Land Preservation in the Highlands Region

Prepared by the Highlands Water Protection and Planning Council - August 2010

The Highlands watersheds are the best in the State in respect to ease of collection, in scantiness of population, with consequent absence of contamination; in elevation, giving opportunity for gravity delivery and in softness as shown by chemical analysis. These watersheds should be preserved from pollution at all hazards, for upon them the most populous portions of the State must depend for water supplies. There has been too much laxness in the past regarding this important matter.

1907 Potable Water Commission's report issued pursuant to the March 7, 1906 Resolution No. 2 approved by Governor Edward C. Stokes.

[T]hat the new regional planning approach and the more stringent environmental regulatory standards should be accompanied, as a matter of wise public policy and fairness to property owners, by a strong and significant commitment by the State to fund the acquisition of exceptional natural resource value lands; and that in the light of the various pressures now arrayed against the New Jersey Highlands, these new approaches should be implemented as soon as possible.

2004 Highlands Water Protection and Planning Act, Section 2, N.J.S.A. 13:20-2.

Overview

Building upon past purchases in the New Jersey Highlands, the State of New Jersey and its federal, county, municipal and non-profit partners have continued their efforts to acquire important natural resource lands and critical farms throughout the Highlands Region since passage of the Highlands Water Protection and Planning Act six years ago.

This report documents the considerable efforts of the Federal government, the State of New Jersey, the Highlands Water Protection and Planning Council (Highlands Council), the Department of Environmental Protection, the State Agricultural Development Committee and their partners at the county, municipal and non-profit level, to acquire open space and farmland consistent with the goals of the Highlands Act and the Highlands Regional Master Plan.

Upon adoption of the Highlands Regional Master Plan (RMP) in July 2008, there were 273,457 acres of land preserved as either open space or farmland in the Highlands Region. This figure is significant as it amounts to nearly a third of the 859,358 acres in the Highlands Region. Of this total acreage, 9,281 acres are in federal ownership, 107,837 acres are in State ownership, 32,619 acres are in county ownership, 34,076 acres are in municipal ownership, 33,763 are preserved farmland, 10,005 acres are in nonprofit ownership, and 45,819 acres are water supply watershed lands owned by water utilities. These lands represent public parks, wildlife management areas, reservoir watershed lands, and conservation and agricultural easement holdings.

Building upon this noteworthy history of preservation, this report quantifies the land preservation efforts that have been completed since the 2008 adoption of the RMP. Since July 2008, another **7,690 acres** have been added and recently updated information on preserved lands provides a revised total of **290,214 acres**. This total amounts to the preservation of nearly **34% of the Highlands Region (nearly 46% of all undeveloped land as of 2002) and nearly 47% of the Preservation Area**. These 290,214 acres are divided between 255,537 acres of open space lands and 34,677 acres of preserved farmland. Similar to those lands preserved prior to adoption of the RMP, the newest acreage has been preserved by partnerships, through the Green Acres and Farmland Preservation programs, and county, municipal and non-profit entities. It is likely that some additional lands have been preserved but not yet reported, increasing the total acreage.

The RMP establishes a process for mapping priority conservation and agricultural lands to aid the protection of key resource lands in the Highlands Region. The results of this work are the Conservation Priority Area, Agriculture Priority Area and Special Environmental Zone maps set forth in the RMP. Indicative of the focused efforts of the State and its partners is that fact that, of the 7,690 acres preserved since adoption of the RMP, 5,694 acres were identified for priority acquisition in the RMP as representing "exceptional natural resource value lands" targeted by the Highlands Act (e.g., Conservation Priority Areas and Agricultural Priority Areas). This acreage includes but is not limited to 700 acres identified on the Highlands Council's Confidential Conservation Priority List; 2,347 acres identified on the Council's Confidential Agriculture Priority List; and 370 acres identified in the Council's Special Environmental Zone.

Moreover, since RMP adoption, the average actual dollars spent per year has increased when compared to the years preceding passage of the Highlands Act. These initiatives were accomplished through the existing funding stream of the Garden State Preservation Trust along with a supplemental $30 million appropriation for the Farmland Preservation Program. Taken together, these data demonstrate the commitment of the State and its partners to preserving important resource lands through prudent use of the State's resources.

It is important to understand the scope of the investments made to date in preserving the ecological and agricultural integrity of the Highlands Region. Using the average per acre costs for preserved open space and preserved farmland set forth in the RMP for determining the five and ten-year preservation cost projections, the estimated value of the rights acquired in the 290,214 acres preserved thus far would amount to $2.2 billion. Using the more recent average per acre costs based upon land acquisitions since adoption of the RMP, the estimated value of the rights acquired in these preserved lands amounts to $3.38 billion. In either case, there is no question that the State and its partners have made a tremendous investment in land preservation in the Highlands Region for water supply protection, natural resource protection and farmland preservation.

The Highlands Act has created a third leg in the stool to support its commitment to ensuring the long-term protection of valuable resource lands in the Highlands Region through the creation of a regional transfer of development rights (TDR) program for the Highlands. The Highlands Council adopted and is presently implementing the TDR program with an initial $10 million in capital funding that was allocated to the Highlands Development Credit Bank.

This funding serves as another means to acquire important resource lands while providing an equity safety valve for those landowners whose land does not qualify for participation in either the farmland preservation or open space programs. To date, the Highlands Development Credit Bank has approved 107.75 Highlands Development Credits for purchase representing 220.89 acres of land that may be permanently protected through imposition of a deed of easement. Should these purchases be completed, the HDC Bank will have approximately $8.27 million remaining for its second round of hardship consideration, which applications will be considered at its next meeting on December 2, 2010.

As a land preservation triumvirate, the State's Green Acres Program, Farmland Preservation Program and the Highlands TDR Program will continue to play a vital role in addressing landowner equity concerns. While the per acre value to individual properties may vary greatly due to the unique attributes of a given parcel, since adoption of the RMP, these programs have allowed a property owner to receive an ample per acre return on their land. The State Farmland Preservation Program has paid an average of $9,816 per acre for development rights on lands in the Preservation Area while lands in the Planning Area have received on average $14,288 per acre. Under the Green Acres Program landowners have seen similar per acre values for fee simple purchases. For properties in the Preservation Area, properties have averaged $10,265 per acre, while in the Planning Area properties have averaged $19,957 per acre. Finally, under the Highlands TDR Program, for those Preservation Area properties that have received an allocation of HDCs, the average per acre land value is $10,135.

Despite the preservation achievements to date, more remains to be accomplished to ensure the long-term protection of the Highlands Region's critical water supply and vital agricultural resources. To understand the scope of this undertaking, this report also analyzes the number of large parcels in the Highlands Region which have not previously been preserved and which may be considered for preservation. For example, there are 157 parcels in the Preservation Area that are 100 acres or greater in size while there are 300 such parcels in the Planning Area. In addition, there are 84 parcels 100 acres or greater in size that are split between the Preservation and Planning Areas. Together, these 541 parcels consist of 122,022 acres. The RMP's land preservation priority mapping approach can assist the State's preservation programs in examining these larger parcels and prioritizing acquisition based upon ecological and agricultural attributes.

