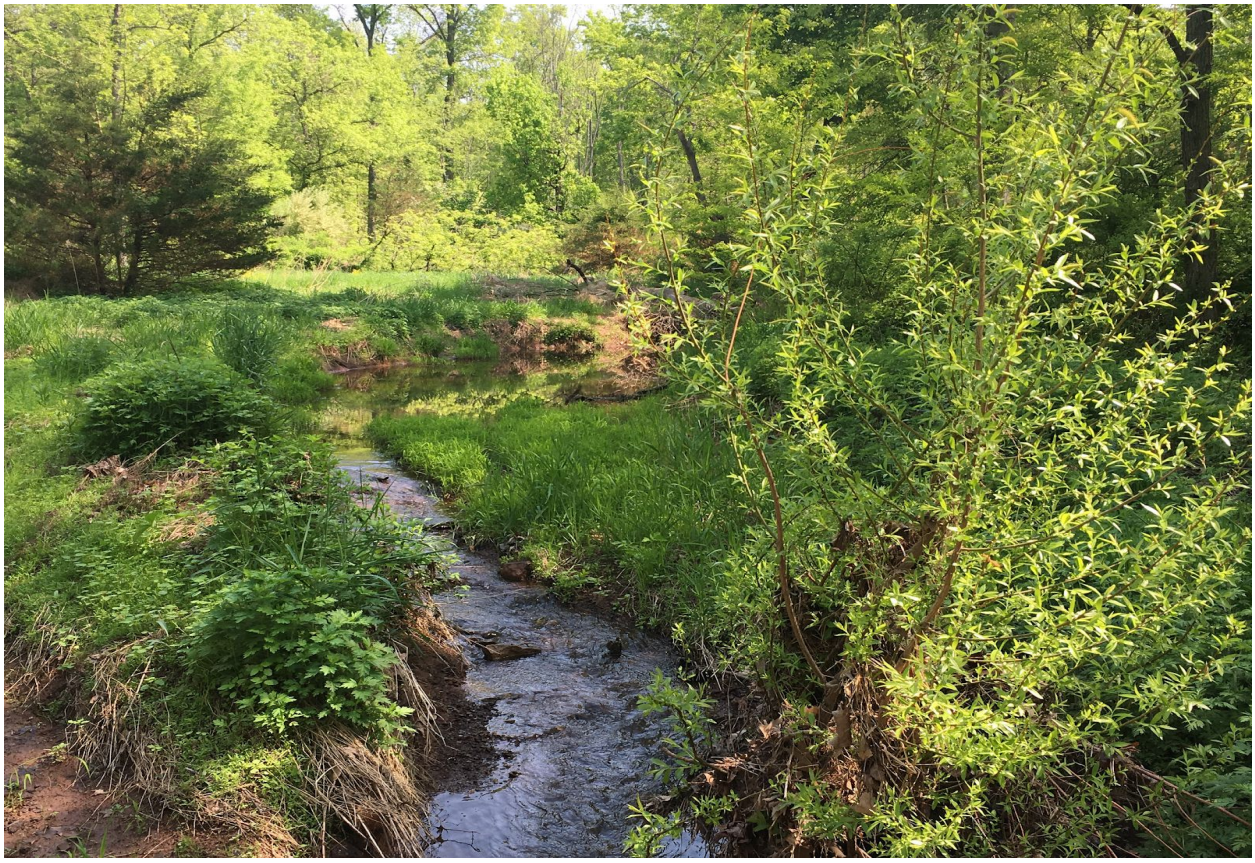
BEDMINSTER FARMS

Agricultural & Environmental Outline

2017 & Update



BEDMINSTER FARMS

FARMER D CONSULTING

Growing Community through Agriculture

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Background and Introduction

In 2013, The Robert Wood Johnson Foundation published a report for **the Center for Sustainability and the Building Healthy Places Initiative**. In that report they summarized the state of our well-being as follows:

We face daily choices in terms of what we eat…often without considering the consequences of these choices to the natural environment. Although activities associated with food production and consumption can lead to negative environmental impacts, community leaders and real estate professionals are uniquely suited to lessen these impacts by facilitating instead, access to sustainably produced food.

