

CHAPTER 7: FARMLAND ASSESSMENT

Introduction

Since 2003, North Carolina has lost more than 6,000 farms and more than 300,000 acres of farmland to conversion. This is equivalent in size to losing a county every four years. Farmlands provide more than the agricultural products that are the foundation for this state's \$68 billion dollar agribusiness industry. Farmlands also make up an integral part of our open space, wildlife habitats, ground water recharge areas and recreational areas. These environmental services are an essential part of our quality of life as citizens of North Carolina and we must work to protect the immeasurable benefits of properly maintained farmland.

Because of the economic and environmental importance of farmland to the state, the N.C. Department of Agriculture and Consumer Services has been directed by General Statute to administer the Agricultural Development and Farmland Preservation Trust Fund. The purpose of the ADFP fund is to:

1. Support the purchase of agricultural conservation easements, including transaction costs,
2. Fund private and public enterprise programs that will promote profitable and sustainable farms by assisting farmers in developing and implementing plans for production of food, fiber and value-added products, agritourism activities, marketing and sales of agricultural products produced on the farm, and other agricultural business activities, and
3. Fund farmland conservation agreements targeted at the active production of food, fiber and other agricultural products.

In order to more successfully administer these funds, the ADFP Trust Fund Advisory Board wanted to craft an assessment tool of all farmland and forest land in the state. This assessment tool will help prioritize the preservation of our viable and threatened working lands in North Carolina.

This assessment tool is designed to:

- Assist with prioritization of conservation projects,
- Benefit local planning efforts by providing a regional perspective on agriculture, and
- Educate residents about the importance of their working lands.

The Department of Forest Resources has taken the initiative to do a separate analysis for the forest protection prioritization for ADFP Trust Fund action.

Methodology

This assessment is logically grouped into two sections:

- **Viable Ag Lands:** Those lands that are important for continuing our strong agricultural economy and which currently have the necessary agricultural infrastructure to support those farms.
- **Threatened Ag Lands:** Those farmland resources that are threatened by public works infrastructure and suburban growth.

The base layer used to analyze all the following data layers is the *Common Land Units* layer produced by the Farm Service Agency. This layer consists of all farm fields in North Carolina delineated from digital ortho photos. Farm fields of 10 acres or greater east of Interstate 77 and five acres or greater, west of Interstate 77, were used for the assessment of viability and threats. In each section, a set of parameters in which to measure the threats to farmland and viability of farmland were developed and agreed upon by N.C. ADFP Trust Fund staff and the ADFP Advisory Committee.

Data Sources and Basis for Ranking

Viable Ag Lands Assessment

Agribusiness is the number one industry in North Carolina, providing about 17 percent of the state's jobs. Because farmlands are the economic base to the agribusiness industry, the Advisory Board desires to protect the land around the agricultural infrastructure, keep the land in production and maintain the support agribusiness intact. This analysis will also help the Advisory Board examine the voids of the agribusiness industry and help dictate where new agricultural development projects would support farm operations that are already strained by a lack of supporting infrastructure. The data layers that support this mission are as follows:

Agricultural Infrastructure – Agribusinesses

As farm operations that use agribusinesses diminish, the agribusinesses themselves go out of production due to the lost revenue. The remaining farm operations then need to travel further to get supplies. This puts more financial stress on farm operations and can cause the operation to go out of business because of the lack of services it can acquire. In order to halt this trend that has negatively affected many of our rural economies, we look to preserve the land base that supports the agribusiness infrastructure in North Carolina. This would limit the stress factor that contributes to farm operation failure. This analysis will also help the Advisory Board determine the voids in the agricultural infrastructure of North Carolina.

1. Proximity to Feed Mills

Goal: To place emphasis on agricultural lands that support feed mills.

5 points	3 points	1 point
<5 miles	5-10 miles	10-15 miles

2. Proximity to Tractor Supply Stores

Goal: To place emphasis on agricultural lands that support tractor supply stores.

5 points	3 points	1 point
<5 miles	5-10 miles	10-15 miles

3. Proximity to Fertilizer Dealers

Goal: To place emphasis on agricultural lands that support fertilizer dealers.

5 points	3 points	1 point
<5 miles	5-10 miles	10-15 miles

4. Proximity to Pesticide Dealers

Goal: To place emphasis on agricultural lands that support pesticide dealers.

