
Conservation Plan

APPLETON FIELDS FARM

OWNER: TOWN OF SCITUATE

OPERATOR: VINCENT BUCCA

FARM#2204 TRACT#2264



Natural
Resources
Conservation
Service

United States
Department of
Agriculture

Farm Conservation Plan Outlining the Implementation of Best Management Practices for Vegetable and Fruit Production



**Planned by Greg Cironi for Appleton Fields Farm
Operator: Vincent Bucca**

**Scituate, Massachusetts
January, 2012**

A Product of the Plymouth County Conservation District and the

USDA NRCS Wareham Field Office

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INTRODUCTION:

FARM OVERVIEW AND OBJECTIVES: Appleton Farm is owned by the town of Scituate and farmed by Vincent Bucca. Mr. Bucca presently grows vegetables for sale at local foodbanks. Future plans include a small apple orchard, grazing livestock and a high tunnel. The property is surrounded on 3 sides by a large wetland complex known as South Swamp. There is a well vegetated forested buffer approximately 100 feet wide between the crop fields and the wetland. Mr. Bucca also manages the forest for wildlife and firewood. The Conservation Plan for the **Appleton Fields Farm, in Scituate, Massachusetts** is a resource management system which utilizes a combination of conservation practices and management measures identified by primary use of land and water that, if installed, will prevent resource degradation and permit sustained use by meeting criteria established for treatment of soil, water, air, plant and animal resources.

CONSERVATION PLAN: The plan was requested by Mr. Bucca for informational purposes so he can be eligible for NRCS and State cost sharing assistance. It is a Resource Management level plan indicating that all the identified natural resources on the farm are being addressed to the NRCS basic standard level.

Before a specific construction project is started, a review of the permit process shall be made and all necessary Federal, State and Local permits shall be obtained. Assistance and guidance is available from NRCS. 508-295-5151

Farm Identification

Farm Type: Vegetables, Fruit, Livestock

Town: Scituate

County: Plymouth

State: Massachusetts

Watershed: South Coastal

FSA References

Tract Number: 2264

Farm Number: 2204

Food Security Act Determination: Complete

Highly Erodible Land Determination: Complete

Wetland Determination: Complete

Total Acres: 10 acres

Crop fields: 3.1 acre

Forestland: 6.9 acres

Water Resources: Portable Tank, Wetland

Natural Resources Inventory:

SOIL: The most northern crop fields (i.e. fields 1, 2 and 3) are mapped as Montauk Series soils. The Montauk series consists of well drained soils formed in lodgement or flow till derived primarily from granitic materials. The soils are very deep to bedrock and moderately deep to densic contact. These soils are on upland till plains and moraines, they are considered to be Prime Farmland Soils. The soils mapped in fields 4 and 5 are Scituate Series soils. This series is moderately well drained and formed in loamy windblown surface sediments underlain by sandy lodgement till. The soils are very deep to bedrock and moderately deep to a densic contact. This series is also considered to be a Prime Farmland Soil. The forested area around the crop fields is mapped as a very stony phase of the Scituate Series. The wetland soils are mapped as Norwell mucky fine sandy loam and Freetown peat, these soils are poorly and very poorly drained respectively.

WATER: Mr. Bucca brings irrigation water from off site in a large portable tank. There is an adequate supply of water in the wetland surrounding the site but local regulations would have to be checked before using it.

AIR: Air quality is good.

PLANTS & ANIMALS: There is abundant wildlife in the area. In the past Mr. Bucca has raised pigs on the property in movable pens but presently there is no livestock. Future plans do include a few animals. The forest surrounding the crop fields is well stocked with trees which provide filtration of nutrients or pesticides for the surrounding wetland.

HUMANS: There are no known human concerns on this property.



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340 – COVER CROP

A crop of close growing grasses, legumes, or small grain established for soil protection and improvement.

Recommendations:

- Apply lime and fertilizer according to soil test recommendations.
- Plant cover crop (annual rye) that is appropriate to the site and crop conditions.

393 - FILTER STRIP

A grass or forested filter area between pastures/cropfields and water resources. The purpose of this practice is to reduce an excess amount of sediment, organic materials, and nutrients from flowing (surface or groundwater) into adjacent wetland/water resources.

Recommendations:

- Maintain the exiting forested filter strip surrounding the crop fields in good health.

