

Conservation Easements: Conserving Land, Water, and a Way of Life

WATERSHED AGRICULTURAL COUNCIL (WAC) 2017 FILTRATION AVOIDANCE DETERMINATION (FAD) RECOMMENDATIONS



The former Swantak Farm

Prepared by:

Watershed Agricultural Council
Conservation Easement Program
nycwatershed.org





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Conservation Easements: Conserving Land, Water, and a Way of Life

Executive Summary

Since its inception in 2001, The Watershed Agricultural Council's (WAC) Agricultural Conservation Easement (ACE) Program has protected 22% (24,699 acres) of the 288 working farms' eligible easement acres (111,999 acres) in the Catskill/Delaware basins of the New York City Watershed. This accomplishment marks one of the largest private land protection efforts in New York State.

WAC's easements are not limited to farmland. July 1, 2015, marked the commencement of WAC's Forest Conservation Easement (FCE) Pilot Program. WAC initiated this effort by soliciting 119 forest landowners (27,888 acres) who have both a WAC Forest Management Plan (FMP) and are currently enrolled in NYS 480a Forest Tax Law. Within a year, 12 landowners (3,319 acres) have formally engaged WAC in the development of a Forest Conservation Easement. WAC expects its Forest Conservation Easement Program to perform equally, if not surpass the success of the Agricultural Conservation Easement Program if it is given the time and resources to develop. In order to fully assess the potential of the Forest Conservation Easement Pilot Program, WAC recommends the following addition to the 2017 Filtration Avoidance Determination (FAD):

FAD Recommendation #1: *WAC and NYC DEP shall evaluate the effectiveness of the Forest Conservation Easement Pilot Program and submit respective recommendations for its continuation to NYSDOH/EPA and NYSDEC no later than July 1, 2018 or immediately upon acquisition of 1,250 acres of Forest Conservation Easement (FCE) lands. If a determination is made by NYSDOH/EPA and NYSDEC to move beyond a pilot, remaining earmarked funds, as well as additional program funds totaling \$15 million shall be contracted to support the FCE program. If it is determined not to continue the program, all unused funds are to be returned to the City.*

WAC estimates a total of 87,300 acres of priority farmland remain un-eased in the Watershed. In addition, there are 126,812 acres of priority forest-land that have the potential to be eased. Collectively, WAC can target 214,252 acres for future farm and forest easement solicitation. Based on WAC's historic Agricultural Conservation Easement conversion rates, there is an opportunity to ease at least 47,135 acres out of the 214,253 acres targeted for solicitation. In order to continue the success of the Agricultural Conservation Easement program WAC recommends the following addition to the 2017 Filtration Avoidance Determination (FAD):

FAD Recommendation #2: *Execute a contract with the WAC to provide \$18 million in supplementary funds to the Agricultural Conservation Easement (ACE) Program for the duration of the 2017 FAD.*

Research indicates that aging demographics will spur a significant transition of farm and forest land in the next 10 years. Eighty-five percent (85%) of family forest owners in the Watershed are over 50 years of age and 40% over 65. Eighty-three percent (83%) of farmers in New York are over the age of 45 and 29% are over 65. This transition of land between generations represents a substantial challenge for maintaining water quality because land transition is frequently accompanied by subdivision and development. Providing landowners with the opportunity to preserve family land through a conservation easement is an important component of estate planning and vital for protecting water quality.

Adding to the challenge of transitioning lands is the difficulty WAC has preserving farms owned by people in financial distress who are at high risk of liquidating their land. The significant amount of time WAC needs to ease a property means that landowners who are desperate to sell an easement are often unable to do so because they need financial relief immediately. This also means WAC is unable to protect the land that presents the greatest threat to water quality. In order to protect lands that pose the greatest threat to water quality, WAC recommends the following addition to the 2017 Filtration Avoidance Determination (FAD):

FAD Recommendation #3: *Provide a contingency fund to WAC to secure in-fee interests on at-risk/transition lands with BMP investments. Such lands will be transitioned to new operations consistent with a WFP and are to be encumbered by a WAC Conservation Easement upon conveyance.*

Current Status: Where are we now?

Agricultural Easements

Since 2001, The Watershed Agricultural Council's (WAC) Agricultural Conservation Easement (ACE) Program has expanded to include more than 24,000 acres of Watershed farms. Through this Program farmland serving more than 100 of the 288 working farms in the Catskill/Delaware Watershed has been protected. WAC has eased 22%¹ (24,699 acres) of the eligible easement acreage (111,999 acres) solicited thus far. This achievement marks one of the largest private land protection efforts in New York State.

