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NRCS Conservation Practice Adoption and Motivation Pilot Study

Interviewer's Manual
Version 2: Confined
Livestock Practices

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Chapter 1: NRCS Conservation Practice Adoption and Motivation

Background

The Conservation Practice Adoption and Motivation (CPAM) pilot survey is a reimbursable survey that the Natural Resource Conservation Service (NRCS) has contracted the National Agricultural Statistics Service (NASS) to collect. The information collected during the pilot survey which is being conducted with a small sample across four states will be used to make decisions going forward for a larger, national survey that will be conducted in 2022. The four states involved in the pilot study, Nebraska, Oregon, Oklahoma, and Pennsylvania, were chosen due to the diversity of agriculture within each state along with the contrast of agricultural practices between the states.

There are four different questionnaire versions for the CPAM pilot study:

- Version 1 – Crop Practices
- Version 2 – Confined Livestock Practices
- Version 3 – Grazing Practice
- Version 4 – Forestry Practices

The surveys conducted in each state will vary based on the availability of the different practices within each state. The questionnaires were developed to ask about a producer's participation in different conservation practice, past and present, along with finding out what are the primary motivations for the participation. The question format between all the versions is very similar, though the specific questions and practices are different for each version. There are some classification and demographic questions that are similar across versions in order to make comparisons between the different versions as well.

Employer

You are an employee of the National Association of State Departments of Agriculture (NASDA). Work on this survey is covered by a cooperative agreement between NASDA and NASS. Introduce yourself as a NASDA employee working for the (your State) Field Office of the USDA, National Agricultural Statistics Service.

Responsibility

Accurate information collected directly from farmers and ranchers by trained interviewers provides the best possible information for developing a national survey for 2022. When you contact survey respondents, it is your responsibility to:

- obtain cooperation from selected operations,
- remind respondents of the confidential nature of the data,
- explain the uses of the data collected,
- collect quality data on survey items.

Once you have completed data collection, you are responsible for returning all completed questionnaires to your RFO in a timely manner and before the survey due date. Keep in mind the confidential nature of the data you have collected. Protect the data and the respondent's personal information with utmost care and respect.

Survey Results

There will be no published results from the CPAM pilot study. Instead, the responses, along with the method of response, will be used to refine the survey questionnaires to reduce the time required to complete each survey and identify most efficient data collection method. By responding the operator will help create the foundation of the national survey by making data collection easier and more accurate. NASS and NRCS will review survey responses and use them to refine survey questions and identify the most effective mode of data collection.

The data collected will be for research and development purposes only. The sample size is much too small to draw any statistical conclusions. Because the sample size is small, however, it is important to obtain as many completed surveys as possible, maximizing the amount and diversity of information gathered in the pilot study. Most operations will be using only a subset of the practices asked about in each questionnaire version. In fact, there will be some practices that are in use on only a handful of operations, making it important that we collect as many pilot surveys as possible.

Chapter 2 – Terms and Definitions

Animal mortality facility - An animal mortality facility is an on-farm facility for the treatment or disposal of livestock and poultry carcasses for routine mortality events. Routine mortality can also be rendered off-site (at the producer's expense). An animal mortality facility can include a refrigeration unit to store the mortality until it is removed for rendering or until it is incinerated or gasified.

AUM – Animal Unit Month, or the amount of forage required by an animal unit for one month. An animal unit is generally one mature cow of approximately 1,000 pounds and a calf as old as 6 months, or their equivalent. Animal unit equivalents vary somewhat according to kind and size of animals.

Comprehensive Nutrient Management Plan – A CNMP is a conservation system that is unique to animal feeding operations. It includes a set of conservation practices and management activities that address natural resource concerns dealing with manure and organic by-products and their potential impacts on water quality. The plan addresses manure and wastewater handling and storage, nutrient management (for land application), recordkeeping (e.g., recording soil and manure tests), feed management (improving feed delivery, reducing feed wastage, or increasing nutrient uptake by livestock to reduce the nutrient content of manure), and alternatives to land application of manure (e.g., energy production composting or pelletizing, and other methods).

Conservation Stewardship Program - The Conservation Stewardship Program (CSP) helps producers build on their existing conservation efforts by providing technical and financial assistance to attain higher stewardship levels in an environmentally beneficial and cost-effective manner. For example, if you have been planting a cover crop, you may decide to try an enhancement for multi-species cover crop or implement a deep-rooted cover crop to break up soil compaction. Payments are annual to support ongoing improvements on the farm, as opposed to other programs that typically provide financial assistance for specific practices when the practice is completed.

Financial Assistance – A payment or grant that helps defray the cost of installing or implementing conservation practices.

Impoundment – a constructed or earthen structure (excavated pit, dam, embankment or combination of these) for temporary storage or treatment of liquid livestock waste.

Technical Assistance – Direct consultation with the farmer, rancher, or landowner that may include developing a conservation plan for the operation or the planning, design, and layout for structures (such as grassed waterways, terraces, waste storage facilities, fences, and livestock water facilities in pastures) and management practices (such as nutrient management, irrigation water management, grazing management, and forest stand improvement). Technical assistance does not include community workshops, internet resources, farm shows and conventions, and information not directly specific to your operation.

Waste Storage – an impoundment for holding livestock waste until it can be land applied.

Waste Separation Facility – A filtration or screening device, settling tank, settling basin, or settling channel used to partition solids and/or nutrients from a waste stream.

Waste Treatment Lagoon – an impoundment made by constructing an excavated pit, dam, embankment or combination of these for treatment of liquid livestock waste by anaerobic, aerobic or facultative digestion.

Waste Transfer - A structure or system of structures to move waste or waste byproducts from one location to another, including pits, tanks, channels, and pipes, but excluding manure spreaders, honey wagons and other land application equipment.

