FINDING OF NO SIGNIFICANT IMPACT

for

Programmatic Environmental Assessment
for Addressing Resource Concerns from Mushroom Composting

Octoraro Creek, Little Elk Creek, Big Elk Creek, White Clay Creek & Red Clay Creek Watersheds of Southern Chester County
Chester County, Pennsylvania

Introduction

The Addressing Resource Concerns from Mushroom Composting is a federally assisted action authorized for planning under Public Law 83–566 (PL 83-566) Section 14, the Watershed Protection and Flood Prevention Act. This act authorizes the Natural Resources Conservation Service to provide technical and financial assistance to local project sponsors. The local sponsors of the Addressing Resource Concerns from Mushroom Composting Project are the Chester County Conservation District and the Chester County Commissioners.

An environmental assessment (EA) was undertaken in conjunction with the development of the supplemental watershed plan. This assessment was conducted in consultation with local, State, and Tribal Governments; Federal agencies; and interested organizations and individuals. Data developed during the assessment are available for public review at the following location:

U.S. Department of Agriculture
Natural Resources Conservation Service
359 East Park Drive, Suite 2
Harrisburg, PA 17111

Recommended Action

Authorize funds under PL 83-566 to administer a watershed protection program offering technical and financial assistance for water quality improvement projects at active- and passive-composting mushroom compost sites in five watersheds in southern Chester County, Pennsylvania.

Effect of Recommended Action

The EA evaluated both the beneficial and adverse impacts of the proposed action, which is the authorization of funds to administer a watershed protection program offering technical and financial assistance for water quality improvement projects at mushroom compost (MC) sites. The analysis indicates the proposed action will result in long-term beneficial impacts for environmental resources (i.e., soil, air, water, animals, plants, energy, and human resources).

The proposed action will have little or no effect on wetlands.

A cultural resources inventory of the area of potential effects (APE) was undertaken. The NRCS has consulted with the Pennsylvania State Historic Preservation Officer (PA-SHPO), the Delaware Tribe of Indians, and Delaware Nation and has reached concurrence that no historic property will be adversely

affected. If cultural resources are inadvertently discovered during implementation, NRCS will follow procedures as detailed in the State-level agreement between the PA-SHPO and PA-NRCS.

The recommended action is not anticipated to have adverse long-term effects on fish and wildlife habitat, floodplains, migratory birds, park lands, prime farmlands, rare, threatened, and endangered species of plants and animals, scenic beauty, wild and scenic rivers, or ecologically critical areas.

No threatened or endangered species in the watershed will be affected by the project.

The effects of the recommended action are not considered highly uncertain nor involve unique or unknown risks.

The project is not of National Significance and implementing the proposed alternative will not establish a precedent for future actions with significant effects, nor does it represent a decision in principle about future considerations.

The proposed action will not violate Federal, State, or local law requirements imposed for protection of the environment. Consultations required by the Magnuson-Stevens Fishery Conservation and Management Act, Endangered Species Act, National Historic Preservation Act, and Marine Mammal Protection Act have been completed. The recommended action is consistent with the requirements of these laws. The local sponsors will obtain any necessary permits before they begin implementation of the project.

The recommended action will not result in significant adverse cumulative impacts. The cumulative effects of this project are very positive for protection of downstream loss of life and property. The planned action is the most practical, complete, and acceptable means of protecting life and property of downstream residents. There are no significant negative short-term or long-term environmental or human impacts associated with the implementation of this action.

Alternatives

The following alternatives were considered in the development of this plan:

1. ***No Action/Future Without Program***
   The FWOFI Alternative describes the most likely future condition that could be expected if NRCS takes no action. It describes what is most likely to happen in the absence of any Federal funding to implement the Preferred alternatives described in the plan and there are no changes in law or public policy.

2. ***Centralized Active MC Facility***
   This alternative would provide federal funding to construct a regional MC facility in the project area. Logistically, the facility would provide individual MC operators with a centralized capability for the storage, treatment, and/or distribution of MC within or beyond the project area.

3. ***Passive Mushroom Composters Operations Only***
   Under this alternative, the NRCS would offer a PL 83-566 Land Treatment Program to address water quality concerns from passive composting MC operations in southern Chester County. Incentive payments would be offered to mushroom composters for the implementation of site-specific

planned conservation practices. This alternative would preclude active MC operators from participating in the program.

4. ***All Mushroom Compost Operations***
   Under this alternative, the NRCS would offer a PL 83-566 Land Treatment Program to address water quality concerns from both actively and passively composting MC operations in southern Chester County. Incentive payments would be offered to mushroom composters for the implementation of site-specific planned conservation practices. This alternative allows any mushroom composter within the selected watersheds participation in the program.