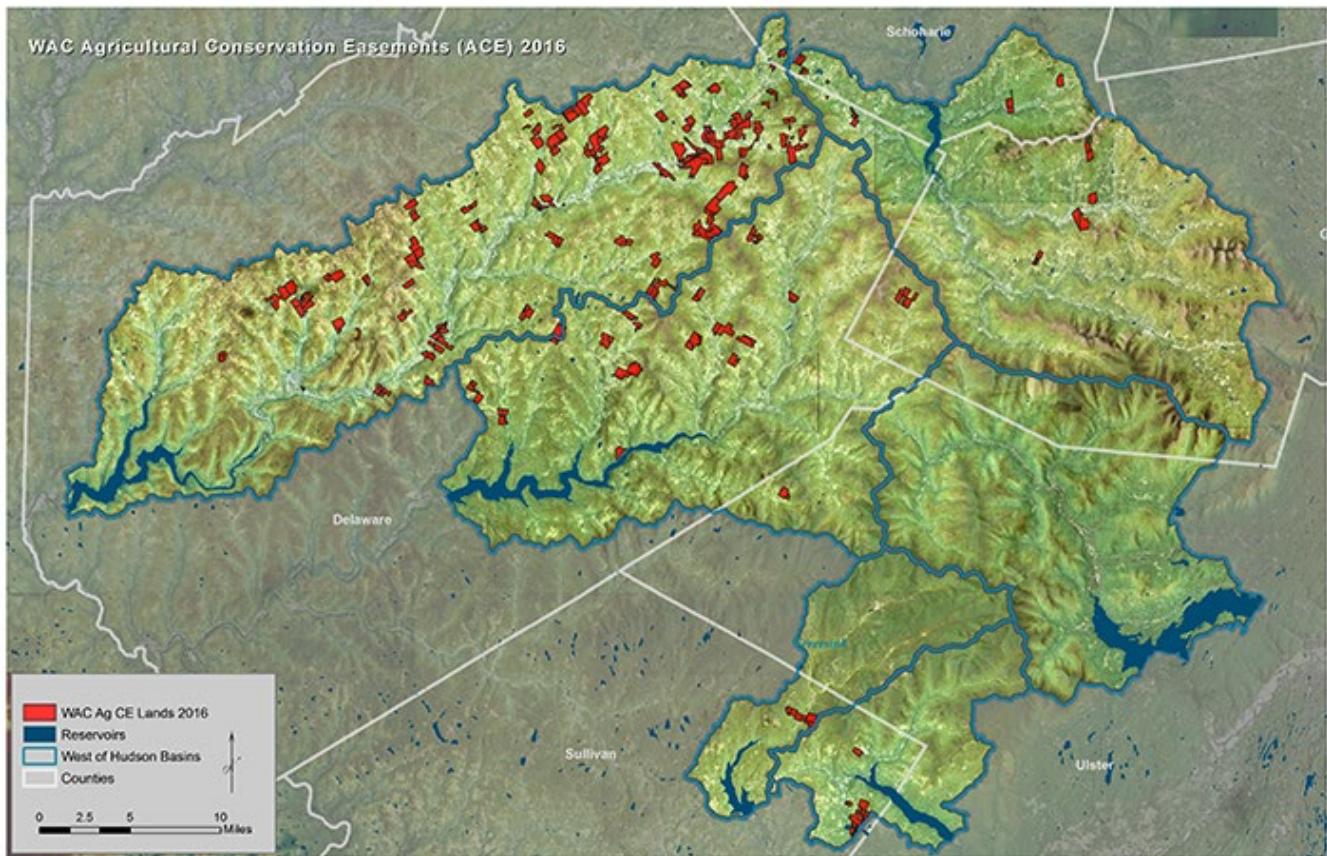
Acquiring easements is just the beginning. The perpetual stewardship of these easements is equally important. WAC's Easement Stewardship Program currently monitors 166 Properties covering 24,699 acres, annually. Stewardship begins with annual monitoring visits (AMV) to ensure the terms and conditions of the easement are upheld. In addition, WAC monitors all agricultural activities on eased farms to ensure consistency with Whole Farm Plans created by the Watershed Agricultural Program (WAP). The WAP employs a science based approach to mitigate non-point source pollution through the implementation of agricultural Best Management Practices (BMP). Combining the efforts of the WAC Easements Program with the efforts of WAP ensures water quality is protected while farms continue to contribute to the regional economy.

Beyond routine annual monitoring the WAC Easement Stewardship team works with landowners to activate reserved rights on their eased properties. Reserved rights allow landowners to realize opportunities for aesthetics, recreation, living amenities and working lands economic initiatives. The most common reserved right requests on WAC eased lands include commercial timber harvesting, bluestone mining, and stream work.

From 2014 to 2016 there have been 20 approved Commercial Timber Harvests on WAC Agricultural Conservation Easements. These harvests covered more than 1,200 acres and yielded over one million board feet of timber and 500 cords of firewood. Each harvest is monitored by WAC's Stewardship team before, during and after logging to ensure water quality is protected. In the same way easement farmers work with WAP to comply with Whole Farm Plans, loggers work with WAC's Forestry Program to plan and implement forestry Best Management Practices on each easement harvest. With respect to these harvests 16 miles of logging trails were stabilized with 750 water bars, preventing erosion and protecting water quality.

Recognizing the significance of perpetual stewardship NYC DEP has provided WAC with a 43 million dollar stewardship endowment. As WAC continues to acquire easements over the term of the next FAD, WAC's Stewardship Program will require evaluation to ensure stewardship capacity maintains pace with easements acquisition. WAC's stewardship contract with NYC DEP calls for both a 5-year review of stewardship efficiency as well an independent qualified third party comprehensive study of WAC's Conservation Easement Program.

¹ WAC's ACE solicitation conversion rate: 24,699 acres/111,999 acres = .22 or 22% (24,699 acres of WAC Agricultural Conservation Easements divided by 111,999 acres of WAP farms targeted for potential easements equals 22%)



Pilot Forest Easement Program

While agriculture remains a top priority, WAC is expanding its efforts with Forest Conservation Easements. With 79%² (776,533 acres) of the Catskill/Delaware Watershed covered by forest, this initiative targets the dominant land use in the region.

