

**WASTE STORAGE STRUCTURE
(CODE 313)**

DESCRIPTION

A fabricated structure for temporary storage of animal waste.

PURPOSE

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

CONDITION

This practice applies where there is a need for a fabricated structure to temporarily store liquid, slurry, or solid livestock manure or other agricultural wastes until they can be treated, utilized, recycled, or otherwise disposed of in a safe manner.

POLICIES

1. This practice will be applied on farmland where animal wastes, waste-contaminated runoff, or wastewater constitutes a potential pollution hazard. ***The structure must be installed on the same farm parcel as where the animal waste is generated*** (except for Satellite Poultry Manure Storage Structures).
2. This practice will be used to construct a facility for the storage and handling of livestock and poultry waste in the form of a liquid, slurry, or solid, as well as other agricultural wastes. The storage facility will be used to contain the waste until it can be treated, utilized, recycled, or otherwise disposed of in a way that will prevent or abate pollution of the waters of the State.
3. Except for Satellite Poultry Waste Storage Structures, a minimum of ***fifteen (15)*** animal units must regularly use or occupy the area being addressed. Operations with ***eight (8)*** to ***fourteen (14)*** animal units may be eligible based on the animal unit pro-rated cost-eligibility formula.
4. Animal Waste Storage Structures such as liquid manure tanks, collection basins, settling basins, waste storage ponds, and similar facilities are cost-shareable. Waste treatment lagoons (Code 359) are included in the MACS manual as a separate cost-shareable practice.
5. A storage structure serves as one component of an animal waste management system. Other practices necessary to control surface runoff water or facilities to contain and control wastewater from operations, such as dairy parlor washing as part of the animal waste management system, may be included.

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6. The estimated and final eligible project cost for *all* non-poultry waste storage structures will be limited by the “ceiling” expressed as *dollars per cubic foot* of NRCS-authorized storage volume according to the following schedule:

<u>Volume needed</u>	<u>Ceiling rate</u>
> 24,000 cu. ft.	\$5.25 / cu. ft.
12,000 – 24,000 cu. ft.	\$7.00 / cu. ft.
< 12,000 cu. ft.	\$8.50 / cu. ft.

The above ceiling rates are not to be exceeded; however, special consideration can be made for unique situations. This must be approved by the MACS Program Manager.

MACS will only accept Water Quality Project forms based on an itemization of the materials and quantities necessary for the BMP. The total cost of the BMP will be based on the ceiling rates aforementioned, not to exceed established flat rates (for example: 8,500 cu. ft. x \$8.50 ceiling rate x 87 ½ % = \$63,218.75 (eligible state cost).

7. Cost-sharing *is authorized* for the following as deemed necessary by the SCD:
- The installation of underground piping to convey rainwater away from livestock areas and/or animal waste storage facilities. Reasonable precautions must be taken at the point of discharge to prevent erosion problems.
 - Roof guttering and downspouts *only* to the extent necessary to prevent roof runoff from entering the waste storage structure. Refer to the Roof Runoff Structure practice (Code 558) for guttering and downspouts needed to correct an erosion problem or to prevent roof runoff from flowing across livestock confinement areas. When using this practice in conjunction with a 313, the total cost is included in the ceiling rates aforementioned.
 - A permanent Ag waste fence only if essential to a particular waste storage project for the safety of livestock or humans.
 - Leveling and filling to permit the installation of an effective system as well as vegetative cover (including mulch) to surround and protect the storage facility.
 - Permanently installed equipment needed as an integral part of the collecting, treatment, and containment system. (See 8.b. below.)
 - The establishment of a Vegetative Treatment Area (Code 635) as part of the waste management system.
 - The installation of a roof or cover for water quality protection and improvement. Refer to the Roofs or Covers practice (Code 367) to divert clean water from animal management areas. When using this practice in conjunction with a 313, the total cost is included in the ceiling rates aforementioned.

