

**NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD**

WASTE MANAGEMENT SYSTEM

(No.)

CODE NY312

DEFINITION

A planned system in which all necessary components are installed for properly managing liquid and solid waste including runoff from concentrated waste areas.

PURPOSES

To manage waste in rural areas in a manner that prevents or minimizes degradation of air, soil, animal, plant and water resources and protects public health and safety. Such systems are planned to preclude excess discharge of pollutants to surface or ground water and to recycle waste through soil and plants to the fullest extent practicable.

CONDITION WHERE PRACTICE APPLIES

This practice applies where:

1. waste is generated by agricultural production or processing;
2. nutrient management is needed on waste from municipal and industrial treatment plants that are used in agricultural production;
3. all practice components necessary to make a complete system are specified and are acceptable with the resource management system;
4. soil, water, and plant resources are adequate to properly manage the waste,
5. the management on the farm is adequate to install, operate and maintain the practice components during adverse weather and under time constraints from other operations, and
6. this standard does not apply to pesticide, petroleum, or other hazardous waste.

CRITERIA

A waste management system for a given enterprise shall include the components necessary to properly manage waste. A system will consist of all necessary components that are needed to address all inventoried potential pollutants. Components shall not be installed until an overall waste management system plan is complete. Waste, as used in this standard includes both liquid and solid waste, wastewater used in processing, and polluted runoff such as that from a barnyard or bunk silo.

Plans shall be developed in accordance with policy requirements of the NRCS General Manual Title 450, Part 401.03 (Technical Guide, Policy and Responsibilities) and Title 190, Part 402 (Ecological Sciences, Nutrient Management, Policy) and procedures contained in the National Planning Procedures Handbook (NPPH).

Inventory:

An inventory of the farm will be done to identify areas of potential pollutant sources or polluting sources that include by-products and wastes from feedlots, silos, animals, milking centers, and food processing facilities and lands receiving by-products and waste. See the Nutrient Management (590) and Waste Management (633) standards. AEM Tier I and II worksheets shall be included, as part of the inventory..

The areas of potential concern identified by the inventory will be addressed with the specific watershed and the specific farm location in the watershed taken into account. This information may be obtained from the local county water quality committee or the local drinking water authority if the farm is within a public drinking water watershed or aquifer. Each farm will be evaluated for the specific risks to the watershed from biochemical oxygen demand (BOD), nutrients, odors, pathogens, and other potential pollutants that it could potentially release to the environment.

All livestock farms will include practices to address runoff from barnyards.

All livestock farms without a Waste Storage Facility will include, as a minimum, designated temporary storage area(s) as discussed in the Nutrient Management (590) standard..

All farms with silage will address silage leachate control.

All farms with milking animals will address milking center waste.

All farms where manure is spread on the land will include erosion control and practices to control surface water runoff where needed.

Components:

Design criteria for individual components shall be according to standards in the National Handbook of Conservation Practices. The criteria for the design of components not included in this handbook shall be consistent with sound engineering and agronomic principles. Components of complete waste management systems will include Nutrient Management (590) and may include, but are not limited to, the following:

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| Access Road (560) | Open Channel (582) |
| Animal Mortality (316) | Pipeline (516) |
| Composting Facility (317) | Pond Sealing or Linings (521) |
| Critical area Seeding (342) | Roof Runoff Structures (558) |
| Dike (356) | Sediment Basin (350) |
| Diversion (362) | Streambank Shoreline Protection (580) |
| Windbreak/Shelterbelt (380) | Subsurface Drain (606) |
| Fence (380) | Watering Facility (614) |
| Filter Strip (393) | Waste Facility Cover (367) |
| Grassed Waterway (412) | Waste Storage Facility (313) |
| Heavy Use area Protection (561) | Waste Treatment Lagoon (359) |
| Lined Waterway (468) | Waste Utilization (633) |
| Manure Transfer (634) | Wastewater Treatment Strip (635) |
| Obstruction Removal (500) | Water and Sediment Control Structure (638) |

Planning:

1. Waste shall be used to the fullest extent possible by recycling it through soil and plants. If the present cropping system is not sufficient for utilization of nutrients generated and imported on the farm, other alternatives will be used to prevent the nutrients from having an adverse effect on the environment. These alternatives may include such treatment practices as lagoons, wetland systems, and composting. Exporting the waste off site may be required. Other alternatives include source reduction, reducing the nutrients imported or produced on the farm, or adding more land area to be cropped or that waste is spread on; or feed ration management. The alternatives selected must be affordable to the farm operation.