By modifying and creating "***new regenerative farmland"*** in order to accommodate healthy local food for animals and people within neighborhoods, resources will be utilized in a responsible manner through soil restoration, biodiversity, and thus supply consumer demand for sustainable environmental, agricultural and neighborhood outcomes.

Key Lessons of the RWJ study:

1. ***"Regenerative",*** rather than "Monocrop Farming" (single crop, no biodiversity) can reduce greenhouse gas emissions and sequester carbon.
2. Future Community success is most certainly tied to sustainably sourced products stemming from incorporating the growing and access to local food growing and reduction of food waste within new and existing neighborhoods.
3. Public policies can and should promote sustainable food production and consumption by streamlining permitting for neighborhood development projects that incorporate local food access.

The Robert Wood Johnson study also summarized the state of our well-being as follows:

1. By forming creative partnerships, the community and the designers, engineers and builders have the opportunity if not the ***obligation*** to build places that support access to healthy food as it is that one thing that directly affects our health and well-being.
2. Grocery stores, community food-growing areas, and farmers markets are essential in supporting healthy food access.
3. Strategies for promoting access to healthy food in building projects and communities include:

   - Supplying a local grocery store with fresh local grown and raised produce

   - Host a Farmer's Market

   - Include on-site gardening and farming programs

   A number of projects go further, by actively accommodating programs and services for healthy local food production within Agri hoods which is the new bastion of regenerative farming and healthy lifestyle.

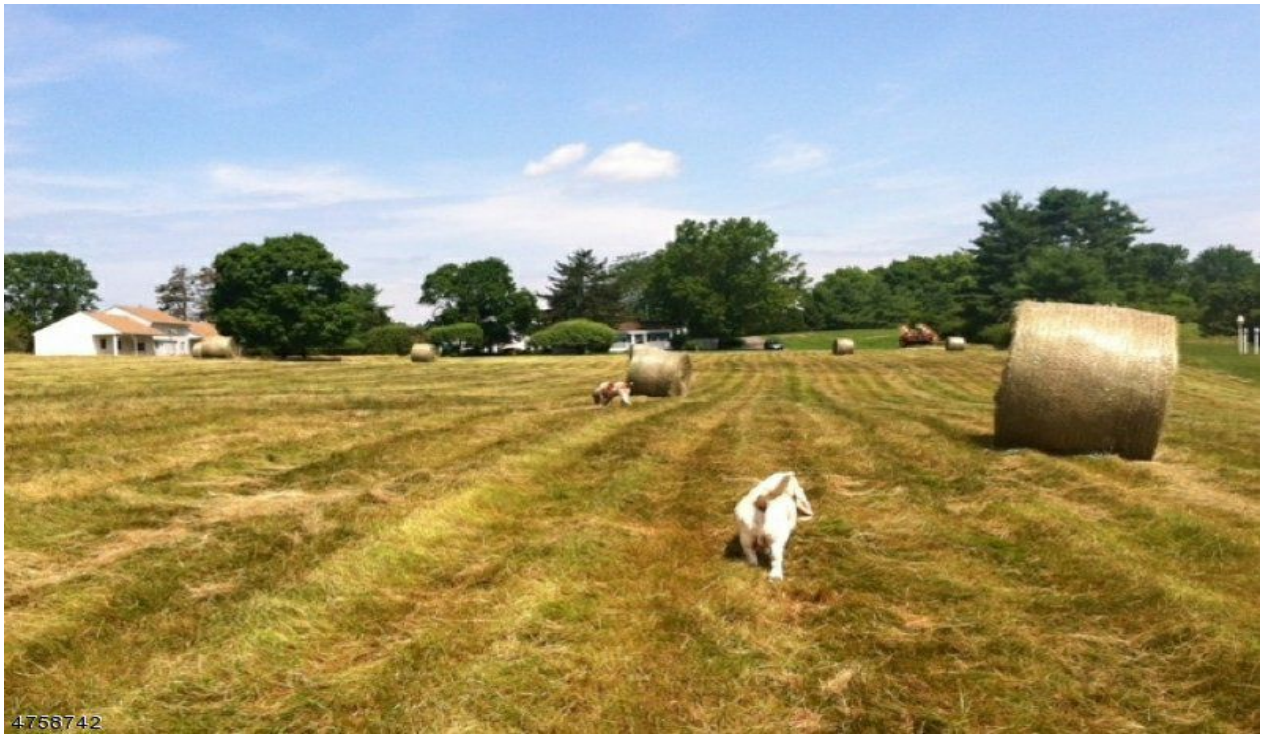
The Bedminster Master Plan in 2003 and 2005 has aptly stated that :

