Forest & Wildlife Management

There are 1014 acres of forest land within agricultural tracts/parcels, divided among 26 farmers. 42% of this acreage is actively managed. 11 farmers expressed interest in a Forest Stewardship Plan.

55 out of 68 farms assessed had natural areas, such as streams, ponds and wetlands. Out of those, 47 of waterways and wetlands are buffered with trees or grass. 34 farmers are interested in managing their property for wildlife benefits; 17 are interested in having a Wildlife Management Plan developed.

About the Upper Chester River Showcase Watershed Project

The Upper Chester River Showcase Watershed Project is a USDA-led effort to focus resources in a small area and work with partners in order to increase conservation adoption. The project seeks to reach out to 100% of all residents in the watershed, and to identify strategies that can be applied successfully in other regions. The project originated from the Strategy for Protecting and Restoring the Chesapeake Bay Watershed (Federal Leadership Committee for the Chesapeake Bay, May 12, 2010) and President Obama's Chesapeake Executive Order. There are three Showcase Watersheds throughout the Chesapeake Region. In addition to the Upper Chester River Watershed, there is also the Conewago River Watershed in Pennsylvania and Smith Creek Watershed in Virginia.

About the Farm Assessment

Purpose

The purpose of the Showcase Watershed Projects is to test and monitor the benefits of a focused, highly-partnered, voluntary approach to conservation. As such, it was important to conduct an assessment at the outset of the project, particularly on agricultural lands, so that progress made throughout the duration of the project could be compared to a meaningful baseline of conservation implementation. Other benefits of conducting a farm assessment include:

- Gain a greater understanding of farm management practices that aren't specifically addressed in a conservation plan.
- Identify practices that farmers implemented on their own (i.e. non-cost-shared practices), and define how these practices fit into local watershed models and Watershed Implementation Plans.
- Provide information and outreach to watershed residents regarding the programs available to them.
- Estimate the level of interest in various programs and assistance. For farmers interested in specific programs, their information could be passed to the appropriate agency or partner to follow up.
- Gain feedback from existing cooperators on their satisfaction with programs they've participated in.
- Identify priority areas to target outreach and water quality monitoring efforts.

Developing the Farm Assessment Form

The assessment form was drafted by referencing a number of similar efforts, including those in the Conewago Showcase Watershed in Pennsylvania and the Delaware Nutrient Management Survey. The draft form was presented to the Showcase Project's Assessment Workgroup for their review. Members of the Assessment Workgroup include representatives from the Kent and Queen Anne's Conservation Districts, the Maryland Department of Agriculture, NRCS, the Chesapeake Bay Program, the Maryland Association of Soil Conservation Districts and the Maryland Department of Natural Resources' Forest Service. The Assessment Form was also given to the partners for their review as well. Each group was

asked to review the form and make edits to improve the clarity and purpose of questions, and to ensure that the results of the assessment were as useful as possible. The final assessment form (Appendix A) consisted of five pages of questions, and was divided into the following sections: General Questions, Cropland Management, Headquarters and Livestock, Practices and Programs, Forest Management, Pasture Management, and Wildlife Management.

Time Frame

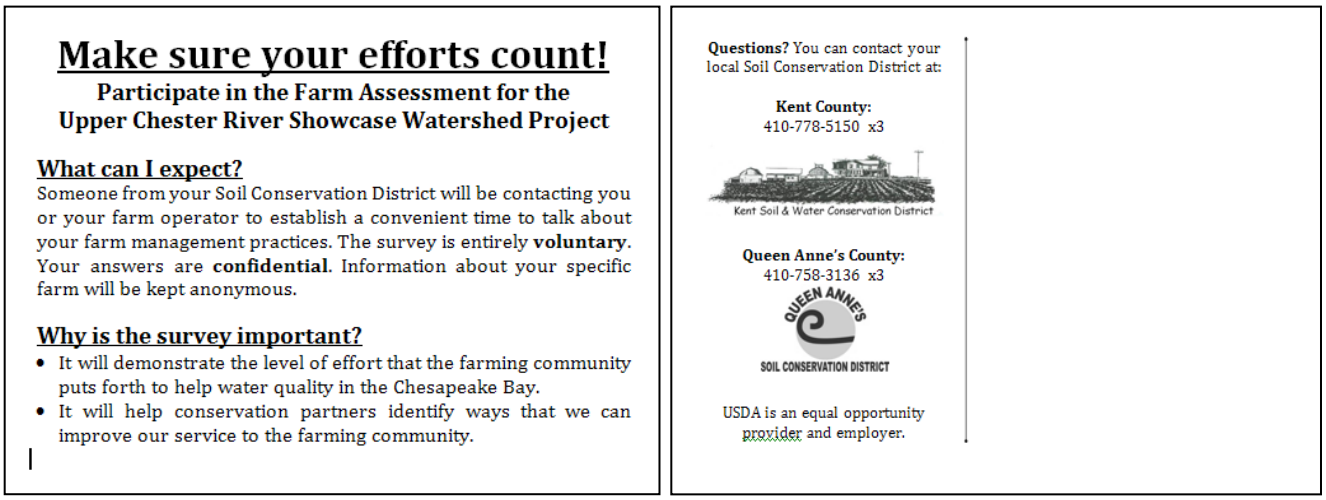
Postcards were mailed out to inform the agricultural community in the watershed about the farm assessment in November 2010. The assessment process began in December, and completed in March 2011. Initial results were compiled in April. The second phase of the project- field verification of non-cost-shared best management practices- was conducted in May 2011.

Staff

Through two cooperative agreements with the Maryland Department of Agriculture, each Conservation District was able to hire an Assessment Planner to complete the process. Delays in Queen Anne's County caused the District there to hire an alternate planner in February to complete the assessments. The planners in Kent and Queen Anne's Counties, while not trained as conservation planners, both had familiarity with local agriculture and local farmers. They found it useful to work as a team to complete the assessments, especially during the second phase of the project involving a field review of non-cost-shared conservation practices.

Farm Assessment Procedure

In November of 2010, a postcard was mailed out to a list of agricultural producers in the watershed to inform them about the Farm Assessments and to let them know that an Assessment Planner would be in touch with them to ask them questions about their farm.



Make sure your efforts count!

Participate in the Farm Assessment for the Upper Chester River Showcase Watershed Project

What can I expect?

Someone from your Soil Conservation District will be contacting you or your farm operator to establish a convenient time to talk about your farm management practices. The survey is entirely **voluntary**. Your answers are **confidential**. Information about your specific farm will be kept anonymous.

Why is the survey important?

- It will demonstrate the level of effort that the farming community puts forth to help water quality in the Chesapeake Bay.
- It will help conservation partners identify ways that we can improve our service to the farming community.

Questions? You can contact your local Soil Conservation District at:

Kent County:
410-778-5150 x3

Kent Soil & Water Conservation District

Queen Anne's County:
410-758-3136 x3

QUEEN ANNE'S SOIL CONSERVATION DISTRICT

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Front and back of postcard sent to producers prior to the Farm Assessment

For each county, a list of farms was developed using data on Common Land Units and Ag-assessed Tax Parcels. The Assessment Planners called everyone on the list to make an appointment at the farmer's convenience. Some appointments were made in the field and some farmers preferred to come into their local field office.

An assessment form and map were printed for each farm tract, and the planners sat down with the farmers and went over the questions with them tract by tract, highlighting areas on the maps where the farmer referenced non-cost-shared practices and/or water quality issues that needed to be addressed. After the interview, the planners reviewed the farmer's conservation plan to fill in any missing information. The completed assessment forms were then entered into a database to facilitate analysis of the data.

Verification of Non-Cost-Shared Practices

In the Farm Assessment process, farmers identified conservation practices that they implemented on their own, without federal or state cost-share or technical assistance. Conservation practices are typically accounted for through these programs and receive credit for reducing nutrient and sediments in the Chesapeake TMDL and Maryland's Watershed Implementation Plan, or WIP. The non-cost-shared practices aren't counted through this tracking system, and thus don't currently receive the credit that they're due.

The National Association of Conservation Districts is working on a Chesapeake Watershed-scale project to identify the means that each of Bay States use to capture these non-cost-shared practices, and to coordinate future efforts. In Maryland, the Department of Agriculture has drafted a Non-Costshared Best Management Practice Verification Manual to "develop a sustainable protocol for the collection of non-costshared agricultural best management practices".

To inform this process, the Upper Chester Showcase Project staff created a series of worksheets (Appendix B) to gather information about the non-cost-shared practices that farmers reported in the Farm Assessment. These worksheets used the NRCS Field Office Technical Guide and the Maryland Agricultural Cost-Share Manual to develop a list of criteria on each practice, which was then divided into two categories: field review and farmer interview. The intention for these worksheets was to enable Assessment Planners to go into the field and gather all of the data necessary for the Field Office staff to make the determination of whether or not the practices met conservation practice standards.

A worksheet was created for each of the following practices:

- Carbon Sequestration
- Composting Facilities
- Continuous No-Till Management
- Cover Crops
- Drainage Systems
- Fencing
- Grass, Forest & Wildlife Habitat Buffers
- Grassed Waterways
- Heavy Use Area Protection
- Irrigation Management
- Prescribed Grazing
- Roof Runoff Structures
- Vegetative Environmental Buffers
- Waste Storage Facilities
- Watering Facilities
- Wetland Restoration

Once the Field Office Staff reviews the completed worksheets and makes the determination of which practices meet conservation practice standards, those practices can be entered into Conservation Tracker. The Maryland Department of Agriculture can also use the worksheets to develop definitions for "Minimum Practice

Standards", which will describe practices that don't fully meet conservation practice standards, but should receive partial credit in the Chesapeake TMDL and Maryland WIP. Initial results of this process are as follows:

- 14 worksheets were developed for the field review process, to describe the highlighted practices above
- 29 people contacted; information was gathered on 89 practices on 53 farms
    - Not all practices were included in the field review process, including nutrient management, pest management and residue management. (The omission of residue management was an oversight- a worksheet was developed, but the farmers who implemented residue management were omitted from the contact list.)
    - Additional information needed should be gathered during another contact opportunity, such as a Conservation Plan Update or annual review, or at least during a period of relative inactivity in farming operations
- 3 people unresponsive; 3 people no longer interested in participating (likely due to the numerous contacts for different phases of the project combined with the recent timing of those contacts)
- 1 additional practice identified during the field review process
- Overall, among 89 practices:

Practices with completed worksheets; in need of determination of whether or not standards are met	37 practices (42%) (including 10 farms where cover crop info was gathered via phone interview instead of worksheet)
Practices were cost-shared	20 practices (22%)
Practices were identified in error due to combining tract info on assessments	12 practices (13%)
Practices were natural features	3 practices (3%)
No response from farmer	3 practices (3%)
Practices were already counted under another name	3 practices (3%)
Practices were on farms where the owner/operator is no longer willing to participate	11 practices (12%)

- Findings specific for each practice:

Practice	# of Farms	Extent Implemented	Finding
Carbon Sequestration	1	24.08 ac	- 1 farm completed worksheet
Cover Crop	25	384 ac	- 4 farms were cost-shared - 6 farms where info was combined with other tracts during the assessment; info is included within other tracts - 3 farms are owned/managed by people who are no longer willing to participate - 1 non-responsive - 10 people previously answered questions regarding cover crop during a phone interview before worksheet was developed - 1 person filled out worksheet
Filter Strip	11	3.28 ac	- 1 farm was cost-shared - 3 farms were identified in error due to combining tracts during farm assessment - 2 farms are owned/managed by people who

			are no longer willing to participate - 5 worksheets completed
Grass Buffer	4	0.43 ac >35' wide 1.38 ac <35' wide	- 4 worksheets completed
Grassed Waterway	7	0.37 ac	- 3 farms cost-shared - 2 farms owned/managed by people who are no longer willing to participate - 2 worksheets completed
Heavy Use Area Protection	1	3 pads, 0.1 ac	- 1 worksheet completed
Irrigation Water Management	6	230 ac	- 3 farms cost-shared - 1 non-responsive - 2 worksheets completed
Prescribed Grazing	1	90 ac	- 1 worksheet completed
Riparian Forest Buffer	2	-	- 1 non-responsive - 1 farm where buffer was a natural feature
Roof Runoff Structure	5		- 1 cost-shared - 1 ID'd in error due to combining tracts during the assessment - 2 farms owned or managed by people no longer interested in participating - 1 worksheet completed
Sediment Pond	9	800+ acres drain to non-CS ponds	- 5 cost-shared - 1 ID'd in error due to combining tracts during assessment - 3 worksheets completed
Stream Fencing	5	Need to review maps to estimate	- 1 farm ID'd in error due to combining tracts during the assessment - 2 farms owned/managed by people who no longer wish to participate - 2 worksheets completed
Waste Storage Facility	1	1	- 1 worksheet completed
Water Control Structure	4	Needs further review; 50+ ac	- 1 cost-shared - 1 already counted under "Sediment Pond" - 2 worksheets completed
Watering Facility	1	1	- 1 worksheet completed
Wetland Restoration	2	-	- On both farms, wetlands are natural features
Wildlife Habitat Buffer	4	-	- 2 cost-shared - 2 farms where practice is already counted under another name

Results

General Information

Between December of 2010 and April of 2011, 53 separate assessments were conducted. Every farmer with a FSA Farm and Tract number or agriculturally-zoned tax parcel were contacted at least once by phone or in person by an Assessment Planner. Nearly all of the farmers contacted cooperated with the planners to fill out the assessment form.