12. Applicants are required to keep their WMSP and NMP updated and current throughout the maintenance life of any animal waste treatment or containment project. These updates are the responsibility of the applicant and landowners. The District and/or the nutrient management consultant may provide assistance. The District is responsible for verifying that the applicant has a current Waste Management System Plan.
13. For a start-up operation or expansion to increase the animal capacity within the next six months, *and* if the applicant documents that fact in writing to the Department's satisfaction, cost-share may be approved for manure storage capacity based on the total new animal capacity on the farm. The SCD must document the animal capacity increase on the Certificate of Imminent Start-up or Expansion of a Poultry-Growing Operation form or Certificate of Imminent Start-up or Expansion of a Livestock Operation form (SECTION III, #19 or # 20) and submit this form with the MACS Water Quality Project form.
14. MACS will initiate an On-Farm Status Review (Spot Check) six months following the completion of any project subject to the Certificate Imminent Start-Up or Expansion form.
15. NRCS Standards and Specifications for Waste Storage Structures (Code 313) will be followed when applying this practice.
16. MACS requires the placement of any waste storage structure, including any Poultry Mortality Composting Facility, to be a minimum of 100 feet from streams, drainage ditches, and other surface waters, wells, and sinkholes. No exceptions will be made for new operations. Exceptions for existing operations may be allowed when constraints posed by the site and existing infrastructure prevent placement outside the 100-foot setback. Exceptions, including expansions, will be considered on a case-by-case basis. An SCD Certification for 100-Foot Set-Back Exception form and identification of protective measures to maintain water quality must be included with the application. (SECTION III, #11)
17. The practice must be properly maintained and operated for a minimum of fifteen (15) years. The applicant agrees to provide all equipment, labor, and materials needed to meet this requirement.
18. If MACS cost-share funding was received for an Animal Waste Treatment and Containment Project and if supporting practices (367, 558, and 561) were not installed with the initial waste storage structure, the total eligible cost, not to exceed \$200,000 per project, and the cubic foot volume ceiling rate eligibility cap, is still applicable. The remaining balance of eligible cost-share can be applied towards the proposed Roofs and Covers (367), Roof Runoff Structure (558), and Heavy Use Area Protection (561).
19. **MACS defines the Animal Waste Treatment and Containment Project to include Practice Codes 313, 316, 359, 367, 558, and 561 to solve a single water quality problem. The waste storage facility and supporting practices are part of a Waste Management System Plan (WMSP), and the total cost is included in the ceiling rate aforementioned.**

COST-SHARE RATE

For Waste Storage Structures, the State cost-share payment will not exceed 87.5% of the total eligible cost, not to exceed \$200,000 per project, the maximum allowed for an animal waste treatment or containment project.

For the expansion of existing Livestock Waste Storage Structures, the State cost-share payment will not exceed 50 % of the total eligible cost, not to exceed \$100,000 per project, the maximum allowed for an expansion of an existing MACS Poultry Waste Storage Structure.

A farm cap limit of \$450,000 per person (within life maintenance, installed by the applicant or conveyed by the predecessor(s) in title) will apply.

Note: For Satellite Poultry Waste Storage Structure, the State cost-share payment will not exceed 87.5% of the total eligible cost, not to exceed \$150,000 per project.

ATTACHMENTS

Application(s) with an outstanding Unsatisfactory On-Farm Status Review of previous project(s) may be ineligible for MACS Cost-Share funding. When a previous project expires with outstanding unsatisfactory status, the applicant is ineligible for any future MACS funding.