2. Clean water shall be excluded from concentrated waste areas to the fullest extent practical.
3. Waste shall be collected and spread on land, or treated and/or stored until it can be spread. Adequate storage must be provided to allow spreading during favorable weather and at times compatible with crop management and available labor. Allow extra storage capacity for wet weather conditions that prevent the normal land application of wastes. The amount of time, number of loads, and volume of the waste to be emptied from the storage will also be evaluated to determine if the time and labor required will be available when the storage is to be emptied.
4. The land that the waste is to be spread on shall be evaluated for its potential to produce runoff, leach to an aquifer, be flooded, and its proximity to watercourses. These hydrologically sensitive areas may change with the seasons.
5. The overall system shall include sufficient land for proper nutrient utilization or disposal of waste at locations, times, rates and volumes that maintain desirable water, soil, plant, and other environmental conditions.
6. Adequate erosion control and other soil and water management practices shall be incorporated to prevent system-related problems.
7. Polluted runoff and seepage from concentrated waste areas shall be intercepted and directed to storage or treatment facilities for future disposal or be directly applied to land in an acceptable manner.
8. Appropriate waste handling equipment for the collection, transport, and spreading of the waste shall be available or planned for effective operation of the system.
9. Odor management will be addressed. Management practices such as proper timing of application, evaluation of wind direction, location of facilities and windbreaks, incorporation, anaerobic digestion, composting or other methods will need to be considered.
10. To conserve visual resources, vegetative screens and other methods should be planned, as appropriate, to improve visual conditions.
11. The waste management system will comply with federal, state, or local requirements, such as, EPA and DEC regulations for industrial waste, Concentrated Animal Feeding Operations (CAFO), Coastal Zone Management Reauthorization Act (CZMRA), or zoning regulations.
12. To protect animals and humans from drowning, dangerous gases, and other hazards; safety features and devices shall be included in planning waste management systems.

Sequence of Installation:

The waste source with the highest potential for environmental damage should be treated first. The sequence of installation shall be planned so that all components are installed in a logical manner.

CONSIDERATIONS

Use existing inventories or previously prepared plans to avoid duplicated effort while insuring that the planning process is completed to meet the purpose of this plan.

PLANS AND SPECIFICATIONS

Plans for waste management systems shall be in keeping with the criteria contained within this standard. Plans and specifications for waste management system components shall be in keeping with the standards for the individual system components.

OPERATION AND MAINTENANCE

The owner or operator is responsible for operating and maintaining the system. Proper operation of a waste management system includes timing, scheduling and labor for collecting, storing, transporting,

and distributing the waste and the component management practices.

REFERENCES

Listed below are publications helpful in planning this practice:

National Planning Procedures Handbook (NPPH)

<http://policy.nrcs.usda.gov/>

NRCS National Agronomy Manual Title 190 Section 503

<http://policy.nrcs.usda.gov/>

NRCS Field Office Technical Guide

http://efotg.nrcs.usda.gov/efotg_locator.aspx?map=NY

Agricultural Waste Management Field Handbook - Part 651, "National Engineering Handbook", USDA-NRCS, April 1992.

<http://www.agmkt.state.ny.us/SoilWater/aem/techtools.html>

Guide to Agricultural Environmental Management in New York, New York State Soil & Water Conservation Committee and New York State Department of Agriculture and Markets, Albany, NY.

<http://www.agmkt.state.ny.us/SoilWater/aem/index.html>

Agricultural Management Practices Catalogue for Nonpoint Source Pollution Control and Water Quality Protection in New York State (Second Revision); NYS Department of Environmental Conservation, Division of Water, Albany, NY 12233, November 1992.