Chapter 3 – Enumerator Procedures

Questionnaire

The Conservation Practice Adoption and Motivation Survey (CPAMS) has 4 different questionnaire versions. This manual contains information for version 2, confined livestock practices. The questionnaire was developed in cooperation with the Natural Resource Conservation Service (NRCS) and is directed at finding out what conservation practices are currently being used or have been used in the past, whether technical or financial assistance was received, why operators choose to adopt the practice, and why they may have chosen to continue, expand, or discontinue the practice.

Method of Interviewing

The Conservation Practice Adoptions and Motivation Survey may be collected by mail, phone (CATI), fax, internet, or personal phone interview by Computer Assisted Personal Interview (CAPI). Currently there are no plans for in person interviews. All sampled operations will be targeted for data collection is through the mail, with telephone follow-up by field enumerators via CAPI and associated Data Collection Centers (DCCs). Telephone enumerators at the DCCs will utilize the Blaise CATI (Computer Assisted Telephone Interview) Instrument, which automatically delivers forms and manages call backs and appointments.

Operations assigned to CATI follow-up will receive a letter and a copy of the questionnaire in the mail. The operator may choose to complete and return the questionnaire by mail or complete the questionnaire online at agcounts.usda.gov. If the operation reports data by either of these methods, they will become ineligible for calling through CATI.

Some operations will be held for Regional Field Office enumeration and will be collected by telephone, mail, fax, or field phone interview.

Burden Statement

Federal regulations require that all questionnaires used by agencies of the Federal government provide a burden statement – an estimate of the average time required to complete the questionnaire. This regulation is administered by the Office of Management and Budget (OMB), which has the duty of approving and overseeing all government data collection efforts. The public may respond to the Office of Management and Budget regarding any aspect of a survey.

The burden statement appears on the front page of each version of the CPAMS Questionnaire. The average time indicated on the burden statement represents the average completion time estimated for completion. If respondents ask, "How long will this take?" note the burden statement average time requirement and never directly contradict it. However, you may provide additional information, such as, "The official average for this survey is 60 minutes, but the interviews I have been doing in this area are averaging around 30 - 45 minutes."

SAMPLE BURDEN STATEMENT

The information you provide will be used for statistical purposes only. Your responses will be kept confidential and any person who willfully discloses ANY identifiable information about you or your operation is subject to a jail term, a fine, or both. This survey is conducted in accordance with the Confidential Information Protection provisions of Title V, Subtitle A, Public Law 107-347 and other applicable Federal laws. For more information on how we protect your information please visit: <https://www.nass.usda.gov/confidentiality>. Response to this survey is voluntary.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB control number is 0535-0264. The time required to complete this information collection is estimated to average 60 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

Confidentiality

Reports received from individual operations remain confidential and are used only for research and development purposes for the larger national survey that will be conducted in 2022. There will be no data published using the information collected during the CPAMS pilot study.

It is your responsibility to inform the respondent that this is a voluntary survey and assure them their report is confidential. A respondent has the right to know under what authority the information is being collected, the purpose for the information collected, and how information about their operation will be used. See your NASDA handbook for additional information regarding confidentiality.

Completing the Interview

The primary operator for the targeted operation, or a partner, should be your first point of contact. The person on the operation who is most familiar with conservation practices will be best able to provide the information that is being asked in the CPAMS questionnaire.

Encourage respondents to have any records of conservation contracts or easements on hand, or other records that involve the use of conservation practices such as written plans. Using records makes for more reliable reporting.

Make sure you are familiar with and understand the questionnaire. Review the survey letter, survey instructions, and other materials. Prepare an introduction and be prepared to answer questions about the survey purpose, uses of the data, and items on the questionnaire.

Ask questions in the order they appear on the questionnaire. Do not skip questions unless instructions printed on the questionnaire allow you to do so. Read statements and questions fully and exactly as written.

Following are examples of the type of instructions that you may find on the questionnaire.

Enumerator Instructions

Enumerator instructions may be included with some questions. Enumerator instructions are provided to you so that you will complete the questionnaire correctly. Enumerator instructions are enclosed in square brackets. They should not be read to the respondent.

Example:

[Verify name and mailing address of this operation. Make any corrections necessary (including the correct operation name) on the label and continue.]

“Include” and “Exclude” Statements

“Include” and “exclude” statements appear with many questions. “Include” and “exclude” statements are provided to help you and the respondent clarify the meaning of the question. Read the “include/exclude” statements so that the meaning of the question is clear.

“Skip” Instructions

Sometimes you may encounter questions which instruct you to skip a question or section based on a particular response. Follow the “skip” instructions when they appear with questions. If the interview is being completed via CATI or CAPI, the instrument is programmed to automatically “skip” when appropriate.

Example:

Note that depending on the response (“Yes” or “No”), you may continue or skip to the next question or next section.

201 1 Yes - Go to Item 2

3 No - Complete Items 1a and 1b below, then go to Section 4 - Nutrient Management on page 9

Sometimes you will need to probe to get an adequate answer to a question, for example, when the answer isn’t precise enough or if you think the respondent didn’t understand the question. Probing is important to verify unusual data or correct misreported data. Be careful that you don’t appear to be questioning or challenging the respondent’s answers, but clarifying an answer given.

Reference Dates

The CPAMS questionnaire asks about different reference periods such as previous year, within the last 15 years, or at any time in the past. Be sure to read the questions careful and only refer to the date referenced for each question.

Important Reminders

As you complete the questionnaire:

Make good notes. This is especially important when you find unusual situations.

Record your answers in whole numbers (no decimals) and pay attention to if the question is asking for acres or percentages.

When completing a paper questionnaire, make all entries clear and easy to read. Use a black #2 lead pencil. Do not use ink or a mechanical pencil, as questionnaires will be scanned.