1. "Air, water, and soil are the essential resources which support a healthy Biota. The natural ecosystem finds a balance among its organic and non-organic components, where resources are used, not used up, and cyclical changes return to the point of beginning...
2. The principles of sustainable development demand that resource commitments made during this generation will be sustainable- that is, able to be continued for the benefit of future generations..."
3. The Bedminster Master Plan calls for a systems approach to natural resource conservation, where connected systems are viewed as a collective resource not a series of separate features:
4. "The focus of the Farmland Preservation plan is to preserve the most productive agricultural lands for continued agricultural use, encourages the expansion of agricultural pursuits and a diversification of agricultural activities and maintains the

scenic character of the township, particularly where residents and visitors enter the Bedminster countryside”

The **Bedminster Master Plan** goes on to state that **the town should “explore techniques and options for conservation and enhanced land stewardship**.

Alignment with these lessons is the core mission of Bedminster Farms.



Our Vision

"Conservation is a state of harmony between men and Land" ...Aldo Leopold, 1948 from the Bedminster Master Plan 2005.

Along with advisors such as Farmer D, Aeon Holistic Agriculture and having received support and encouragement from the Bedminster Ag committee and Environmental Commission, we have created a realistic and sustainable vision of an Agri-hood for Bedminster Farms.

The agricultural and environmental vision is a natural extension of a career spent in the world of sustainability, energy efficiency and human centric design. It is this experience, coupled with this vision, and aligned with the master plan of a community that at its core is committed to the "Creation and preservation" of a sustainable healthy agricultural and environmental heritage for its community.

Our vision is to correct, enhance, and expand the agriculture on the property from what was happening to date, while cultivating a community that both supports and benefits from the community agriculture and environment envisioned.

We have studied the environmentally sensitive areas, the existing farmed areas and the existing land management practices. We have tested soils and have begun the rebuilding of soil health over the last 4 years. We have used a no till and cover crop approach to begin the soil restoration process required of a true regenerative or biodynamic farm.

We have developed a concept to bring "***community to a working amenity farm"*** in a manner that is typical of how it may have been done long ago.

We have taken the aggregated properties and their resources to create a working farm with common agricultural, environmental, and educational amenities.

The Biodynamic farming approach we have begun incorporates a balance of pasture, hay,

animals, compost, orchards and vegetable gardens that together create a regenerative, closed loop

farming system that nourishes the land and the community while serving as a model for both regenerative farming and conservation-oriented projects. The farm will produce high quality, nutrient dense vegetables, fruits and animal products such as meat, eggs and dairy as well as

herbs, flowers, hay and other grains. All organic materials generated on site will stay on site and be returned to the soils through an on-farm compost system that incorporates animal manures, spent hay and food scraps. The biodynamic farming approach will dramatically improve the soil health along with related ecosystem benefits such as carbon sequestration, water retention and ecological diversity such as pollinators. By eliminating all chemical fertilizers, pesticides and fungicides the farm will be reversing the current practices and will prevent any contamination of the water, soil and air that could have detrimental effects on the environment and human health.