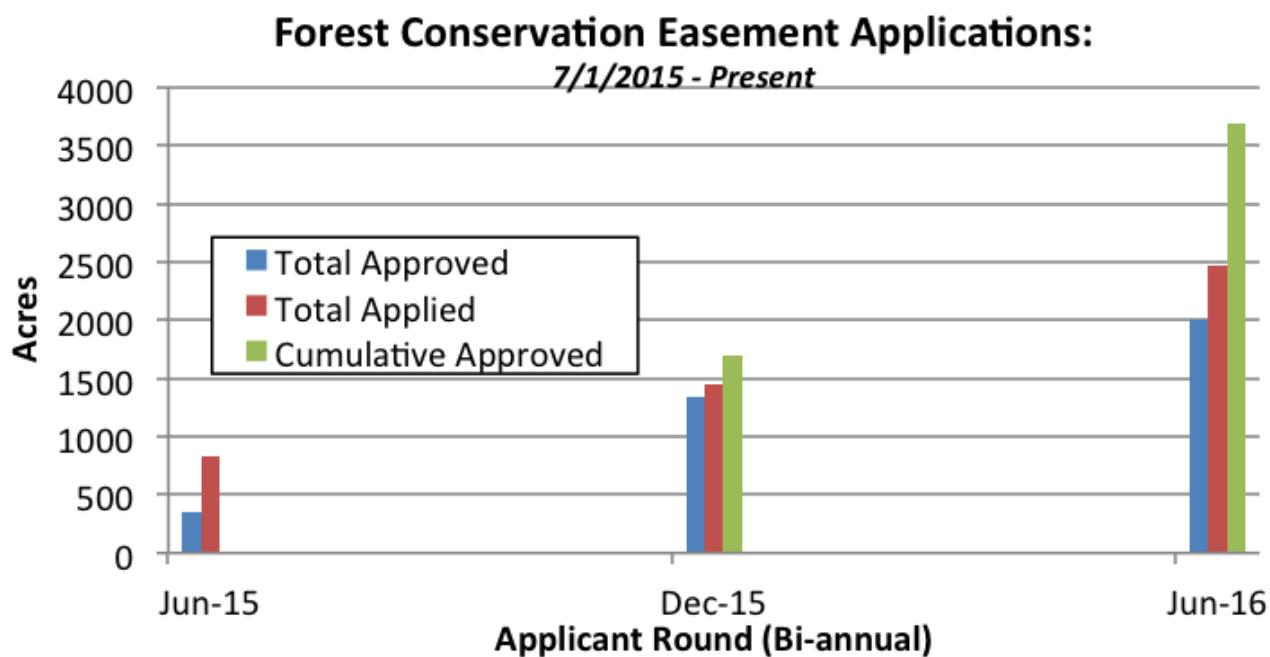
First conceived in 2005, WAC's Forest Conservation Easement Pilot Program was included in the 2007 Filtration Avoidance Determination (FAD). The 2007 FAD directed NYC DEP to execute a contract with WAC “to undertake a pilot program to acquire conservation easements on forested portions of non-agricultural properties.” (2007 FAD) Originally to be funded in April 2008, the Forest Easement Pilot contract between WAC and DEP was not actually executed and funded until June 27th and August 15th, 2013, respectively. This new contract (WAC05) required that “... guidelines for the Forestry Component shall be duly adopted by WAC by June 30, 2015” prior to commencing the Forest Conservation Easement pilot. Over the next two years WAC set about creating and approving, through unanimous consent, the following guidelines: Forest Harvest Plans (8/6/14), Amendments (11/5/14), Conservation Easement Monitoring (1/7/15), Land Plan Development (5/6/15) and Applicant Selection (5/6/15).

With approved guidelines in hand, WAC staff was finally positioned to solicit landowners interested in easing their forestland. July 1, 2015 marks the first application round and the commencement of the Forest Conservation Easements Pilot Program. WAC began by targeting forest landowners who completed a Watershed Forest Management Plan and enrolled in the 480a Forest Tax Law. Staff mailed a solicitation letter to 119 people who own 27,888 acres

² Source NYC DEP Land Cover Acreage and Percent in the NYC West – and East of Hudson Watersheds from 2009 Aerial Data Collection

of forest land. Twenty (17%)³ of these forest landowners submitted applications totaling 4,737 acres. Twelve of these applications covering 3,319 acres were approved to continue with the development of a Forest Conservation Easement. Based on these results WAC expects its Forest Conservation Easement to perform equally, if not surpass the successes of the Agricultural Conservation Easement if it is given the time and resources to develop. WAC's historic conversion rate between offers and closings is 56%⁴. Using this as a point of reference we anticipate closing on ~1,800 acres of forest land currently in Forest Conservation Easement negotiations.

Launching a pilot program is a delicate process. It's crucial to generate awareness to gauge interest, but it's also important not to overreach and create inequalities between landowner interest and available funds. With \$6M earmarked for the Forest Conservation Easement Pilot Program (minus soft costs), WAC has sufficient funding to encumber approximately 2,500 acres of forest land.



The 2007 Mid-term FAD Review (2013) recommends the evaluation of the Forest Conservation Easement Pilot Program 4 years and 3 months after commencement. Proper evaluation requires the assessment of all aspects of the easement acquisition process, from solicitation to closing. Given the deadline prescribed, initial review and recommendations are set to occur in the summer of 2017. However, the time spent developing the Forest Conservation Easement pilot contract with DEP and subsequent guidelines, delayed the start of solicitation and the commencement of the program. WAC recommends an extension of the deadline for this evaluation in order to allow for the completion of the entire acquisition process on a significant amount of land in order to facilitate a meaningful evaluation.

