

## **East Amwell Township Analysis of the Amwell Valley Agricultural District**

### **Introduction**

This Report analyzes the development trends, existing conditions, and the development potential of parcels located within the Amwell Valley Agricultural Development District (AVAD) based upon the existing zoning. The purpose of the AVAD, as identified in §92-91 Amwell Valley Agricultural District, is:

- To encourage land use patterns and development practices which enhance Township, county and state efforts to retain farmland and protect and preserve agricultural activity within the Township.
- To protect and promote the continuation of farming in East Amwell Township where farming is a valuable component of the local economy.
- To protect prime soils (SCS Classes I and II) and soils of state-wide importance (SCS Class III) for their long-term value as an essential natural resource in any agricultural or horticultural pursuit.
- To permit limited nonfarm related residential development in a location and manner that will be consistent with the continuation of farming.
- To support the preservation of existing farm operations and limit conflicts between agricultural and nonagricultural uses by encouraging the separation of residential development from active farms. [Amended 9-9-1999 by Ord. No. 99-20]
- To impose lot suitability requirements upon residential lots in order to accommodate individual well and septic disposal systems, which are required in the Amwell Valley Agricultural District.
- To implement the goals of the Amended Master Plan for the Amwell Valley Agricultural District by protecting agricultural lands and promoting agriculture as a valuable component of the local economy.
- To provide an affordable housing overlay option at fixed densities that will satisfy the Township's affordable housing obligation while also providing a diverse housing stock and investment in Ringoes Village. Inclusionary zoning overlays are provided on Block 11, Lots 4 and 37.02 (Ringoes Affordable Housing Inclusionary Overlay Zone) and Block 16.01, Lots 26 and 27 (Larison's Corner Affordable Housing Inclusionary Overlay Zone) and will be subject to the densities and affordable housing set-asides prescribed below. [Added 10-11-2018 by Ord. No. 18-20; amended 10-10-2019 by Ord. No. 19-20]

This Report utilizes the most up-to-date data from a variety of state and county agencies. Data includes:

- Wetlands- NJDEP 2015 Land Use Land Cover
- Surface Water- NJDEP 2015 Land Use Land Cover
- Slopes- calculated and created utilizing GIS tools based upon Northwest New Jersey Digital Elevation Model (2020)
- Floodplains- FEMA (2020)
- Parcel data- NJGIN (2018)

- 2020 East Amwell Township tax assessment records
- Zoning- created by HGA based upon the Township's adopted 2020 Zoning Map

It is important to note that all acreages are calculated utilizing geographic information systems and that the data used is based upon the best available and most up-to-date resources and should not be used in place on-site surveying.

**Existing Land Use**

The AVAD occupies 11,102.9 acres or 60.7% of the Township. The AVAD is the largest zone in the Township and, as stated above, the intent of the district is to retain, protect and preserve agricultural activity. However, there other existing land uses within this zone.

Based upon the Township's tax assessment data, qualified farmland occupies the majority of the zone (8,135.2 acres or 74% of the total area) across 258 individual parcels.

The second largest land use is residential, which occupies 16.8% of the total area. Residential parcels are also the most common in the District, consisting of 66.2% of the total number of parcels, although many of the residential parcels occur on smaller, undersized lots.

Other land uses in the zone include publicly owned properties, East Amwell School, commercial properties with the largest being the Ridge at Back Brook, along with vacant land, cemeteries and graveyards, and church & charitable properties.

The table below details each of the land uses based upon tax assessment records. See attached Existing Land Use map.

<b>Existing Land Use (2020)</b>						
<b>Category</b>	<b># of Parcels</b>		<b>Total Acres</b>		<b>Developable Acres*</b>	
	<b>Number</b>	<b>Pct.</b>	<b>Number</b>	<b>Pct.</b>	<b>Number</b>	<b>Pct.</b>
Vacant	42	4.0%	160.3	1.5%	105.8	1.2%
Residential	698	66.2%	1,851.4	16.8%	1,492.9	17.1%
Farmland (Regular)	2	0.2%	31.9	0.3%	23.2	0.3%
Farmland (Qualified)	258	24.5%	8,135.2	74.0%	6,553.0	75.0%
Commercial	8	0.8%	324.1	2.9%	177.5	2.0%
Apartment	5	0.5%	20.8	0.2%	18.9	0.2%
Railroad	7	0.7%	27.4	0.2%	18.2	0.2%
Public School	1	0.1%	31.2	0.3%	30.0	0.3%
Public Property	13	1.2%	160.7	1.5%	127.7	1.5%
Church & Charity	2	0.2%	2.4	0.0%	2.0	0.0%
Cemetery & Graveyards	7	0.7%	14.9	0.1%	14.0	0.2%
Other Exempt	11	1.0%	233.3	2.1%	177.6	2.0%
<b>Total</b>	<b>1,054</b>	<b>100.0%</b>	<b>10,993.6</b>	<b>100.0%</b>	<b>8,740.8</b>	<b>100.0%</b>