The total agricultural land assessed through this process represents 87% of the agricultural land in the watershed. This percentage is roughly the same in both Kent and Queen Anne's Counties.

Owned Acreage vs. Rented Acreage

	Sum	Average
Owned	17,185.9	429.6
Rented	28,385.4	834.9
Total	45571.3	1,264.5

Location:

- 37 (70%) farm in Kent County. Kent County has 12,133 FSA acres.
- 25 (47%) farm in Queen Anne's County. Queen Anne's County has 9,436 FSA acres.
- 11 (21%) farm in both counties.

Ag Land Preservation:

- 34% of farmers have land in a preservation program

Off-farm Employment:

- 26 (49%) do not have an off-farm job.
- 6 (11%) have a part-time job.
- 8 (15%) have a full time job.
- 13 people declined to respond.

Top Considerations when Trying a New Practice

	No.	%
Cost vs. Profit	44	83%
Time Investment	12	23%
Testimony of Other Farmers	12	23%
Capital Investment	18	34%
Risk of Yield Loss	15	28%
Availability of Info	2	4%
Availability of Cost-Share	18	34%
Industry Influence	1	2%
Track Record of Practice	11	21%
Other	0	0%

Sources of Information about New Management Strategies:

	No.	%
Cooperative Extension	29	55%
Consultant	21	40%
Internet	21	40%
Conservation District/NRCS	27	51%
Farmers	29	55%
Journals	35	66%
Fertilizer Supplier	24	45%
Industry Meetings	23	43%
Mailings	19	36%
Nutrient Management Training	17	32%
MD DNR	10	19%
Other	0	0%

Nutrient Management Plan Authorship

	No.	%
Self-Written Plan	3	6%
Southern States	1	2%
AET	8	15%
Willards	8	15%
Crop Production Services (CPS)	3	6%
Farm Site Technologies	0	0%
University of MD Extension	15	29%
Other:		19%
Craig McSparran	3	
Dave Hill	1	
Dave Kann	1	
Luke McConnell/ Agrinomics	1	
Red Barn Consultants	1	
Synagro	1	
Tony Keen	2	

Practices and Programs

Farmers gave responses to Practices and Programs questions for 125 farms. (A single farmer may own or operate multiple farms.)

Conservation Plans

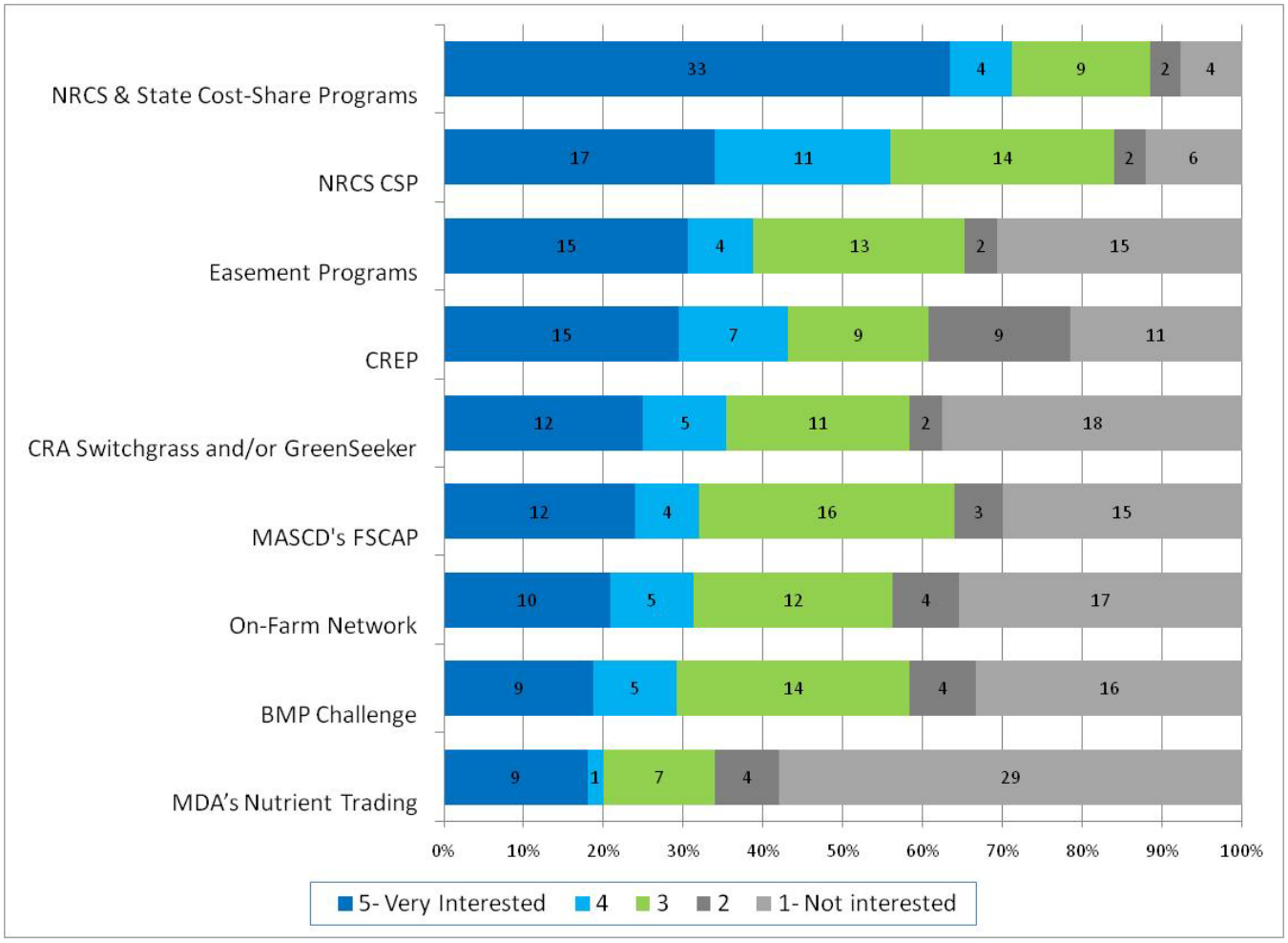
- Farmers said that 103 of the farms have a current conservation plan; There is interest for an update on 5 of those farms; Information has been passed to the appropriate agencies
  - Current plans include 13,638 acres, or 85% of the assessed acreage
- Out of 22 farms that do not have a current conservation plan
  - Farmers are interested in new plans for 13 farms (1,009 acres, or 6% of ag land)
  - No interest for a plan on 9 of the farms (1,475 acres, or 9% of ag land)
- All of the conservation practices are accounted for in the conservation plan on 55 farms; Some practices are accounted for on 7 of the farms, no response/unknown for the rest of the farms

Conservation Practices

	Installed	Need	Cost-Shared	Non-Cost-Shared	NGO Funded
Agrichemical Handling Facility	3	4	1	1	-
Amendments for Animal Waste Treatment	1	-	-	-	-
Animal Mortality Facility	2	-	1	-	-
Composting Facility	4	2	2	-	1
Comp. Nutrient Mgmt. Plan	15	-	11	1	-
Conservation Cover	31	-	18	9	2
Cover Crop	82	-	60	27	-
Critical Area Planting	16	-	9	8	-
Diversions	7	-	6	2	-
Feed Management	3	-	-	2	-
Filter Strip	57	1	43	11	-
Grassed Waterway	51	4	44	9	-
Grade Stabilization Structure	16	1	12	1	-
Heavy Use Area Protection	8	2	6	1	-
Irrigation Management	19	3	10	7	-
Nutrient Management	92	1	30	31	-
Pasture Management	4	1	-	2	-
Pest Management	58	2	11	39	-
Prescribed Grazing	3	1	-	1	-
Residue Management	54	2	9	32	-
Riparian Forest Buffers	22	-	9	2	7
Roof Runoff Structures	14	1	9	5	-
Sediment Pond	35	-	17	12	-
Stream Crossing	4	2	2	2	-
Streambank Stabilization	1	-	1	-	-
Stream Fencing	6	-	1	5	-
Tree Planting	19	-	8	4	7
Waste Storage Facility	15	1	14	1	-
Water Control Structures	12	1	7	3	-
Watering Facility	4	1	2	1	-
Windbreak	8	1	3	5	-
Total	**666**	**31**	**346**	**224**	**17**

- These figures are based on the farmers' responses during the assessment. They have not been compared with individual records or conservation plans. Additionally, some figures were revised during the field review of farmer-funded practices. For more information regarding these revisions, please see the section "Verification of Non-Cost-Shared Practices" on page 9.
- 40 farmers said that they have participated in federal/state cost-share programs
  - Most expressed satisfaction with programs
  - Comments:
    - "More money always nice"
    - "Government giving away too much money"
    - "Eligibility can be a pain"
    - "Cost-share process takes too long"
    - "Waterways are too deep and difficult to cross"