Moving forward, the State will need to continue its serious commitment to purchasing open space and farmland through both fee and easement acquisitions. Fortunately, in November of 2009, New Jersey residents voted to approve the Green Acres, Water Supply and Floodplain Protection, and Farmland and Historic Preservation Bond Act of 2009, which authorizes the State to issue $400 million in bonds for land preservation. While the monies accumulated through the bond sales are critical to the State's preservation efforts, it is recommended that a dedicated portion of these funds be directed to the Highlands Region to continue to build upon the substantial investments made to date.

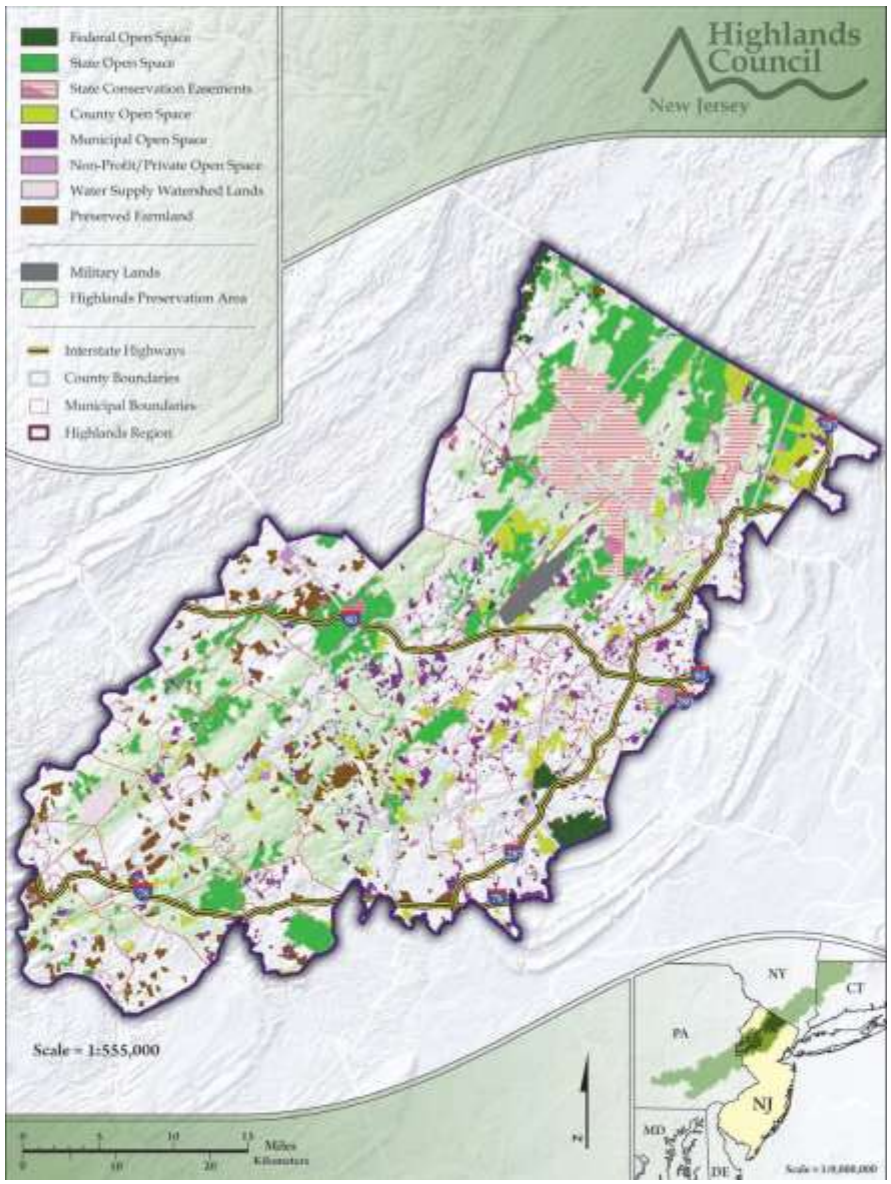
Land Preservation Efforts

The preservation of open space and farmland has been and continues to be an important public policy initiative supported time and again by the citizens of New Jersey. The November 2009 action by the electorate to approve a referendum $400 million for open space, farmland, flood-prone land, and historic preservation activities is a continuation of past practices as New Jersey voters have approved twelve similar bond acts going back to 1961.

Using the funds approved through the various bond acts, the State through the Garden State Preservation Trust (GSPT) and its county, municipal and non-profit partners have preserved a significant amount of open space and farmland throughout the Highlands Region. This work has been conducted primarily through the Green Acres Program in the Department of Environmental Protection, the State Farmland Preservation Program administered by the State Agriculture

Development Committee, and the efforts of the counties and municipalities of the Highlands Region as well as non-profit conservation organizations and land trusts.

As of the adoption of the Highlands Regional Master Plan (RMP) in July 2008, a total of 273,457 acres of the Highlands Region were identified as open space or preserved farmland. (See map below of *Highlands Preserved Lands*). Of this total acreage, 9,281 acres were in federal ownership, 107,837 acres were in State ownership, 32,619 acres were in county ownership, 34,076 acres were in municipal ownership, 33,763 were preserved farmland, 10,005 acres were in nonprofit ownership, and 45,819 acres were water supply watershed lands owned by public water utilities.