\*Excludes areas constrained by slopes greater than 12%, 100-year floodplain, wetlands and surface water

It should be noted that 7 properties that are assessed as 15F Other Exempt, are developed with single-family residential dwellings. Utilizing the existing land uses in the Township, and assuming each residential property has 1 unit, the AVAD is currently developed with 705 single-family homes.

## Preserved Land

Within the AVAD, there are approximately 5,381.8 acres of preserved land across 99 parcels. These properties are preserved through a variety of methods including farmland preservation, open space preservation, nonprofit agencies, and conservation easements. Preserved properties are unable to be subdivided and developed. The preserved properties make up 48.9% of the AVAD parcel area. Of the preserved properties, 4,549.1 acres have been preserved as farmland while the remainder (832.8 acres) is preserved as open space. Many of the large tracts of farmland have been preserved, although there are several other large parcels that could potentially be developed in the future.

The following chart lists the Blocks, Lots, Property Classification based upon tax assessment records, and acreage of the preserved properties in the AVAD.

Preserved Land				
Block	Lot	Qual	Property Class	Acres
1	1	Q0358	3B	2.9
11	3	Q0046	3B	63.1
11	37	Q0048	3B	40.2
14	15		15C	24.3
16.01	31.05	Q0063	3B	21.5
16.01	31	Q0058	3B	52.0
17	10	Q0060	3B	82.7
17	15	Q0061	3B	41.4
17	16.03	Q0064	3B	27.2
17	16.04		2	2.2
17	24	Q0070	3B	147.2
17	34	Q0244	3B	83.9
17	9	Q0060	3B	63.1
18	1	Q0078	3B	105.4
18	18	Q0082	3B	73.3
18	19	Q0083	3B	11.0
18	20	Q0082	3B	26.6
18	22	Q0085	3B	133.7
18	23	Q0086	3B	75.5
18	24	Q0087	3B	25.4
2	10.05	Q0010	3B	45.8
2	5	Q0004	3B	39.5
20	11	Q0357	3B	28.9
20	16.01	Q0093	3B	1.3
20	16	Q0093	3B	66.2
20	17.01		15F	0.0
20	17.07	Q0098	3B	2.7
20	18	Q0098	3B	105.9
20	20	Q0099	3B	130.9
20	22	Q0090	3B	51.4

<b>Block</b>	<b>Lot</b>	<b>Qual</b>	<b>Property Class</b>	<b>Acres</b>
20	23.02	Q0103	3B	51.7
20	24	Q0101	3B	60.7
20	30	Q0093	3B	47.7
20	6	Q0089	3B	64.3
21	1		15F	88.3
21	11.01	Q0107	3B	3.8
21	12	Q0107	3B	40.4
21	15	Q0110	3B	24.2
21	16.03	Q0113	3B	22.8
21	16.05	Q0114	3B	58.0
21	18		15C	6.5
21	19.03	Q0116	3B	59.7
21	19	Q0115	3B	49.9
21	2.03	Q0106	3B	49.9
21	2.04		15F	6.3
21	2	Q0106	3B	115.8
23	11	Q0137	3B	108.1
23	12.01	Q0234	3B	3.1
23	12	Q0234	3B	4.5
24	11	Q0149	3B	48.1
24	3	Q0140	3B	58.2
25	11	Q0161	3B	26.1
25	12	Q0162	3B	126.6
25	3	Q0368	3B	33.4
25	9	Q0159	3B	91.8
26	3	Q0166	3B	61.0
27	11		15C	10.7
27	33.01	Q0174	3B	27.3
27	33	Q0173	3B	61.4
27	39	Q0176	3B	138.4
27	46.05	Q0178	3B	1.5
27	46	Q0178	3B	27.5
27	47	Q0179	3B	54.1
3	3	Q0012	3B	85.1
30	16.01	Q0189	3B	46.1
30	28		15C	12.3
30	29		15C	2.2
30	32.01		15C	5.5
30	41.01	Q0186	3B	1.0
31	3	Q0179	3B	41.3
31	4	Q0178	3B	37.8
31	5	Q0166	3B	68.0
32	1	Q0202	3B	87.7
32	5	Q0161	3B	76.5
33	1.03	Q0208	3B	2.9