Interest in Farm Bill and Partners' Programs



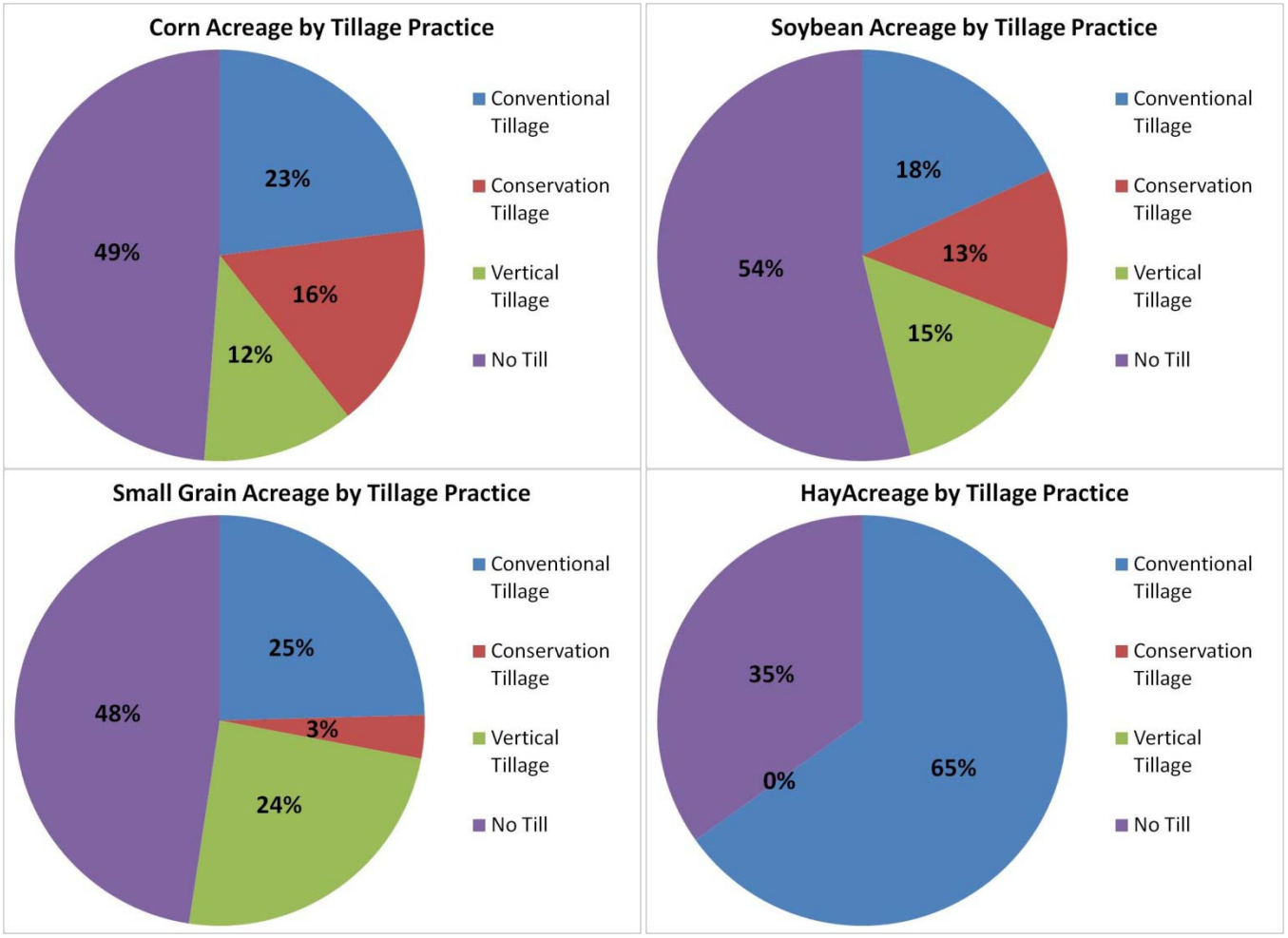
Cropland Management

Farmers gave responses to Cropland Management questions for 128 farms. (16,312 Total Acres)

Crops Grown

	# Farms	% Farms	# Acres	% Cropland
Corn	108	84%	13,746	84%
Soybeans	102	80%	12,638	77%
Small Grains	87	68%	11,490	70%
Hay	14	11%	2,015	12%
Vegetables	5	9%	401	2%
Nursery Stock	7	5%	1,738	11%

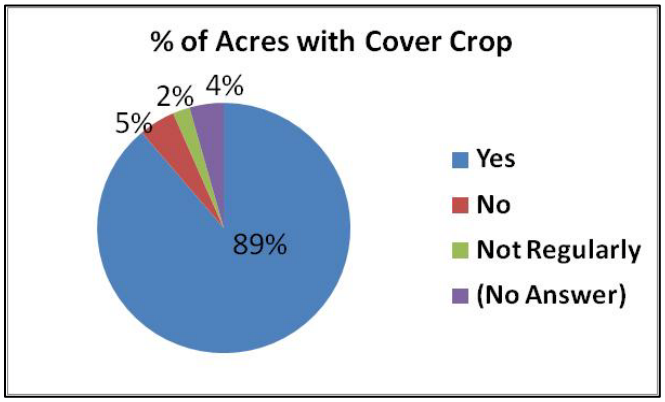
Tillage Practices by Crop



Irrigation

- 34 tracts have irrigation; 2,213.84 ac, or 14% of cropland
- 8 tracts are fertigated; 468 ac, or 3% of cropland

Cover Crops



	# Farms	# Acres	% Acres
Yes	103	14,481	89%
No	8	762	5%
Not Regularly	4	355	2%
(No Answer)	13	715	4%

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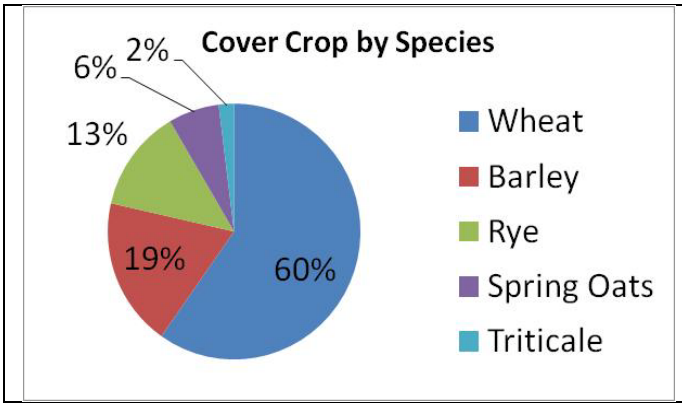
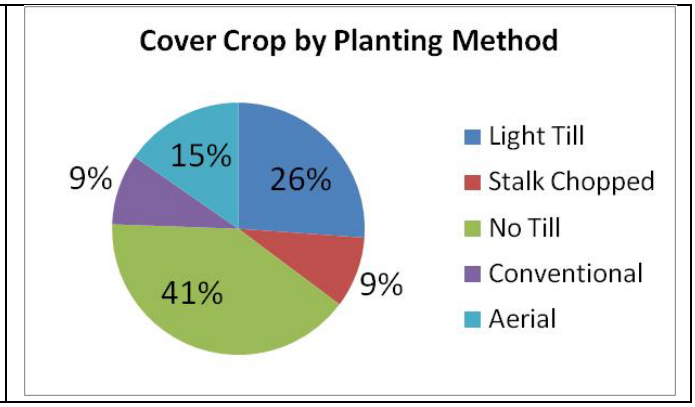




Nutrient Management Plan Status

- "Do you have a current nutrient management plan?"

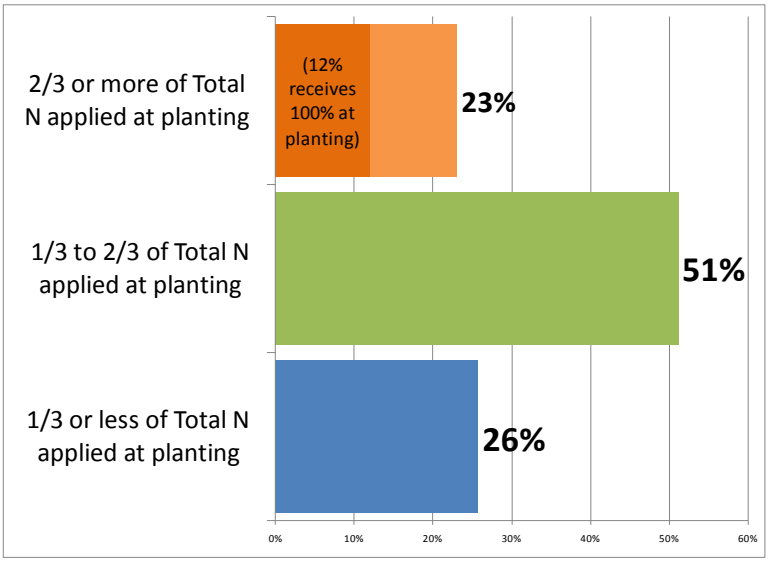
	# Farms	% Farms	# Acres	% Acres
Yes	122	95%	15,896	**97%**
No	6	5%	417	3%

Soil Test Frequency

- "Do you have soil tests taken?", "How often?"

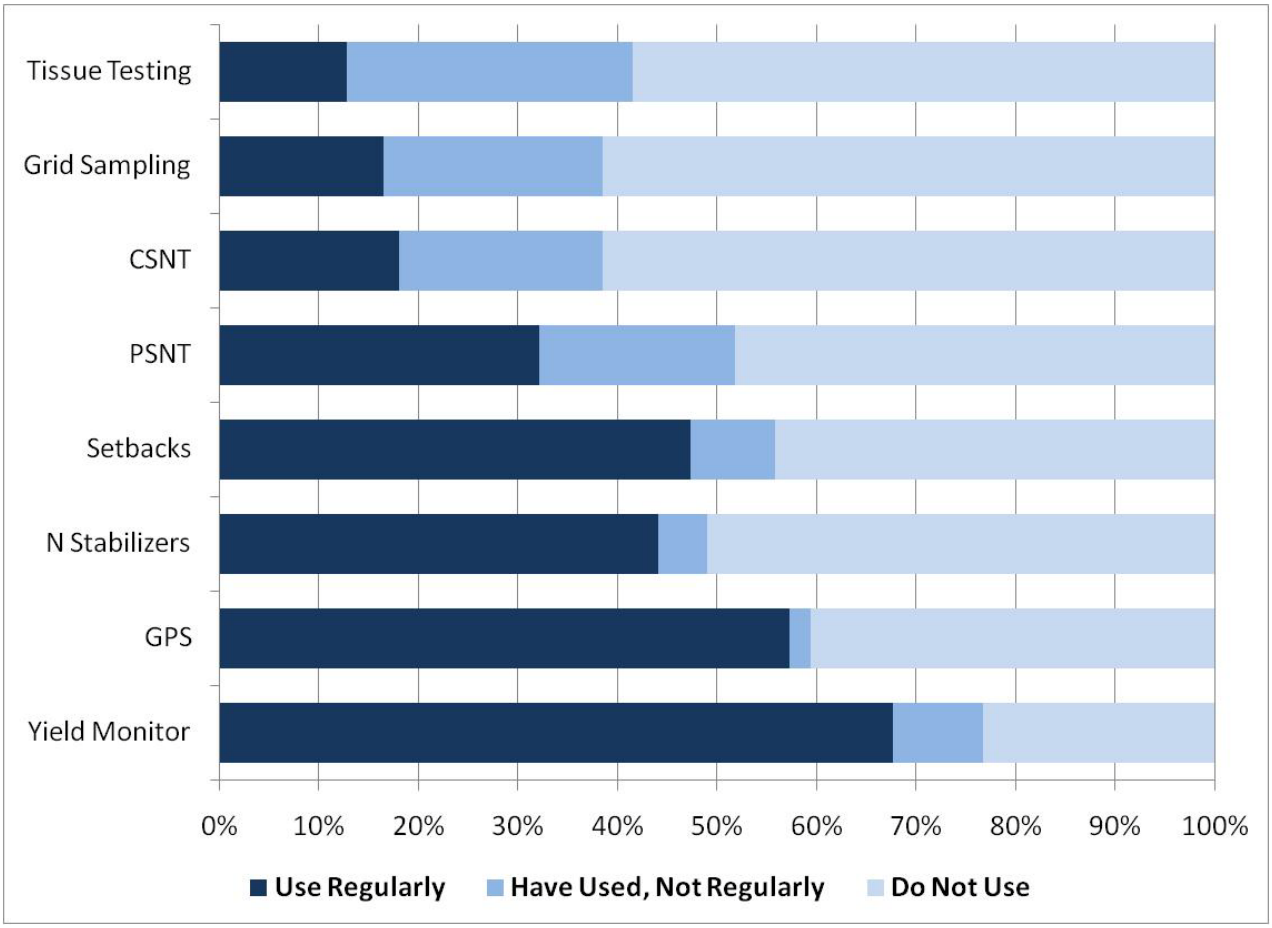
	# Farms	% of Farms
Every Year	105	82%
Every 2 Years	9	7%
Every 3 Years	8	6%
No Soil Testing/ No Response	7	5%

Splitting Nitrogen Applications on Corn



- The average is about 50% at planting and 50% at sidedress.
- The chart on the left shows that about ¼ of farmers apply most of their nitrogen at planting and another ¼ apply most of their nitrogen at sidedress. Those who apply most of their nitrogen at planting don't have much room to adjust their total N applications to compensate for wet weather early in the growing season.

Other Nitrogen Management Practices



- Values for the Corn Stalk Nitrate Test (CSNT) and the Pre-Sidedress Nitrate Test (PSNT) are listed for corn growers only.
- 9 out of 48 crop farmers (19%) said that "Risk of Yield Loss" was a deterrent from trying a practice listed above. (8 grain farmers, 1 vegetable farmer)

Use of Multiple Nitrogen Management Practices

Over half of the farms assessed used two or more of the practices listed in the previous section.