Answers must be written entirely within the box or space provided (including YES and NO check boxes). If the answer to a question is “none”, enter a dash (--) NOT a zero unless specified by the instructions.

Call Back Procedures

Plan each phone for a different time of day or early evening. Use the following instructions as a guide.

First Attempt

If the operator or partner is not present, but is expected shortly, make an appointment to call back later or, if interviewing in person, wait for the interview. It is very important for you to keep the appointment or to call back if it cannot be kept.

If the operator or partner will not be available until after the survey is over, interview a knowledgeable person such as a spouse, son, daughter, or hired person. Try to interview the person most knowledgeable about the farming operation.

Follow-up Attempts

If a follow-up call is required after the first attempt, try again to interview the operator or partner. If they are still unavailable, set up an appointment if possible.

Final Attempt

If the operation is assigned for CATI enumeration, your supervisor will determine the number of attempts for call-backs.

Refusals

There are always respondents reluctant to provide information and some will refuse completely. When a refusal occurs, note the reason why the operator refused. If possible, try to determine if the operation is still in business and what commodities (crops, livestock, etc.) are produced. Do not become discouraged when you get a refusal. On the next interview, continue to greet the operator with an easy, friendly manner.

Supervision

All questions regarding data collection should be directed to your NASDA supervisor. Contact your supervisor with questions or problems as soon as they arise. Your supervisor or Regional Field Office may contact some of your respondents after you interview them as part of a Quality Check.

Materials

Materials used in the Agricultural Labor Survey are listed below. Your supervisor is responsible for furnishing all necessary materials. Notify your supervisor if you are running low on supplies.

All Enumerators

- Interviewer's Manual
- Blank questionnaires
- Black lead pencils
- Copy of Survey Letter
- Copy of EDR Instructions

Field Enumerators

- CAPI iPad
- NASDA Identification Card
- Motor Vehicle Accident Report Kit
- NASDA Employee Handbook

Survey Response Rate

A minimum 80% response rate is required by OMB and is expected from all Regional Field Offices.

Feedback

Everyone involved in the survey is encouraged to recommend changes to clarify or improve survey materials and procedures. Forward all recommendations to the CPAMS administrator in your Regional Field Office, who will forward them to the Survey Administrator in HQ. This will be very important due to the nature of the pilot survey and feedback is greatly welcomed.

Chapter 4 – Operation Identification and Screening

Operation Identification – Name and Address Labels

Operator

The person responsible for the day-to-day decisions for the land operated is considered the operator and is listed on the label. The operator could be the owner, hired manager, cash tenant, or share tenant. If land is rented or worked on shares, the tenant or renter is the operator.

Farm Name

A farming operation may or may not have a farm name listed on the label. If the farm does not have a farm name, the operation will be listed under an individual operator. If the respondent indicates the operation has a farm or ranch name, ask the respondent if this name should appear on the label. This will help the Regional Field Office know whether to update the label for future surveys and can be checked against the List Sampling Frame to identify potential duplication.

Names such as "The Old Smith Place," "Jones Farm," etc., should not be included if they are used only to identify different parcels of land in the respondent's operation. The farm or ranch should do business and be known by the operation name.

Name and Address Labels

Here is an example of a questionnaire name and address label. The format of the label in your Regional Field Office may differ from this example but will contain the same basic information.

BARCO B BA BAR BARCO B BA BARCO B C		
State, POID, Tract, Survey ID numbers		
CASI Respondent Survey Code,	Strata, Sequence #	
Operation Name,	District, County	
Operator Name,	ODStatus, Supervisor, Enumerator	
Address		
City, State, Zip-Zip4		

SURVEY CODE = 11-22222221-AA1AAA	71	10000
RIVER VALLEY FARM	20	129
JOHN SMITH	00	307 359
12345 RIVER RD		
OURTOWN DE 12590-4582		

Target Operation

The ‘target’ of this CPAM survey pilot study is going to be the sampled operation. Regardless of other operating arrangements; partnerships, multiple operations, managed operations, etc., the target will be the operation that is listed on the label and the land (owned and leased) that it operates. The respondent should be the person most involved in the conservation practice decision making. If all operators are equally involved in the conservation practice decisions, then any one of them can respond.

Operation Target Examples

Example 1. Individual Target Name on label.

```
BARCO B BA BAR BARCO B BA BARCO B C
10 300123890 01 01 2315 125698 00
SURVEY CODE=10-300123891-GMX78Q 71 10000
                                20 129
DENNIS R. SCOTT                  00 307 359
12345 RIVER RD
OURTOWN DE 12590-4582
```

In the example above, there is no operation name listed, so the target will be Dennis R. Scott. **You should collect data for Dennis R. Scott’s agriculture operation.** If Dennis is involved in more than one operation, you should collect data only for the operation for which he is the individual operator.

Example 2. Combination of Names with Individual Target Name on Label.

```
BARCO B BA BAR BARCO B BA BARCO B C
10 300123890 01 01 2315 125698 00
SURVEY CODE=10-300123891-GMX78Q 71 10000
  BILL & JOE FORD                  20 129
  BILL FORD                        00 307 359
  12345 RIVER RD
  OURTOWN DE 12590-4582
```

In example 2, the operation name is Bill & Joe Ford, so the target will be the partnership by the name of Bill & Joe Ford. **You should collect data for the partnership named on the label only.** Bill or Joe may also be involved in a different operation, or even jointly in an operation by a different name, but you will only want to complete the survey for the Bill & Joe Ford operation.