Block	Lot	Qual	Property Class	Acres
33	5	Q0208	3B	65.7
33	7.06	Q0208	3B	12.0
34	1.01	Q0218	3B	1.8
34	2.09	Q0218	3B	13.5
34	2	Q0218	3B	25.6
34	27.01	Q0217	3B	37.8
34	27	Q0226	3B	61.0
34	34	Q0227	3B	96.8
34	4	Q0218	3B	24.9
35.01	10	Q0238	3B	123.9
35.01	11	Q0236	3B	55.9
35.01	13	Q0238	3B	163.6
35.01	8.02	Q0234	3B	38.2
35.01	8	Q0234	3B	75.4
35	10		15F	127.3
35	2	Q0229	3B	262.2
35	3	Q0230	3B	96.6
7	6	Q0034	3B	0.1
8.02	25.01		15C	89.5
8	2	Q0034	3B	2.8
8	24	Q0034	3B	98.5
8	3	Q0034	3B	98.6
8	4	Q0034	3B	137.0
<b>Total</b>				<b>5,381.8</b>

Note: Property Class 3B: Qualified Farmland, 15C: Public Property, 15F: Other Exempt

**Environmental Constraints**

The Township’s existing ordinance requires lots to meet the Township’s Lot Suitability Requirements. The lot suitability requirement is defined as, “In any development application, no residential building lot with a private well and individual septic system shall contain less than 22,500 square feet of unconstrained area on which any building such well and septic system shall be located.”

The Township’s ordinance further defines Unconstrained Land Area, which is defined as, “Area of a tract or parcel of land that does not contain floodplains, wetlands, or slopes greater than 12%.” For purposes of this analysis, floodplains, wetlands and slopes greater than 12% are negated from each parcel’s total land area, which provides the developable land area.

Within the AVAD, there are 649.1 acres of the 100-year floodplain, 584.9 acres of wetlands, 110.3 acres of surface water, and 1,292.0 acres of slopes greater than 12%. The combined area of all environmental constraints total 2,273.3 acres. See attached Environmental Constraints map.

**Soils**

Within East Amwell Township, there are four types of farmland soils. These soils are Prime Farmland, Statewide Important, Statewide Importance if drained and Not Prime Farmland. The following

chart depicts the acreages of each farmland soil in the Township. See attached Farmland Soils map.

<b>Farmland Soils</b>		
<b>Type</b>	<b>Acres</b>	<b>Pct</b>
All areas are prime farmland	4,365.1	39.3%
Farmland of statewide importance	4,699.6	42.3%
Farmland of statewide importance, if drained	23.1	0.2%
Not prime farmland	2,015.1	18.1%
<b>Total</b>	<b>11,102.9</b>	<b>100.0%</b>

The AVAD has a combined acreage of Prime Farmland and Statewide Importance soils of 9,087.8 acres, or 81.9% of the AVAD.

#### *Prime Farmland*

Prime farmland, as defined by the U.S. Department of Agriculture, is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses. It could be cultivated land, pastureland, forestland, or other land, but it is not urban or built-up land or water areas. SADC Prime Farmland Soils include all those soils in the USDA Land Capability Class I and selected soils from USDA Land Capability Class II. USDA Class I soils have slight limitations that restrict their use. USDA Class II soils have moderate limitations that reduce the choice of plants or require moderate limitations that reduce the choice of plants or require moderate conservation practices. SADC Prime Farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is also available for these uses.

The criteria for prime farmland designation include: an adequate and dependable supply of moisture from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, an acceptable salt and sodium content, and few or no rocks. The water supply is dependable and of adequate quality. Prime farmland is permeable to water and air. It is not excessively erodible or saturated with water for long periods, and it either is not frequently flooded during the growing season or is protected from flooding. Slope ranges from 0 to 6 percent.

According to the NRCS, some areas of prime farmland may require measures that overcome a hazard or limitation, such as flooding, wetness, and drought. Onsite evaluation is needed to determine whether or not the hazard or limitation has been overcome by corrective measures.