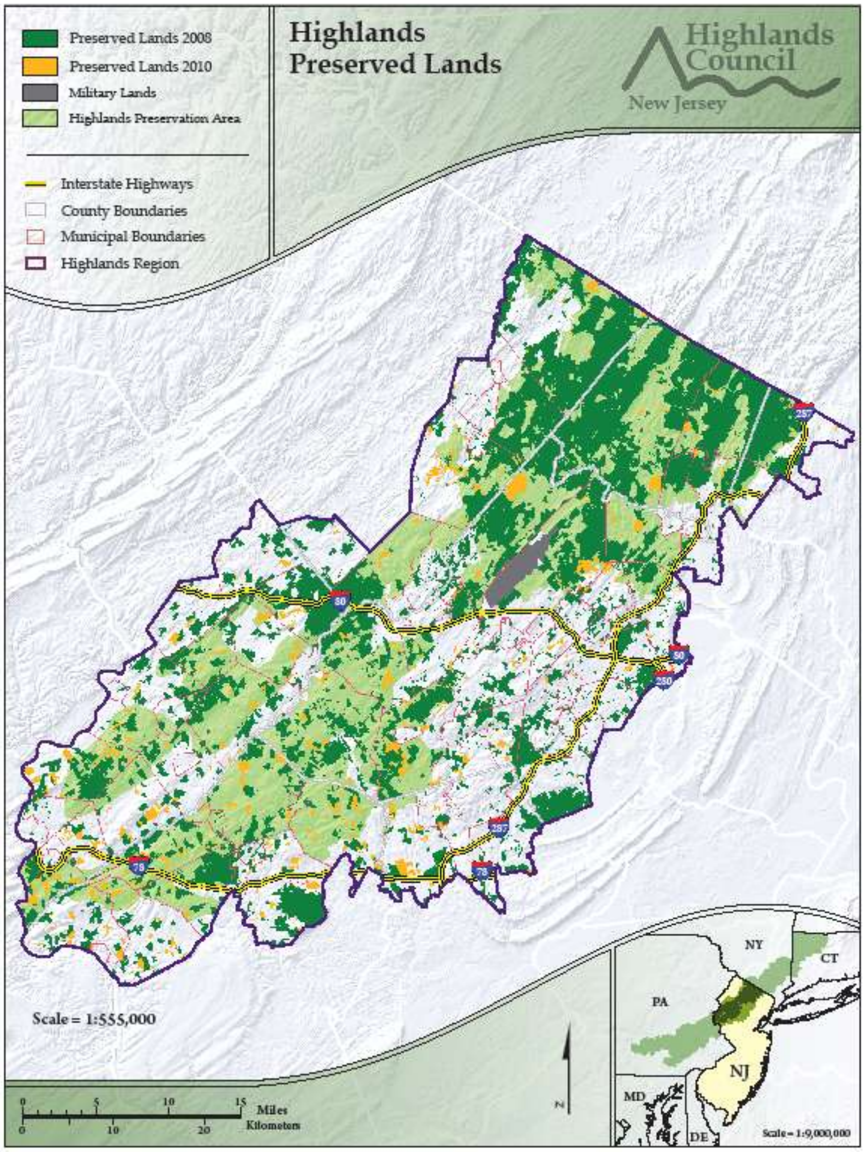


As part of the RMP Conformance Process, municipal officials and their representatives reviewed geographic information system (GIS) data used to develop the Highlands Council's Preserved Lands Map. Through this review, the Highlands Council removed parcels that were misidentified as preserved open space and added parcels that were in fact preserved but were not previously identified as such. This process reduced the lands identified as preserved on the RMP Preserved Lands Map by 11,942 acres but identified an additional 15,429 acres, for a total of 276,944 acres preserved.

Based upon data provided by the State programs and the non-profit community, another 13,270 acres have been preserved since passage of the Highlands Act in August 2004. This includes 7,960 acres preserved region-wide since adoption of the RMP on July 17, 2008. Together with previously preserved lands, the total acreage of all lands preserved in the Highlands Region is now **290,214 acres with 255,537 acres identified as open space and 34,677 acres identified as preserved farmland. The 290,214 acres represents over one third (33.8%) of the entire Highlands**

Region. With respect to the Preservation Area, 194,344 acres are now preserved resulting in nearly 47% of the core of the Highlands Region being preserved in perpetuity, In the Planning Area, 95,870 acres are preserved representing nearly 22% of that portion of the Region. (See map below of *Highlands Preserved Lands 2010*).

To understand the full extent of the State's investment in preserving the ecological and agricultural integrity of the Highlands Region, it is important to look at cost of preserving the rights acquired in the 290,214 acres of land already preserved. One way to estimate this investment is by using the average per acre costs for open space and farmland preservation calculated for use in the RMP.



Under the Highlands Act, the Highlands Council was charged with developing five-year and ten-year cost projections for preserving critical natural resource and agricultural lands in the Highlands Region. In the Financial Technical Report supporting the RMP, the Highlands Council reported that the cost to preserve an identified 70,197 acres of priority farmland and 92,360 acres of priority conservation lands is $1.33 billion. In the case of the identified farmland, the ten-year cost to preserve is $652,734,154. This results in an average cost per acre of $9,299. With respect to the ten-year projection for priority conservation lands, the cost to preserve is estimated at $678,488,826 or $7,346 per acre.

Using the per acre figures from above, it is estimated that the total costs to preserve the rights acquired in the existing 290,214 of preserved acres is $2.2 billion based upon the average per acre costs from the RMP. The cost to preserve those lands identified as open space is estimated at $1.877 billion (255,537 acres x $7,346 per acre), while the cost to preserve the identified farmland is $322 million (34,677 acres x $9,299 per acre). If the more recent per acre costs for those acquisitions occurring since adoption of the RMP are used (discussed below), the resulting cost to preserve the rights acquired in the 290,214 acres rises to $3.38 billion. In either case, there is no question that the State and its partners have made a tremendous investment in land preservation in the Highlands Region for water supply and other natural resource protection and for farmland preservation.

Land Preservation Data

The following discussion focuses on the newest land preservation data obtained from a number of sources and evaluates the data in light of land preservation efforts undertaken prior to enactment of the Highlands Act.

SADC Farmland Acquisitions

The State Agriculture Development Committee (SADC) provided the Highlands Council with new data from August 1, 2007 through May 19, 2010, regarding all farmland preservation projects in the Highlands Region where the State contributed funding. Excluding any acquisition prior to July 18, 2008, the date the Highlands Council adopted the RMP, the State and its county, municipal and non-profit partners recently preserved a total of **4,364 acres of farmland in the Highlands Region at an average per acre cost of $11,822**. This total represents 2,406 acres in the Preservation area at an average per acre cost of $9,816 and 1,958 acres in the Planning Area at an average per acre cost of $14,288.

Including all SADC data from August 2007 to present, the State Farmland Preservation Program, along with its county, municipal and non-profit partners preserved 99 farms throughout the Highlands Region representing a total of 6,903 acres at an average per acre cost of $12,108. In the Preservation Area, 57 farms were preserved from August 1, 2007 through May 19, 2010, representing 4,008 acres at an average per acre cost of $11,147. For the Planning Area during this same period, the State and its partners preserved 42 farms totaling 2,985 acres at an average per acre cost of $13,439.

Table 1 - SADC per Acre Cost Comparison

	RMP 5 Year Average Per Acre Cost		Post RMP Average Per Acre Cost	
County	**Preservation**	**Planning**	**Preservation**	**Planning**
Bergen	$81,031	$82,000	NA	NA
Hunterdon	$13,622	$8,492	$ 20,997.61	$ 7,402.78
Morris	$18,943	$46,729	$ 18,863.35	$ 103,920.55
Passaic	NA	NA	NA	NA
Somerset	$18,487	$19,071	NA	$ 36,914.06
Sussex	$9,900	$4,714	$ 2,764.37	NA
Warren	$5,506	$5,082	$ 6,371.34	$ 7,875.16

While comparing the county per acre averages used to develop the cost information in the RMP with the post-RMP per acre cost data is informative, the number of transactions that have occurred since adoption of the RMP makes it difficult to rely on the information for a definitive understanding of per acre costs by county. For example, the high county average in the Morris County Planning Area post-RMP is based on only a few easement acquisitions and may not be representative of land values in the county as a whole over this 22-month period.

A better form of comparison is to examine the average rate of acres acquired on a per month basis prior to passage of the Highlands Act with the average acres acquired per month post-RMP. Comparing this information reveals that the pace of acquisition has slowed somewhat. On average, from January 2000 through July 2004, SADC sponsored farmland preservation easement acquisitions preserved **235 acres per month or 2,820 acres per year**. From August 2008 through May 2010, SADC and its partners have preserved an average of **198.4 acres per month or 2,381 acres per year**.