Integrating community-oriented, food producing agriculture with farm homes and outbuildings aligns with a community goal (And the Bedminster Master Plan) of preserving agriculture while demonstrating ***new and innovative approaches to growing food and community***. The farm is supported by the developer and residents in several ways. Bedminster Farms invests in the capital startup for the farm as part of the budget which will include soil amendments, animals (Sheep, goats, horses) irrigation, farm equipment, barns and sheds, tools and labor.

Access to land and capital are the two largest barriers to entry for small-scale family farms, especially in areas with such high land costs. The operating budget for the farm can be supported through Association fees typically reserved for the private road and drainage maintenance but will utilize the economy of scale to maintain all of the agricultural areas by the same farm management team. Properties will not be fenced other than limited animal grazing areas and community garden areas. Pastures and meadows will exist over property lines and easements for the care and maintenance of the environmental and agricultural areas will be clearly defined and a part of the homeowners protective and restrictive covenants that create and maintain the Farm amenity.

The farm may also generate earned revenue through a CSA, participation at local farmer's markets, local area restaurants and other retailers as the farming operations mature. In addition to fresh produce, value-added artisanal products such as jams, jellies, dairy, honey, maple syrup and other products are envisioned in the farm's development. There is already an established relationship with nearby restaurants that will serve as an additional sales outlet and customer base for the farm if needed.

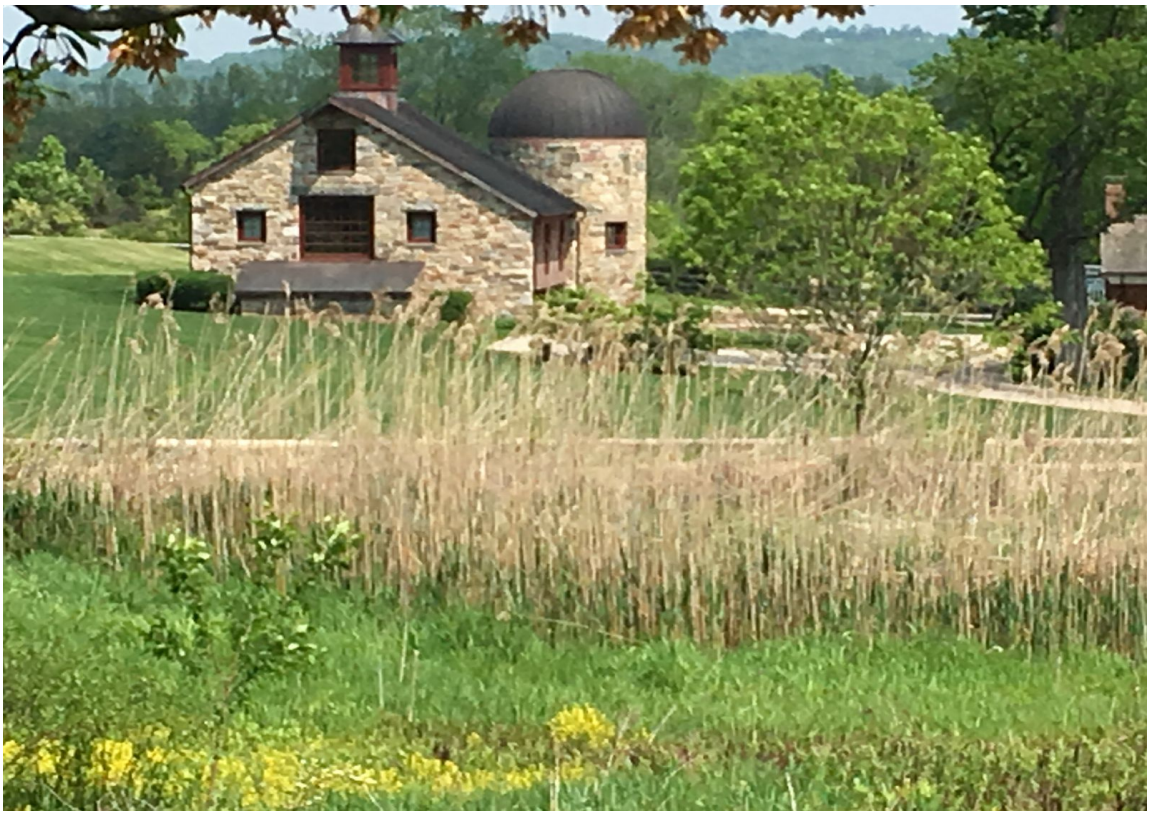
Participation in local programs and their development over time are envisioned to provide agricultural education and build community. Despite being part of a conservation easement, Prior to our ownership, the extensive Woodland areas (Approx. 60 acres) had not been placed into professional care as part of a woodland management program, however we have now begun this process. We are carefully studying the wooded areas with the intent of Silva pasturing whereby the woodland areas will be protected and enhanced to create the needed interplay between forested areas and pastures.

