



Natural Resources Conservation Service
60 Quaker Lane, Suite 46
Warwick, RI 02886
Phone (401) 828-1300, Fax (401) 828-0433



Helping People Help the Land...

SUBJECT: Rhode Island Geographic Area Rate Cap
(GARC) for WRP

DATE: December 29, 2009

TO: Joe Bachand, Program Manager
Warwick, Rhode Island

File Code: 300-10-2

Based on the current land value estimates made available from the National Agriculture Statistical Service and past easement information, I propose that the Geographic Cap for the Wetland Reserve Program (WRP) Easement Program in Rhode Island be set at \$6,500.00 per acre. This is a 41% increase from the FY2009 value of \$4,625.00.

An explanation and supporting documentation for this cap is provided below.


REENA L. SHAW
ECONOMIST

Background

National Bulletin 300-10-2 states that the following data sources may be used to establish the Geographic Cap:

1. Local real estate market values.
2. Tax rates and assessments.
3. Location of the land.
4. National, State, or local agricultural statistics.
5. Local information about the value of land leases for the rights being acquired by the Federal Government.
6. Historic values accepted by landowners for program participation.
7. Soil types and productivity for the rights being acquired by the Federal Government.
8. Rates paid by other Federal or State programs that have similar purposes, such as the soil rental rates used by the Conservation Reserve Program.

We have chosen to use data from sources listed above in item numbers 4 and 5. Data from all sources was averaged and rounded to the nearest thousand dollars to establish the cap.

Data Sources

Data related to item number 4, National, State, or local agricultural statistics, was obtained from the 2007 Census of Agriculture, Volume 1, National Agriculture Statistical Service (NASS), Table 8: "Farms, Land in Farms, Value of Land and Buildings, and Land Use: 2007 and 2002." This data source indicates that the average per acre value of farmland, including buildings for the year 2007 is \$16,828¹.

Since this estimated value includes the value of buildings, we made adjustments to this figure in calculating our proposed cap. This method is discussed in more detail below.

Data related to item number 5, Local information about the value of land leases for the rights being acquired by the Federal Government, was obtained from two WRP easements in Rhode Island.

A WRP easement covering 24.85 acres that closed in 2007 for \$90,000 or \$3,621.73 per acre. Once corrected to 2008 dollars, this easement value is estimated to be \$81,000.00 or \$3260 per acre. The method used for this correction is discussed in more detail below.

A WRP easement covering 26.7 acres that closed in 2002 for \$115,000 or \$4307.12 per acre. Once corrected to 2008 dollars, this easement value is estimated to be \$5,255 per acre. The method used for this correction is discussed in more detail below.

Methods

Correcting the 2002 Easement Value

Correcting the 2002 easement to reflect a 2007 dollar value was accomplished by creating a land value index based on Rhode Island agriculture land values. Data for this index was obtained from NASS: land values listed in the 2007 Census of Agriculture specific to Rhode Island, Agriculture Land Values and Cash Rents are listed at \$9225/acre. This same value from NASS for 2007 is listed at \$16,828.

Economic reports focusing on declines in the value of real estate for the period 2007 to 2009 estimate that real estate values in Rhode Island declined by more approximately 14% statewide. Rounding down to a 12% reduction and applying this to the 2007 Agriculture Land Values and Cash Rents reported by NASS:

$$\$16,828 - [.12 * \$16,828] = \$14,808.64$$

We estimate the 2009 agricultural land value in Rhode Island to be \$14,800 giving a rate of change in land values between 2002 and 2008 to be 60%.

¹ The National Agricultural Statistics Service (NASS), "Agriculture Land Values and Cash Rents, August 2007, estimated Land Values and Cash Rents in Rhode Island at \$12,500. The result of the 2007 Census of Agriculture lists the average Land Value and Cash Rent for Rhode Island at \$16,828.00. This change in the NASS Agricultural Statistics is largely responsible for the 41% increase in our rate cap.

$$[(\$14,800 - \$9,225) / 9,225] = .60$$

The percent rate of increase applied to the value of the 2002 WRP easement of \$115,000 provides an easement value of \$184,000 or \$5,875.68/ac.

$$(1.60 * 115,000) / 26.7 \text{ acres} = \$6,891.39/\text{acre}$$

Removing the Building Value from NASS Land Values

The average value of land in farms, as reported by NASS, includes the value of farm buildings, which is not included in the WRP easement purchase. To estimate the percent of the average land value reported by NASS that is specific to the land we used the land values from our two WRP easement appraisals listed above.

We calculated the percent representation of each of the easements within the \$14,800 average value listed by NASS and estimated that the remaining percent of the \$14,800 is attributable to the building values. We then applied this percent to the \$14,800 and deducted the amount from \$14,800 to obtain our cap.

The mathematical equations and process include:

2007 Easement:

\$3621.73 / acre corrected for 2009 real estate values

$$\$3621.73 - [.12 * 3621.73] = \$3187.12$$

Estimating the percent of the value related to the value of the building and/or productive agricultural land:

$$(\$3,187 / \$14,800) = .22$$

1 - .22 = .78; 78% of the listed \$14,800 is related to the value of the building and/or productive agriculture land.

2002 Easement (corrected)

$$(\$5,255 / \$14,800) = .36$$

1 - .36 = .64; 64% of the listed \$14,800 is related to the value of the building and/or productive agriculture land.

Averaging the Data from all Sources

Average Percent of \$14,800 that is attributable to farm buildings based on the Rhode Island data provided is 62%.

$$\$14,800 - (.64 * 14,800) = \$9,472.00$$

The average of all three average land values:

$$(\$3187 + \$6891 + \$9,472) / 3 = \$6,516.67$$

Proposes Geographical Rate Cap for WRP is \$6,500.00.