# Practices	# of Farms	% of Farms
No practices	17	13%
1 or more practices	110	86%
2 or more practices	72	56%
3 or more practices	48	38%
4 or more practices	32	25%
5 or more practices	17	13%
6 or more practices	4	3%
7 practices	1	1%

Basis for Crop Yield Goals

	# of Farmers
Past Record of Yield	13
Soil Type Only	0
Past Record + Soil Type	24
No Response	12

Accounting for Residual Nutrients

	# Farmers
Accounts for residual nutrients	36
Doesn't account for residual nutrients/ No Response	12

- Residual nutrients were accounted for by using: Nutrient Management Plans, Soil Tests, UMD Recommendations and Soybean Credits

Sludge Application

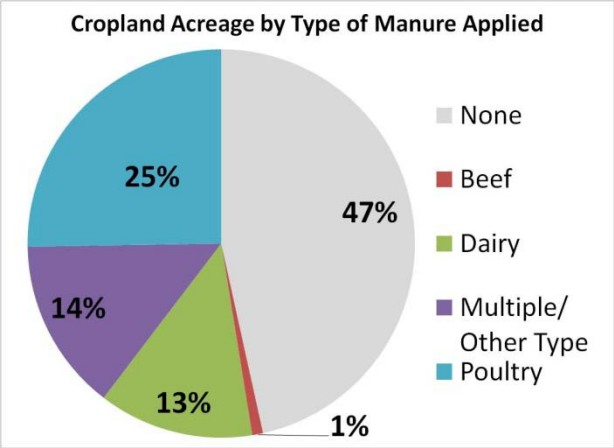
- Sludge is not applied to any of the farms that were assessed in the Showcase Watershed.

Enhanced Nutrient Management

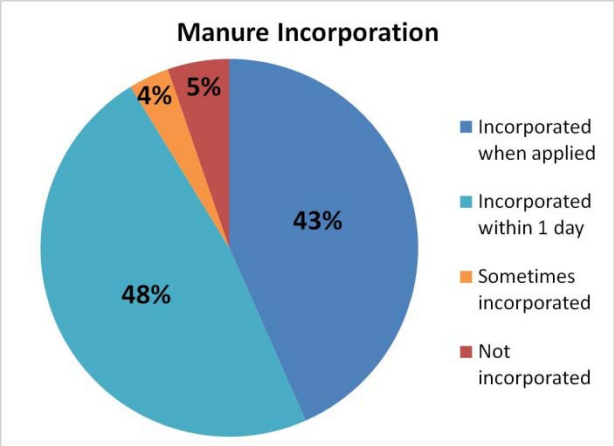
- "How many acres receive at least 15% less nutrients than recommended for the crop?" (Unable to determine conclusively from the question whether or not 15% less *nitrogen* is applied than is recommended.)
- 62 tracts specified "0" acres receive less nutrients than recommended for the crop.
- 36 tracts have at least some acreage with reduced nutrients applied
  - 3,516 (22%) cropland acres

Manure Application

- 58 tracts receive manure; 8557 acres (53% of crop ac.)



- Of those tracts, 52 incorporate their manure, 4 do not incorporate their manure, and 2 sometimes incorporate their manure



- 57 farms out of 58 use manure analysis.
- 50 farms out of 58 calibrate their manure spreader.
- There are 10 farmers that do not currently apply manure but would be interested. The total acreage on those farms is 3,180 acres.

Phosphorus Site Index

- "How many acres have a Phosphorus Index under 150?"
- 28 Tracts No answer/Unknown; 4605 acres
  - No specific traits- field size, apply manure, etc.- were different among those who answered the question compared to those who didn't
- Among the 100 farms that provided a value:
  - 15 % of the total acreage has an PSI over 150
  - 77 farms have 0 acres over 150.
  - Among farms where no manure is applied
    - Average = 18% acreage
    - 42 farms have 0 acres over 150; 10 farms have acres >150
  - Among farms where manure is applied
    - Average= 13% acreage
    - 35 farms have 0 acres over 150; 9 farms have acres >150

Pest Management

- Have a pest management plan?
  - 62 farms, 8293 acres have a pest management plan (51%)
  - 66 farms, 8019 acres do not have a pest management plan (49%)
- How many scout?
  - 117 farms, 15227 acres scout (93%)
  - 12 farms, 1085 acres do not scout (7%)
- How many need assistance with noxious weeds?
  - 20 farms, 3861 acres need assistance with noxious weeds (24%)
  - 108 farms, 12451 acres do not need assistance with noxious weeds (76%)

Headquarters and Livestock-

13 Farmers with 8 or more Animal Units Assessed

Animal Operations Statistics

- Animal Types
    - 6 Dairy Operations
    - 5 Beef Operations
    - 4 Poultry Operations
- 4,672 Animal Units in Showcase Watershed
    - 2,058 Poultry Animal Units (514,425 birds/flock)
    - 2,589 Cattle Animal Units
        - 1,485 Dairy Cows
        - 510 Beef and Other Cows
- 7 Farms said they were a CAFO/MAFO; 6 have applied for a NPDES Permit

Waste & Mortality Management

- 9 producers apply all of their manure on cropland
- 2 producers apply some and sell/give away some
- 2 producers sell/give away all manure
- Out of the 11 farmers who apply their manure, it is applied to their crops:
    - When labor and equipment are available- 0 farmers
    - Varies depending on the crop- 4 farmers
    - When field is open- 7 farmers
    - As disposal needs dictate- 4 farmers
    - In accordance with nutrient management plan- 5 farmers
- Waste is managed by:
    - Stockpiled in field for later use/disposal- 3 farmers
    - Kept in storage for later use/disposal- 10 farmers
    - Applied directly to fields- 3 farmers
    - Cleanout occurs when crops are fertilized- 1 farmer
    - Give/Sell waste to other operators- 2 farmers
- Waste Storage
    - 9 out of 13 farmers list a waste storage facility (shed, lagoon, or other)
        - 10 out of 13 say their waste storage is adequate
- Animal Mortality
    - 13 out of 13 farmers list their mortality management (100% poultry operations have a composting facility; 100% of cattle operations use a rendering service), and all of them say that their mortality management system is adequate for their needs

Headquarters Information

- 42 Farms Responded
- Runoff/Erosion Problems
    - 13 farms list runoff and/or erosion problems around farm buildings and/or crop fields and pastures.
- Pesticide and Fertilizer Storage

        - 33 do not store pesticides and fertilizers on the farm
        - 6 have containment controls in place
        - 3 store pesticides and fertilizers, but have no containment controls
    - Energy Audit
        - 2 farms have had an Energy Audit
        - 9 farms are interested in having an Energy Audit; Information has been passed to appropriate agency
    - Water Pollution Concerns
        - 4 farms list a water pollution concern; Areas were described and/or highlighted on a map

Pasture Management

Farmers answered Pasture Management questions for 17 farms.

Pasture Information

- 293 Total acres of pasture in the watershed
- 24 acres on average for each farm with pasture

How many paddocks?	Average= 5.6 per farm
Days spent in paddock	Average = 7 days (2 are year-round)

Acres/paddock	Average= 4.8 acres
# Animal/paddock	Average = 42 animals

- "Do livestock have access to streams, ponds or wetlands?"
    - Yes- 1
    - No- 16
- "Do you have a grazing plan?"
    - Yes- 2
    - No- 15
        - 2 interested (+1 update); Information has been passed to the appropriate agencies
- "Are you interested in attending or hosting a pasture walk?"
    - Attending- 4
    - Hosting- 0
- "Are soil tests done on the pasture fields?"
    - Yes- 7, 286 acres
    - No- 10, 7 acres
- "Have the fields been limed?"
    - Yes- 10
    - No- 7
- "Are there runoff and/or erosion problems in the pastures?"
    - Yes- 5
    - No- 12

Forest Management

Farmers answered Forest Management questions for 60 farms.

Forest Acres on Agricultural Tracts/Parcels

- 1014 total acres of forest within agricultural tracts/parcels
  - 26 farmers
  - 39 acres per farmer on average
  - Ranges from 5 acres to 100 acres on a single farm tract
- No forest land is grazed or used as shade for livestock
- Actively managed forest land
  - 12 tracts; 426.5 acres are actively managed

	Number of Tracts	Forest Acres	Average Acreage	% of Total
Actively Manage	12	426.5	35.5	42%
Do Not Actively Manage	48	587.5	12.2	58%

Forest Stewardship Plans

- "Have you had a Forest Stewardship Plan written by a licensed forester in the last 15 years?"; Information about interested landowners was forwarded to the appropriate agency.

Yes	21 farmers	43.5 acres
No	39 farmers	970.5 acres
- Interested?	- 11 new; 3 updates	- 310.7 new acres

Timber Harvest

- Have you ever harvested your timber?

Yes	24 farmers	175 acres
No	36 farmers	839 acres

- With the assistance of a licensed forester?

Yes	22 farmers	147 acres
No	2 farmers	28 acres

- In the last two years?

Yes	16 farmers	
No	8 farmers	175 acres

- Did you employ post-logging timber stand improvement?

Yes	19 farmers	10 acres
No	5 farmers	165 acres

Forestry Best Management Practices on Agricultural Land

	Practiced/ Installed	Need	NRCS/DNR Funded	Farmer Funded
Non-commercial Timber Stand Improvement/Thinning	13	7 145.7 ac	2	1
Forest Harvesting Practices (for Erosion & Sed. Control)	12	-	-	-
Other Tree/Shrub Planting	15	2	2	

Wildlife Management/ Heritage Management

Farmers answered Wildlife Management questions for 68 farms.

Natural Areas on Agricultural Land

- "Are there any natural areas (ponds, wetlands, hedgerows, grasslands) on the farm?"
    - Yes- 55
        - Are all ponds, streams, ditches and wetlands buffered with either grass or trees?
            - Yes-47
            - No- 8
    - No- 13

Wildlife Management

- "Are you interested in managing your property for wildlife benefits?"
    - Yes- 34
    - No- 34
- "Are you aware of any sensitive plant and/or animal species on your property?"
    - Yes- 15
    - No- 53
- "Interested in learning more about this?"
    - Yes- 5
    - No- 63
- "Are you aware of any invasive or exotic plant and/or animal species on your property?"
    - Yes- 10
    - No- 58
- "Would you be interested in having a wildlife management plan developed?"; Contact information was forwarded to the appropriate agency.
    - Yes- 17
    - No- 51

	Practiced/ Installed	Need	NRCS/MDA Funded	Farmer Funded	NGO Funded
Habitat for Declining Species	-	-	-	-	-
Shallow Water Area for Wildlife	32	2	22	8	2
Wetland Restoration	9	2	9	2	2
Wildlife Habitat Buffer	21	-	16	4	2
Other : (Both farms said "CRP")	2	-	2	-	-

Differences between Kent and Queen Anne's Counties

Although the results of the Farm Assessment have been compiled together from each county to form a picture of the whole watershed, it should be noted that there were sometimes marked differences in responses between the two counties. These findings may or may not be representative of differences between the two counties as a whole- the Farm Assessment represents a relatively small number of farmers- but it may also point to significant differences among groups, even in small areas. If true, then it may be that local groups are naturally tuned to the needs and preferences of their local audience, but that state and regional efforts may require adaptation in different areas to be most effective.

On average, Showcase farmers in Kent County and Queen Anne's Counties owned about the same amount of land- between 300-350 acres. However, farmers in Kent County rented nearly twice as much land as in Queen Anne's County, and so the average farmer in Kent County farms about 45% more acreage than the average Queen Anne's farmer- 937 acres and 645 acres, respectively.

Showcase farmers in Kent County were more likely to participate in an ag land preservation program than Showcase farmers in Queen Anne's County- 54% and 18% respectively. Later in the assessment, when farmers were asked about their interest in easement programs, the results were consistent-48% of the farmers in Kent County were interested, where only 20% of the farmers in Kent County were interested.