The following items are needed:

1. A copy of a recorded deed(s) for the parcel(s) where the BMP is located. If the current, appropriate deed is already on file in the MACS Office, then record both the agreement number of the file where the deed is kept and the liber/folio numbers in the General Comments section of the application.
2. A copy of the Real Property Data Search page from the Maryland Department of Assessments and Taxation's website (www.dat.maryland.gov) indicating the Maryland Property View Account ID Number and owner information.
3. An aerial photograph indicating the property lines as well as all existing and proposed BMPs. Include the distance of the proposed structure to the Waters of the State.
4. A worksheet with calculations to determine the storage volume requirement, stated in cubic feet. The cubic foot volume is used to calculate the cubic foot volume ceiling rate eligibility cap for livestock waste storage structures.
5. Except for Satellite Poultry Waste Storage Structures, a farm-specific Waste Management System Plan (WMSP) which includes information on a site, problem, geographic area, system components, component details and dimensions, waste utilization, installation timetable, structure operation, and maintenance. This document must be signed by the District Conservationist and the applicant and/or operator.
6. The Nutrient Management Plan Certification form shall be submitted along with the Application as required. (SECTION III, #30).
7. A plan view sketch graphically demonstrating the layout and details of the proposed BMPs, including the location of existing/proposed structures and landscape features, including distance(s) (in feet) to streams and drainage ditches.
8. 100-Foot Set-Back SCD Certification for Exception form, if required.
9. Appropriate Additional Provisions form(s), if required.
10. A letter of justification explaining why co-cost funding (EQIP, RCPP, AMA, etc.) was not included or considered with the Water Quality Project forms.

**ADDITIONAL POLICIES SPECIFIC TO POULTRY WASTE STORAGE STRUCTURES
(PWSS)**

1. An applicant must be a poultry producer and have a current or potential pollution problem due to the stockpiling of poultry waste.
2. Each farm will be eligible for one project per farm. A project may involve more than one manure storage structure.
3. The size of a waste storage facility will be based on the flock capacity of the current poultry operation and the storage time required, as identified in the Waste Management System Plan (WMSP) utilizing the NRCS-approved Poultry Waste Storage Structure Sizing Worksheet. The WMSP must address all poultry waste storage needs (present and anticipated) and include manure brought in from other sources. The MACS Program will provide cost-share assistance for structures not exceeding 210 days of storage capacity (except for Satellite Manure Structures).

Any capacity exceeding these provisions will not be eligible for MACS and must be paid for by the applicant. Increasing the size of the facility for the purpose of storing poultry waste generated from another farm will be paid for at the applicant's expense.

4. Cost-sharing may be eligible for roofed poultry waste storage facilities where the minimum flock size is equal to a broiler operation of 15,000 birds or a layer operation of 4,400 birds.
5. Roofed PWSS measuring less than 24 ft. long (six bays) for a 30 ft. wide truss, or less than 36 ft. long (nine bays) for a 40 ft. wide truss, or less than 48 ft. long for a 50 ft. wide truss require a design prepared and sealed by a professional engineering firm. In such cases, the design must first be approved by the NRCS state Engineer and the MACS Program Manager. Cost-sharing may be offered on alternative poultry waste storage facilities only if the design has been approved by NRCS.

In such cases, existing component flat rates must be used on the MACS Water Quality Project Application form and Claim for Payment form.

6. The applicant must maintain the structure in accordance with the signed WMSP. By signing the MACS Water Quality Project Agreement form, the applicant is bound to use the structure according to the WMSP over the 15-year life of the agreement; otherwise, the entire MACS grant must be repaid to the Program.
7. ***The structure is to be used for the storage of poultry waste only.*** Temporary housing of *mobile farm equipment* will be permitted when manure is not being stored, only if it does not affect compliance with the Waste Management System Plan for the farm. No alterations are to be made to the walls, vents, or framing of the structure.
8. An applicant may be granted permission to construct a permanent, attached structure of suitable design to the outside of a MACS Animal Waste Storage Structure, providing all of the following conditions are met:

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- a. The attachment must be permanent in nature and must be constructed in such a way as not to threaten nor compromise the structural integrity of the MACS waste storage structure or attachment (for example, a composter). In all cases, roof runoff must be directed away from the perimeter of the MACS structure. There must be no alterations made to the walls, framing, etc., of the original MACS structure.
 - b. The attachment may in no way interfere with the efficient and reliable use and operation of the waste structure or composter. This includes blocking the entrance to or exit from the structure or otherwise hindering access to portions of the original MACS structure, such as composting bins or backup storage areas. The attachment also may neither block nor hinder ventilation needed for the safe and reliable operation of the MACS facility. The attachment must not in any way reduce the capacity of the MACS structure as originally built.
 - c. The applicant will submit a clear plan of the attachment to the Soil Conservation District for informational purposes. The District will place a copy in the applicant's project file and will forward a copy to the MACS office. If the District has reason to believe that the proposed attachment will not meet all of the above criteria (structural integrity, safe operation, etc.), then the District must make a site visit and advise the applicant about changes that are needed to make the attachment acceptable to the MACS Program.
 - d. If an attachment, damaged or acted upon by an act of nature or other hazard, causes damage to a MACS Animal Waste Storage Structure, the waste storage structure must be restored to its original condition entirely at the owner's expense. If a MACS structure fails structurally because of an act of nature (not through owner negligence) and, in doing so, causes damage to an attached, non-MACS structure, the Department will consider making a grant to restore the MACS structure to its original condition but will not pay for the restoration of the attached structure.
 - e. Cost-share *is not* available for attachments, with the exception of an approved Poultry Mortality Composting Facility (Code 316), which meets all MACS Program requirements.
9. MACS Program grants for inside composters will be approved only when the composters are to be placed in existing PWSSs, provided certain criteria are met. When a new PWSS and a composter are to be built with MACS funds, the composter must be freestanding or attached to the *outside* of the PWSS. If the farmer wishes to build an inside composter when building a new PWSS, he or she will absorb *all* the cost of the extra bays that will be required.
10. No composting is allowed inside of the PWSS (see 9 above, which provides for cost-sharing certain composters inside PWSS).

11. For a start-up operation or expansion to increase the animal capacity within the next six months, *and* if the applicant will document that fact in writing to the Department's satisfaction, cost-share may be approved for manure storage capacity based on the total new animal capacity on the farm. The SCD must document the increase in animal capacity on the Certificate of Imminent Start-up or Expansion of a Poultry-Growing Operation form (SECTION III, #20) and submit this form with the MACS Water Quality Project Form. *Start-up or expansion operations are eligible for 50% cost-share.*
12. MACS will initiate an On-Farm Status Review (Spot Check) six months following the completion of any project subject to the Certificate Imminent Start-Up or Expansion form.
13. If MACS cost-share funding was received for an Animal Waste Treatment and Containment Project and if supporting practices (367, 558, and 561) were not installed with the initial poultry waste storage structure (PWSS), the total eligible cost, not to exceed \$200,000 per project, is still applicable. The remaining balance of eligible cost-share can be applied towards the proposed Roofs and Covers (367), Roof Runoff Structure (558), and Heavy Use Area Protection (561).
- 14. MACS defines Animal Waste Treatment and Containment Projects to include Practice Codes 313, 316, 359, 367, 558, and 561 to solve a single water quality problem. The waste storage facility and supporting practices are part of a Waste Management System Plan (WMSP), and the total cost is not to exceed \$200,000 per project.**

COST-SHARE RATE

For Poultry Waste Storage Structures, the State cost-share payment will not exceed 87.5% of the total eligible cost, not to exceed \$200,000 per project, the maximum allowed for an animal waste treatment or containment project.

A farm cap limit of \$450,000 per person (within life maintenance, installed by the applicant or conveyed by the predecessor(s) in title) will apply.