While the acreage acquired on average per month and year has declined comparing pre-Highlands Act versus post RMP acquisitions, the actual dollars spent on average per month has significantly increased for farmland preservation. From January 1, 2000 through July 2004, SADC and its partners spent on average **$1,769,324 per month**. For the period from late July 2008 through April 2010, SADC and its partners have spent on average **$2,345,085 per month** to acquire land for farmland preservation purposes. This represents a 32.5% increase in actual dollars spent comparing these time periods.

Green Acres Program Acquisitions

Green Acres recently provided the Highlands Council with updated land preservation data for all transactions between February 1, 2008 and April 30, 2010. There are no data for Bergen or Somerset counties. The total acreage preserved in fee in the Highlands Region during this period is **2,792 acres at an average per acre cost of $11,051**. For that period after RMP adoption, the

Green Acres program along with its partners preserved a total of **2,401 acres throughout the Highlands Region at an average per acre cost of $11,624**.

Table 2 - Green Acres per Acre Cost Comparison

	RMP 5 Year Average Per Acre Cost	Post RMP Average Per Acre	
County	**Entire Region**	**Preservation**	**Planning**
Bergen	$53,677	NA	NA
Hunterdon	$9,893	$14,623.97	$12,158.36
Morris	$7,182	$10,501.24	NA
Passaic	$8,240	$12,439.76	$305,000
Somerset	$8,107	NA	NA
Sussex	$5,912	$4,514.96	$3,120.36
Warren	$7,271	$8,430.26	$27,233.82

As with the SADC data, the Green Acres post-RMP data is informative, but should not be definitive for purposes of determining per acre costs by county given the limited time period covered (22 months), particularly where a significantly costly or very inexpensive preservation project could skew the data due to the small sample size.

The Highlands Council also evaluated the data obtained from Green Acres based upon the average acreage acquired on a per month basis along with the average dollars spent per month. On average, from January 2000 through July 2004, Green Acres sponsored fee acquisitions preserved **112 acres per month or 1,344 acres per year**. From August 2008 through May 2010, on average Green Acres has preserved an average of **109 acres per month or 1,308 acres per year**.

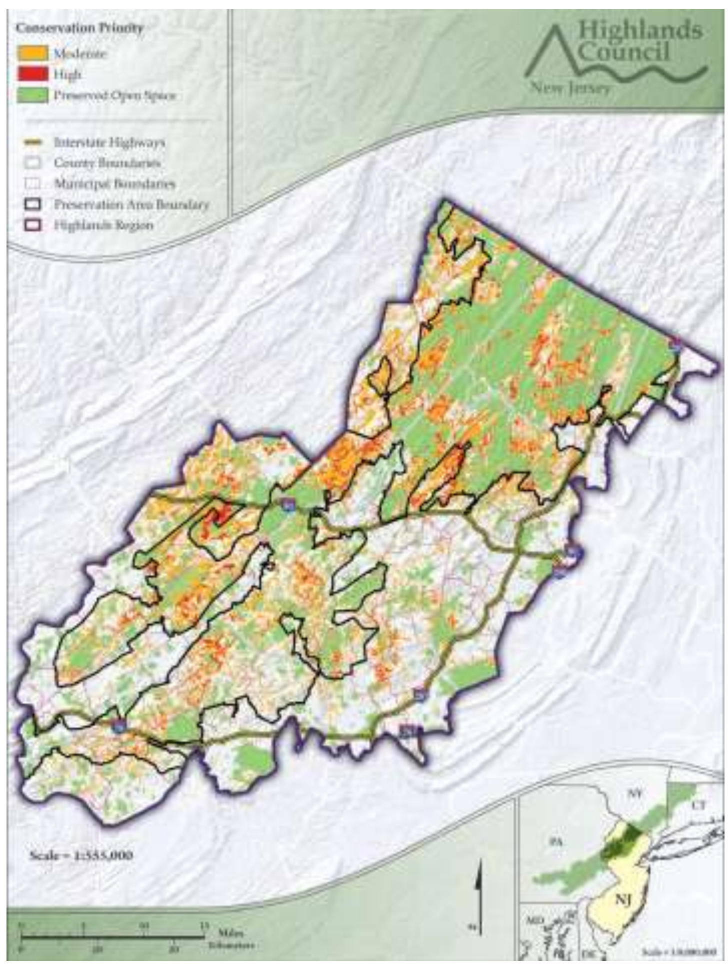
While the acreage acquired on average per month and year have declined slightly comparing pre-Highlands Act versus post RMP acquisitions, the actual dollars spent on average per month has significantly increased. From January 1, 2000 through July 2004, Green Acres and its partners spent on average **$874,383 per month**. For the period from late July 2008 through April 2010, Green Acres and its partners have spent on average **$1,268,361 per month** to acquire land for preservation purposes. This represents a 45% increase in actual dollars spent comparing these time periods.

Conservation Organization and Land Trust Acquisitions

In addition to the information provided by Green Acres and SADC, the Highlands Council also received land preservation parcel information from several conservation organizations and a land trust. To ensure that double counting does not occur, Highlands Council staff reviewed the land preservation parcel data provided by these organizations against the information provided by SADC and Green Acres. Where the State partnered with these entities, those lands where only included in the figures for SADC or Green Acres as appropriate.

Based upon the information from these organizations, an additional **5,974 acres of lands have been preserved since passage of the Highlands Act**. These lands represent 3,973 acres in the Preservation Area, 1,782 acres in the Planning Area, and 219 acres split between the Preservation and Planning Areas. Together with lands preserved through State funds, 290,214 acres of the Highlands Region are permanently protected from future development.