Under our leadership, both legacy farmers and local organic farming specialists have already been at work beginning to manage the hay, develop a rotational grazing program for animals and to restore the orchard areas and build both pasture soil health and begin the planning of the vegetable components of the farm.

We are constantly learning the pitfalls of property that was both over grazed and over farmed with monoculture along with excessive use of synthetic fertilizers and herbicides.

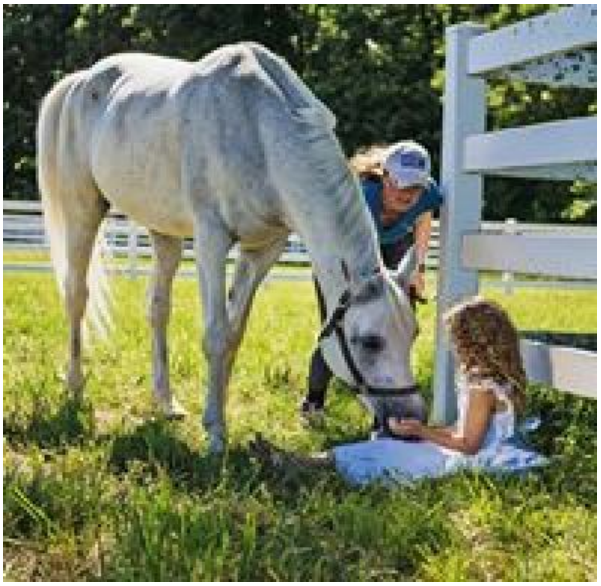
The Land Institute recently published two reports on the rapidly growing trend of Food and Real Estate and Agrihoods in particular. There are several examples of Agrihoods across the country and a series of best practices are emerging for the field. Farmer D, who co-authored the report is our Executive farmer and lead consultant. This new model for community paired with conservation principles could help provide a new tool for meeting the goals of preserving agriculture, while creating a unique housing option that supports and benefits more community-oriented agriculture in the region.

Project Overview



Bedminster Farms will consist of 115 acres of farm and woodland. As a Farm Conservation Community, the intent is to create and to preserve viable, healthy, organic and biodiverse farmland and to insure its viability as a long term working farm while integrating it with farmhouse architecture emanating from local and regional styles all aimed at sustainable practices for an environmentally net positive setting.

The intent of the project is to both create and preserve better and more robust regenerative agricultural land and woodlands in perpetuity.



Regenerative Agriculture" describes farming and grazing practices that, among other benefits, reverse climate change by rebuilding soil organic matter and restoring degraded soil biodiversity – resulting in both carbon drawdown and improving the water cycle.

Specifically, Regenerative Agriculture is a holistic land management practice that leverages the power of photosynthesis in plants to close the carbon cycle, and build soil health, crop resilience and nutrient density. Regenerative agriculture improves soil health, primarily through the practices that increase soil organic matter. This not only aids in increasing soil biota diversity and health, but increases biodiversity both above and below the soil surface, while increasing both water holding capacity and sequestering carbon at greater depths, thus drawing down climate-damaging levels of atmospheric CO2, and improving soil structure to reverse civilization-threatening human-caused soil loss. Research continues to reveal the damaging effects to soil from tillage, applications of agricultural chemicals and salt-based fertilizers, and carbon mining. Regenerative Agriculture reverses this paradigm to build for the future.