Within the AVAD, there are a total of 4,365.1 acres of Prime Farmland Soils. Prime Farmland is the second most common type of farmland soil in the Township.

#### *Statewide Importance*

Soils of Statewide Importance include those soils in the USDA Land Capability Class II and Class III that do not meet the criteria as NRCS Prime Farmland Soils. USDA Class II soils have moderate limitations that reduce the choice of plants or require moderate conservation practices. Class III

soils have severe limitations that reduce the choice of plants or require special conservation practices, or both. These soils can economically produce high yields of crops when treated and managed according to acceptable farming methods. Some may produce yields as high as SADC Prime Farmland if conditions are favorable. Criteria for defining and delineating this land are to be determined by the appropriate State agency or agencies. In some States, additional farmlands of statewide importance may include tracts of land that have been designated for agriculture by State law.

Soils of statewide importance are the most common type of soils in the AVAD, having nearly 4,700 acres.

There are other soils that are considered soils of statewide importance if drained. These soils can be capable of producing yields as high as statewide importance. The AVAD has approximately 23.1 acres of these soils.

*Not Prime Farmland*

Not Prime Farmland Soils include those soils that are not prime farmland, of statewide importance, unique, or of local importance. These soils lack the physical and chemical which allow for agricultural crops to thrive.

Approximately 18% of the AVAD consists of not prime farmland soil, consisting of 2,015 acres.

**Lot Size Analysis**

The lot sizes within the AVAD have a significant range. Lots range in size from less than 1 acre to larger than 297 acres.

The following chart details the lot size distribution of parcels that are smaller than 10 acres. The Township has a total of 819 properties that are grandfathered into the zone based upon §92-911. More than 50% of the undersized parcels are between 1.5 acres and 5 acres in area. Lots between 1 acre and 1.5 acres make up over one-fifth (21.4%) of the undersized lots.

<b>Undersized Lots Analysis</b>						
<b>Category</b>	<b># of Parcels</b>		<b>Total Acres</b>		<b>Developable Acres*</b>	
	<b>Number</b>	<b>Pct.</b>	<b>Number</b>	<b>Pct.</b>	<b>Number</b>	<b>Pct.</b>
Up to 1/2 acre	45	5.5%	12.2	0.6%	10.2	0.6%
1/2 acre to less than 1 acre	73	8.9%	58.3	2.9%	50.8	3.2%
1 acre to less than 1.5 acres	175	21.4%	233.9	11.8%	200.1	12.5%
1.5 acres to less than 5 acres	436	53.2%	1,049.5	52.8%	861.7	54.0%
5 acres to less than 10 acres	90	11.0%	635.4	31.9%	474.3	29.7%
<b>Total</b>	<b>819</b>	<b>100.0%</b>	<b>1,989.3</b>	<b>100.0%</b>	<b>1,597.1</b>	<b>100.0%</b>

The following chart shows the existing land uses, based upon the 2020 tax assessment data for the undersized lots within the zone. As shown in the chart, residential properties make up nearly 82% of the undersized parcels as well as over 75% of the total acreage of the undersized lots in the AVAD. The Township's 2013 Master Plan Reexamination Report notes that minor subdivisions

continue to fragment the agricultural characteristics of the AVAD, which is apparent in the existing land use of the zone.

<b>Existing Land Use for Undersized Lots</b>				
<b>Category</b>	<b># of Parcels</b>		<b>Total Acres</b>	
	<b>Number</b>	<b>Pct.</b>	<b>Number</b>	<b>Pct.</b>
Vacant	38	4.6%	88.9	4.5%
Residential	670	81.8%	1,502.7	75.5%
Farmland (Regular)	1	0.1%	7.0	0.4%
Farmland (Qualified)	66	8.1%	289.5	14.6%
Commercial	6	0.7%	16.0	0.8%
Apartment	5	0.6%	20.8	1.0%
Railroad	6	0.7%	5.5	0.3%
Public Property	9	1.1%	23.9	1.2%
Church & Charity	2	0.2%	2.4	0.1%
Cemetery & Graveyards	7	0.9%	14.9	0.7%
Other Exempt	9	1.1%	17.7	0.9%
<b>Total</b>	<b>819</b>	<b>100.0%</b>	<b>1,989.3</b>	<b>18.1%</b>

The following chart details the number of parcels, total acreage, and developable acreage of each of the properties within the AVAD. As shown below, there are a total 121 parcels that are greater than 20 acres, which qualifies them to be subdivided into additional lots in accordance with the existing AVAD Conventional Zoning.