The recommended action is the most practical means of protecting the subject watersheds in a safe manner while minimizing environmental, economic, cultural, and social impacts.

Consultation—Public Participation

Public scoping meetings were held in February 2021 and May 2023 and interdisciplinary efforts were used in all cases. Federal and state congressional representatives, a state agency (Pennsylvania Department of Environmental Protection), multiple county agencies and municipalities, and members of the general public were involved in part or all of the scoping and planning processes.

Specific consultation was conducted with the PA-SHPO and Delaware Nation and the Delaware Tribe of Indians concerning cultural resources and historic properties in the watershed. Comments from the PA-SHPO and the Delaware Tribe of Indians were used in the development of this plan.

Public meetings were held throughout the planning process to keep all interested parties informed of the study progress and to obtain public input to the plan and environmental evaluation.

The Draft Supplemental Watershed Plan-EA was transmitted to all participating and interested agencies, tribes, groups, and individuals for review and comment in September 2025. After the review period, comments received on the draft plan were incorporated into the Final Plan, as deemed appropriate. Responses to the received comments are attached to this Finding of No Significant Impact.

Agency consultation and public participation to date have shown no unresolved conflicts with the implementation of the selected plan.

Conclusion

The EA summarized above indicates that this Federal action will not cause significant adverse local, regional, or national impacts to the environment. Therefore, based on the above findings I have determined that an environmental impact statement for the Addressing Resource Concerns from Mushroom Composting in Octoraro Creek, Little Elk Creek, Big Elk Creek, White Clay Creek & Red Clay Creek Watersheds of Southern Chester County is not required.

Programmatic Environmental Assessment for Addressing Resource Concerns from Mushroom Composting in the Octoraro Creek, Little Elk Creek, Big Elk Creek, White Clay Creek & Red Clay Creek Watersheds of Southern Chester County, Chester County, Pennsylvania

Denise Coleman

1/6/26

Denise Coleman, State Conservationist

Date

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All comment letters are maintained in the Project's Administrative File.

Several comments were received in general support of the proposed project. They are not included in this Comment/Response document. Similar comments have been grouped together. A single response to multiple similar comments may be provided.

Establishment of an Advisory Group

- **We suggest that an advisory committee be established that includes the conservation community, municipalities and other key stakeholders. We believe that the broader conservation community will support this initiative and may be able to help with successful long-term implementation of projects with their deep community contacts, technical skills, and fund-raising through grant writing.**

- **We also recommend NRCS establish a Local Stakeholder Advisory Group that includes municipal representatives, elected state officials, local conservation organizations, and government agencies to support landowner and public outreach, conduct and review monitoring results, and advise on adaptive management as the program evolves.**

  While there are benefits to outside stakeholders informing this project, that was previously accomplished through the scoping process. The Watershed Work Plan documents the application reviewers, funding sources, ranking priorities, decision makers and other roles of NRCS and the Chester County Conservation District (CCCD), the project sponsor.

  The Federal Advisory Committee Act (FACA) of 1972 prohibits non-federal individuals (or organizations) from making decisions regarding the use of federal funding. NRCS's Local Working Groups and the State Technical Committees are exempt from FACA. Recommendations and advice can be received through these groups which is the best way to help make decisions regarding priorities across all programs, not just the Watershed and Flood Prevention Operation Program.

Water Quality Monitoring

- **As a National Wild and Scenic River, it is important to protect both air and water quality to preserve the quality of life for watershed residents. We strongly encourage NRCS to include specific nutrient, sediment, and air pollutant reduction targets in the Final Plan–EA. We also suggest including a water and air quality monitoring framework to evaluate program effectiveness and ensure progress toward set goals. NRCS could strengthen accountability by requiring both water and air monitoring commitments from facilities receiving funding. Local governments, area groups, or universities could lead monitoring efforts.**

- **Baseline monitoring of upstream and downstream sites and groundwater should be part of the funded projects as well as monitoring after construction to be able to document any changes in water quality. Some of the conservation organizations may be able to help with this monitoring, data gathering and interpretation and serve as an independent monitor of water quality results.**

- **Apprehension about the transparency and regularity of monitoring has also been flagged as to whether it would be sufficiently robust, frequent, and openly shared to guarantee ongoing compliance and allow for public accountability.**

  Water quality data was collected from different monitoring groups, and taken during site visits, during the preliminary project phases. While correlation was found, causation could not be documented regarding mushroom composting activities and decreased water quality. The pre-and post-implementation monitoring necessary to be able to show a statistically significant change in water quality due to implementation is beyond the scope of this project. Without that data, it is next to impossible to determine actual water quality improvements and compare them to established targets.