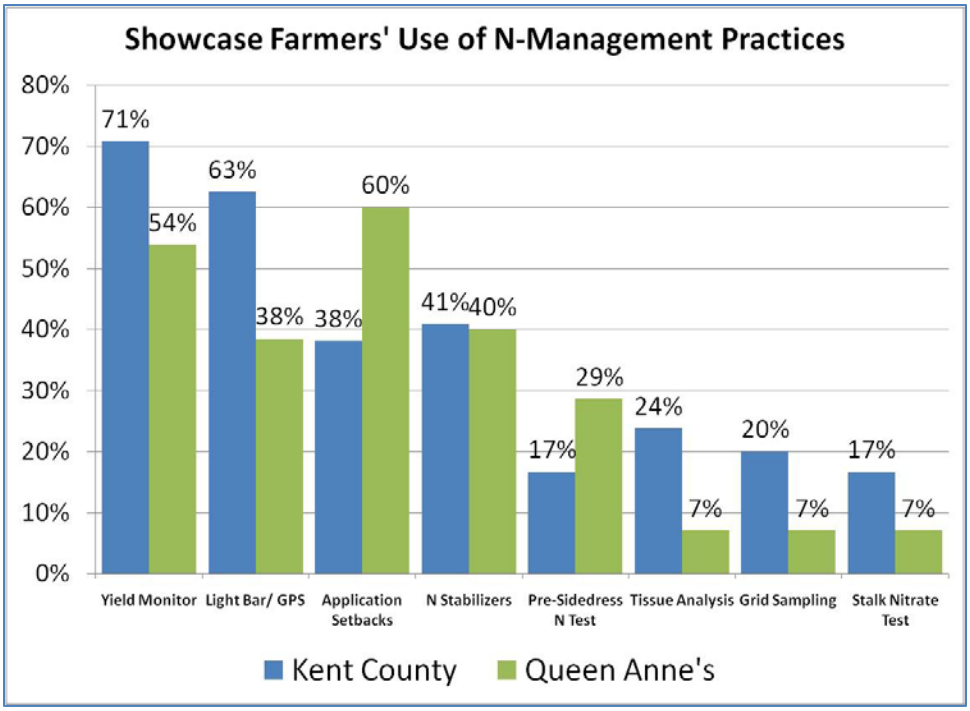
When asked how they learn about new management strategies, Showcase farmers in Kent County referenced many different sources- there were five resources where at least half of the farmers turned for information:

- Journals (79%)
- Conservation District/NRCS (61%)
- Extension (61%)
- Fertilizer Supplier (52%)
- Other Farmers (52%)

By contrast, Showcase farmers in Queen Anne's County only had one source where at least half of them turned for information: "Other Farmers" (63%). The next most popular sources were "Extension" and "Journals" (47% for each), followed by "Conservation District/NRCS" and "Industry Influence" (37% for each).

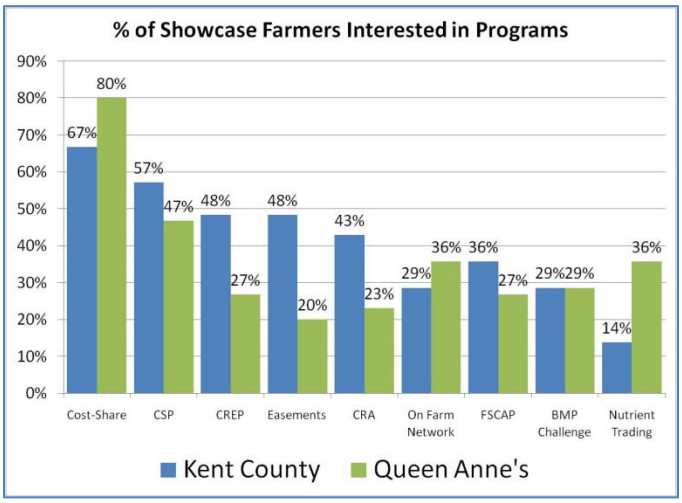
When it comes to trying a new practice, the two most important considerations were the same for both counties: "Cost vs. Profit" and "Capital Investment". For Queen Anne's County, the" Availability of Cost-Share" was the third most important factor (53% counted it among their top considerations), while in Kent County, "Time Investment" and "Testimony of Other Farmers" tied for third (27% each). (It is interesting to note that while "Other Farmers" was a leading source of information about management strategies among Queen Anne's farmers, their testimony wasn't counted as of the most important considerations in trying a practice.)

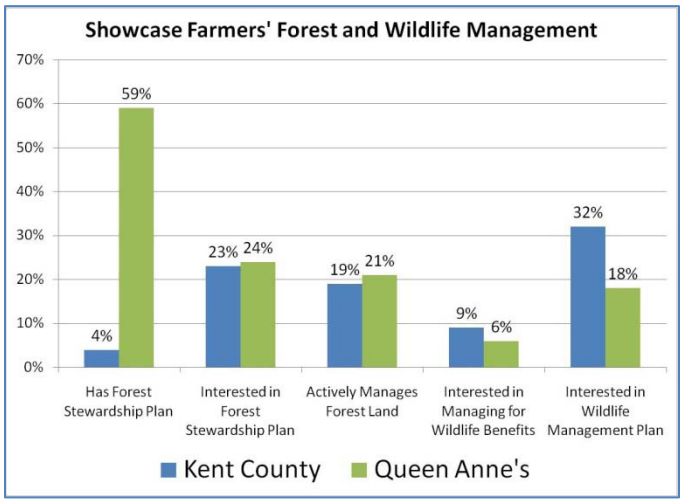
The Showcase farmers in the two counties were similar in the percentage that grew cover crops and in how they split their nitrogen applications. Their use of N management practices differed somewhat, but rather than one county consistently using every practice more often than the other- they differed on the practices that they employed. Queen Anne's County Showcase farmers were more likely to use application setbacks and PSNTs, where Kent County farmers were more likely to use a yield monitor, light bar, tissue analysis, grid sampling and the corn stalk nitrate test.



The interest in Farm Bill and Partner-led programs varied between the two counties also. 88% of the Showcase farmers in Queen Anne's County say that they have a current conservation plan, compared to 74% in Kent County. As mentioned earlier, Kent County Showcase farmers show more interest in easement programs, but also in CREP and the Chester River Association's GreenSeeker and Switchgrass programs. Queen Anne's County Showcase farmers showed more interest in Cost-Share programs and Maryland's Nutrient Trading Program.

Within the forestry and wildlife management sections of the assessment, the most obvious difference between the two counties is the number of farm tracts that have a Forest Stewardship Plan, with 59% of Queen Anne's Showcase farms having a plan compared to 4% of Kent County Showcase farms. The Queen Anne's portion of the Showcase Watershed has significantly more forest acreage.





Appendices

Appendix A: Farm Assessment Form

Appendix B: Verification Worksheets for Non-Cost-Shared Conservation Practices

Upper Chester River Showcase Watershed Farm Assessment

General Farm Questions

1)	Name/ Farm Name:		
2)	Contact Address:		
3)	Home Phone:	Best time to call?	
	Work Phone:		
	Cell Phone:		
4)	Email:		
5)	Landowner Contact:		
6)	How many total acres do you farm?	Owned:	Rented:
7)	Is any of your land in a preservation program?		
8)	Where is your farm located?	☐ Kent	☐ Queen Anne's
9)	Do you have a job off-farm?	☐ No	☐ Full Time ☐ Part Time
10)	How do you learn about new management strategies?		
	☐ Cooperative Extension	☐ Crop Consultant	☐ Internet
	☐ Conservation District/NRCS	☐ Other Farmers	☐ Journals/Magazines
	☐ Fertilizer Supplier	☐ Industry Meetings	☐ Mailings
	☐ Nutrient Management Training	☐ Maryland DNR	☐ Other:
11)	Please choose your top three considerations when trying a new practice:		
	☐ Cost vs. Potential Profit	☐ Time Investment	☐ Testimony of Other Farmers
	☐ Capital Investment	☐ Risk of Yield Loss	☐ Availability of Information
	☐ Availability of Cost-Share	☐ Industry Influence	☐ Track Record of Practice
	☐ Other:		
12)	Who writes your nutrient management plan?		
	☐ I do	☐ Willards	☐ Extension
	☐ Southern States	☐ CPS	☐ Other_____
	☐ AET	☐ Farm Site Technologies	

Cropland Management

1) What types of crops are grown?					Cropland Acres in Tract?	
2) What type of rotation do you use?						
3) What is your tillage system?		Corn	Soybean	Sm. Grain	Hay	Other
Conservation/Mulch Till	Acres	☐	☐	☐	☐	☐
No-Till	Acres	☐	☐	☐	☐	☐
Conventional Till	Acres	☐	☐	☐	☐	☐
Vertical Till/Turbo Till	Acres	☐	☐	☐	☐	☐
4) How long have you been using this tillage system?						
5) Do you irrigate?	Y/N	Ac.	Fertigate?	Y/N	Ac.	
6) Do you grow cover crops?	☐ Yes	☐ No	☐ Have Grown, Not Regularly			
What type:	☐ Barley	☐ Canola	☐ Rapeseed	☐ Kale		
	☐ Rye	☐ Ryegrass	☐ Spring Oats	☐ Triticale		
	☐ Forage Radish	☐ Wheat	☐ Other:			
Planting method?	☐ Broadcast, Light Tillage		☐ Broadcast, Stalk-Chopped			
(check all that apply)	☐ No-Till	☐ Conventional	☐ Aerial	☐ Other		
Average cost-shared acreage:		Average voluntary acreage:				
7) Do you have a current nutrient management plan?		Y / N				
8) Do you have soil tests taken?		Y / N	How often?			
9) How do you split your nitrogen application? _____% Preplant or At Planting /_____% Sidedress						

10) Do you use any of the following Nutrient Management Practices:	Use Regularly	Do Not Use	Have Used, Not Regularly	Need More Info on Practice
N Stabilizers	☐	☐	☐	☐
Pre-Sidedress Nitrate Test	☐	☐	☐	☐
Stalk Nitrate Test	☐	☐	☐	☐
Tissue Analysis	☐	☐	☐	☐
Grid Sampling	☐	☐	☐	☐
Yield Monitor	☐	☐	☐	☐
Light Bar/ GPS Guidance	☐	☐	☐	☐
Application Setbacks	☐	☐	☐	☐

11) Does the risk of yield loss deter you from trying any of the practices listed above?				Y / N
12) How do you determine crop yield goals?				
Based on past record of crop yield?				Y / N
Based on soil type?				Y / N
Other? (Describe)				Y / N
13) Do you account for residual nutrients?				Y / N
If so, how?				
14) Is sludge applied to this farm?				Y / N
15) How many acres receive at least 15% less nutrients than recommended for the crop?				
16) Do you apply manure to this farm?	Y / N	What type?		
Is the manure incorporated?	Y / N	How soon after application?		
Method of incorporation?				
Do you use manure analysis?	Y / N	How often?		
Do you calibrate your manure spreader?	Y / N	How often?		
17) If you don't currently apply manure, are you interested?				Y / N
18) How many acres have a Phosphorus Index under 150?				
19) Do you have a pest management plan?	Y / N	Do you scout?		Y / N
How are chemicals applied?		Who scouts for you?		
20) Do you need assistance with noxious weeds?				Y / N

Headquarters & Livestock (if no livestock is present on tract, proceed to question 8)

1) Approximately how many of the following types of animals did you produce in 2009?

Poultry:				**Cattle:**	Total #	# on pasture >6 mo/yr
Number of Flocks/Year:						
Broilers		Per flock		Dairy		
Layers		Per flock		Beef		
Roasters		Per flock		Other		
Pullets		Per flock				
Other		Per flock				
Swine:				**Other** (specify):	Total #	
Farrow to Finish						
Feeder to Finish						
Farrow to Feeder						

2)	Is your farm a CAFO or MAFO?	Y / N	Have you applied for a NPDES permit?	Y / N

3)	What do you do with the waste from the animals?	
	What percentage do you use on crops you grow?	%
	What percentage do you sell or give to other operators?	%
	Other:	%

4) If you use any of the waste, how do you decide when to apply it to crops?	5) How is waste managed?
☐ When labor/equipment are available	☐ Stockpiled in field for later use/disposal
☐ Varies depending on the crop	☐ Kept in storage for later use/disposal
☐ When field is open	☐ Applied directly to fields
☐ As disposal needs dictate	☐ Cleanout occurs when crops are fertilized
☐ In accordance with nutrient management plan	☐ Give/sell waste to other operator(s)
☐ Other (describe):	☐ Other (describe):

6)	If you use a waste storage facility, what type is it and what is the capacity?		
	Type of Storage:	Capacity in Cu. Ft./Gallons:	
	Is your storage capacity adequate for your needs?		Y / N
7)	How is mortality managed?		
	Is your mortality management system adequate for your needs?		Y / N
8)	Are there any runoff and/or erosion problems around farm buildings?		Y / N
9)	Are there any runoff and/or erosion problems in the crop fields and/or pasture?		Y / N
10)	Are pesticides and fertilizers stored on the farm?		Y / N
	Are there containment controls in place should a spill occur?		Y / N
11)	Have you had an energy use analysis completed for your operation?		Y / N
	Would you be interested?		Y / N
12)	Are there any water pollution concerns with the operation?		Y / N

Are the concerns major or minor? Describe.