<b>Lot Size Analysis- All AVAD Lots</b>						
<b>Category</b>	<b># of Parcels</b>		<b>Total Acres</b>		<b>Developable Acres*</b>	
	<b>Number</b>	<b>Pct.</b>	<b>Number</b>	<b>Pct.</b>	<b>Number</b>	<b>Pct.</b>
Less than 10 acres	819	77.7%	1,989.3	18.1%	1,597.2	18.3%
10 to 20 acres	114	10.8%	1,475.2	13.4%	1,190.4	13.6%
20 to 50 acres	61	5.8%	1,947.8	17.7%	1,572.3	18.0%
50 to 100 acres	42	4.0%	2,989.5	27.2%	2,466.9	28.2%
100 to 200 acres	16	1.5%	2,032.7	18.5%	1,586.1	18.1%
Greater than 200 acres	2	0.2%	559.2	5.1%	327.9	3.8%
<b>Total</b>	<b>1,054</b>	<b>100.0%</b>	<b>10,993.7</b>	<b>100.0%</b>	<b>8,740.8</b>	<b>100.0%</b>

\*Excludes areas constrained by slopes greater than 12%, 100-year floodplain, wetlands and surface water

However, since the Township has preserved a number of properties within the AVAD district, a subsequent lot size analysis has been provided that excludes the preserved properties within the District. As shown in the chart below there are 46 parcels which are not preserved that have a lot area greater than 20 acres. Further, there are 2,257.9 total acres comprised of lots that are greater than 20 acres, which have the ability to be further subdivided based upon 10-acre conventional zoning. The largest unpreserved property in the AVAD is 297 acres in total area. This property is currently developed as a golf course.



Lot Size Analysis- All Unpreserved AVAD Lots						
Category	# of Parcels		Total Acres		Developable Acres*	
	Number	Pct.	Number	Pct.	Number	Pct.
Less than 10 acres	801	83.8%	1,938.5	34.5%	1,571.3	34.9%
10 to 19.9 acres	109	11.4%	1,415.6	25.2%	1,154.6	25.7%
20 to 49.9 acres	33	3.5%	978.1	17.4%	801.2	17.8%
50 to 99.9 acres	9	0.9%	613.9	10.9%	520.7	11.6%
100 to 199.9 acres	3	0.3%	368.9	6.6%	297.9	6.6%
Greater than 200 acres	1	0.1%	297.0	5.3%	153.4	3.4%
Total	956	100.0%	5,612.0	100.0%	4,499.1	100.0%

\*Excludes areas constrained by slopes greater than 12%, 100-year floodplain, wetlands and surface water

**Build Out Analysis- Background Information**

Land owned by Hunterdon County, Black River & Western Corp Railroad, PSEG, State of New Jersey, Board of Education, and East Amwell Township were excluded from the build out analysis. Lots that are less than 1/10<sup>th</sup> of an acre that are not in common ownership with an adjacent lot were also excluded. Excluded properties consist of 17 total properties. (See attached Excluded Properties chart).

For purposes of this analysis, parcels that are adjacent to one another that have either the owner name and/or the owner address in common are considered “merged” and treated as one property. There are a total of 96 parcels across 43 sites that are considered merged for purposes of this analysis. The build out analysis will refer to each of these merged lots as a single site.

Properties assessed as Vacant, Farmland, Commercial, Apartment, Church & Charitable, Cemetery, and Other Exempt, provided those properties are not preserved, were included in the Build Out Assessment, even though they are currently developed with a use other than single-family residential.

The gross lot area was used for purposes of defining whether the lots are conforming and subdividable based upon GIS parcels.

**Build Out Analysis- Conventional Zoning**

The existing zoning currently permits conventional zoning on 10-acre lots. Utilizing the 10-acre lot size as a base, the subdividable land area would result in a total of 224 conforming 10-acre lots based upon 46 sites. Lots that are capable of being subdivided total 2,470.6 acres.

The AVAD also has provisions pertaining to Grandfathered Undersized Lots (§92-911). This section of the ordinance permits lots that have a lot area of less than 10 acres but at least 1.5 acres to be used for one single-family dwelling as a principal use. Further, lots in the AVAD with a lot area of less than 1.5 acres are also permitted to be developed with a single-family residence, provided the bulk standards are met. However, if unable to meet these bulk standards, applicants are permitted to apply to the Planning Board to seek variance relief.