  While this project does not specifically provide for monitoring, NRCS and the CCCD support those activities that are implemented by the applicants and local conservation agencies. NRCS and the CCCD would not oppose other conservation organizations requiring monitoring as a condition of an applicant receiving their cost-share funding or technical assistance.

Air Quality Monitoring

- **Even though the Plan is water-focused, some groups have highlighted community concerns about air quality and odor, which have been a flashpoint in local dialogues around mushroom composting.**

  The Watershed and Flood Prevention Operations Program is a water quality-/water quantity-focused program. Conservation practices often have co-benefits. Incidental benefits to air quality due to this project may result, but there is not the ability to include practices without a documented water quality benefit.

  Air quality monitoring improvements can be made through other programs such as the Environmental Quality Incentive Program (EQIP). Applicants interested in air quality monitoring may be able to pursue this in fiscal year 2027.

Funding & Contracting

- **We applaud NRCS's efforts to open new funding avenues for mushroom compost facilities, many of which do not qualify for other programs. However, because many composting operations in our watershed are small or family-run, they may lack the administrative or financial capacity to access new cost-share programs. We therefore encourage NRCS to explore flexible or innovative approaches to meeting landowner match requirements.**

- **We are concerned with the following requirement: "the applicant would be required to approve the low bid as they would be responsible for the remaining cost of the project. It is expected that the applicant would be required to pay 10% to 25% of the construction cost of the project." We have worked with farmers and businesses on water quality projects and we believe that this could be problematic for some operators since they are funding 10%-**

25% of project costs. Based our knowledge and experience, this requirement does not exist for other NRCS EQIP, RCPP, CREP, etc.

The Watershed and Flood Prevention Operation Program is statutorily required to provide the same cost share assistance as similar NRCS conservation programs. 390-M-500 500.42 B.2. *Federal funding assistance must not exceed the rate of assistance to program participants for similar practices under other existing national programs at the time of planning. (390-M-500 500.42 B.2.)*. The current EQIP incentive payment rate is approximately 75% based on regional costing tables (or 90% for Historically Underserved applicants). For this reason, the payment rate for this PL83-566 was set at 75%. The Plan-PEA is written that 90% would be available for historically underserved as well, though a 75% payment rate is used for the economics.

- **If the applicant is paying the remainder, why can't they choose their preferred contractor, especially if the projects will be designed to the lowest cost alternative consistent with other NRCS programs?**

  NRCS generally has two ways of paying for construction:

  1. Using landowner contract and then paying the landowner the agreed-to rate for the agreed-to quantities within the contract. For this method, the landowner contracts directly with the contractor and then is reimbursed upon certification of the project. To use this method, NRCS is limited to using the EQIP payment schedule.

  2. NRCS or the CCCD competitively bids the construction, then enters into a contract directly with the contractor, paying 75% (or 90% if Historically Underserved) of the actual construction cost for the agreed-to practices. The Landowner would be responsible for the remaining costs.

  NRCS understands that the payment rate tables for EQIP are often lower than the 75% expected due to regional cost differences. This is usually true for Chester County where actual costs exceed the anticipated costs which are often found throughout more rural areas of the Commonwealth. For this reason, it is expected that contracting directly with the contractor will yield a higher payment by paying the true 75% (or 90%) of construction costs.

  Any interested contractor will be invited to bid, including the applicants preferred contractor. However, it is expected that there will be a requirement to accept the lowest price technically acceptable (lowest responsible bid) consistent with other CCCD-administered cost-share programs. The Watershed Program Plan has been modified to reflect this wording.

- **Is the non-federal funding already secured or is it the responsibility of the farmer to find this?**

- **Further, conservation organizations may be able to help with deficit funding for some projects and should be considered as partners on appropriate projects.**

No non-federal funding has been secured for this project. Unless a funding source is found, the difference will be the responsibility of the applicant. The CCCD is investigating other means of providing financial assistance to applicants but cannot make guarantees of availability.

Both NRCS and the CCCD agree that the applicant should be financially responsible for at least ten percent (10%) of construction cost to ensure buy-in as well as provide incentive to properly operate and maintain the project.

The CCCD and NRCS would welcome conservation organizations as a source of non-federal funding for these projects. NRCS and the CCCD will solicit local conservation agencies to determine financial and technical abilities. That list will be shared with accepted program applicants for their use to supplement the NRCS payment.