EXPANSION OF AN EXISTING MACS POULTRY WASTE STORAGE STRUCTURE

In order to qualify for cost-sharing for the expansion of an existing MACS facility, the applicant must comply with the following policies and eligibility criteria:

1. The existing facility must have been maintained in full compliance with all applicable NRCS standards and specifications, including maintenance and adherence to the Waste Management System Plan (WMSP). The SCD must document compliance with maintenance requirements, utilization, and operation using a MACS On-Farm Status Review form (SECTION V, #5) and submit that form with the MACS application. Documentation must include an estimate of the current percentage of floor space used for manure storage and the number of animals contributing to that level of use. Problems and/or misuse must be described, and expansion will not be approved if the existing facility has not been maintained properly or has been underutilized.
2. A completed NRCS-approved Poultry Waste Storage Sizing Worksheet must be filled out clearly defining the farm's existing and projected waste storage requirements compared to the capacity of the existing storage facility. Changes in operating methods and watering or feeding technologies must be considered. The SCD is to evaluate and document the extent to which the existing facility can be used to meet future needs. Notes on this form shall clearly explain how many of the new animals (if any) will be served by the existing facility and how many will be served by the expanded facility.
3. If the expansion of the flock has already occurred, the SCD must provide the details in a narrative statement in the General Comments section of the MACS application, comparing the old numbers with the new ones and indicating the date of the expansion.
4. If the expansion of a flock is expected to occur within the next six months, *and* if the applicant will document that fact in writing to the Department's satisfaction, cost-share may be approved for manure storage capacity based on the total new animal capacity on the farm. The SCD must document the increase in animal capacity on the Certificate of Imminent Start-up or Expansion of a Poultry-Growing Operation form (SECTION III, #20) and submit this form with the MACS Water Quality Project application form. *Start-up or expansion operations are eligible for 50% cost-share.*
5. MACS will initiate an On-Farm Status Review (Spot Check) six months following the completion of any project subject to the Certificate Imminent Start-Up or Expansion form.
6. A new or revised WMSP addressing the storage and management of all animal wastes produced on the farm after the expansion of operation must be prepared by the SCD and submitted with the MACS application for the new project.
7. The applicant and their Nutrient Management Plan must be in compliance with Maryland's Nutrient Management regulations (COMAR 15.20.08) at the time of application. The NM plan must address the presence of animals and all poultry waste that will be produced on the farm after the expansion. No Claims will be paid without full NM compliance. Nutrient Management Plan Certification form shall be submitted along with the Application as required (SECTION III #30).

8. PROJECT LIFE – If the new facility is not attached to or directly connected with the existing facility, then each facility will have its own project life, and the project life (and the MACS Agreement) of the older facility would remain unchanged. ***If the new facility is attached to or connected with the existing facility, then the existing facility must be used and maintained in accordance with NRCS standards and specifications for the full 15-year project life of the new or expanded facility, regardless of the age of the existing facility.*** The MACS Agreement for the expansion will supersede the agreement for the existing facility regarding operation and maintenance during project life. In cases where, for some legitimate technical reason, the materials used to build the existing facility cannot be expected to last the full term of the new Agreement, the Department will accept a waiver from NRCS.
9. SIZING THE EXPANSION – If the new facility is not attached to the existing roofed storage structure, then the minimum standard design eligible for cost-share is 24 ft. long (six bays) for 30 ft. wide truss or 36 ft. long (nine bays) for 40 ft. wide truss or 48 ft. long for 50 ft. wide truss. If the waste capacity needed for the expansion is less than this and cannot be attached to the existing structure, then an alternative design must be prepared and submitted for approval by the NRCS State/Area Engineer. If the new facility is attached to the existing roofed storage structure, cost-share will be allowed on any number of standard 4' bays, which are justified by means of the NRCS poultry waste storage sizing worksheet.
10. MACS requires the placement of any waste storage structure (including a Poultry Mortality Composting Facility) to be a minimum of 100 feet from streams, drainage ditches, and other surface waters, wells, and sinkholes. No exceptions will be made for new operations. Exceptions for existing operations may be allowed when constraints posed by the site and existing infrastructure prevent placement outside the 100-foot setback. Exceptions, including expansions, will be considered on a case-by-case basis. A SCD Certification for Exception form (SECTION III, # 11) and identification of protective measures to maintain water quality must be included with the application.