Due to the Grandfathered Undersized Lots provision, all undersized lots were assigned a single-family dwelling, with the exception of lots in common ownership. Lots in common ownership were merged if adjacent to one another and assigned one value for the entire site.

The AVAD has a total of 742 existing undersized sites (less than 10 acres) which would be capable of producing 742 single-family dwellings. In addition, the AVAD also has 97 sites which conform to the minimum 10-acre zoning requirement, but are less than 20 acres, and are unable to be subdivided. The total undersized and conforming sites that are unable to be subdivided have the potential to produce a total of 839 single-family residences at build out.

In total, the Conventional Zoning option for the AVAD would result in a build out of 1,063 total single-family dwellings. To date, and based upon tax assessment records (Residential, Regular Farmland, Apartment, and the qualifying residential within the Other Exempt category), the Township has approximately 705 properties used for residential purposes in the AVAD. The number of single-family dwellings would increase by approximately 358 single-family dwelling units.

Based upon the ACS 2019 5-year estimates for average persons per household (2.6) and the number of total single-family dwellings permitted by the conventional zoning standards, the AVAD could theoretically accommodate a total of 2,763.8 residents.

The attached chart, entitled "Conventional 10-Acre Zoning and Lot Size Averaging Build Out" gives the blocks and lots of each subdividable parcel in the AVAD, the total acreage, constrained acreage, developable acreage, and the number of lots that could be potentially subdivided based upon the existing 10-acre zoning.

### **Build Out Analysis- Lot Size Averaging Option**

The AVAD permits additional zoning options, including the Lot Size Averaging Option (§92-91H(2)(a)). This option is provided to promote larger parcels for agricultural uses and to encourage and promote flexibility, economy and environmental soundness in subdivision layout and design. The standards are:

- Minimum residential lot area: 1.5 acres
- Maximum dwelling unit density: 0.1 unit/acre
- Each lot created is required to satisfy the lot suitability requirements
- All lots created under this subdivision option shall be deed-restricted against further subdivision

Lot size averaging can be defined as, "A form of development that permits a reduction in individual lot areas and bulk requirements, provided that the number of lots remains the same as permitted without lot averaging." No land is "guaranteed" to be preserved, but this zoning option permit a farmer to subdivide smaller lots and maintain control over a larger piece with a dwelling.

The maximum dwelling unit density of 0.1 unit/acre, requires a minimum 10 acres to produce 1 dwelling unit, which is the same density as the conventional zoning option, only each residential lot is permitted to be located on a 1.5-acre lot. This standard does not have a requirement for preserving open space or farmland, but each lot created as a result of the subdivision is required to be deed restricted against further subdivision.

This zoning option would provide a similar build out as the conventional zoning, in terms of the number of units produced, except that each new lot created would be able to have a minimum lot size of 1.5 acres. The 46 sites identified as being subdividable total 2,470.6 acres of total land, which would create 224 single-family residential lots.

The existing undersized lots in the AVAD would continue to be permitted to be developed with a single-family dwelling, resulting in a total of 1,063 dwelling units.

However, it should be noted that there is no requirement in the Lot Size Averaging Option which would require a certain amount of land to be dedicated as open space. The limiting factors of this option are the maximum dwelling unit density and the lot suitability requirement.

The resulting build out using the lot size averaging option produces the same number of single-family lots permitted under conventional zoning with the exception of a difference in the sizes of the lots.

### **Build Out Analysis- Open Lands Ratio Zoning**

The Open Lands Ratio Zoning option is also an alternative intended to promote retention of large farm tracts and the aggregation of smaller farm parcels through granting density incentives to those who qualify. The standards are:

- At least 75% of the tract shall be designated as "open lands" and be deed restricted for agricultural use.
- At least 65% of the designated open lands shall be unconstrained land area and prime soils or soils of statewide importance
- Minimum residential lot area: 1.5 acres
- Minimum open lands lot area shall be 10 acres
- Maximum residential dwelling unit density shall be 0.15 unit per acre for the entire tract
- For tracts 100 acres and less, the open lands shall be contained in one deed-restricted contiguous parcel
- For tracts larger than 100 acres, the open lands may be composed of noncontiguous parcels provided each open lands area shall contain at least 50 contiguous acres.

Based upon these standards, a 100-acre lot would be required to dedicate at least 75-acres as open lands. The tract would also be permitted to develop the site with 15 residential units on 1.5 acre lots.