- **Is there $12.7 million in funding being proposed or $12.4 million? There are various instances in the report where both are listed, for example:**
    - **Pages viii & ix mention $12.7 million in proposed funding as well as Table 8-2**
    - **Page xiii mentions $12.4 million in proposed funding**
        - **It seems the discrepancy is the amounts listed for program administration, O&M, and permitting.**

Admittedly, the required tables are not the clearest, but the discrepancy identified by the commentor between the tables is correct. It is expected that the total cost of the program, including construction, technical assistance (planning and design), project administration, permitting, and operation/maintenance costs are $12.7 million. The funding to be provided by NRCS is $9.5 million. The remaining $3.2 million is the responsibility of the CCCD and landowner.

- **Who is the program administration $ for and how is the O&M $ intended to be used?**

Referring to the table on vii-ix (cells shaded and font italicized for easier reference):

Alternative 2 – All MC Operations						
	PL 83-566 Funds		**Other Funds (Non-Federal)**		**Total**	
Assistance Type	**$**	**%**	**$**	**%**	**$**	**%**
Financial	7.5M	75	2.5M	25	10.0M	100
Engineering/ Technical Assistance	1.5M	100	0	0	1.5M	100
Project Administration	*0.5M*	*71*	*0.2M*	*29*	*0.7M*	*100*
O&M	*0*	*0*	*0.3M*	*100*	*0.3M*	*100*

Other - Regulatory Permits	0	0	0.2M	100	0.2M	100
TOTAL COSTS	**9.5M**	**-**	**3.2M**	**-**	**12.7M**	**-**
[1/] Price base: 2024 dollars; cost estimates rounded.					Prepared: December 2024	

The program administration funding is for both NRCS and the CCCD to administer the program. This includes receiving/reviewing applications, ranking, allocating construction funds, contract procurement, contracting responsibilities during construction, processing payments, and closing out construction contracts. It also includes estimates of funding needed to maintain the necessary agreements between NRCS and the CCCD.

The O&M and Permitting Costs (which are lumped into Project Administration on Table 8-2. Economic Table 1 - Estimated Installation Costs, Southern Chester County, Pennsylvania on page 8-10) will be the responsibility of the applicant.

- **Is the proposed funding schedule flexible or do the allotted funds need to be spent in those years? Can the work be front loaded?**

  The proposed funding schedule is approximate based on what was anticipated for need. If there is a higher demand than anticipated at the beginning of the project, NRCS and the CCCD can reallocate funding.

- **Is there a ranking that will be used for the applicants?**

  Yes, a preliminary ranking has been developed for this project. A screening tool will also be used prior to accepting applications.

- **Is there flexibility to move funds between Evaluation Units 1 – 4?**

  Referencing Table 8-1. Economic Table 1 - Estimated Installation Costs, Southern Chester County, Pennsylvania on page 8-10 (cells shaded and font italicized for easier reference):

Work of Improvement	Unit	Number			Estimated Cost (dollars)		
		Federal Land	Non-Federal Land	Total	PL-83-566	Other	Total
LAND TREATMENT							
Evaluation Unit 1 Mushroom Compost Leachate/ Runoff Collection & Treatment	*No.*	*0*	*4*	*4*	*$2,437,500*	*$812,500*	*$3,250,000*
Evaluation Unit 2	No.	0	3	3	$1,875,000	$625,000	$2,500,000

Work of Improvement	Unit	Number			Estimated Cost (dollars)		
		Federal Land	Non-Federal Land	Total	PL-83-566	Other	Total
Mushroom Compost Leachate/ Runoff Prevention							
Evaluation Unit 3 Mushroom Compost Treatment	No.	0	1	1	$3,000,000	$1,000,000	$4,000,000
Evaluation Unit 4 Riparian Area Treatment	*Various*	-	-	-	*$187,500*	*$62,500*	*$250,000*
TOTAL LAND TREATMENT					**$7,500,000**	**$2,500,000**	**$10,000,000**
TECHNICAL ASSISTANCE					**$1,500,000**	**$0**	**$1,500,000**
PROJECT ADMINSTRATION					**$500,000**	**$700,000**	**$1,200,000**
TOTAL PROJECT					**$9,500,000**	**$3,600,000**	**$12,700,000**

[1/] Price base: 2024 dollars; cost estimates rounded.
Prepared December 2024

[2/] Costs for program alternatives assume 75 percent (federal) to 25 percent (other, non-federal) cost-share assistance, including project design and engineering, construction, and program administration.

[3/] Project Administration also includes permitting and operation, maintenance, and replacement costs.