³ Offers conversion rate: 20 landowners/119 landowners = .168 or 17% (see Frequently Asked Questions for more explanation)

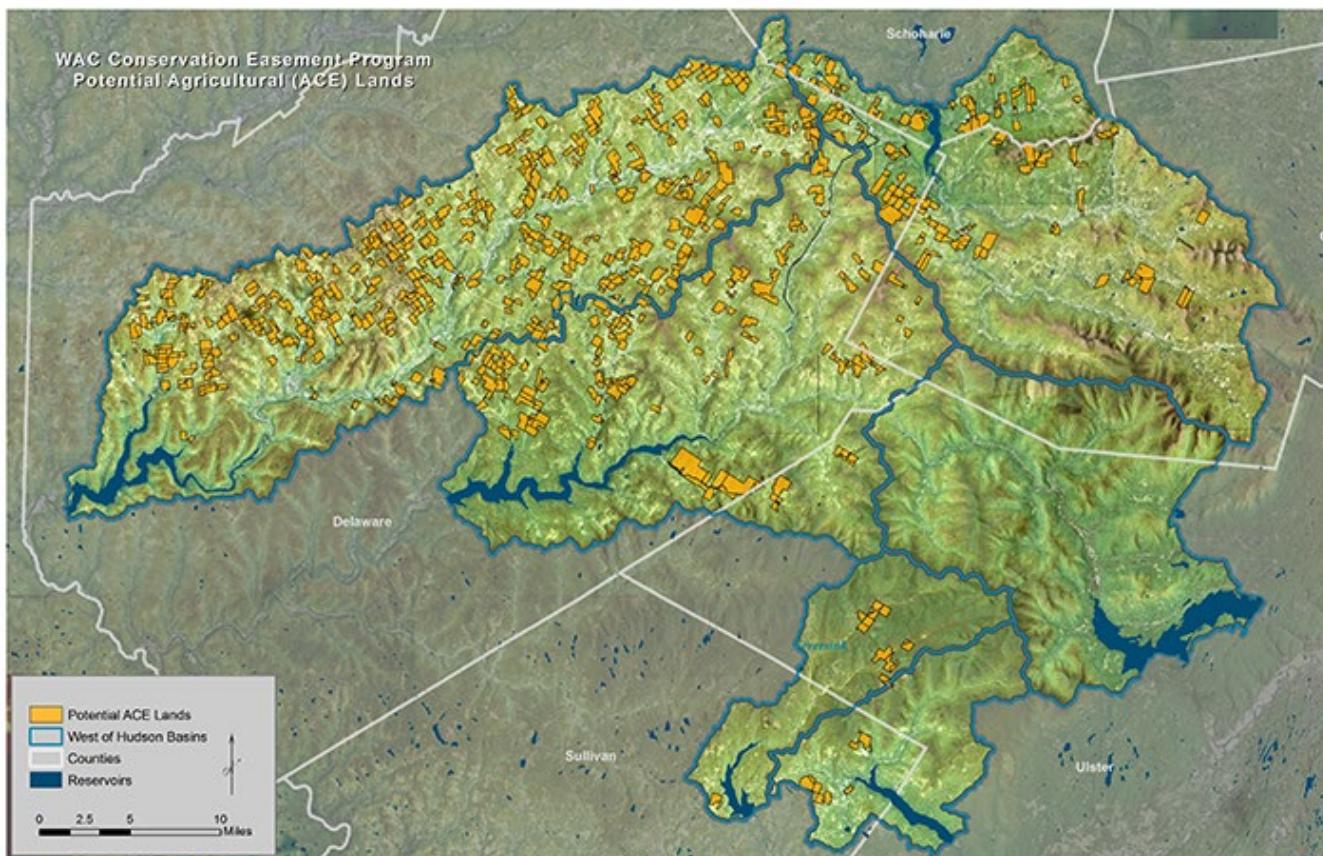
⁴ Based on 2010 to 2015 WAC Easement Program Database: 37 applications received/21 closings = .56 or 56%

FAD Recommendation #1: WAC and NYC DEP shall evaluate the effectiveness of the Forest Conservation Easement Pilot Program and submit respective recommendations for its continuation to NYSDOH/EPA and NYSDEC no later than July 1, 2018 or immediately upon acquisition of 1,250 acres of Forest Conservation Easement (FCE) lands. If a determination is made by NYSDOH/EPA and NYSDEC to move beyond a pilot, remaining earmarked funds, as well as additional program funds totaling \$15 million shall be contracted to support the FCE program. If it is determined not to continue the program, all unused funds are to be returned to the City.

The Opportunity: Where can we go?

The Future of WAC's Agricultural Easements

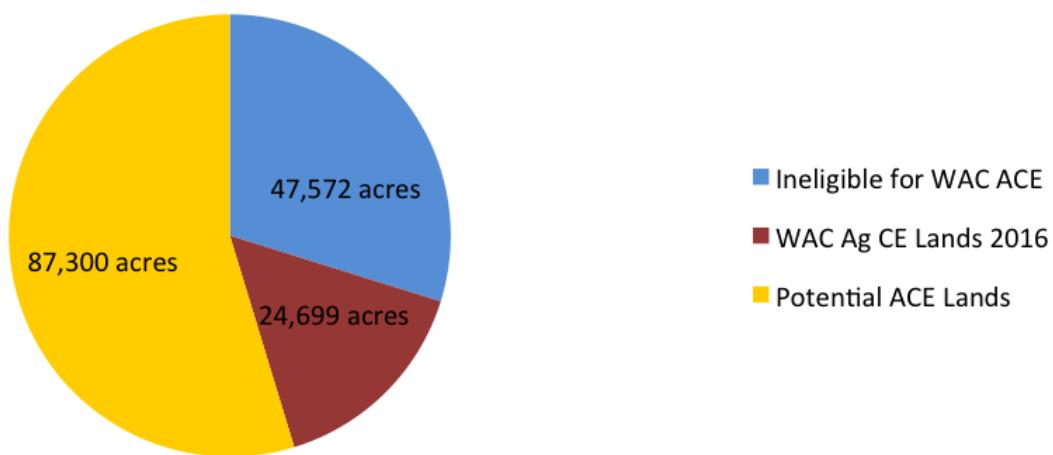
There are 288 farms, (159,571 total acres) participating in the WOH Watershed Agricultural Program (WAP). 69%⁵ (111,999 acres) of these working farmlands have a minimum score of 35 using the Agricultural Conservation Easement scoring criteria. These 111,999 acres represent the land targeted by WAC for an easement since 2001 and includes the 24,699 acres of farmland protected by a WAC Agricultural Conservation Easement. WAC has been able to convert 22%⁶ of the acreage targeted for solicitation to date.