Example 3. Operation Name and Target Name on label.

```
BARCO B BA BAR BARCO B BA BARCO B C
10 300123890 01 01 2315 125698 00
SURVEY CODE=10-300123891-GMX78Q 71 10000
  WINDY ACRES FARM                20 129
  RALPH DEAN                      00 307 359
  12345 RIVER RD
  OURTOWN DE 12590-4582
```

In example 3, the operation name is Windy Acre Farm, so Windy Acres Farm is the target. **You should collect data only for Windy Acres Farm, and no other operations.** The operator, Ralph Dean, may be involved in other operations, but you will want to collect data only for the land operated (owned and leased) by Windy Acres Farm.

Chapter 5 – Questionnaire

Face Page and Screening

On the front page, after confirming the address or making updates is a screener questions that will determine if the operator is in-scope for the survey. The following needs to be true in order to collect the survey:

- Operation was in business for any time during 2020
- Operation raised swine, poultry, milk cows, veal calves, or feeder cattle (including backgrounders) during 2020.

If the operation meets all the conditions, then it is considered in-scope for the CPAM survey, and you would proceed to Section 1. If any of the conditions are not met, then you would ask 1a. to assess the status of the livestock operation before moving to Section 15 on the back page of the questionnaire.

The operation may still have agriculture other than confined livestock, so make sure you make notes if they are still operating a farm or ranch. We will not be doing any substitution for the CPAM survey, so if the operation has been turned over to someone else, collect the contact information and then conclude the survey.

Section 1 – Land Use and Livestock

The purpose of Section 1 is to collect some operational data for the entire operation in order to classify the operation later for comparison of operations of different sizes and types. This section contains questions about land use, conservation programs, livestock inventories, and organic production.

Questions 1-2

For land use, there are questions about land owned, rented or leased, along with land rented out to get a total acres operated on January 1, 2021. Some things to watch:

- Owned land should include all land owned by the operation, not just cropland.
- Land rented or leased, again should include all acres that the operations pays to rent or rents on a share basis or flexible arrangement. This includes any land leased on a short-term basis or AUM basis as of January 1, 2021.
- Land rented to others needs to include any land (owned or leased) that is rented or leased by another operator or operation.
- Calculate a total by following this formula: Owned land + rented land – land rented to others = total land operated on January 1, 2021.

Questions 3-4

Once the total land operated is established you will need to further establish, of the total acres, how many are cropland, grazing land or pasture, woodland not pastured, and other land. The sum of the items in question 3 should equal the total land reported in question 2. The acres reported in question 4 should be accounted for in question 3a.

Question 5

This question asks about the livestock inventories on the operation on January 1, 2021, or as close an approximation as can be had. The inventories of interest are beef cows, milk cows, other cattle (steers, heifers that have not calved, calves, bulls, feeder cattle, etc.), hogs and pigs, and poultry.

Question 6

This question is to find out if the operation produced organic products according to the USDA National Organic Program (NOP) standards or if the operation is in the process of transitioning to the USDA NOP in order to sell their production as certified organic. Only if the operation has at least some of their production in the USDA NOP they would answer yes.

Section 2 – Technical Assistance

Technical assistance (See Terms and Definitions in Chapter 3) is available from a number of different sources. This section is devoted to finding out which sources of technical assistance the operation has used in the past. Federal agencies such as NRCS provide technical assistance, but there may be other state or local conservation agencies, university extension services, or even advisors that can be hired.

Question 1

The respondent may or may not have received technical assistance (TA) in the past. If they have received TA, they will answer Question 1a. TA from universities should be included in the State or local resources. If the respondent is unsure about where a TA source falls in the 3 categories, make a note and it can be researched later.

Regardless of whether the respondent or their operation received or sought out any technical assistance, they should provide their agreement or disagreement with each of the statements in question 1b.

Section 3 – Waste Storage

Waste storage can be of various facility types and sizes based on the type and size of the operation. This section is to find out exclusively about the waste storage facilities that are currently in use on the sampled operation.

Question 1 asks for the respondent to report the presence and number of waste storage facilities on the sampled operation, the number of facilities that were taken over from another operation (already in place on land that was purchased or rented), and the number of facilities the operation installed. For example, there could be two concrete lined impoundments used in 2020, one that was installed by another operation, and one that was installed later by the current operation as the livestock operation was expanded.

If there are no waste storage facilities on the operation (column 2 responses are all 'No') follow the instruction to go to Question 2. If there is at least one waste storage facility reported in question 1, skip to Question 3 on page 6.

Question 2 should be completed only if there are no waste storage facilities reported in question 1. Have the respondent rate their agreement or disagreement with all the statements about why they never installed or used a waste storage facility. After completing the table for question 2 and question 2a. (if there were any additional reasons for not using waste storage), follow the instruction to go to Section 4 on page 8.

Question 3 asks whether waste storage structure(s) are required by regulation. Make sure to specify that this could be a Federal, State, or even local regulation. Record the response as ‘yes’ or ‘no’ and go to question 4.

Question 4 and all sub-questions are to assess the capacity of the waste storage facility on the sampled operation, and what is done with any excess waste from the operation any time the facility is completely full. If respondent answers that ‘yes’, at some point during the calendar year the storage is full, you will then ask 4a. and 4b. before skipping to question 5. If they answer ‘no’, ask 4c. and 4d.

Question 4a. and 4b. are simple yes or no questions about what happens to the excess waste that cannot be stored on the operation. If manure is spread on other operations answer ‘yes’ on 4a. If the excess manure is spread on the operation’s own fields, answer yes on 4b. Skip to question 5 after 4b.

Question 4c. and 4d. should only be asked if during the calendar year the waste from the livestock does not exceed the storage capacity on the operation. Question 4c. refers to any regulation, federal, state, or local that requires the operation to maintain more waste storage capacity than necessary. Question 4d. then asks if the operation had to build additional storage capacity to satisfy requirements for receiving financial assistance regarding the waste storage or other practices related to the confined livestock.

Question 5 is to determine if the sampled operation made adjustments to their waste storage due to changes in weather, either cyclical or long term. If the answer to question 5 is ‘yes’, ask 5a. which includes three additional questions about precipitation changes and the management of waste storage management.