5 points	3 points	1 point
<5 miles	5-10 miles	10-15 miles

Agricultural Infrastructure - Value-Adding and Processing Facilities

Processing and value-added facilities are other key components to the economic viability of farm operations. If these necessary facilities also lose their land base, then their revenue is also compromised. Not only can this cause businesses to close, but it will also put stress on the existing facilities, which will now have to travel farther or may not be able to sell their products at all. It is imperative that we protect the lands that support our agricultural infrastructure and look to promote new agricultural development projects where needed.

5. Proximity to Farmers' Markets

Goal: To place emphasis on agricultural lands that support farmers markets.

5 points	3 points	2 points	1 point
<5 miles	5-10 miles	10-20 miles	20-30 miles

6. Proximity to Slaughter Facilities

Goal: To place emphasis on agricultural lands that support slaughter facilities.

5 points	4 points	3 points	1 point
<5 miles	5-10 miles	10-20 miles	20-30 miles

7. Proximity to Grain Inspection Facilities

Goal: To place emphasis on agricultural lands that support grain inspection facilities.

5 points	3 points	2 points	1 point
<0-15 miles	15-30 miles	30-45 miles	45-60 miles

8. Proximity to Grain Elevators

Goal: To place emphasis on agricultural lands that support grain elevators.

Not yet in model, as data is not complete.

9. Proximity to Produce Packers

Goal: To place emphasis on agricultural lands that support produce packers.

Not yet in model, as data is not complete.

10. Proximity to Livestock Markets

Goal: To place emphasis on agricultural lands that support livestock markets.

5 points	3 points	2 points
<20 miles	20-40 miles	40-60 miles

Productivity and Community Compatibility

11. Soil Productivity Class

Goal: To place emphasis on areas that have the best soils for agricultural use.

Not yet in model, as data is not complete.

We are currently gathering all the county data and deciding the land class system that will best determine the economic viability and productivity of the soils.

12. Volunteer Agriculture Districts (includes enhanced)

Goal: To place emphasis on communities that have established voluntary agricultural districts

5 points	3 points
Intersect	.25 miles

Many counties have already established agricultural districts. The purpose of the Agricultural District Program is to encourage the preservation and protection of farmland from non-farm development. This is in recognition of the importance of agriculture to the economic and social well being of North Carolina.

In Chapter 106, Article 61 of the N.C. General Statutes, the General Assembly authorized counties to undertake a series of programs to encourage the preservation of farmland. As a result, counties throughout North Carolina have begun to adopt Voluntary Agricultural District Ordinances (VAD) and Enhanced Voluntary Agricultural District Ordinances (EVAD). The ordinance provides for the creation of an Agricultural Advisory Board to administer this program, which also acts as advisor to the governing board of the county or city on projects,

programs or issues affecting the agricultural economy or way of life within the county or city. The board reviews and approves applications for qualifying farmland, as well as establishing the agricultural district. These ordinances can also increase protection from nuisance suits, provide a waiver of water and sewer assessments, establish public hearings required for proposed farmland condemnation, and can increase eligibility for funding.

13. Proximity to Military Bases

Goal: To protect the working lands around our military bases that are in compatible use.

5 points	4 points	3 points	2 points	1 point
<1 mile	1-3 miles	3-5 miles	5-7 miles	7-10 miles

As our military bases are encroached upon by sprawl, the growth inhibits their functionality and begins to affect the training that can take place on these bases. It has been determined by the Department of Defense and the N.C. Department of Agriculture and Consumer Services that in order to protect these bases and their functionality, we must work together to protect the working lands around each base in North Carolina. Therefore, the advisory committee has agreed to prioritize these lands and partner with the Department of Defense to protect these working lands.

14. Proximity to Conservation Lands

Goal: To place emphasis on areas where working lands can add conservation value to existing open space.

5 points	2 points
< 1mile	1-2 miles

North Carolina has many holdings that are managed for open space. Most of these holdings are not working lands, but they can benefit from having adjacent lands conserved as a working forest or farmland. This would increase the overall size of the open space and the environmental services that a larger protected land mass can provide. These working lands will also benefit from adjacent lands which are more compatible with farm activities.

15. Proximity to Preserved Farmlands

Goal: To protect viable farming communities as a whole.

5 points	3 points	1 point
.5 mile	.5-1 mile	1-2 miles

As more funding becomes available to protect farm and forest lands, priority will be given to lands near or adjacent to other protected working lands in order to clump protected lands and preserve the entire agricultural economy and community. This helps restrict the “shotgun” approach and ties tracts of preserved lands together, limits fragmentation and takes advantage of the better environmental services these larger protected areas can provide.