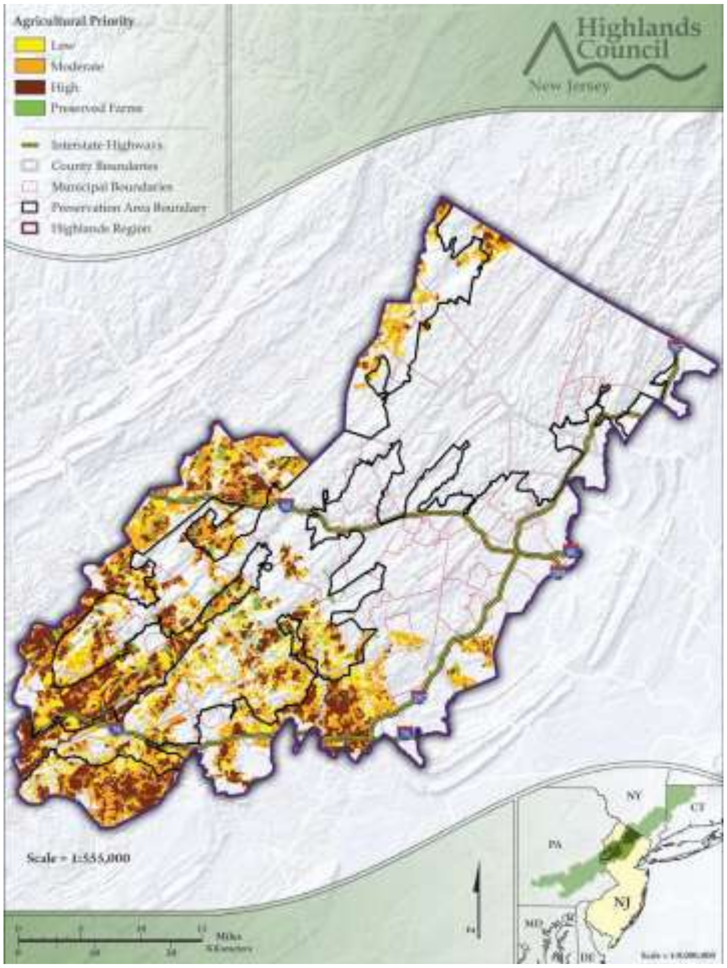
Relationship to RMP Priority Areas



Indicative of the efforts of the State and its partners is that fact that, of the 7,690 acres preserved since adoption of the RMP, 5,694 acres were identified for priority acquisition in the RMP. The RMP included an identification of critical lands for protecting and enhancing the Region's resources. It identified lands comprising the Conservation Priority Area and Agricultural Priority Area as well as the Special Environmental Zone where development should not occur. These areas are then prioritized by the Council for acquisition by the State through fee simple purchase, conservation restriction or the Highlands TDR Program.

The 5,694 acres that were preserved consistent with the RMP's priority acquisition (e.g., Conservation Priority Areas and Agricultural Priority Areas as shown on the maps to the right and on the next page) includes but is not limited to 700 acres identified on the Highlands Council's Confidential Conservation

Priority List; 2,347 acres identified on the Council's Confidential Agriculture Priority List; and 370 acres identified on the Council's Special Environmental Zone. Moreover, since RMP adoption, the average actual dollars spent per year has increased when compared to the years preceding passage of the Highlands Act. Taken together, this data demonstrates the State's and its partners' commitment to preserving important resource lands through prudent use of the State's resources.



Highlands Transfer of Development Rights Program

As the third leg in the stool to support its commitment to ensuring the long-term protection of valuable resource lands in the Highlands Region, the Highlands Council adopted and is implementing a regional TDR program for the Highlands. TDR is a land use tool that permits a community to utilize market forces to encourage the transfer of development potential from areas that the community wants to preserve, called sending zones, to areas that are more appropriate to accommodate increased growth, called receiving zones. Landowners in the sending zones receive transferrable development rights for restricting future development on their property. As a market-based system, purchase of these credits from sending zone landowners generally is to come from developers who buy the credits for the right to develop in a receiving zone at a density greater than that normally permitted by the underlying zoning.

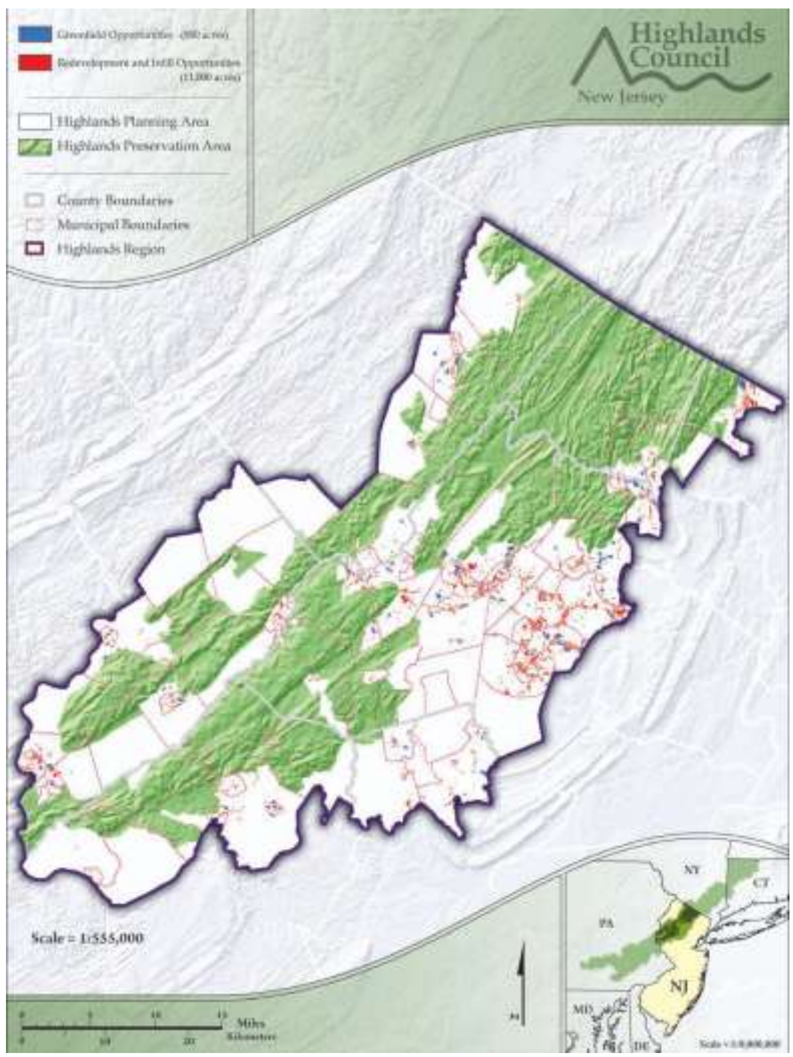
To become a sending zone parcel under the Highlands program, an owner of a Preservation Area property located in either the Protection Zone or Conservation Zone must first seek an allocation of Highlands Development Credits (HDCs) from the Highlands Council. HDCs serve as the TDR credits under the Highlands program and are priced at $16,000 per HDC. Allocation is the method of determining how many transferrable development credits should be awarded to a property based on the development potential of the land before the enactment of the Highlands Act in 2004.

Where a Preservation Area property satisfies the appropriate minimum eligibility criteria as set forth in the RMP, it may be considered for HDC allocation. The RMP then establishes two separate methods for allocating HDCs depending upon whether the property is zoned for residential use or non-residential use. With respect to non-residential property, the Highlands Council adopted an allocation methodology that considers lost development potential and unit values for different types of non-residential uses.

In the context of developing a residential allocation method, the distinct and uneven real estate markets that exist within the Highlands Region present a challenge to uniformly allocating credits. While assigning credits on a uniform basis, tied to the development potential of the land (soils, building constraints, underlying pre-Highlands zoning, etc.) is attractive for its simplicity, such an approach does not provide a means to reflect the influence of varied markets on the value of credits. This creates inequities and it also creates a real market imbalance. In a TDR market where the value of a credit to a developer is the same wherever it is used, credit buyers will tend to seek out Sending Zone credits in lower land-value markets.