Question 6 is a screening question that asks if the operation installed any of the waste storage facilities currently in use, or if the operation is using facilities that were already in place when the operation acquired them (owned or rented). You can refer to the answer in column 5 from question 1 which established if any facilities were installed by the operation. If the operation did not install any of the waste storage facilities, then answer ‘no’ and go to Section 4 on page 8.

Question 6a. asks if the facilities installed by the operation were new (no prior facility) or if they were constructed to replace existing structures. Question 6b. asks if any of the storage facilities installed increased the available storage capacity.

Question 6c. is a table asking about technical and financial assistance that might have been received by the operation for installing waste storage facilities of any type. The first and second columns ask about receiving technical assistance and financial assistance respectively. In the next three columns, provide only the number of facilities for which financial assistance was received and that assistance covered (1) less than 50% of costs, (2) 50-75% of costs, or (3) more than 75% of cost, respectively. If the operation did not receive any financial assistance for a given type of facility, leave the last three columns blank. Each facility that the operation installed should only be accounted for in one of the three columns for the percent of financial assistance received. Question 6c.i. asks if the financial assistance was from a federal source such as NRCS.

Question 6d. asks about the importance of six factors in the decision to install or upgrade waste storage facilities installed or upgraded by the operation. Question 6e. asks how the type of storage was chosen, if by cost, management time required, or other criteria as specified. Be concise in your answer for other criteria, there is a character limit of 30 characters. Question 6f. asks if there are any additional reasons beyond the factors in 6d.

Section 4 – Waste Treatment

Waste treatment can be practiced in variety of different facilities depending on the desired outcome of the waste going in, or perhaps regulations that are in place that specify how waste must be treated. This section will identify the type of waste treatment facilities in use on the sampled operation, the extent to which the respondents' operation installed the facilities, reasons for installation, and handling of any waste that exceeds treatment capacity.

Question 1 asks the respondent to report the presence and number of different waste treatment facilities (see definition in Chapter 2) on the sampled operation, the number of facilities that were taken over from another operation as (already in place on the land that was purchased or rented), and the number of facilities the respondents' operation installed. For example, there could be two waste treatment lagoons in use in 2020, one that was already on the land when the operation purchased it, and one that was installed later by the operation as the livestock operation was expanded.

If there are no waste treatment facilities on the operation (column 2 responses are all 'No') go to Question 2. If there is at least one waste treatment facility reported in question 1, skip to Question 3 on page 9.

Question 2 and 2a. should be completed only if no waste treatment facilities of any type are reported in question 1. Have the respondent rate their agreement or disagreement with each statement about why they never installed or used a waste treatment facility. After completing the table for question 2 and question 2a. (if there were any additional reasons for not using waste storage), follow the instruction to go to Section 5 on page 13.

Question 3 asks if waste treatment structure(s) are required by regulation. Make sure to specify that this could be a Federal, State, or even local regulation. Record the response as 'yes' or 'no' and go to question 4.

Question 4 and all sub-questions are to assess the capacity of the waste treatment facility on the sampled operation, and what is done with any excess waste when the treatment facility is full. If respondent answers that 'yes', at some point during the calendar year the treatment capacity is full, then ask 4a. and 4b. before skipping to question 5. If they answer 'no', ask 4c. and 4d.

Question 4a. and 4b. are simple yes or no questions about what happens to the excess waste. If manure is spread on other operations, answer 'yes' on 4a. If the excess manure is spread on the operation's own fields, answer 'yes' on 4b. Skip to question 5 on the next page after 4b.

Question 4c. and 4d. should only be asked if during the calendar year the waste from the livestock does not exceed the treatment capacity on the operation. Question 4c. refers to any regulation, federal, state, or local that requires the operation to maintain more waste treatment capacity than necessary. Question 4d. then asks if the operation had to build additional treatment capacity to satisfy requirements for receiving financial assistance regarding the waste treatment facility or other practices related to the confined livestock.

Question 5 asks what type of waste separator is installed in the waste treatment facility. This question will only be relevant if the respondent indicated that they have a waste separation facility in use in question 1, row 2. Make sure you go through the entire list of options and have the respondent choose any waste separator type currently in use on the operation.

Question 6 asks what type of day-to-day animal mortality management the operation is using. This question will only be relevant if the respondent indicated that there an animal mortality facility in use on the operation in question 1, row 3. Make sure that these facilities are on the operation, not contracted to an outside company. Make sure that the entire list is asked and any that are currently in use are selected.

Question 7 is to determine if the sampled operation made adjustments to their waste treatment practices due to changes in weather, either cyclical or long term. If the answer to question 7 is 'yes', ask 7a. which includes three additional questions about precipitation changes and the management of waste treatment facilities.

Question 8 is a screening question that asks if the operation installed any of the waste treatment facilities currently in use, or if the operation is using treatment facilities that were already in place when the operation acquired them (owned or rented). Refer to the answer in column 5, question 1 to see if any facilities were installed by the operation. If the operation did not install any of the waste treatment facilities, answer 'No' and go to Section 5 on page 13.

Question 8a. asks if the treatment facilities installed by the operation were new (no prior facility) or if they were constructed to replace an existing treatment facility. Question 8b. asks if any of the treatment facilities installed by the respondents' operation increased waste treatment capacity.

Question 8c. is a table asking about the technical and financial assistance received by the operation for installing any of the different types of waste facilities. The first and second columns ask about technical assistance and financial assistance, respectively. In the next three columns, provide only the number of facilities for which financial assistance was received and that assistance covered (1) less than 50% of costs, (2) 50-75% of costs, or (3) more than 75% of cost, respectively. If the operation did not receive any financial assistance for a given type of facility, leave the last three columns blank. Each facility that the operation installed should only be accounted for once in one of the three columns for the percent of financial assistance received. Question 8c.i. asks if the financial assistance was from a federal source like NRCS.