⁵ 111,999 acres with a minimum ACE score of thirty-five /159,571 acres participating in WOH WAP = .69 or 69%

⁶ WAC's ACE solicitation conversion rate: 24,699 acres/111,999 acres = .22 or 22% (24,699 acres of WAC Agricultural Conservation Easements divided by 111,999 acres of WAP farms targeted for potential easements equals 22%)

WAC Conservation Easement Program Potential Agricultural (ACE) Lands



After 15 years of acquisition, 78% (87,300 acres) of eligible, qualified farmland remains uneased. This land includes both owner/operator farms and the supplemental lands supporting their operations. To some it may appear that the opportunity to preserve this land is diminishing as willing landowners choose to ease while the unwilling pass on the opportunity. But the lives of targeted landowners may change and the decision to sell an easement can change along with it. Maintaining the funding for acquisition of Agricultural Conservation Easements is necessary as long as a significant amount of targeted land remains uneased. This is poignantly demonstrated by the experiences of the Darlings below:

Darling Farm: Robert and Ruth Darling are fifth generation farmers. Their family has operated their farm in Andes, a mile from the Pepacton Reservoir, since 1849. They were among the first participants in the Watershed Agricultural Program (WAP) in 1996. Their 378 acre farm is one of the last in the Fall Clove Valley. They rent an additional 198 acres to support a herd of 180 Jersey cows along with 142 calves. Working with WAP they have installed 44 Best Management Practices (BMPs) to protect the drinking water for 9 million New Yorkers. These BMPs include manure storage, erosion control measures, calf housing and nutrient management to name just a few.

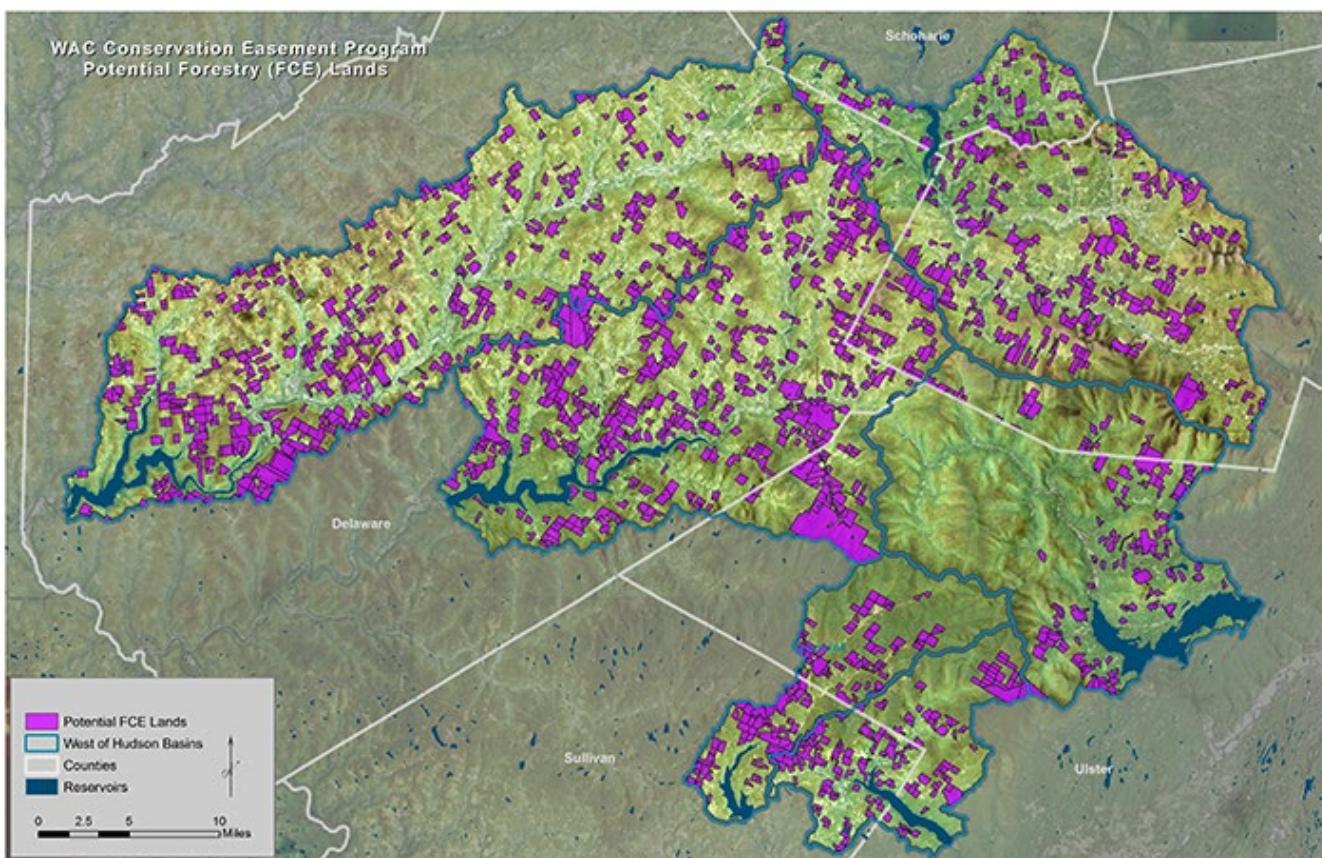
Over the years the Darlings have discussed the possibility of a conservation easement with WAC but the timing never seemed right. Now they are trying to figure out how to pass their farm along to the next generation of Darling farmers, Amber and her husband Jason. After 16 years they're ready to transition their farm to the next generation.