In light of this challenge, the Highlands Council developed an allocation methodology that is based upon three factors: 1) a <u>Net Yield</u> of the number of residential lots that could have been situated on a parcel of land on August 9, 2004, taking into consideration all municipal development regulations and applicable state and federal laws and regulations; 2) a <u>Zoning Factor</u> to recognize that the value of the land varies according to the end use to which the property could have been developed; and 3) a <u>Location Factor</u> to recognize that per unit value of land varies by location within the Highlands Region. The Council engaged in significant research to develop the Zoning and Location Factors and has these factors scrutinized by an outside consultant.

The Highlands Council has received a total of 23 HDC Allocations Applications since launching the Highlands TDR Program in November 2009. To date, the Highlands Council has allocated **446.25 HDCs** to twelve (12) of the twenty-three (23) applicants for a total HDC value of **$7,140,000**. These twelve properties represent 538.19 acres, with an average cost per acre of $13,281. The allocations also represent a total reduction of 231 pre-Highlands Act residential development opportunities and 63,117 square feet of pre-Act non-residential development.



If a property receives an HDC allocation, the property owner must then certify those credits with the Highlands Development Credit Bank (discussed below). As part of the certification process, the property owner records a deed of easement against the subject property, which prohibits future development of the property subject to certain exceptions. At this point, the property owner now has marketable HDCs which may be sold, transferred or encumbered.

As discussed comprehensively in the Transfer of Development Rights Technical Report, receiving zones under the Highlands TDR Program are voluntary as mandated by the Highlands Act (see map above of *Potential Areas for Voluntary HDC Receiving Zones in the Existing Community Zone*). Due to this circumstance, it will take time before municipalities working with the Highlands Council designate receiving zones where HDCs, may be used. To address this lag in credit demand, the Highlands Council established the Highlands Development Credit Bank (HDC Bank).

The HDC Bank undertakes a number of functions in the TDR program. These functions include serving as a regional clearinghouse for information with regard to the Highlands TDR Program; acting as the administrator and official recording agency for the program; and serving as a buyer and seller of HDCs. It is in this last role where the HDC Bank plays a critical part in addressing landowner equity concerns during the TDR program's interim period.

The HDC Bank was capitalized with $10 million in initial funds. By resolution the HDC Bank board of directors chose to establish an Initial Purchase Program, which the Bank launched in November 2009. Under this program, the Bank seeks to purchase HDCs from property owners that qualify for hardship. To qualify for consideration, a property owner must demonstrate that either: (1) the owner is experiencing an extenuating financial circumstance and that the owner's equity in the property to which HDCs will be allocated is substantial in relation to the owner's net worth, or (2): the property would have qualified for Exemption #3 under the Highlands Act, but for not securing a needed State land use or water permit where an application for that permit was pending before the Department of Environmental Protection as of March 29, 2004.

The initial HDC Purchase Program began in May 2010, when the HDC Bank undertook consideration of five HDC Certificate Applications where the Highlands Council had determined that the applicants qualified for hardship consideration. On June 9, 2010, the HDC Bank extended offer letters to the five properties owners that qualified for hardship consideration. If accepted, the total number of credits to be acquired by the Bank is **107.75 HDCs with a dollar value of $1,724,000.00**. Through the acquisition of these HDCs, a total of **220.89 acres** at an average value of **$7,804 per acre** will be placed under deeds of easement. Four of the property owners qualified on the basis that they have extenuating financial circumstances. The fifth property owner qualified on the basis of having just missed qualifying for Exemption #3 under the Highlands Act. **To date, the HDC Bank has completed two HDC hardship acquisitions, which have resulted in the purchase of 87 HDCs and the preservation of 109 acres**.

The HDC Bank also authorized a second hardship round, which filing dates have recently been extended. HDC Allocation Applications will have to be submitted to the Highlands Council by October 7, 2010, for consideration, while HDC Certificate Applications will have to be filed with the HDC Bank by November 4, 2010. The HDC Bank will consider those applications that qualify for hardship at its next meeting on December 2, 2010.

Comparing Land Preservation Programs

With this background on the Highlands TDR Program, it is important to understand how the TDR program compares to both the State Farmland Preservation Program and the Green Acres Program. It is also essential to keep in mind that the Green Acres Program is generally purchasing property in fee, while the State Farmland Preservation Program and the Highlands TDR Program are acquiring easements on property enrolled in that program. Consequently, for comparison purposes, examining the Highlands TDR Program average per acre values with that for the State Farmland Preservation Program is a more relevant comparison.

The chart below provides the average per acre value associated with the three programs. In addition, the per acre data associated with the Highlands TDR Program is further broken out to reflect the average per acre values for those properties that have received an HDC allocation, and the average per acre value for those properties that received an offer by the HDC Bank to acquire their credits.

Table 3 – Average per Acre Costs of Existing Preservation Programs

Preservation Program	Per Acre Avg.
SADC - Farmland Preservation (Highlands Parcels Only)	**$ 9,815.88**
Green Acres (Highlands Parcels Only)	**$ 10,264.68**
Highlands TDR - Allocated HDCs (12 parcels)	**$ 13,281.00**
• Highlands TDR - HDCs Hardship Offers Accepted (entirety of 3 parcels)	**$ 8,967.00**
Highlands TDR - Estimated HDCs from HDC Estimator (3,321 residential parcels in Preservation Area comprising 82,263.93 acres)	**$5,696.20**

While the per acre values to be realized by individual property owners vary due to the pre-Highlands Act development potential of their parcels, it is noteworthy that, on average, the per acre values for those properties that received an HDC allocation are similar to those being offered through the State Farmland Preservation Program. Consequently, each of the three programs offer comparable per acre values that allow a landowner to pursue the preservation option that best meets their needs and the characteristics of their property.

Moving Forward

While the efforts of the federal government, the State and its county, municipal and non-profit partners have achieved preservation of over one third of the Highlands Region, there remain valuable open space and farmland parcels which have not been preserved to date and which have lost development potential because of the restrictions in the Highlands Act and NJDEP's Highlands rules. Going forward, the Highlands Council along with the other State programs, local governments and the non-profit community will have to continue their efforts through fee or easement acquisitions.

It is critical for the Highlands Council and the other preservation partners to understand where funding should be targeted to realize the greatest return in terms of both the quantity and quality of lands preserved. As part of this effort, it is important to know the scope of what needs to be preserved. The following discussion focuses on extent of unpreserved lands remaining in the Highlands Region, and in particular, within the Preservation Area, and the potential costs of acquiring those lands.