Question 8d. asks about the importance of eight different factors in the decision to install or upgrade waste treatment facilities currently in use. Question 8e. asks if there are any additional reasons beyond the factors in 8d. Be concise in your answer for other criteria, there is a limit of 30 characters.

Section 5 – Waste Transfer

Waste transfer structures are used to move waste from one location, such as a livestock housing unit, to a different location such as a waste storage or treatment facility. Waste transfer structures such as pits, tanks, channels, or pipe should be considered a separate system from the pumping system if there is a pump in use.

Question 1 asks the respondent to report the presence and number of different waste transfer structures or pumping plants (see definition in Chapter 2) on the sampled operation, if the structures/pumping plants were already in place on land purchased or rented by the operation, or if the operation installed any of the transfer structures/pumping plants. For example, there could be waste channels that feed into a temporary waste pit. The channels were already in place and taken over by the operation, but then the pit was expanded (installed) by the operation.

If there are no waste transfer structures on the operation (column 2 responses are both ‘No’) go to Question 2. If there is at least one waste transfer structure reported in question 1, skip to Question 3 on page 14.

Question 2 and 2a. should be completed only if there are no waste transfer structures/pumping plants reported in question 1. Have the respondent rate their agreement or disagreement with all the statements about why they never installed or used a waste transfer structure or pumping plant. After completing the table for question 2 and question 2a. (if there were any additional reasons for not using a waste transfer structure or pumping plant), follow the instruction to go to Section 6 on page 16.

Question 3 asks specifically if the waste transfer structure(s)/pumping plant(s) are required by regulation. Make sure to specify that this could be a Federal, State, or even local regulation. Record the response as ‘yes’ or ‘no’ and go to question 3a.

Question 3a. and 3b. will be asked even if the waste transfer facilities are not required by regulation. If the waste transfer facilities are a required part of the operations’ broader comprehensive nutrient management plan for spreading the waste on the operation, answer ‘yes’ for 3a. If the waste transfer facility is due to a change in management, then answer 3b. as ‘yes’.

Question 4 is a screening that asks if the operation installed any of the waste transfer structures or pumping plants currently in use, or if the operation is using structures or pumps that were already in place when the operation acquired them (owned or rented). Refer to the answer in column 5, question 1, to see if any waste transfer structures were installed by the operation. If the operation did not install any of the waste transfer structure or pumping plant, answer ‘no’ and go to Section 6 on page 16.

Question 4a. asks if the structures or pumping plants installed by the operation were new (no prior structure or pump in that location) or if they were installed to replace existing structures or pumps. Question 4b. asks if any of the structures or pumps increased the available capacity of the overall waste transfer system.

Question 4c. is a table asking about the technical and financial assistance received by the operation for installing either a waste transfer structure or pumping plant. The first and second columns ask about receiving technical assistance and financial assistance respectively. In the next three columns, provide only the number of structures/pumps for which financial assistance was received and that assistance covered (1) less than 50% of costs, (2) 50-75% of costs, or (3) more than 75% of cost, respectively. If the operation did not receive any financial assistance for a given type of facility, leave the last three columns blank. Each structure or pumping plant that the operation installed should only be accounted for once in one of the three columns for the percent of financial assistance received. Question 4c.i. asks if the financial assistance was from a federal source like NRCS.

Question 4d. is a table that asks how important each factor was in the decision to install or upgrade the waste transfer structures or pumps currently in use. Question 4e. asks if there are any additional reasons beyond the factors in 4d. Be concise in your answer for other reasons as there is a character limit of 30 characters.

Section 6 – Comprehensive Nutrient Management

This section is designed to gather information concerning the presence and implementation of a written comprehensive nutrient management plan (CNMP). The operation may be following a plan, but NRCS specifically wants to know if they are following a written plan developed with outside assistance or

expertise. The CNMP should be a plan that balances for all nutrients, including manure created on the operation, with the nutrient needs of cropland and pasture that is operated by the sampled operation. The plan may consist of different elements, such as a schedule of applications, nutrient testing, soil testing, etc.

Question 1 asks if the sampled operation has a written CNMP in place that was developed with assistance from a government agency, private consultant, or other technical expert. If the respondent indicates that the operation doesn't have such a plan or it is not currently being used, complete the table for 1a., the question for 1b. and skip to Section 7 on page 19. If the operation is following a CNMP move on to question 2.

Question 2 asks if the operation has had to modify its CNMP. Change could be driven by many factors, including due to changes to regulation, weather, amount of waste, or any part of the waste storage, treatment, or transfer structures.

Question 3 asks whether the CNMP is required by regulation at the federal, state, or local level.

Question 4 asks if the operation has any nutrient management issues (challenge) due to limitations on applying waste to frozen ground. Limitations could be due to regulations prohibiting manure applications on frozen ground or other CNMP requirements. For example, incorporation requirements could preclude manure application on frozen ground.

Question 5 is to determine if the sampled operation made adjustments to their CNMP due to changes in weather, either cyclical or long term. If the answer to question 5 is 'yes', ask 5a. which asks three additional questions the type of precipitation change that has required a change in the CNMP or how it is implemented. If the answer is 'no', go to question 6.

Question 6 asks if the operation managed waste and other nutrients used in accordance with the CNMP during 2020 specifically.

Question 7 asks the first year that the operation followed a written CNMP. Make sure that the year reported as 4 digits, such as 2005.