The Future of WAC's Forest Easements

Forests cover 79%⁷ (776,533 acres) of the Catskill/Delaware Watershed and 68%⁸ (528,042 acres) of this forest land is privately owned. Factoring in Forest Conservation Easement general eligibility and scoring criteria, 24%⁹ (126,952 acres) of privately owned forest land has a minimum score of 35. This acreage represents the land WAC can target for a Forest Conservation Easement. Current pilot Forest Conservation Easement efforts indicate WAC will be as successful easing forest land as it has been easing farm land. Applying WAC's Agricultural Conservation Easements 22%¹⁰ solicitation conversion rate WAC can expect the opportunity to ease as much as 27,929¹¹ acres of forest land in the Watershed. The chance to ease so much forest land comes at an opportune time.

According to the US Forest Service “our country’s private forests are at a critical turning point; **one sixth of America’s family owned acres of forests are expected to change hands in the next five years**. More than 60% of current forestland owners are age 55 or older and about half of them have already retired. Without proper estate planning, forced liquidation of family forests … is a distinct possibility.” (US Forest Service)

The liquidation of family forests equates to the subdivision of land as a new generation of landowners struggle with the desire or means to own forestland. Research shows that within 20 years of subdivision each new parcel will add, on average, 3,200 square feet of impervious surface (Anderson et al. 2012). Research also shows that water quality is harmed when as little as 2.4% of land is comprised of impermeable surface (Conway 2007, Schiff and Benoit 2007, Dietz and Clausen 2008).



⁷ Source NYC DEP Land Cover Acreage and Percent in the NYC West – and East-of Hudson Watersheds, from 2009 Aerial Data Collection

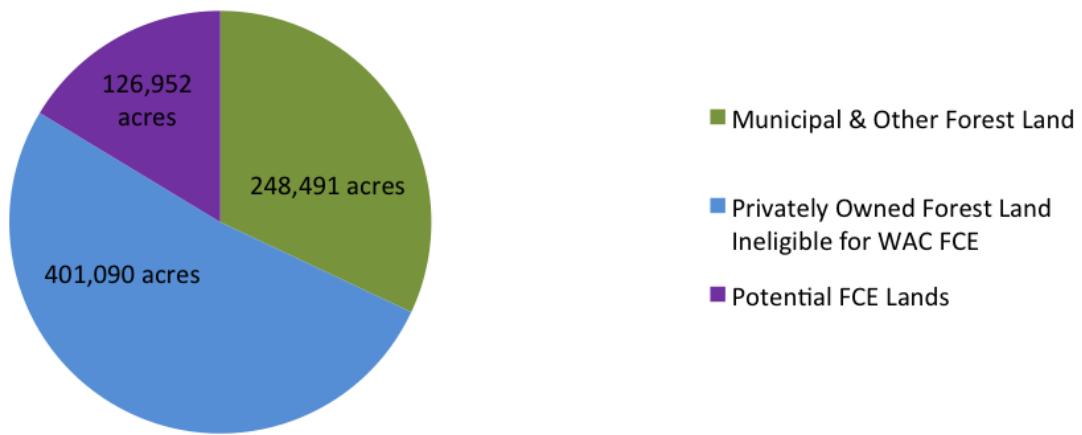
⁸ 528,042 acres to private forestland / 776,533 acres of total forest land = .68 or 68%

⁹ 126,952 acres with a minimum FCE score of thirty-five / 528,042 acres to private forestland = .24 or 24%

¹⁰ Solicitation conversion rate: 24,699 acres of WAC Agricultural Conservation Easements / 111,999 acres of farms targeted for potential easements = .22 or 22% (see Frequently Asked Questions for more explanation)

¹¹ 126,952 acres with a minimum FCE score of thirty-five * .22 = 27,929 acres

WAC Conservation Easement Program Potential Forestry (FCE) Lands



The NYC Watershed is not immune to this threat. Eighty-five (85%) of family forest owners in the Watershed are over 50 years of age and 40%, over 65. Since 68% of the forest land in the Watershed is family owned, a transition of more than 528,000 acres of forest land between generations is likely to occur; posing an actual water quality threat. Similarly, an aging farmer population also creates land transition issues and subdivision threats. Eighty-three percent (83%) of farmers in New York are over the age of 45, while 29% are over 65. The opportunity to conserve working lands through a conservation easement is a vital option in the estate planning process.

Morgan Family: The Morgan Family property owns a mix of former farm fields, upland meadows, woods, ponds, and a building site. Most of the woodland is enrolled in a New York State 480a Forest Tax Law. Lloyd Morgan bought the property, an old dairy farm, in 1968 from Clayton Terry. Lloyd passed away in 2001 and left the lands to his wife Janet and his two children Nils and Caitlin. The family now uses the property primarily as a retreat but harvest timber and quarry bluestone to help offset the taxes and other ownership costs.

Hoping to conserve their land the family contacted DEP. The family was happy to learn that WAC's new pilot Forest Conservation Easement may be able to help them. Even though the property is prime farm land, these lands are not eligible for a WAC Agricultural Conservation Easement because it is not an active farm. This property is a prime candidate for large lot subdivisions in the hands of a land investment company.