The anticipated number of treatments, and associated costs applied to each evaluation unit are only estimates. If there is a higher demand for one type of treatment compared to another, NRCS and the CCCD will try to be flexible with allocations of funding. Additionally, if other conservation agencies can partner to install conservation practices, it would make that federal funding available for other treatments.

Educational Opportunities

- **We support the choice of alternative 2 which includes both passive and active MC operations and increases flexibility in administering practices. Choosing project sites that are easily replicated to serve as models for others that can increase both efficiency and water quality may be useful to encourage other operators to adopt these practices for "win-win" opportunities to support their business. We encourage you to consider including an educational component with applications to share these practices and what's learned among the mushroom industry.**

  The conservation practices selected for this project are known to have positive benefits on water quality if implemented correctly. There is no research or new technology planned to be implemented for these projects. As such, it is not expected new information will be generated

from this project. However, the Watershed and Flood Prevention Operations program does not preclude other entities from pursuing innovative practices within the project area.

As the American Mushroom Institute was involved throughout the development of this project, they, and other trade groups, are best able to share the lessons learned from implementation of these projected throughout the mushroom compost community.

Watershed associations could require an educational component of the project in exchange for their provided technical or financial assistance.

- **Post construction inspection should be annually at the least and more than "spot" inspections. We suggest that joint inspections with the private operators can be beneficial to educate them on best management practices in operating and maintaining these facilities for success. New Castle County, Delaware often does joint stormwater infrastructure inspections that serve as an educational opportunity rather than a punitive requirement.**

  Title 450 General Manual, Part 407.20 governs the NRCS Spot Checking procedures. This requires NRCS checking at least five percent (5%) of all practices installed the previous year. In addition to the NRCS spot check requirements, Mushroom Farm Environmental Management Plan inspections are scheduled by the Pennsylvania Department of Environmental Protection (PADEP). Both the NRCS and PADEP visits can present good opportunities for the CCCD to visit these sites.

Miscellaneous

- **The Brandywine Conservancy and Brandywine Red Clay Alliance have deep experience with riparian buffer plantings, and many of the agricultural practices listed in the report and could be good partners to provide technical assistance and implementation of these practices as well as potential sources of additional funding for certain practices.**

  NRCS and the CCCD support conservation association involvement through the applicant. They are already working within the project watersheds and support the mutually beneficial goals. However, it is expected that most of the works implemented by this project will be highly technical and beyond the technical abilities of these organizations.

  NRCS and the CCCD will work to solicit a list of technical and financial resources available for these projects and provide that information to accepted applicants. It will be the responsibility of the applicant to contact and work with the conservation association and determine if the organization is able to contribute to the project.

- **As members of the Planning Team of the Christina Watersheds Municipal Partnership (CWMP), we have good communications with 39 Chester County municipalities in the Christina Basin that have an MS4 requirement including Kennett Township, Borough of Kennett Square, New Garden Township and E. Marlborough Townships. Eight conservation organizations, including Chester County Conservation District and Chester**

County Water Resources Authority, are part of the CWMP Planning Team. We know that municipalities will be pleased to see the issues with mushroom compost air and water quality addressed in this plan and we may be able to help with their participation as needed. Don't hesitate to contact CWMP for assistance working with these municipalities.

This is information that can be captured on the list of technical and financial resources that the different conservation associations can provide.

- **Throughout the collaborative cross-sector stakeholder process, some environmental organizations have raised a number of thoughtful concerns regarding the Plan. Among these have been questions about whether the implementation of Best Management Practices (BMPs) will achieve real and measurable results, reflecting longstanding skepticism towards agricultural nonpoint source pollution solutions.**

  Based upon the data collected for the development of the Watershed Program Plan, it is expected that water quality improvements will be more localized and less able to be measured on a watershed scale. This is primarily due to the amount of agricultural nonpoint sources within the watershed. Non-private data can be shared though trade and watershed associations.

  The development of the Watershed Program Plan was a very public process involving several public meetings as well as the opportunity for public review and comment, as per federal requirements.

  Private information regarding implementation of projects may not be disclosed, similar to other federal conservation programs. While a report will not be prepared at the conclusion of the project, NRCS suggests the use of educational institutions and watershed organizations to evaluate water quality benefits that may be achieved.

- **Some organizations expressed that too much emphasis is placed on engineered solutions, potentially at the expense of more comprehensive ecosystem restoration efforts, adding doubts that funding, maintenance, and adaptive management cannot keep up with challenges over time.**

  A comprehensive watershed approach was taken with the planning effort. This results in engineered and non-engineered practices being available for implementation to address water quality. Because the program is voluntary, implementation of the program will only be as comprehensive as the sites for which applications are submitted.