Extent and Cost of Remaining Unpreserved Lands

There remain a number of large parcels in the Highlands Region which have not previously been preserved and which may be considered for preservation depending upon the Highlands resources present onsite and the extent of existing onsite development. For example, as seen in the table below, there are 157 parcels in the Preservation Area that are 100 acres or greater in size while there are 300 such parcels in the Planning Area, and 84 parcels 100 acres or greater in size that are split between the Preservation and Planning Areas. Together, these 541 parcels consist of 122,022 acres. A breakdown of unpreserved parcels sizes and their associated acres are listed in the table below:

Table 4 - Breakdown of Unpreserved Parcels in Highlands Region (Undeveloped and Developed)

Acre Class	Area	Preservation Acres	Planning Acres	Parcel Count
5 acres to 14.99	Planning	0	52,475	6,454
5 acres to 14.99	Preservation	38,484	0	4,781
5 acres to 14.99	Pres Plan	1,314	533	217
Totals		39,798	53,008	11,452
15 acres to 24.99	Planning	0	24,088	1,256
15 acres to 24.99	Preservation	16,457	0	858
15 acres to 24.99	Pres Plan	653	411	55
Totals		17,110	24,499	2,169
25 acres to 49.99	Planning	0	34,353	987
25 acres to 49.99	Preservation	25,512	0	730
25 acres to 49.99	Pres Plan	1,174	647	53
Totals		26,685	35,000	1,770
50 acres to 99.99	Planning	0	42,269	612
50 acres to 99.99	Preservation	22,679	0	336
50 acres to 99.99	Pres Plan	1,479	1,259	40
Totals		24,159	43,528	988

Acre Class	Area	Preservation Acres	Planning Acres	Parcel Count
100 acres or greater	Planning	0	58,035	300
100 acres or greater	Preservation	29,752	0	157
100 acres or greater	Pres Plan	16,005	18,230	84
Totals		45,757	76,265	541
Totals for all parcels		**153,509**	**232,300**	**16,920**

Using the information derived from the per acre costs for each of the preservation programs, an average per acre value can be developed and then applied to the remaining unpreserved acreage in the Highlands Region to determine the total cost of preserving these lands. The result of averaging the per acre costs of the three preservation programs is of $10,072 per acre. Applying this per acre value to the acreage associated with those parcels 50 acres or greater in size that remain unpreserved results in an estimated preservation cost of $1.91 billion ($704 million for the Preservation Area and $1.21 billion for the Planning Area). Applying this per acre value to all remaining unpreserved parcels results in a cost of **$1.57 billion for the Preservation Area and $2.34 billion for the Planning Area**. Taken together, it would cost $3.91 billion to preserve all remaining unpreserved parcels in the Highlands Region that are 5 acres or greater in size. Fortunately, not all of that acreage will need to be preserved as many of the properties are already developed in some fashion.

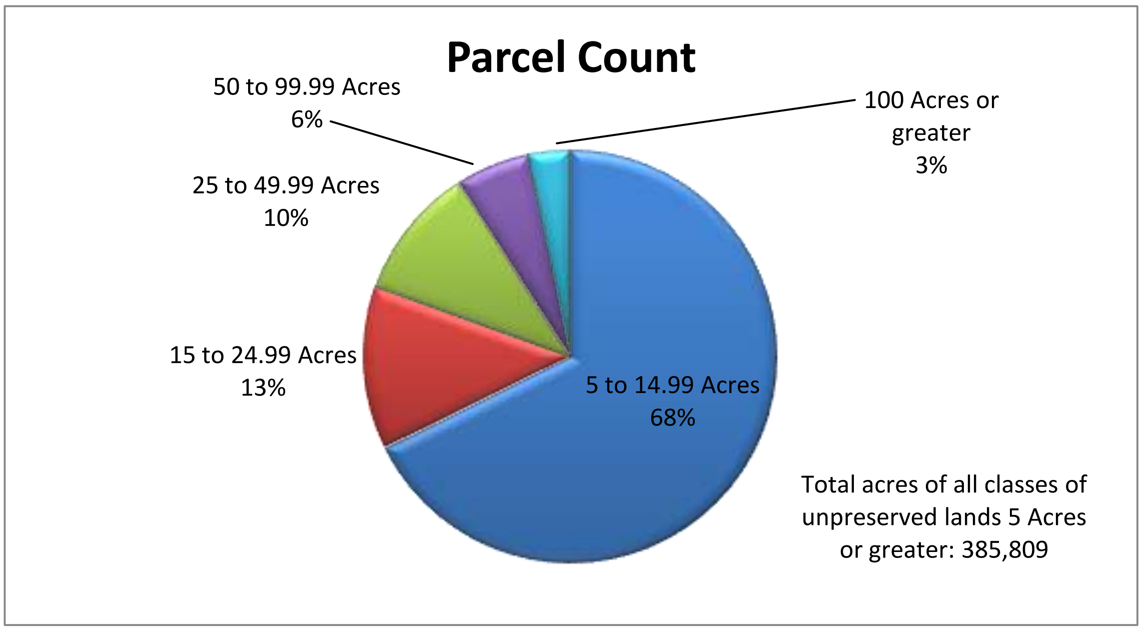
These numbers can be further refined by focusing on those residentially zoned parcels in the Preservation Area that are eligible for HDC allocation consideration by the Highlands Council. To be eligible for consideration, a parcel must be at least 5 acres in size or the land area of the parcel must be at least three times the minimum lot size in effect on August 9, 2004. Importantly, these are parcels that have some amount of development potential remaining after applying pre-Highlands Act environmental laws and regulations and municipal zoning. Filtering the Preservation Parcel data by these criteria, and excluding those lands that are already preserved results in 3,207 parcels consisting of 75,399 acres, which are eligible for allocation consideration. The table below examines the cost of preserving these lands in light of the initial $16,000 HDC price.

Table 5 - Summary of HDC Data by Parcel Size Class

Acres	Total Acres of Class	Parcel Count	Low HDC Estimate	Low Value	High HDC Estimate	High Value
0 to 4.99	1,574	714	2,020	$ 32,320,000	3,198	$ 51,168,000
5 to 14.99	10,685	1,237	3,243	$ 51,888,000	6,161	$ 98,576,000
15 to 24.99	7,929	408	2,120	$ 33,920,000	3,355	$ 53,680,000
25 to 49.99	17,126	485	4,720	$ 75,520,000	6,319	$ 101,104,000
50 to 99.99	17,066	254	4,315	$ 69,040,000	5,040	$ 80,640,000
100 or greater	21,019	109	6,704	$ 107,264,000	7,025	$ 112,400,000
Totals	**75,399**	**3,207**	**23,122**	**$ 369,952,000**	**31,098**	**$ 497,568,000**

This analysis suggests that preserving the **75,399 acres in the Preservation Area** that are eligible for HDC allocation consideration will cost **between $370 million and $498 million**. This is likely a more realistic cost projection because the parcels assessed are those that have limited or no development and are more likely to be considered for preservation. In addition, many of the smaller parcels will not lose any equity, as they are eligible for the use of Highlands Act exemptions. Such parcels may actually increase in value due to market demands. Where this is true, compensation may be neither demanded nor desired.

With an understanding of the potential scope and costs of preservation, it is important to examine the data to determine how the State may best leverage its GSPT funds to realize the best return for the citizens of the State. Using the information from Table 4 above, the pie chart below illustrates the distribution of parcel classes based upon parcel count among Highlands Region lands not currently preserved and which are at least 5 acres in size.



The following pie chart then illustrates the various parcel size classes as a percentage of the total acreage of land within these classes.