Practices and Programs

1)	Do you have a current conservation plan?			Y / N	Interested?		Y / N
2)	Are all of the BMPs on your farm accounted for in your conservation plan?				Y / N / Unknown		
3)	Please describe which practices are in use on the farmland you manage and if you receive cost-share:						
	(If practice isn't listed in the conservation plan, please note the size/acreage of practice.)	Practiced/ Installed	Need	NRCS/MDA Funded	Farmer Funded	NGO Funded	Year Installed
	Agrichemical Handling Facility	☐	☐	☐	☐	☐	
	Amendments for Animal Waste Treatment	☐	☐	☐	☐	☐	
	Animal Mortality Facility	☐	☐	☐	☐	☐	
	Composting Facility	☐	☐	☐	☐	☐	
	Comprehensive Nutrient Mgmt. Plan	☐	☐	☐	☐	☐	
	Conservation Cover	☐	☐	☐	☐	☐	
	Cover Crop	☐	☐	☐	☐	☐	
	Critical Area Planting	☐	☐	☐	☐	☐	
	Diversions	☐	☐	☐	☐	☐	
	Feed Management	☐	☐	☐	☐	☐	
	Filter Strip	☐	☐	☐	☐	☐	
	Grassed Waterway	☐	☐	☐	☐	☐	
	Grade Stabilization Structure	☐	☐	☐	☐	☐	
	Heavy Use Area Protection	☐	☐	☐	☐	☐	
	Irrigation Water Management	☐	☐	☐	☐	☐	
	Nutrient Management	☐	☐	☐	☐	☐	
	Pasture Management	☐	☐	☐	☐	☐	
	Pest Management	☐	☐	☐	☐	☐	
	Prescribed Grazing	☐	☐	☐	☐	☐	
	Residue Management	☐	☐	☐	☐	☐	
	Riparian Forest Buffers	☐	☐	☐	☐	☐	
	Roof Runoff Structures	☐	☐	☐	☐	☐	
	Sediment Pond	☐	☐	☐	☐	☐	
	Stream Crossing	☐	☐	☐	☐	☐	
	Streambank Stabilization	☐	☐	☐	☐	☐	
	Stream Fencing	☐	☐	☐	☐	☐	
	Tree Planting	☐	☐	☐	☐	☐	
	Waste Storage Facility	☐	☐	☐	☐	☐	
	Water Control Structures	☐	☐	☐	☐	☐	
	Watering Facility	☐	☐	☐	☐	☐	
	Windbreak	☐	☐	☐	☐	☐	
	Other :	☐	☐	☐	☐	☐	
4)	Have you participated in federal, state, local and/or private conservation programs?						Y / N
	Which ones? Were you satisfied with the outcome?						

5)	Rate your interest in learning about the following programs: (1=not interested, 5= very interested)					
		1	2	3	4	5
	Federal & State Cost-Share Programs	☐	☐	☐	☐	☐
	NRCS Conservation Stewardship Program	☐	☐	☐	☐	☐
	Conservation Reserve Enhancement Program	☐	☐	☐	☐	☐
	Easement Programs	☐	☐	☐	☐	☐
	Farm Stewardship Certification and Assessment Program (FSCAP)	☐	☐	☐	☐	☐

Continued on next page…

	MDA's Nutrient Trading Program	☐	☐	☐	☐	☐
	BMP Challenge	☐	☐	☐	☐	☐
	On-Farm Network	☐	☐	☐	☐	☐
	Chester River Association's Switchgrass and/or Greenseeker Programs	☐	☐	☐	☐	☐
	Do you know of any other programs that other farmers may be interested in?					

Pasture Management

1)	How many acres of pasture do you have?			
	How many paddocks?		Acres/paddock	
	Days spent in paddock		# Animal/paddock	
2)	Do livestock have access to streams, ponds or wetlands?			Y / N
3)	Do you have a grazing plan?	Y / N	Interested?	Y / N
4)	Would you be interested in attending or hosting a pasture walk?			Y / N
5)	Are soil tests done on the pasture fields?	Y / N	Have the fields been limed?	Y / N
6)	Are there any runoff and/or erosion problems in the pastures?			Y / N

Forest Land Management

1)	How many acres of forest land do you own?						
2)	Are forest lands grazed or used for shade for livestock?						Y / N
3)	Do you actively manage your forest land?						Y / N
4)	Have you had a Forest Stewardship Plan written by a licensed forester within the last 15 years?						Y / N
	Interested?						Y / N
5)	Have you ever harvested your timber?	Y / N	With the assistance of a Licensed Forester?				Y / N
	In the last 2 years?	Y / N	Did you employ post logging timber stand improvement?				Y / N
6)	Please describe which practices are in use on the forest land you manage and if you receive cost-share:						
	(If practice isn't listed in the conservation plan, please note the size/acreage of practice.)	Practiced/ Installed	Need	NRCS/DNR Funded	Farmer Funded	NGO Funded	Year Installed
	Non-commercial Timber Stand Improvement/Thinning	☐	☐	☐	☐	☐	
	Forest Harvesting Practices (for Erosion & Sed. Control)	☐	☐	☐	☐	☐	
	Other Tree/Shrub Planting	☐	☐	☐	☐	☐	

Wildlife Management/Heritage Management

1)	Are there any natural areas (ponds, wetlands, hedgerows, grasslands) on the farm?						Y / N
	Are all ponds, streams, ditches and wetlands buffered with either grass or trees?						Y / N
2)	Are you interested in managing your property for wildlife benefits?						Y / N
3)	Are you aware of any sensitive plant and/or animal species existing on your property?						Y / N
	Would you be interested in learning more about this?						Y / N
4)	Are you aware of any invasive or exotic plant and/or animal species on your property?						Y / N
5)	Would you be interested in having a wildlife management plan developed?						Y / N
6)	Please describe which practices are in use on the wildlife land you manage and if you receive cost-share:						
	(If practice isn't listed in the conservation plan, please note the size/acreage.)	Practiced/ Installed	Need	NRCS/MDA Funded	Farmer Funded	NGO Funded	Year Installed
	Habitat for Declining Species	☐	☐	☐	☐	☐	
	Shallow Water Area for Wildlife	☐	☐	☐	☐	☐	
	Wetland Restoration	☐	☐	☐	☐	☐	
	Wildlife Habitat Buffer	☐	☐	☐	☐	☐	
	Other :	☐	☐	☐	☐	☐	

Alternative Crops/Carbon Sequestration/ Fallow

Please include photo of crop and a map with the location marked

DESCRIPTION- A designated area devoted to herbaceous vegetation of a desired variety of alternative crop, such as switchgrass.

PURPOSE- Improve water quality; Promote desired plant growth; Control insects, disease and weeds; Improve or provide wildlife habitat

Interview:

1. When was the practice installed? _____/_____ Month Year	
2. How many acres are planted in alternative crops?	
3. What was the prior land use? ☐ Cropland ☐ Pasture ☐ Fallow Land ☐ Other (Describe)	
4. What is planted? ☐ Switchgrass ☐ Warm Season Grass ☐ Cool Season Grass ☐ Other (describe):	
5. What is the primary reason for establishing the alternative crop? ☐ Poor soil ☐ Buffer ☐ Wildlife Benefits ☐ Profit ☐ Other (Describe) ☐ Cost-Share/ Incentive ☐ Carbon Sequestration	
6. Does anyone provide financial assistance for the crop? If so, who?	Y / N
7. Does anyone provide technical assistance for the crop? If so, who?	Y / N
8. What are your future plans for the alternative crop?	
9. How is the stand managed? (Mowing, burning, fertilization, weed control, etc.)	
10. Is the crop harvested for any use? If so, please describe.	Y / N

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11. Is the area grazed?	Y / N
12. Why no cost-share? ☐ Not aware that cost-share was available ☐ Not eligible ☐ Practice doesn't fit standard ☐ Programs too complicated ☐ Programs take too long ☐ Not selected for program ☐ Other:	

Field Review:

13. How many acres are planted in alternative crops? (Or describe length & width.)	
14. Does the stand appear to be healthy and maintained?	Y / N
15. Are there excessive weeds?	Y / N
16. Does the practice provide an environmental benefit?	Y / N

Other notes and observations:

FSA Tract # or Parcel ID: Planner Initials & Date:

Composting Facility-

Please include photo and a map with the location of the practice marked.

DESCRIPTION- A facility to process raw organic by-products- typically dead livestock and manure- into biologically stable organic material.

PURPOSES- To reduce the pollution potential of organic agricultural wastes to surface and ground water.

Interview:

1. When was the practice installed? _____/_____ Month Year	
2. The facility's main purpose is to compost: ☐ Livestock ☐ Manure/ Litter ☐ Other organic material	Y / N
3. What ingredients are used in the compost mix?	
4. For the purposes of managing the compost material, do you factor in: Temperature? Moisture Content?	 Y / N Y / N
5. Is the compost aerated? If so, how?	Y / N
6. Is the compost turned? If so, how often?	Y / N
7. Where does the finished material go?	

Field Review:

8. Is the facility located adjacent to a Waste Storage Facility?	Y / N
9. Is the facility more than 100 feet from streams, wetlands and waterways? Is the facility more than 100 feet from other dwellings?	Y / N Y / N
10. What are the materials used? Walls: Floor: Roof:	Y / N
11. What are the dimensions of the structure? Length:_____ Width: _____ Height (to the top of the wall): _____	
12. Is the composting facility configured using ☐ Bins or ☐ Channel Design?	

Other notes and observations:

FSA Tract # or Parcel ID: Planner Initials & Date:

FSA Tract # or Parcel ID:

Planner Initials & Date:

Continuous No-Till & Conservation Tillage-

Please include photo of typical crop residue and a map with the location marked.

DESCRIPTION- A crop planting and management practice in which soil disturbance by plows, disk or other tillage equipment is eliminated or minimized. CNT involves no-till methods on all crops in a multi-crop, multi-year rotation. Conservation tillage requires two components- 1) a minimum 30% residue coverage at the time of planting and 2) a non-inversion tillage method.

PURPOSES- This practice may be applied for one or more of the following purposes: 1. To reduce sheet and rill erosion; 2. To reduce wind erosion; 3. To improve soil organic matter; 4. To reduce CO2 losses from the soil; 5. To reduce soil particulate emissions; 6. To increase plant-available moisture; 7. To provide food and escape cover for wildlife.

Interview:

1. When was the practice installed? _____/_____
   Month Year

2. When was this land last tilled with full width tillage equipment?

3. More than 5 years ago?
   Y / N

4. Describe the rotation used:

5. List the tillage equipment used:
   Corn:
   Small Grains:
   Soybeans:
   Hay:
   Other:

6. How do you apply fertilizer/lime?
   ☐ Broadcast; If so, ☐ Litter and/or ☐ Dry fertilizer; Incorporated? Y / N
   ☐ Spray
   ☐ Injection; If so ☐ Chisel or ☐ Sweep

7. What type of planter is used for the crop?

8. Are any other implements used in this conservation/no-till management system? For what purpose?

FSA Tract # or Parcel ID: Planner Initials & Date:

9. Are there any problems with soil compaction? If yes, please describe.	Y / N
10. How many acres are under continuous no-till?	
11. How many acres are under conservation tillage?	
12. What advantages/disadvantages do you observe using your management system?	
13. Would you be interested in ☐ hosting or ☐ attending a field day about continuous no-till management for other farmers?	
14. Why no cost-share? ☐ Not aware that cost-share was available ☐ Not eligible ☐ Practice doesn't fit standard ☐ Programs too complicated ☐ Programs take too long ☐ Not selected for program ☐ Other:	

Field Review:

15. Does the field have sufficient crop residues to count as conservation tillage? (Take photo of crop residue if unsure.)	Y / N
16. Was the residue evenly distributed?	Y / N
17. Were corn stalks ☐ mowed or ☐ flail chopped?	
18. Was the stubble at least 6" tall?	Y / N
19. Were any residues removed after harvest?	Y / N
20. Was any crop area left standing for wildlife cover?	Y / N
21. Does the practice provide an environmental benefit?	Y / N

Other notes and observations:

FSA Tract # or Parcel ID: Planner Initials & Date:

Cover Crops-

DESCRIPTION- The planting and growing of typically cereal crops to capture available soil nitrogen in plant tissues and reduce soil erosion by increasing soil surface cover. By timing the burn-down or plow-down in spring, the trapped nitrogen can be released and used by the following crop. Cover crops are divided into two categories; e.g. traditional and commodity cover crops. Traditional cover crops receive no applied nutrients and commodity cover crops may receive applied nutrients only in the spring of the following year.