Once the year that a CNMP was first used has been established, complete the table in 7a. about technical and financial assistance received by the operation for both development and implementation of a CNMP. The first and second columns ask about receiving technical assistance and financial assistance respectively. The third column is asking what percent of the total expense for developing and implementing a CNMP were covered by financial assistance received. The responses for the second column (whether then operation received financial assistance) and the third column (percent of cost covered) must be consistent. Question 7a.i. asks if the financial assistance was from a federal source like NRCS.

Question 7b. asks the respondent to rate the importance of seven factors in the decision follow a written nutrient management plan. Question 7c. asks the respondent to provide any additional reasons, beyond the factors in 7b., that were important in this decision. Be concise in your answer as there is a character limit of 30 characters.

Question 8 asks about the last year when a comprehensive nutrient management plan (CNMP) was used. If the respondent already reported that they used their CNMP in 2020, put 2020 in the cell and go to Section 7 on page 19. Do the same thing if they respond that they followed a CNMP in 2021. If the last year that a plan was used is 2019 or earlier, ask question 8a. If the respondent does not plan to follow a

CNMP at all in the next 3 years, check 'no' and ask 8b. If the respondent does plan to use a written nutrient management plan again in the next 3 years, check 'yes' and go to section 7 on page 19.

The table for 8b. should only be completed if the respondent hasn't used a written CNMP since 2019 or earlier and has no plans to use a written plan in the next 3 years. The table asks respondents to rate the importance of seven factors in the respondent's decision to stop using a CNMP.

Section 7 – Waste Utilization

This section is to determine the type of waste utilization system is used for the application of waste to the fields.

Question 1 asks for the respondent to report the presence and number of different parts of the waste utilization system that are currently in use. Column 1 lists common system components such as pipeline, pumping plant, or a sprinkler irrigation system. For example, a pipeline may be used in conjunction with a pumping plant to deliver liquid manure to a tractor pulled manure injector or sprinkler irrigation system. Column 2 will be completed to indicate which components are in use on the operation. Columns 3 through 5 will indicate the number of the individual components in use in 2020, the number that were already in place on the land that was purchased or rented, and the number installed/purchased by the operation.

If none of the listed waste utilization systems are in place on the operation (column 2 responses are all 'no') then go to Question 2 on page 20. If at least one of the listed waste utilization system components is in place (any 'yes' in column 2) skip to Question 3 on page 20.

Question 2 and 2a. should be completed only if there are no waste utilization systems reported in question 1. Have the respondent rate their agreement or disagreement with all the statements about why waste utilization systems are not used on the operation. Question 2a. asks the respondent to provide any additional reason for not using a waste management system. When 2a. is completed go to Section 8 on page 22.

Question 3 asks specifically if the waste utilization system in use on the operation is required by regulation. Make sure to specify that this could be a Federal, State, or even local regulation. Record the response as 'yes' or 'no' and go to question 4.

Question 4 is to determine if the sampled operation adjusted their waste utilization system due to changes in weather, either cyclical(seasonal) or long term. If the answer to question 4 is 'yes', ask 4a. which includes three additional questions about precipitation changes and the management of waste treatment facilities.

Question 5 is a screening that asks if the operation installed any portion of the waste utilization system currently in use, or if the operation is using a system that was already in place when the operation acquired them (owned or rented). Refer to the answer in column 5 from question 1 to see if any waste utilization system parts were installed by the operation. If the operation did not install any portion of the system, answer 'no' and go to Section 8 on page 22.

Question 5a. is a table asking about the technical and financial assistance received by the operation for installing any part of the waste utilization system. The first and second columns ask about receiving technical assistance and financial assistance respectively. In the next three columns, provide only the number of waste utilization components for which financial assistance was received and that assistance

covered (1) less than 50% of costs, (2) 50-75% of costs, or (3) more than 75% of cost, respectively. If the operation did not receive any financial assistance for a given component, leave the last three columns blank. Each component that the operation installed should only be accounted for once in one of the three columns for the percent of financial assistance received. Question 4c.i. asks if the financial assistance was from a federal source like NRCS.

Question 5b. is a table that asks how important each factor was in the decision to install or upgrade the part(s) of the waste utilization system such as pipes, pumps, or sprinkler system. Question 5c. asks if there are any additional reasons beyond the factors in 5b. Be concise in your answer for other reasons as there is a character limit of 30 characters.

Section 8 – Diversion of Runoff

Diversion of runoff can include several different types of structures that divert rainwater runoff or control gases and emissions from the waste handling structures. These structures can be used to keep water away from waste systems to prevent flooding, clogging, or overflow of the waste system that has a fixed capacity or use.

Question 1 asks respondents to report the presence and number of runoff diversion structures on the sampled operation, the number of structures already in place when the land that was purchased or rented, and the number installed by the operation. For example, there could be two diversion structures in use in 2020, one that was already on the land when the operation purchased it, and one that was installed later by the operation as the livestock operation was expanded at a different location.

If there are no runoff diversion structures on the operation (column 2 responses are all ‘No’) go to Question 2 on page 23. If there is at least one diversion structure reported in question 1, you will skip to Question 3 on page 23.

Question 2 and 2a. should be completed only if there are no runoff diversion structure reported in question 1. Have the respondent rate their agreement or disagreement with all the statements about why the runoff structures listed in question 1 have not been installed. Question 2a. asks the respondent to provide any additional reason for not installing runoff diversion structures. When 2a. is completed, follow the instruction to go to Section 8 on page 22.

Question 3 asks specifically if the runoff diversion structures currently in use are required by regulation. Make sure to specify that this could be a Federal, State, or even local regulation. Record the response as ‘yes’ or ‘no’ and go to question 4.

Question 4 is to determine if the sampled operation adjusted the installation or use of runoff diversion structures or practices listed in question 1 due to changes in weather, either cyclical(seasonal) or long term. If the answer to question 4 is ‘yes’, ask 4a. which includes three additional questions about precipitation changes and the management of and use of runoff control and diversion structures.