590 - NUTRIENT MANAGEMENT

Nutrient management is the management of the amount, form, placement and timing of applications of plant nutrient fertilizers. The purpose of this practice is to supply plant nutrients for optimum crop yield, minimize leaching of nutrients to surface and groundwater and to maintain or improve the chemical and biological condition of the soil.

Recommendations:

Employ a nutrient management process with the goal of optimizing crop yield while having the least negative impact on surface/groundwater supplies. Proper records including dates and times of applications will be kept. Test soil annually and consult with the University Cooperative Extension or private sector experts to determine a nutrient management needs for the property.

Calibrate all equipment where applicable to ensure recommended fertilizer rates are applied. Protect fertilizers, in appropriate storage facilities, from weather and accidental leakage or spillage. When disposing of any nutrients, proper care should be taken to comply with all applicable local, state and federal laws.

595 – INTEGRATED PEST MANAGEMENT

Integrated Pest Management is a conservation practice that manages agricultural pest infestations (including weeds, insects and diseases) to reduce adverse effects on plant growth, crop production and environmental resources. The practice establishes the elements of an Integrated Pest Management (IPM) system to promote favorable crop results while minimizing environmental impacts. IPM requires an understanding of the dynamic nature of pest management and includes combinations of appropriate biological, chemical and cultural control techniques.

Recommendations:

Employ an Integrated Pest Management system with the goal of optimizing crop yield while having the least negative impact on surface/groundwater supplies. Use appropriate monitoring techniques, such as weekly sweep sets, weed mapping and close observation in order to determine pest infestation levels. Base selection of pest management methods on the degree of control needed, the cost of application and the associated environmental risk. Contact UMASS Extension for assistance.

666 – FOREST STAND IMPROVEMENT

The management of forested land to control competing vegetation that hinders the development and stocking of preferred tree and under story species.

Recommendations:

- Continue to manage the forest for optimal tree growth.
- All forestry management practices should be in accordance with local, state and federal wetland laws.

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WEST WAREHAM SERVICE CENTER
15 CRANBERRY HWY
WEST WAREHAM, MA 02576-1504
(508) 295-5151

LEN RENO
DISTRICT CONSERVATIONIST

Conservation Plan

VIN BUCCA
238 MAIN STREET
NORWELL, MA 02061

Crop

Tract: 2264

Cover Crop

Close-growing grasses, legumes, or small grain will be grown for seasonal protection, soil improvement and nutrient management.

Field	Planned Amount	Month	Year	Applied Amount	Date
FIELD1	0.3 ac	6	2012		
FIELD3	1 ac	6	2012		
Total:	1.3 ac				

Integrated Pest Management

Manage infestations of weeds, insects and disease to reduce adverse effects on plant growth, crop production and material resources.

Field	Planned Amount	Month	Year	Applied Amount	Date
FIELD1	0.3 ac	6	2012		
FIELD3	1 ac	6	2012		
Total:	1.3 ac				

Nutrient Management

Manage the amount, form, placement and timing of plant nutrient application.

Field	Planned Amount	Month	Year	Applied Amount	Date
FIELD1	0.3 ac	6	2012		
FIELD3	1 ac	6	2012		
Total:	1.3 ac				

Forest

Tract: 2264

Filter Strip

Filter Strip, 393

Assessment: Forested area that is well stocked with small diameter hardwoods.

Recommendations: Maintain forest stand.

Decisions: Will continue to thin stand as needed maintaining its integrity.


Field	Planned Amount	Month	Year	Applied Amount	Date
Forest	3.8 ac	6	2012		
Total:	3.8 ac				

Forest Stand Improvement


Light clearing: cut or clear low economic value and/or non-merchantable trees, averaging <4" DBH in order to regenerate shade intolerant tree species such as black cherry, oak and ash. Only 10-25% of the existing forest cover shall be retained. The retained trees should be in groups of 3 or more, include both deciduous, coniferous, mast producing trees, shags, cavity and den trees and should be scattered throughout the stand, where possible. Woody material cut should be mulched on site. Tops can be retained on site and place in brush piles. The regeneration cut must be recommended in a current forest management plan.