Interview:

1. How often do you plant non-cost-shared cover crop acreage?

2. Was last year's acreage ☐ typical, ☐ more or ☐ less than usual?

3. What factors affect your decision whether or not to plant non-cost-shared acreage?

- ☐ Exceeded program cap
- ☐ Couldn't plant crop by program deadline
- ☐ Wanted to plant a crop or mix that's not eligible for program
- ☐ Seed left over from other fields
- ☐ Other:
- ☐ Seed cost
- ☐ Can't reenter field
- ☐ Grain price
- ☐ No benefit

4. How does cover crop benefit your farming operation?

For voluntary acreage only:

	Acres	**Planting Method** 1- Drilled 2- Aerial in Corn 3- Aerial into SB 4- Other	**Planting Date** 1- By 10/1 2- By 10/15 3- By 11/5 4-After 11/5	**Fertilized?**	**Fertilized Date** 1- <3/1 2 - > 3/1	**Harvested for sale?**	**Kill Down/ Harvest Date** 1- <3/15 2 ->3/15
Wheat				**Y / N**		**Y / N**	
Barley- Conv. Till				**Y / N**		**Y / N**	
Barley- Cons./NT							
Rye				**Y / N**		**Y / N**	
Spring Oats				**Y / N**		**Y / N**	
Triticale				**Y / N**		**Y / N**	
Other:							
				Y / N		**Y / N**	
				Y / N		**Y / N**	

FSA Tract # or Parcel ID: Planner Initials & Date:

FSA Tract # or Parcel ID:

Planner Initials & Date:

Water Control Structure-

Please include photo and a map with the location of the drainage system marked.

DESCRIPTION- The process of managing water discharges from surface and/or subsurface agricultural drainage systems

PURPOSE- The purpose of this practice is to 1) reduce nutrient, pathogen, and/or pesticide loading from drainage systems into downstream receiving waters, 2) improve productivity, health and vigor of plants, 3) reduce oxidation of organic matter in soils, 4) reduce wind erosion or particulate matter (dust) emissions or 5) provide seasonal wildlife habitat.

Interview:

1. When was the practice installed? _____/_____ Month Year	
2. What type of drainage management system is it? ☐ Tile Drain ☐ Water Control Structure ☐ Ditch ☐ Pond ☐ Other:	
3. What is the main purpose of the drainage system? ☐ Wildlife benefits ☐ Environmental quality ☐ Drainage of agricultural land Describe:	
4. Does it fulfill its intended purpose?	Y / N
5. Do you ever leave the water control structure in free drainage mode? When?	Y / N
6. How often do you drain your water body? _____ Why? ☐ Clean out sediment ☐ Plant Crops for Wildlife ☐ Other:	
7. Why no cost-share? ☐ Not aware that cost-share was available ☐ Not eligible ☐ Practice doesn't fit standard ☐ Programs too complicated ☐ Programs take too long ☐ Not selected for program ☐ Other:	

Field Review:

8. Does the drainage system include a water control structure with a gate system?	Y / N
9. Does the system collect surface water from ag land?	Y / N
10. How many acres drain into the system?	
11. Where does the outlet drain?	
12. Where in the field is the structure?	

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13. Does the drainage/collection provide wildlife habitat?	Y / N
14. Does the system provide an environmental benefit?	Y / N
15. Does the practice provide an environmental benefit?	Y / N

Additional notes and observations:

FSA Tract # or Parcel ID:

Planner Initials & Date:

Fencing-

Please include photo and a map with the location of the fencing marked.

DESCRIPTION- A constructed barrier to wildlife, livestock or people.

PURPOSE- This practice may be applied to 1) To prevent, restrict, or control access by domestic animals or people into hazardous or environmentally sensitive areas, 2) To protect areas such as new plantings from damage by livestock, wildlife, or people, 3) To implement a prescribed grazing plan or provide better distribution of grazing animals, 4) To prevent access to areas by predators, 5) To minimize liability and human health concerns or 6) To maintain or improve the quantity and quality of natural or visual resources.

Interview:

1. When was the practice installed? _____/_____ Month Year

Field Review:

1. What type of animal does the fence control?	
2. What is the main purpose of the fence? ☐ Stream/Ditch Buffer ☐ Prescribed Grazing ☐ Protect other environmentally sensitive area ☐ Other (describe):	
3. What is the fence made of? ☐ Non-Electric Smooth Wire ☐ Electric Smooth Wire ☐ Woven Wire ☐ Barbed Wire ☐ Wood Boards	
4. How tall is the fence?	5. How many strands?
6. Post spacing?	7. Post material?
8. If used to exclude livestock from a stream, how far is the fence from the top of the bank?	
9. Does the fence appear to be well-maintained? Is it operational?	Y / N
10. Are there any erosion problems around the fence?	Y / N
11. Describe the vegetation around the fence. Is it sufficient? Under control? Are there trees?	
12. Are there properly maintained stream crossings?	Y / N
13. Are there floodgates at stream crossings?	Y / N
14. Are all gates in working order? Are they closed except when moving livestock?	Y / N
15. Are there warning signs on electric fencing?	Y / N

☐ Additional notes and observations are written on back of work sheet.

FSA Tract # or Parcel ID: Planner Initials & Date:

FSA Tract # or Parcel ID:

Planner Initials & Date:

Grass Buffers, Forest Buffers & Filter Strips-

Please include photo and a map with the location of the buffer(s) marked.

DESCRIPTION- A strip or area of herbaceous vegetation situated in the transitional zone between terrestrial and aquatic habitats.

PURPOSE- To protect and improve water quality, reduce erosion from wind and water and to prevent pollution from nutrients, sediment, organic materials or agricultural chemicals from reaching the waters of the State.

Interview:

1. When was the practice installed? _____/_____
   Month Year

2. How is the buffer managed? Is it mowed? Is it ever burned down? Is it fertilized? How are weeds controlled? Describe:

3. Why no cost-share?
   - ☐ Not aware that cost-share was available
   - ☐ Practice doesn't fit standard
   - ☐ Programs take too long
   - ☐ Other:
   - ☐ Not eligible
   - ☐ Programs too complicated
   - ☐ Not selected for program

Field Review:

4. Is it a ☐ forest buffer or ☐ grass buffer?	
5. Does the buffer border a ☐ river, ☐ stream, ☐ forest or ☐ ditch?	Y / N
6. Are livestock excluded from the buffer?	Y / N NA
7. Is there an additional grass or forested area in between the non-cost-shared buffer and the water? If so, how wide?	Y / N
8. How wide is the non-cost-shared buffer? If it buffers water, measure from the top of the bank. If buffer width varies significantly, describe the practice as if it were two or more distinct buffers.	
9. How long is the buffer?	
10. Is the buffer thick? Is there high stem density near the ground surface? Does the grass or trees look healthy? Are bare spots few or none? Describe:	Y / N
11. What is the land use upslope of the buffer? ☐ Cropland ☐ Pasture ☐ Hay ☐ Other	

FSA Tract # or Parcel ID: Planner Initials & Date:

12. Is maintenance or other work needed that can make the buffer achieve the standard? Describe:	Y / N
13. Does the practice provide an environmental benefit?	Y / N

Additional notes and observations:

FSA Tract # or Parcel ID:

Planner Initials & Date:

Grassed Waterways-

Please include photo and a map with the location of the waterway(s) marked.

DESCRIPTION- A natural or constructed waterway, shaped or graded and established in suitable vegetation, to safely convey water across areas of concentrated flow.

PURPOSE- To provide protection from erosion prevention of pollutants from nutrients, sediment, animal wastes, or agricultural chemicals from reaching the waters of the State.

Interview:

1. When was the practice installed? _____/_____
   Month Year
2. How is the waterway maintained? Is it mowed? Is there weed control?
3. Why no cost-share?
   - ☐ Not aware that cost-share was available
   - ☐ Not eligible
   - ☐ Practice doesn't fit standard
   - ☐ Programs too complicated
   - ☐ Programs take too long
   - ☐ Not selected for program
   - ☐ Other:

Field Review:

4. What is the length of the waterway?_____	
5. What is the width of the waterway? _____	
6. Does it appear to have healthy plant growth?	Y / N
7. Does the waterway have a steep slope?	Y / N
8. Are there any gullies in the waterway?	Y / N
9. Is there any erosion around the waterway?	Y / N
10. Have any erosion problems been solved by: ☐ Rock/Riprap ☐ Gravel ☐ Erosion Control Matting	
11. Is the waterway buffered by a filter strip?	Y / N
12. Does the waterway pond in any area? (May need to ask landowner.)	Y / N
13. Is there a stable outlet?	Y / N
14. Where does the water outlet to? ☐ Stream ☐ Ditch ☐ Vegetated Channel ☐ Grade Stabilization Structure	
15. Does the practice provide an environmental benefit?	Y / N

☐ Additional notes and observations are written on back of work sheet.

FSA Tract # or Parcel ID: Planner Initials & Date:

FSA Tract # or Parcel ID:

Planner Initials & Date:

Heavy Use Area Protection-

Please include photo and a map with the location of the practice marked.

DESCRIPTION- The stabilization of areas frequently and intensively used by people, animals or vehicles by establishing vegetative cover, surfacing with suitable materials, and/or installing needed structures.

Interview:

1. When was the practice installed? _____/_____ Month Year	
2. For poultry: are there HUAPs on all areas where crustouts/cleanouts occur?	Y / N
3. Does the producer clean litter off of the pads after each crustout or cleanout?	Y / N
4. Why no cost-share? ☐ Not aware that cost-share was available ☐ Not eligible ☐ Practice doesn't fit standard ☐ Programs too complicated ☐ Programs take too long ☐ Not selected for program ☐ Other:	

Field Review:

5. What type of traffic does the area protect from?	
6. Is there an HUA in front of a waste storage facility?	Y / N
7. The material used is: ☐ Concrete ☐ Gravel /Stone ☐ Mulch	
8. The practice is ☐ Permanent ☐ Semi-permanent	
9. Is the material permeable?	Y / N
10. Is the material holding up to the load?	Y / N
11. Describe what is near the area	
12. Is the drainage from the portected area managed?	Y / N
13. Any erosion problems? If so, please describe.	Y / N
14. Does the practice include a vegetated component? If so, please describe.	Y / N
15. Are there any culverts associated with the practice? If so, are they functional?	Y / N
16. What is the total area of the HUAP(s)? In ☐ Square Feet or ☐ Acres	
17. Does the practice provide an environmental benefit?	Y / N

☐ Additional notes and observations are written on back of work sheet.

FSA Tract # or Parcel ID: Planner Initials & Date:

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Planner Initials & Date:

Irrigation Management-

DESCRIPTION- Irrigation water management is the process of determining and controlling the volume, frequency, and application rate of irrigation water in a planned, efficient manner.