16. County Cash Receipts

Goal: To give funding priority to counties that have the largest agricultural economies in the state.

5 points	4 points	3 points	2 points	1 point
>100 million	50-100 million	30-50 million	15-30 million	0-15 million

Some counties still rely on their agricultural economies as the county’s economic engine. Therefore, additional points will be given to farm operations in the top tier of agricultural county receipts.

17. Counties with a Farm and Forestland Plan

Goal: To give funding priority to counties that have prepared farm and forestland protection plans.

Not yet in model, as data is not complete.

Certain counties are more determined to preserve their farmland resource than others. In order to focus on the efforts of local communities, additional points are given to farmland in counties that have taken the necessary step of preparing a farmland protection plan. These farm and forestland protection plans assess the state of farming and forestry in the county, coordinate activities, agencies and funding for farmland and forestland preservation, and lower the matching percentage required for funds received from Agricultural Development and Farmland Preservation Trust Fund.

Farm Operation Encroachment and Compatibility

As North Carolina grows, our farmers and farmlands are getting continual pressure from incompatible land uses around their operations. This analysis prioritizes farm operations around our animal operations in order to protect those agribusinesses from encroachment and nuisance problems, and to preserve the working lands necessary for these types of farm operations.

18. Proximity to Dairy Operations

Goal: To ensure that the lands around our dairy industry are protected from encroachment and can provide the needed resources for the operation.

5 points	3 points	1 point
<1 mile	1-2 miles	2-3 miles

19. Proximity to Cattle Operations

Goal: To ensure that the lands around our cattle industry are protected from encroachment and can provide the needed resources for the operation.

5 points	2 points
<1 mile	1-2 miles

20. Proximity to Poultry Operations

Goal: To ensure that the lands around our poultry industry are protected from encroachment and can provide the needed resources for the operation.

5 points	3 points	1 point
<1 mile	1-2 miles	2-3 miles

21. Proximity to Swine Operations

Goal: To ensure that the lands around our swine industry are protected from encroachment and can provide the needed resources for the operation.

5 points	2 points
<1 mile	1-2 miles

Threatened Ag Lands Assessment

Public works infrastructure can have either a negative or positive effect on farm operations. However, these types of infrastructure can lead to direct conversion of farmland to other uses, which has a direct affect on sprawl. As a result the farmlands around public works infrastructure are more threatened than isolated farmlands and may need to be preserved immediately, depending on their current viability.

1. Sewer lines

Goal: To place emphasis on areas with the sewer infrastructure that leads to suburban growth and higher land values.

4 points
In or within a mile of the sewer service area

Sewer lines can lead to direct conversion of farmland to other uses. Unless farm and forestlands have a waiver of assessment, sewer lines can add an unnecessary tax burden to farm operators and thus contribute to the operations failure. Sewer service increases land values even more than water service although both make it improbable that new or beginning farmers could acquire such land if not preserved.

2. Water Lines

Goal: To place emphasis on areas with the water infrastructure that leads to suburban growth and higher land values.

2 points
In or within a mile of the water service area

Water lines can also lead to direct conversion of farmland to other uses. Unless farm and forestlands have a waiver of assessment, water lines can add an unnecessary tax burden to farm operators and thus contribute to the operations failure. Water lines can also increase land values which make it improbable that a new or beginning farmers could acquire such lands if it were not preserved.

3. Urban areas

Goal: To place emphasis on rural areas that are expected to increase significantly in housing density in the next 25 years.

5 points
Farmlands within .25 mile of urban areas with growth rates > 15%

Census data provides us with the growth rates of all municipalities. Growth rates will be used to determine the threats of sprawl to farm operation conversion. Greater emphasis will be placed on agricultural communities with the highest growth rates.

Data Layer Summary

Viable Ag Lands <i>composite of these data layers</i>	Threatened Ag Lands <i>composite of these data layers from the Southern Forest Lands Assessment</i>
Soils	Sewer Lines
Volunteer Ag Districts	Water Lines
Feed Mills	Urban Areas
Tractor Supply Dealers	
Fertilizer Dealers	
Pesticide Dealers	
Military Bases	
State Conservation Lands	
Protected Farmlands	
Counties with Farmland Protection Plans	
Dairy Operations	
Cattle Operations	
Poultry Operations	
Swine Operations	
County Cash Receipts	