Farmland Creation and Preservation

Bedminster Farms will provide the following elements in order to ensure its agricultural and environmental success:

1. Easements will be created to protect all Wetlands and Riparian areas as well as all proposed farmland including woodland management areas as Farm Conservation Areas with only a farmhouse exception area of 1.5 acres per lot as potential non-agricultural or environmental area. Of 114 Acres we propose only 13 acres of non-agricultural use and are reserved for farmhouse architecture, barns, and other outbuildings.

2. Architectural review and strict design guidelines focus on local and regional architectural styles along with a net-zero approach to energy and resource use.

Vision Goals

To create an Agricultural Conservation Community that exemplifies substantive farm creation and conservation land use and to create a supportive farm community that develops new opportunities for farming, enhanced and sustainable resource stewardship along **with limiting built environments to farmhouse exception areas** that are greatly reduced compared with typical R-10 projects. New and improved agricultural areas and practices will be emphasized and an enhanced agricultural resource created and sustained on the Farm.

Farm Creation & Preservation

- Develop a farm conservation community that creates a working farm in conjunction with proper woodland management while connecting the residents to the farm production and value added products and common amenities such as horse stalls, riding and hiking trails, fishing, biking and outdoor education areas and neighborhood garden areas.

Biodynamic Farming

- Integrate historic “closed loop” farming systems that provide most of the farm inputs from the farm or close by farms and offer a range of farm fresh produce and farm products to residents and neighbors.

Health and Wellness

- Offer a variety of health and wellness opportunities ranging from farm fresh produce to walk and bike paths, yoga and farm community events and other outdoor activity and education.

Environment

- Use best management practices to ensure watershed protection, forest restoration, soil fertility and night sky viewing and recreation of agrarian viewsheds along its major corridor of lamington road.

Community

- Create a strong sense of farm community between residents, artisans and farmers with each group complimenting the other in the creation of a sustainable farming community.

- Create a conservation-oriented brand focused on the conservation/restoration of New Jersey farmland, immersion into rich historic farm culture, culinary experience, hobby farms and health and wellness. Promote the Bedminster CSA's, farmers market and continue to find ways to enhance the role of agriculture and environment in the local and regional area.

APPENDIX

Reference Materials

- New Jersey - Right to Farm Act
- Comprehensive Farmland Preservation - Bedminster Township
- “R10” Rural Residential Zoning District

Glossary

Conservation Community - a development that preserves substantive farmland and natural habitats by

Creating agricultural villages, hamlets and farmsteads.

Conservation Community Analysis - an analysis process that ensures that the development portion of the site compliments the objectives for preservation of farmland and natural habitats. It is comprised of 3 steps - the first step is an analysis overlay of the sensitive environmental areas, the second step is an analysis overlay of the farmlands and the third step identifies the development areas which have the least impact on the environmental areas and the farmland, make the most efficient usage of existing infrastructure and are laid out in the form of ag conservation hamlets or farmsteads.

Ag Conservation Hamlet - 5 to approximately 20 homes adjacent to farmland either as a working farm or as several homes adjacent to the working farm that have a direct relationship to the farm – culturally and economically

Biodynamic Farming- is a holistic, ecological, and ethical approach to farming, gardening, food, and nutrition. It involves managing a farm utilizing the principles of a living organism.

Regenerative Agriculture- is a system of farming principles and practices that increases biodiversity, enriches

soils, improves watersheds, and enhances ecosystem services.

Agricultural Conservation Easement- a deed restriction landowners voluntarily place on their property to

protect resources such as productive agricultural land, ground and surface water, wildlife habitat, historic sites or scenic views.

Mentor Farm - a farm that acts as a model farm for other farms

Silva pasture- The process of integrating agricultural grazing and planting within forested areas along with pastures in order to create biodiverse and healthy wooded and pasture areas.