PURPOSES- 1) Irrigation water management may be applied to 1) manage soil moisture to promote desired crop response, 2) To optimize use of available water supplies, 3) To minimize irrigation-induced soil erosion, 4) To decrease non-point source pollution of surface and groundwater resources, 5) To manage salts in the crop root zone, 6) To manage air, soil, or plant micro-climate, 7) To manage chemigation, 8) to manage substrate moisture conditions to promote optimal growth of containerized nursery plants

Interview:

1. When was the practice installed? _____/_____ Month Year	
1. What kind of system is it? (Check all that apply.) ☐ Pivot ☐ Linear ☐ Underground pipeline ☐ Drip system ☐ Low Pressure	
2. What is the supporting water supply?	
3. How do you manage your system?	
4. Do you apply ☐ nutrients and/or ☐ pesticides when irrigating?	Y / N
5. Do you have an irrigation water management plan?	Y / N
6. How do you plan your irrigation schedule?	
7. How do you determine your application rate & frequency? ☐ Soil Type ☐ Plant Growth/Stress ☐ Frequency of applications	
8. Do you use the same application rate every time?	Y / N
9. How frequently do you check the application rate?	
10. Are there any erosion issues caused by the system?	Y / N
11. Why no cost-share? ☐ Not aware that cost-share was available ☐ Not eligible ☐ Practice doesn't fit standard ☐ Programs too complicated ☐ Programs take too long ☐ Not selected for program ☐ Other:	

☐ Additional notes and observations are written on back of work sheet.

FSA Tract # or Parcel ID: Planner Initials & Date:

FSA Tract # or Parcel ID:

Planner Initials & Date:

Prescribed Grazing, Rotational Grazing

Please include a map with the location of the practice marked.

DESCRIPTION- Managing the controlled harvest of vegetation with grazing animals.

PURPOSES- This practice may be applied as part of a conservation management system to accomplish one or more of the following purposes: 1. Maintain or improve the health and vigor of plant communities and meet the basic needs of livestock; 2. Reduce soil erosion, and maintain or improve soil condition; 3. Maintain or improve water quality and quantity; 4. Improve quantity and quality of forage for livestock health and productivity; 5. Maintain or improve the quantity and quality of food and/or cover for wildlife habitat; 6. Promote economic stability through grazing land sustainability.

Interview & Field Review

1. When did you begin using this practice? _____/_____ Month Year	
2. What species of animals are grazing? (Check all that apply) ☐ Dairy Cows ☐ Beef Cows ☐ Sheep ☐ Goats ☐ Horses ☐ Other:	Y / N
3. Do you have a rotational grazing plan?	Y / N
4. How many paddocks are there?	
5. How many total acres?	
6. How many animals are in each paddock?	
7. How many days do the animals spend in each paddock?	
8. What dictates livestock rotation? ☐ Set schedule ☐ Forage height	
9. How many months out of the year do you graze the animals?	
10. Is livestock given additional feed?	Y / N
11. What grass species are there?	
12. Do the animals graze crop residues?	Y / N
13. Are there any unprotected heavy use areas?	Y / N
14. Are there any erosion issues? If yes, please describe.	Y / N
15. Have you ever used C-GRAZ or G SAT (Computer Grazing Programs)	Y / N
16. Do livestock have access to streams, wetlands or waterways?	Y / N
17. Is there a sacrifice area?	Y / N
18. Do livestock have access to clean water within a reasonable distance?	Y / N

Other notes and observations:

FSA Tract # or Parcel ID: Planner Initials & Date:

FSA Tract # or Parcel ID:

Planner Initials & Date:

Roof Runoff Structure-

Please include photo and a map with the location of the structure(s) marked.

DESCRIPTION- A facility for collecting, controlling, and disposing of runoff water from roofs.

PURPOSE- To prevent roof runoff water from causing a water quality problem, and to reduce pollution and soil erosion from reaching the waters of the State.

Interview

1. When was the practice installed? _____/_____ Month Year

Field Review:

1. What type of building is it?	
2. Is the top width of the gutter at least 5”?	Y / N
3. Are downspout outlets avoiding contamination with animal waste?	Y / N
4. Do the gutter and downspouts appear to have sufficient strength for snow and ice? Are there a sufficient number of supports? (24” on centers)	Y / N Y / N
5. Are downspouts protected from potential animal/equipment damage?	Y / N
6. Is the system in good condition? Does it need repair?	Y / N
7. Where does the outflow exit? ☐ Field ☐ Stream ☐ Storage Area	
8. Does it cause any erosion or pollution problem? (If so, please describe.)	Y / N
Outlets:	
9. How large is the outlet?	
10. For surface outlets, is the outflow directed/protected from erosion (ex. by a splash block)? How far from the structure is the outlet?	Y / N
11. For subsurface outlets, is there a proper slope for steady flow? 12. Is there any sign of ☐ clogging, ☐ cracks or ☐ erosion?	Y / N Y / N
Collection Trenches:	
13. Are collection trenches aligned with the roof drip line?	Y / N
14. Are trenches at least 24” wide and deep?	Y / N
15. Do they have a concrete or stone bottom?	Y / N
16. Are they protected/fenced from animals and animal waste?	Y / N

Other notes and observations:

FSA Tract # or Parcel ID: Planner Initials & Date:

FSA Tract # or Parcel ID:

Planner Initials & Date:

Vegetative Environmental Buffer-

(also “Tree Shelter”, “Poultry Windbreak”)

DESCRIPTION- Windbreaks or shelterbelts are single or multiple rows of trees or shrubs in linear configurations.

PURPOSES- This practice may be applied for one or more of the following purposes: 1. To provide shelter for structures, livestock, and people; 2. To improve air quality by reducing and intercepting airborne particulate matter, chemicals and odors; 3.To provide noise screens; 4. To provide visual screens

Interview:

1. When was the practice installed? _____/_____
   Month Year

1. Why was the buffer installed?
   ☐ Visual screen ☐ Control particulates ☐ Shading livestock
   ☐ Odor Control ☐ Other:

2. What type of livestock operation?
   ☐ Poultry ☐ Dairy ☐ Beef ☐ Swine ☐ Other:

3. How is the area managed? Weeds? Pests? Accumulated particulates?

4. Why no cost-share?
   ☐ Not aware that cost-share was available ☐ Not eligible
   ☐ Practice doesn’t fit standard ☐ Programs too complicated
   ☐ Programs take too long ☐ Not selected for program
   ☐ Other:

Field Review:

5. How long is the buffer?	
6. How wide is the buffer?	
7. Is the buffer on both sides of the animal production area?	Y / N
8. How many rows of trees are there?	
9. What is the spacing of the trees?	

10. What species are the trees?

1st row:	2nd row:	3rd row:

11. Do the trees appear to be healthy?	
12. What percentage of trees are missing or dead?	

FSA Tract # or Parcel ID: Planner Initials & Date:

13. Is the buffer irrigated?	Y / N
14. Are the trees in front of ventilation fans? If so, how far are the trees from the fans?	Y / N
15. Does the practice provide an environmental benefit?	Y / N

Additional notes and observations:

FSA Tract # or Parcel ID:

Planner Initials & Date:

Waste Storage Facility/Lagoon-

Please include photo and a map with the location of the structure marked.

DESCRIPTION- A fabricated structure for temporary storage of animal waste.

PURPOSES- The purpose of this practice is to construct a storage facility for animal waste as a component of a waste management system in order to prevent or abate pollution of the waters of the state.

Interview:

1. When was the practice installed? _____/_____ Month Year	
2. What type of livestock does the facility provide storage for? ☐ Poultry ☐ Dairy ☐ Beef ☐ Swine ☐ Horses ☐ Other:	
3. How many animals does the facility support?	
4. What type of facility is it? ☐ Manure Shed ☐ Lagoon ☐ Other (Describe):	
5. What is the capacity of the storage facility? (Either record cubic feet or gallons, or describe cleanout schedule that facility supports.)	
6. Why no cost-share? ☐ Not aware that cost-share was available ☐ Not eligible ☐ Practice doesn't fit standard ☐ Programs too complicated ☐ Programs take too long ☐ Not selected for program ☐ Other:	

Field Review:

7. Does the facility appear to be well-located given the layout of the property? ☐ 100' or more away from water bodies and roads ☐ Easy access for loading and unloading ☐ Reasonable proximity to waste source	Y / N
8. What type of manure is being stored? ☐ Solid ☐ Liquid	
9. Dimensions: Length & Width _____&_____ or Diameter_____ Height _____ 10. Constructed Material: Walls: Floor/Liner (or soil type if not lined): 11. Is the loading/unloading area ☐ lined? ☐ Concrete? ☐ None 12. Is there a foundation? Y / N / NA 13. Is the structure covered? Y / N 14. Is the covering ☐ permanent or ☐ temporary? 15. Is rainfall directed away from the structure? Y / N	

FSA Tract # or Parcel ID: Planner Initials & Date:

16. Is there an auxilary spillway? Y / N 17. Are there any potential problems? (If so, please describe.) Y / N	
18. Does the practice provide an environmental benefit?	Y / N

☐ Additional notes and observations are written on back of work sheet.

FSA Tract # or Parcel ID: Planner Initials & Date:

Watering Facility-

Please include photo and a map with the location of the practice marked.

DESCRIPTION- A trough or tank with needed devices for water control and/or excess water disposal installed to provide drinking water for livestock in order to improve water quality or stop erosion.

PURPOSES- To provide watering facilities which will bring about the desired protection of vegetative cover to prevent erosion and pollutants from nutrients, sediment, and animal wastes from reaching the waters of the State. The primary purpose is not to provide livestock water, but to protect water quality.

Interview:

1. When was the practice installed? _____/_____ Month Year	
2. What type of livestock is using the watering facility? ☐ Dairy ☐ Beef ☐ Horses ☐ Other:	
3. Why no cost-share? ☐ Not aware that cost-share was available ☐ Not eligible ☐ Practice doesn't fit standard ☐ Programs too complicated ☐ Programs take too long ☐ Not selected for program ☐ Other:	

Field Review:

4. What type of watering facility is it? ☐ Trough ☐ Waterers	
5. Is it ☐ Permanent or ☐ Portable ?	
6. Is the facility pulling animals from a sensitive area?	Y / N
7. Is it causing good animal distribution?	Y / N
8. Is it located within 100' of any streams, wetlands or drainage waterways?	Y / N
9. Is it accessible by wildlife? Does it include measures to prevent wildlife drowning?	Y / N Y / N
10. Is the area protected from erosion? If so, by what material? ☐ Concrete ☐ Sufficient vegetation ☐ Other:	Y / N
11. Is overflow managed? If so, how? ☐ Overflow mechanism ☐ Roof ☐ Drainage Outlet	Y / N
12. What is the trough size?	
13. What is the trough material? ☐ Concrete ☐ Plastic ☐ Fiberglass ☐ Steel	
14. Is there a mechanism to prevent freezing?	Y / N
15. Does the practice provide an environmental benefit?	Y / N

☐ Other notes and observations on back.

FSA Tract # or Parcel ID: Planner Initials & Date:

FSA Tract # or Parcel ID:

Planner Initials & Date:

Wetland Restoration & Wetland Creation-

Please include photo and a map with the location of the wetland marked.

DESCRIPTION- An area of vegetated wetland to remove sediment, nutrients, organic matter and other pollutants from surface and ground water associated with agricultural operations.

PURPOSE- The purpose of this practice is the restoration of wetland areas and their functions and values which will result in removing sediment, organic matter, pollutants and utilizing nutrients, from surface and ground water associated with agricultural operations.

Interview:

1. When was the practice installed? _____/_____ Month Year	
2. Was this area a wetland historically?	Y / N
3. How was the wetland restored? ☐ Plugging/pipe riser ☐ Drain removal ☐ Drain replacement (perforated with non-perforated) ☐ Other (please describe):	
4. Were any plant/ trees installed during restoration? If so, please describe:	Y / N
5. Was topsoil added to promote new plant growth?	Y / N
6. Was any form of organic matter added? (Straw, compost, wood chips, etc.)	Y / N
7. Was any soil removed from the area? Shallow excavation?	Y / N
8. Were any embankments added?	Y / N
9. Why no cost-share? ☐ Not aware that cost-share was available ☐ Not eligible ☐ Practice doesn't fit standard ☐ Programs too complicated ☐ Programs take too long ☐ Not selected for program ☐ Other:	

Field Review:

10. Is the wetland wooded?	Y / N
11. Is there a buffer surrounding the restoration? If so, how wide is the buffer?	Y / N
12. Are there any spillways or pipe conduits added for surface inflow?	Y / N
13. Does the wetland affect any other upstream drainage? If so, how?	Y / N
14. Is there a water control structure to control inflow or outflow?	Y / N
15. Is the wetland adjacent to a water body?	Y / N
16. How large is the wetland?	

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17. How much area drains into the wetland?	
18. Does the practice provide an environmental benefit?	Y / N

Other notes and observations:

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