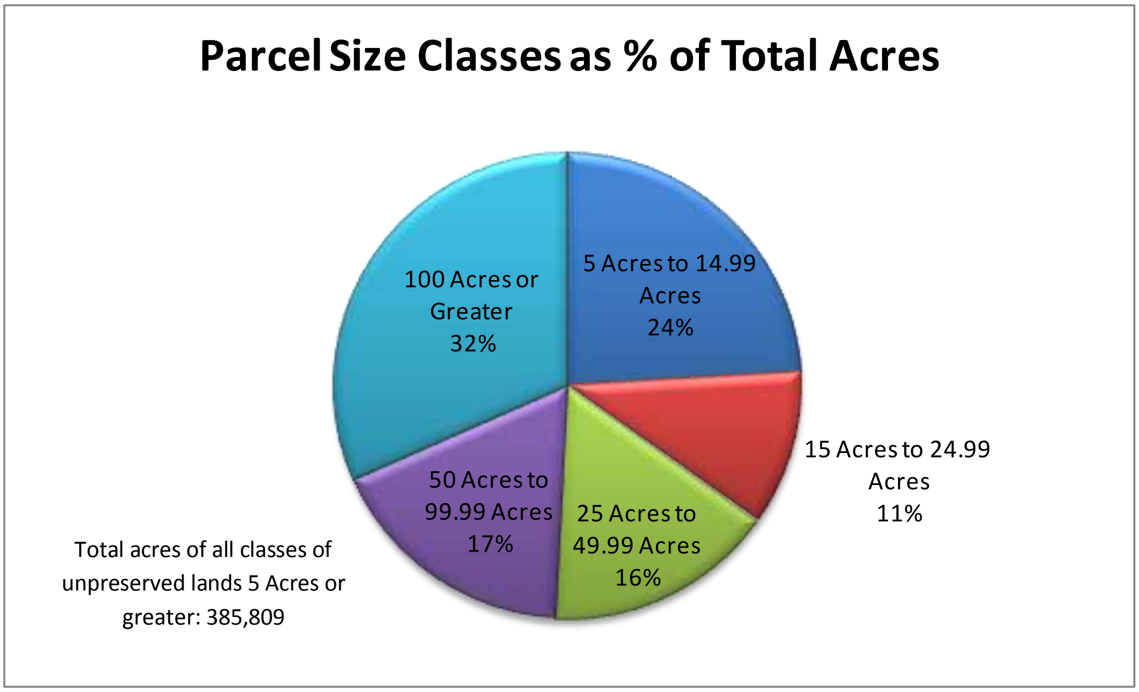


Table 4 above along with the pie charts illustrate that, while those parcels 100 acres or greater in size and 50 acres to 99.9 acres make up the smallest number of parcels (together only 9% of parcels surveyed), they comprise the greatest amount of acreage totaling nearly 190,000 acres. Given this circumstance, the data suggests that using funds from the Garden State Preservation Trust (GSPT) to focus on those parcels may be the best use of State monies.

First, these two parcels size classes represent the greatest acreage of what remains to be preserved. Using GSPT funding authorized through the Green Acres, Water Supply and Floodplain Protection, and Farmland and Historic Preservation Bond Act of 2009, these programs can target those parcels that consist of the largest unpreserved tracts which satisfy their respective programs' criteria. In this manner, the State is acquiring the greatest acreage in light of the resource values present on site.

Second, by targeting these larger unpreserved parcels, the State will likely reduce administrative costs because it will be dealing with the least number of landowners. If the State targets funding on these parcel classes, the it would make sense for the Highlands TDR Program to play a greater role in acquiring HDCs from the smaller parcels.

Third, targeting large parcels also results in fewer management costs for ongoing review of easements (in the case of agricultural lands) or ongoing maintenance (in the case of open space).

In the long term, the most cost effective program is that which does not use State money. In that case, if and when the Highlands TDR Program is fully functioning with viable voluntary receiving zones, then it will be the most cost effective way for the State to preserve lands in the Highlands Region as the majority of funding will come from private transactions.

Examining the data and analyses from above regarding the three programs, one means of determining which program is most cost effective is by assessing which program can acquire the most acreage for the least amount of money. Based upon the State land preservation data for the Preservation Area since adoption of the RMP, the Highlands TDR Program through the HDC Bank's hardship acquisition appears the most cost effective. For every $1,000 spent, the HDC Bank is able to acquire 0.13 acres. In comparison, the State Farmland Preservation Program is able to acquire 0.10 acres per $1,000 spent while the Green Acres Program is able to acquire 0.097 acres per $1,000. (Of course, the Highlands TDR Program has a limited sample size with only 5 parcels, while SADC has 56 parcels involved and the Green Acres Program has 30 parcels.)

Conclusion

The State and its partners have been engaged in a tremendous land preservation effort in the Highlands Region that continues despite the current economic downturn and the State's fiscal situation. To date, the State and its partners have preserved 290,214 acres of open space and farmland in the Highlands Region representing over one third of the Region. More significantly, 194,344 acres or nearly 47% of the Preservation Area is now preserved in perpetuity and off limits to future development.

This acreage represents a significant investment by the citizens of New Jersey. Using the average per acre costs for preserved open space and preserved farmland set forth in the RMP for determining the five and ten-year preservation cost projections, the value of the rights acquired in the 290,214 acres would amount to $2.2 billion. Using the more recent average per acre costs based upon land acquisitions since adoption of the RMP, the value of the rights acquired in these preserved lands amounts to $3.38 billion.

With the passage of the Green Acres, Water Supply and Floodplain Protection, and Farmland and Historic Preservation Bond Act of 2009, monies are available for continued open space and farmland acquisitions. In addition, with the adoption and implementation of the Highlands TDR Program, Preservation Area landowners, particularly those facing extenuating financial circumstances, are able to seek HDC allocations and possible purchase by the HDC Bank. Importantly, while the per acre values to be realized by individual property owners vary due to the pre-Highlands Act development potential of their parcels, it is noteworthy that, on average, the per acre values for those properties that received an HDC allocation are similar to those being offered through the State Farmland Preservation Program. Consequently, each of the three programs offer comparable per acre values that allow a landowner to pursue the preservation option that best meets their needs and the characteristics of their property.

Additional work remains to be done to ensure the long-term preservation of the Highlands Region's ecological and agricultural integrity. There are a number of large, remaining unpreserved parcels that, depending upon a parcel's resource value and existing level of development, will need to be acquired. The cost of this effort will be significant, amounting to nearly $4 billion if every unpreserved parcel 5 acres or greater in size is accounted for. Fortunately, not every parcel will require that it be acquired in fee or have its development rights purchased. As discussed in the RMP, the more likely ten-year cost projection is $1.3 billion for the preservation of 92,360 acres of priority conservation lands and 70,197 acres of priority farmland. Regardless of the total acreage to be preserved, this report indicates that the State must continue to build on its historic investment in the Highlands Region to ensure protection of the Region's critical water supply and important agricultural resources.