Field	Planned Amount	Month	Year	Applied Amount	Date
Forest	3.8 ac	6	2012		
Total:	3.8 ac				

CERTIFICATION OF PARTICIPANTS


VIN BUCCA 2-29-12
DATE

CERTIFICATION OF:


DISTRICT CONSERVATIONIST
LEN RENO 3/5/12
DATE

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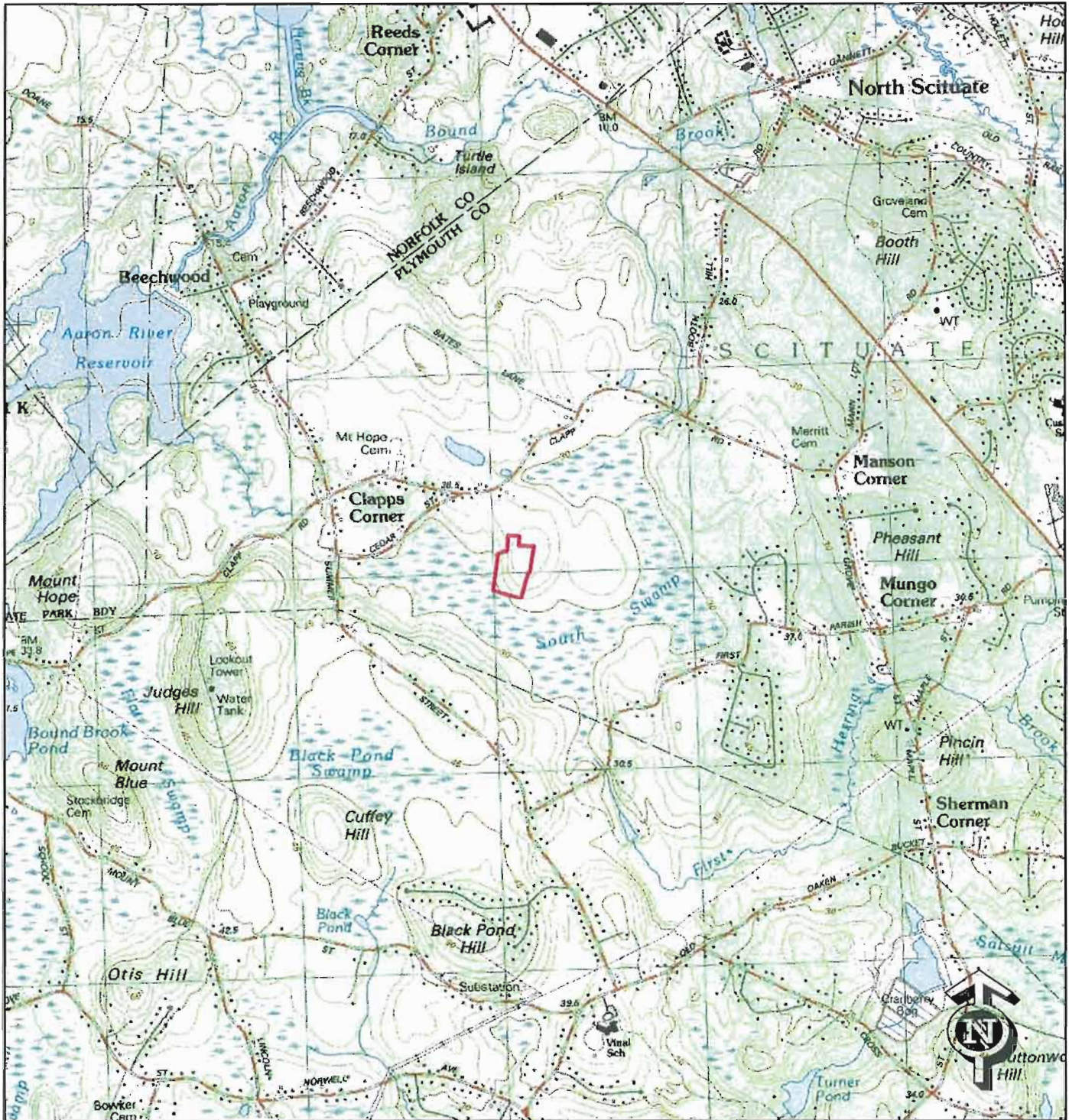
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VIN BUCCA PROPERTY SITE LOCUS