Question 5 is a screening that asks if the operation installed any of the listed runoff diversion structures currently in use, or if the operation is using structures that were already in place when the operation acquired them (owned or rented). Refer to the answer in column 5 from question 1 which established if any diversion structures were installed by the operation. If the operation did not install any of the structures, then answer ‘no’ and go to Section 9 on page 26.

Question 5a. asks if the facilities installed by the operation were constructed to replace existing structures, expand the runoff diversion capacity, divert runoff to waste storage facilities, or divert runoff away from waste storage facilities. Record the ‘yes’ or ‘no’ answer to each of the four sub-questions and move on to question 5b.

Question 5b. is a table asking about the technical and financial assistance received by the operation for installing any of the different runoff diversion structures. The first and second columns ask about receiving technical assistance and financial assistance respectively. In the next three columns, provide only the number of waste utilization components for which financial assistance was received and that assistance covered (1) less than 50% of costs, (2) 50-75% of costs, or (3) more than 75% of cost, respectively. The next three columns should only have the number of system parts that fall into each of the percent of financial assistance coverage. If the operation did not receive any financial assistance, leave the last three columns blank. Each structure that the operation installed should only be accounted for once in one of the three columns for the percent of financial assistance received. Question 5bi. asks if the financial assistance was from a federal source like NRCS.

Question 5c. is a table that asks how important each factor was in the decision to install or upgrade the runoff diversion structure(s) currently in use. Question 5d. asks if there are any additional reasons beyond the factors in 5c. Be concise in your answer for other criteria, there is a character limit of 30 characters.

Section 9 – Stabilization or Protection of Heavily Used Areas

Stabilize ground surfaces that are frequently and intensively used by people, animals, or vehicles to control erosion and reduce the need for frequent maintenance.

Question 1 asks if the sampled operation has installed vegetative cover, surfacing, or structures to stabilize heavily used areas. After reading the question carefully, record the respondent’s answer and if yes, complete questions 1a. and 1b. If the answer is no, you will skip to question 2.

Question 1a. asks if any of the stabilized, surfaced, or protected areas currently used by the operation were taken over from another operation when the operation acquired the land by purchase or rental. Question 1b. goes on to ask if the operation has installed vegetative cover, surfacing, or structures on land used by the operation, regardless of ownership (owned or leased). Once 1a. and 1b. have been answered, go to Section 10 on page 28.

Question 2 and 2a. should be completed only if there is no vegetative cover, surfacing, or structures designed to stabilize or protect frequently used areas. Have the respondent rate their agreement or disagreement with all the statements about why they never installed or needed to stabilization or protection in any areas on the operation. Once the table for question 2 is completed, question 2a. asks the respondent to provide any additional reason for not stabilizing heavy use areas. When 2a. is completed go to Section 10 on page 28.

Question 3 asks specifically if the stabilization or protection of heavily used areas is required by regulation. Make sure to specify that this could be a Federal, State, or even local regulation. Record the response as ‘yes’ or ‘no’ and go to question 4.

Question 4 asks if the operation installed any portion of the stabilized or protected areas currently in use. Refer to the answer in question 1b. which established the number of areas installed by the operation. If the operation did not install any portion of the stabilized or protected heavy use areas, then answer ‘no’ and go to Section 10 on page 28.

Question 4a. is a table asking about the technical and financial assistance received by the operation for stabilization or protection of heavily used areas. The first column asks about receiving technical assistance (first row) and financial assistance (second row). In the next three columns, provide only the number of protections for which financial assistance was received and that assistance covered (1) less than 50% of costs, (2) 50-75% of costs, or (3) more than 75% of cost, respectively. The next three columns should only have the number of system parts that fall into each of the percent of financial assistance coverage. If the operation did not receive any financial assistance, leave last three columns blank. Each protective structure that the operation installed should only be accounted for once in one of the three columns for the percent of financial assistance received. Question 4a.i. asks if the financial assistance was from a federal source like NRCS.

Question 4b. is a table that asks respondents to rate the importance of each factor in the decision to install stabilization or protection in heavily used areas. Question 4c. asks if there are any additional reasons beyond the factors in 4b. Be concise in your answer for other reasons as there is a character limit of 30 characters.

Section 10 – Demographics

Questions 1 – 5 are a series of questions that are to be used for classification purposes of the operator. If there is more than one operator involved with the operation, try to collect the demographics of the principal operator if possible. If there is no principal operator or more than one principal operator, then collect the demographics of the person who would be making a majority of the conservation practice decisions.

Question 6 transitions to ask specifically about the legal status of the sampled operation. There are 4 options; family or individual, partnership, corporation, or other. Based on the selection of the operating arrangement, you will then ask the additional questions for the legal status if there are any.

Section 11 – Value of Sales

The two questions in this section are for classification purposes as well to establish the size and type of operation that was sampled.

Question 1 is asking about the gross value of sales that the operation had in 2020 for all agricultural products along with any government payments, rent, or landlord share of the production. The respondent is directed to choose which of the nine categories the operation falls into for 2020.

Question 2 is asking which of the sixteen different operation types does the sample operation fall in terms of largest value of sales for 2020. If the respondent says that two different operation types are equal, then have them choose which operation type is most represented in other ways.

Section 12 – Conclusion

Question 1 is to be filled out if the sampled operation is no longer in business and the business has been sold or turned over to someone else. Do your best to collect the operation name, operator's name, address, and phone number. If possible, find out if the operation was in business on June 1, 2020.

Question 2 can be comments that are related to anything on the survey, changes in the operation, or anything else that was communicated to you, such as reason for refusal.

At the end of the survey try and collect the operation email, the best phone number, the respondent's name, and the respondent's phone number if different from the operation phone number. Fill out the date in the correct month/day/year format. Conclude the survey by thanking the respondent for their time.