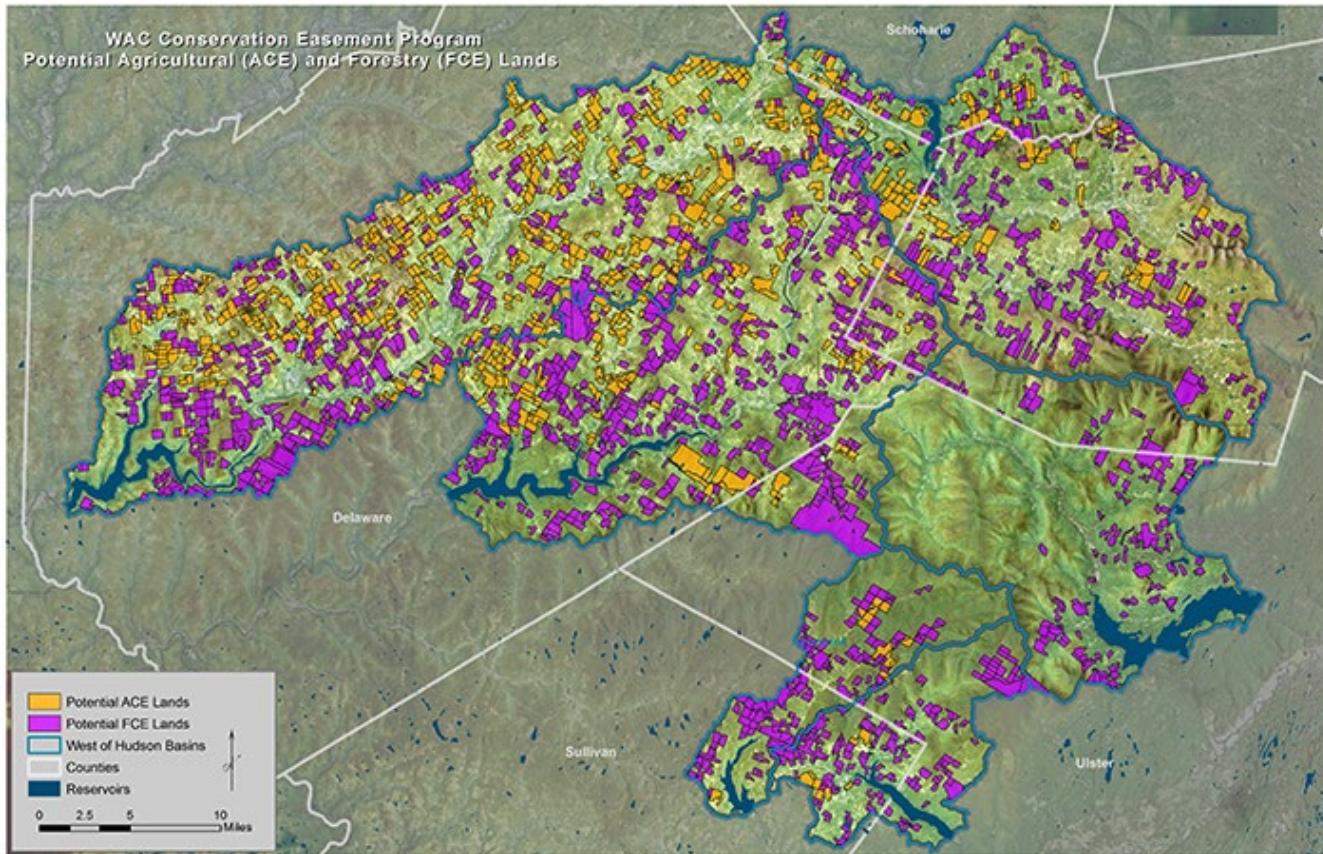
The 480a Forest Tax Law affords the property a degree of protection. 480a limits subdivisions to greater than 50 acres. According to WAC's appraiser the Morgan property could be subdivided into three parcels, each with a one acre home site, and remain in 480a. If this subdivision were to occur, WAC could expect to see 9,600 square feet of impervious surface (Anderson et al. 2012) established in the next 20 years. WAC's pilot Forest Conservation Easement will protect water quality by preventing this subdivision and ensure the property will continue to contribute to regional economic viability.

Positioning WAC with a Forest Conservation Easement Program to address the needs of transitioning families is a prudent step towards continuing to protect water quality for 9 million New Yorkers.

The Total Farm and Forest Opportunity

A total of 87,300¹² acres of farmland that score at least 35 using the Agricultural Conservation Easement criteria remains un-eased. A total of 126,952¹³ acres of forest land scoring at least 35 using the Forest Conservation Easement criteria also has the potential to be eased. The total farm and forest acreage WAC can target for easement solicitation is 214,252¹⁴ acres. Applying WAC's 22%¹⁵ solicitation conversion rate means conservatively WAC has the opportunity to ease an additional 47,135¹⁶ acres of Watershed farms and forests.

If WAC's current contract with DEP remains the same over the next 10 years WAC can expect to ease approximately 1,500 acres per year for a total of 15,000 additional acres. WAC's current DEP contract provides sufficient funding to acquire approximately 6,000 acres over the next 3-4 years. Delays in DEP contract development and contract payments have the potential to dramatically reduce the total amount of acreage WAC can ease over the next ten years.



¹² 87,300 acres of uneased WAP farmland that score at least 35 using the ACE scoring criteria

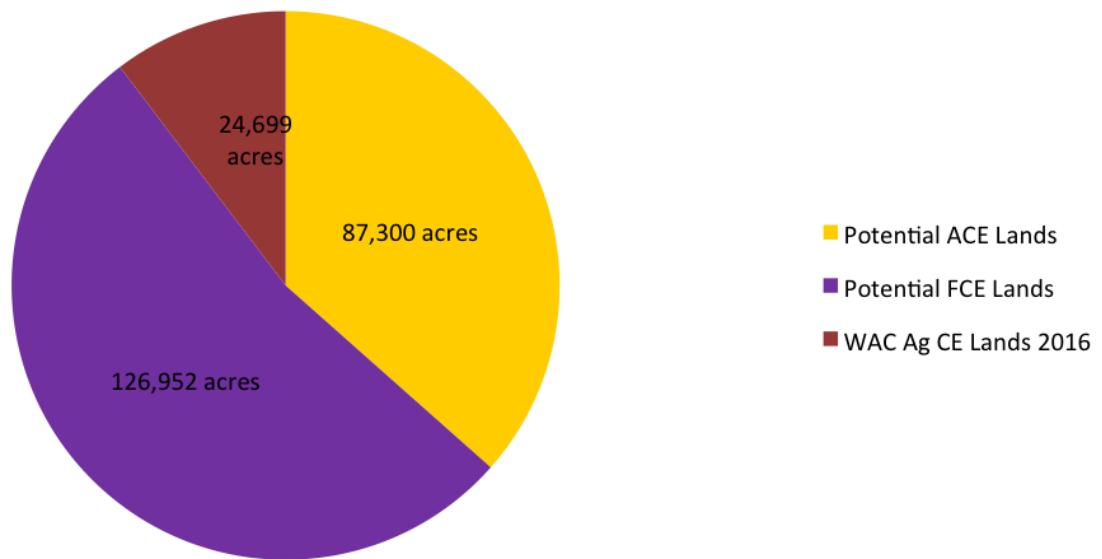
¹³ 126,952 acres of privately owned forest that score at least a 35 using the FCE scoring criteria