WEST WAREHAM FIELD OFFICE

Assisted by: Greg Cironi



USDA NRCS Natural Resources Conservation Service

0 800 1,600 3,200 4,800 6,400 Feet

APPLETON FIELDS FARM CONSERVATION PLAN MAP

WEST WAREHAM FIELD OFFICE

Assisted by: Greg Cironi



USDA NRCS Natural Resources Conservation Service

0 62.5 125 250 375 500 Feet

EXTENT OF BOX TURTLE HABITAT

WEST WAREHAM FIELD OFFICE

Assisted by: Greg Cironi



APPLETON FIELDS FARM SOILS MAP

WEST WAREHAM FIELD OFFICE

Assisted by: Greg Cironi



USDA NRCS Natural Resources Conservation Service

0 50 100 200 300 400 Feet

Soils Inventory Report

VIN BUCCA

Map Unit Symbol	Map Unit Name	Prime Farmland Indicator	Acres	Percent
300B	Montauk fine sandy loam, 3 to 8 percent slopes	All areas are prime farmland	2.4	25%
315B	Scituate gravelly sandy loam, 3 to 8 percent slopes	All areas are prime farmland	1.8	19%
316B	Scituate gravelly sandy loam, 3 to 8 percent slopes, very stony	Farmland of statewide importance	5.1	53%
52A	Freetown peat, 0 to 1 percent slopes	Not prime farmland	0.4	4%
Total:			9.7	100%
Prime Farmland Total:			4.2	43%

Map Unit Description

Plymouth County, Massachusetts

[Minor map unit components are excluded from this report]

Map unit: 52A - Freetown peat, 0 to 1 percent slopes

Component: Freetown (85%)

The Freetown component makes up 85 percent of the map unit. Slopes are 0 to 1 percent. This component is on kettles on outwash plains, swamps on outwash plains, bogs on outwash plains, marshes on outwash plains, depressions on outwash plains. The parent material consists of organic material. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is very high. Shrink-swell potential is low. This soil is rarely flooded. It is frequently ponded. A seasonal zone of water saturation is at 0 inches during January, February, March, April, May, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 65 percent. Nonirrigated land capability classification is 5w. This soil meets hydric criteria.

Map unit: 300B - Montauk fine sandy loam, 3 to 8 percent slopes

Component: Montauk (80%)

The Montauk component makes up 80 percent of the map unit. Slopes are 3 to 8 percent. This component is on till plains on uplands, drumlins on uplands, ground moraines on uplands. The parent material consists of coarse-loamy eolian deposits over sandy lodgment till. Depth to a root restrictive layer, densic material, is 20 to 39 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 28 inches during January, February, March, April, November, December. Organic matter content in the surface horizon is about 75 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.

Map unit: 315B - Scituate gravelly sandy loam, 3 to 8 percent slopes

Component: Scituate (80%)

The Scituate component makes up 80 percent of the map unit. Slopes are 3 to 8 percent. This component is on ridges on uplands, drumlins on uplands. The parent material consists of coarse-loamy eolian deposits over sandy lodgment till. Depth to a root restrictive layer, densic material, is 20 to 35 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 15 inches during January, February, March, April, May, November, December. Organic matter content in the surface horizon is about 4 percent. Nonirrigated land capability classification is 2w. This soil does not meet hydric criteria.

Map unit: 316B - Scituate gravelly sandy loam, 3 to 8 percent slopes, very stony

Component: Scituate, very stony (80%)

The Scituate, very stony component makes up 80 percent of the map unit. Slopes are 3 to 8 percent. This component is on ridges on uplands, drumlins on uplands. The parent material consists of coarse-loamy eolian deposits over sandy lodgment till. Depth to a root restrictive layer, densic material, is 20 to 35 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 15 inches during January, February, March, April, May, November, December. Organic matter content in the surface horizon is about 4 percent. Nonirrigated land capability classification is 6s. This soil does not meet hydric criteria.

Map Unit Description

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions in this report, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

The Map Unit Description (Brief, Generated) report displays a generated description of the major soils that occur in a map unit. Descriptions of non-soil (miscellaneous areas) and minor map unit components are not included. This description is generated from the underlying soil attribute data.

Additional information about the map units described in this report is available in other Soil Data Mart reports, which give properties of the soils and the limitations, capabilities, and potentials for many uses. Also, the narratives that accompany the Soil Data Mart reports define some of the properties included in the map unit descriptions.