COST-SHARE RATE

For the expansion of existing Poultry Waste Storage Structures, the State cost-share payment will not exceed 50 % of the total eligible cost, not to exceed \$100,000 per project, the maximum allowed for an expansion of an existing MACS Poultry Waste Storage Structure.

A farm cap limit of \$450,000 per person (within life maintenance, installed by the applicant or conveyed by the predecessor(s) in title) will apply.

ADDITIONAL POLICIES SPECIFIC TO SATELLITE POULTRY WASTE STORAGE STRUCTURES

In order to qualify for cost-sharing for a satellite poultry waste storage structure, the applicant must comply with the following policies and eligibility criteria:

1. Eligibility shall be limited to those applicants that grow row crops such as corn, soybean, or other grain crops that are suitable for poultry manure applications as prescribed in the applicant's Nutrient Management Plan.
2. The structure may only be installed on the parcel of land identified to receive the manure, and the parcel must be owned by the applicant.
3. Each applicant may be eligible for one project per parcel, and if the applicant applies for more than one satellite storage structure, the sites must be at least five miles apart.
4. Only manure generated on farms located within Maryland may be stored in the structure.
5. The **MACS flat rate** for Satellite Manure Storage Structures is **\$9.00 per square foot**.
6. Structure sizing will be based on the following criteria:
 - a. Total acres of cropland with an FIV less than 101 receiving manure annually
 - b. One-half of the total eligible acres can receive a maximum manure application rate of 3.0 tons per acre.
 - c. A MACS Satellite Poultry Waste Storage Structure Sizing Worksheet must be completed and submitted with the MACS Water Quality Project Form
7. Roofed Satellite PWSS measuring less than 24 ft. long (six bays) for a 30 ft. wide truss, or less than 36 ft. long (nine bays) for a 40 ft. wide truss, or less than 48 ft. long for a 50 ft. wide truss require a design prepared and sealed by a professional engineering firm. In such cases, the design must first be approved by the NRCS state Engineer and the MACS Program Manager. Cost-sharing may be offered on alternative facilities only if the design has been approved by NRCS.
8. MACS requires the placement of any waste storage structure to be a minimum of 100 feet from streams, drainage ditches, and other surface waters, wells, and sinkholes. Exceptions may be allowed when constraints posed by the site and existing infrastructure prevent placement outside the 100-foot setback. Exceptions will be considered on a case-by-case basis. A SCD Certification for Exception form (SECTION III, # 11) and identification of protective measures to maintain water quality must be included with the application.
9. The structure is to be used for the storage of poultry waste only. Temporary housing of mobile manure handling equipment will be permitted when manure is not being stored, only if it does not affect compliance with the Nutrient Management Plan for the farm. No alterations are to be made to the walls, vents, or framing of the structure.

10. The applicant shall have a current Soil Conservation and Water Quality Plan on the parcel receiving the poultry manure. This plan must also include an evaluation to assess the current status of soil health and recommendations to improve organic matter, including the application of poultry manure, consistent with the Soil Carbon Amendment (Code 808) and other planning guidance issued by NRCS to address soil health. In addition, the Soil Carbon Amendment (Code 808) shall be listed on the *Water Quality Project Form* and *Claim for Payment* as primary practice.
11. The applicant and their Nutrient Management Plan must be in compliance with Maryland's Nutrient Management regulations (COMAR 15.20.08) at the time of application and throughout the lifespan of the project. No Claims will be paid without full NM compliance. Nutrient Management Plan Certification form shall be submitted along with the Application as required (SECTION III #30). In addition, the applicant is subject to a Plan Implementation Evaluation at least once every three years to ensure proper use and management of the facility.

COST-SHARE RATE

For the Satellite Poultry Waste Storage Structure, the State cost-share payment will not exceed 87.5% of the total eligible cost, not to exceed \$150,000.00 per project.

A farm cap limit of \$450,000 per person (within life maintenance, installed by the applicant or conveyed by the predecessor(s) in title) will apply.