The Open Lands Ratio is similar to a cluster development. Cluster development can be defined as, "A development design technique that concentrates buildings on a part of the site to allow the remaining land to be used for recreation, common open space, and preservation of environmentally sensitive features."

In order to produce the minimum required 10-acre open lands lot, a lot size of 13.34 acres is required. This permits 2 residential dwellings to be constructed on 1.5-acre lots, while preserving a 10-acre open lands lot.

Assuming the minimum lot size is used for all proposed lots, and assuming that the other standards are met, a total of 80 sites totaling 3,011.6 gross acres meet this requirement. These 80 sites would result in a maximum of 417 single-family residences on a minimum of 752.9 acres. A minimum of 2,258.7 acres of land would be preserved as the open space/farmland preservation lots.

The AVAD has a total of 803 sites that are less than the minimum lot size of 13.34 acres, which would be capable of being developed with a residence.

The total build out, including undersized sites, would result in 1,221 total single-family residences, with a population based upon the average household size of 3,174.6 people.

The attached chart, entitled "Open Lands Ratio Zoning Build Out Chart" gives the details pertaining to the block and lots of each site in the AVAD, the total acreage, constrained acreage, developable acreage, and the number of lots that could be potentially subdivided based upon the existing Open Space Lands Ratio Build Out.

### **Build Out Analysis- 50-Acre Deed Restriction Option**

East Amwell's Ordinance permits the 50-acre Deed Restriction Option (§92-92). Pursuant to the Ordinance, a landowner is permitted to subdivide no more than two lots with each new lot having a minimum lot area of 1.5 acres to 3 acres and having a single-family dwelling as a principal use. The remainder of the tract (a minimum of 50 acres), is required to be deed restricted for agricultural use and production.

Lots qualifying for this option must have a minimum tract area of 51.5 acres (50-acres for deed-restricted agricultural lot and 1.5 acres for one residential lot). There are 15 sites in the Township which qualify for this zoning option. Assuming each residential lot would be subdivided utilizing the minimum lot size of 1.5 acres, a total of 29 new residential lots would be created, preserving a maximum of 1,510.6 acres.

For purposes of this analysis, lots that do not meet the 51.5-acre threshold would be permitted to be developed with 1 unit. A total of 868 single-family residential units would be permitted to be developed in the AVAD, giving a total population of 2,256.8 persons.

The attached chart entitled "50-Acre Deed Restriction Option Build Out" gives the blocks and lots of each site in the AVAD, the total acreage, constrained acreage, unconstrained acreage, and the number of lots that could be potentially subdivided based upon the 50-acre Deed Restriction Option.

**Build Out Assessment- Summary**

Build Out Comparison					
	Total Single-Family Dwelling Units			Total Population (estimate)	Total Land Preserved (in acres)
Existing Conditions	705			1833	5,381.8
Zoning Option	Build Out of Single-Family Dwelling units			Total Population (estimate)	Minimum Land Preserved (in acres)
	Subdivided New Units	Total New Units*	Total Build Out		
Conventional Zoning	224	358	1,063	2,764	0
Lot Size Averaging	224	358	1,063	2,764	0
Open Lands Ratio	417	516	1,221	3,175	2,386.1
50-Acre Option	29	163	868	2,257	1,510.6

\*Note: The new dwelling units is calculated by subtracting the total build out of each scenario from the existing conditions.

As shown in the chart above, the Township has a total of 705 existing single-family dwellings. The Total Population is estimated based upon the 2019-ACS 5-year estimate for the average number of people per household (2.6). Each of the build out scenarios is shown as the number of new units produced and the total number of units produced should all lots be developed with single-family residences.

The Open Lands Ratio produces the most single-family units, due to the increase in permitted density, but also has a built-in-tool to preserve farmland. Further, the 50-acre option produces the least amount of units, however, many of the lots within the Township do not qualify for this zoning standard, as they are undersized for the zone.

**Review of Development Trends**

In 2000, East Amwell Township rezoned the AVAD to permit single-family residential on 10-acre lots, where it was previously permitted on 3 acre lots. The intent of this rezoning was to keep agriculture viable in the Township while preventing the fragmentation of large tracts of farmland.

The Township's 2013 Master Plan Reexamination Report notes that minor subdivisions within the AVAD continue to fragment the agricultural landscape and resources. This Reexamination Report also recommended design standards be adopted for the AVAD to "ensure future development is appropriately placed and will enhance or retain the rural character without being out of scale or detract from the functionality or appearance of the district's overall make up."

Since 2010, East Amwell Township has had a total of 29 new housing units constructed. The chart below details the number and type of new housing units constructed within East Amwell. The most significant increase occurred in 2015, when twelve new units were constructed as a result of

Planning Board application AJ-14-03, which granted the applicant a d1 use variance for the construction of a multi-family building in the AVAD.

<b>New Housing Units Authorized by Building Permits East Amwell Township</b>				
<b>Year</b>	<b>Total</b>	<b>1&amp;2 family</b>	<b>Multifamily</b>	<b>Mixed use</b>
2019	<b>0</b>	0	0	0
2018	<b>3</b>	3	0	0
2017	<b>1</b>	1	0	0
2016	<b>4</b>	3	0	1
2015	<b>14</b>	2	12	0
2014	<b>0</b>	0	0	0
2013	<b>3</b>	3	0	0
2012	<b>0</b>	0	0	0
2011	<b>2</b>	2	0	0
2010	<b>2</b>	2	0	0
<b>Total</b>	<b>29</b>	<b>16</b>	<b>12</b>	<b>1</b>

Source: NJDCA new housing units authorized worksheet

Since 2010, the Township's Planning Board has received a total of 41 applications across 32 properties. In total, 15 applications were received for properties located within the AVAD. It is important to note that the 15 applications spanned nine (9) properties, as applicants resubmitted and amended applications and/or requested extensions of time. A summary of these applications is provided below:

- AJ-10-04: Zoning Ordinance Interpretation to determine whether undersized lots need variance approval to conduct agricultural activity in the AVAD. The Board found that variance relief is not necessary to conduct agricultural activities on undersized lots. (approved)
- 2010-06: Minor Site Plan approval to construct an indoor riding ring and barn (approved)
- AJ-11-01: Applicant sought D1 use variance to have two principal uses on the same lot and D3 deviation of a conditional use standards to construct a solar array (denied)
- 2011-10: Major Site Plan, minor subdivision (lot line adjustment), and bulk variance approval to construct ground mounted solar arrays (approved)
- AJ-12-03: Bulk variance approval to convert existing garage into a family room and to construct a new garage (approved)
- AJ-14-02/AJ-15-05/2019-09: Bulk variance approval to construct a residential dwelling requiring side yard setback variance relief, requests for extension of time (approved)
- AJ 14-03: D1 Use Variance and bulk variance approval to construct a multi-family building (approved)
- 2016-08/2016-10/2017-05: Request for amendment to site plan approval conditions for the Ridge at Back Brook Resolution PB 2001-10 pertaining to water quality monitoring and

limitations regarding number of people on the property at any given time (approved/denied)

- AJ-17-06: Bulk variance approval to construct a two-car garage requiring side yard setback variance relief (approved)
- 2019-08/2020-05: Minor Subdivision approval to subdivide a portion of the property to donate to New Jersey Conservation Foundation; request extension of time (approved)

## **Conclusion**

Over the last decade, development has occurred within the AVAD. Subdivisions, as well as residential units requiring bulk variance relief and "d" variance relief have been approved by the Planning Board. Based upon the review of the existing trends within the AVAD, the optional zoning standards, which are designed to preserve large contiguous tracts of farmland, have not been utilized. The existing zoning standards do not appear to be successful in preserving and maintaining the Township's farmland and farming industry.

The majority of the undersized lots in the AVAD consist of residential development (property class 2), most of which fronts along the Township's roadways and at intersections, reinforcing the notion that residential development is fragmenting the Township's agricultural lands.

As noted by each of the Build Out Scenarios, large tracts of farmland may be subdivided, further fragmenting not only the farmland itself, but also the viability of farming in the Township. As noted by the 2013 Master Plan Reexamination Report, development activity which occurs along roadways may also undermine the rural character of the Township.

Based upon the results of this Build Out Assessment, the Township's existing AVAD zoning may permit up to an additional 515 single-family residences. However, depending on which zoning option is utilized, there is the possibility that farmland may be preserved in the process.

The Township has been proactive in preserving farmland within the AVAD, as 4,549.1 acres have been preserved as farmland and 832.8 acres have been preserved as open space. The Township should continue to aggressively preserve the larger tracts of farmland to eliminate potential development which contradicts the Township's Master Plan.

The Township should consider developing new zoning standards that focus on sustaining, preserving, and, to the extent practical, improving farming within the AVAD as a means to maintain the viability of farming.