¹⁴ 87,300 acres of farm land + 126,952 acres of forest land = 214,252 acres

¹⁵ WAC's ACE solicitation conversion rate: 24,699 acres/111,999 acres = .22 or 22% (24,699 acres of WAC Agricultural Conservation Easements divided by 111,999 acres of WAP farms targeted for potential easements equals 22%)

¹⁶ 214,252 acres * .22 = 47,135 acres

WAC Conservation Easement Program Potential Agricultural (ACE) and Forestry (FCE) Lands



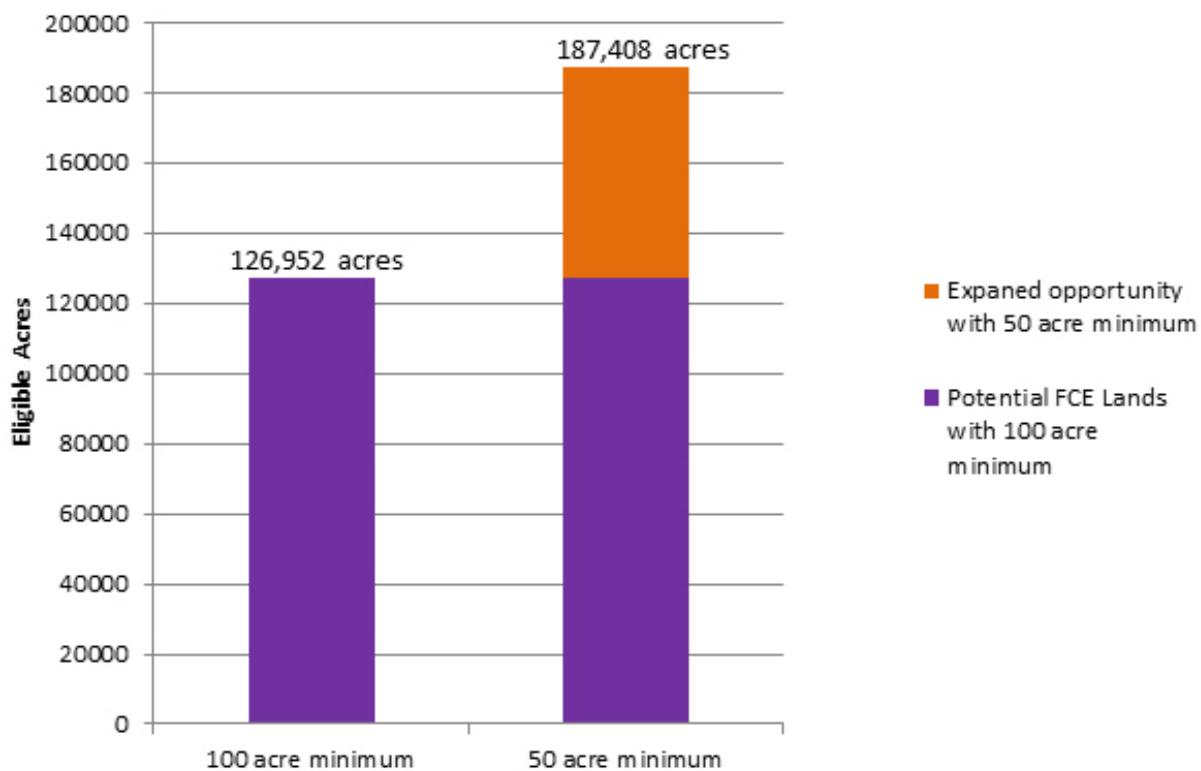
Expanding Future Opportunity

WAC may be able to protect even more land in the Catskill/Delaware Watersheds than the 214,252 acres it can currently target with its Conservation Easements solicitations. The properties WAC targets are limited by the Agricultural Conservation Easement and Forest Conservation Easement scoring criteria. Properties that score above a 35 are pursued while those scoring below are ignored. But what happens if we simply change the scoring criteria?

Beyond general eligibility, the weight given to elements of the scoring criteria dictates the amount of land WAC targets for solicitation. This point system includes elements such as parcel size, adjacency to other protected lands, the percentage of water resources, development potential and road frontage. Small shifts in criteria, like lowering the minimum acreage for the Forest Conservation Easement from 100 acres to 50 acres, can result in large increases in the amount of land WAC targets for solicitation. In fact, simply considering forested properties ranging between 50-100 ac. increases the eligible lands by an additional 60,456 acres (870+ landowners). Future evaluations of WAC's Agricultural Conservation Easement and Forest Conservation Easement Pilot Programs should focus on opportunity costs associated with current selection criteria.

FAD Recommendation #2: Execute a contract with the WAC to provide \$18 million in supplementary funds to the Agricultural Conservation Easement (ACE) Program for the duration of the 2017 FAD

Expand Future Opportunities for Forest Conservation Easements

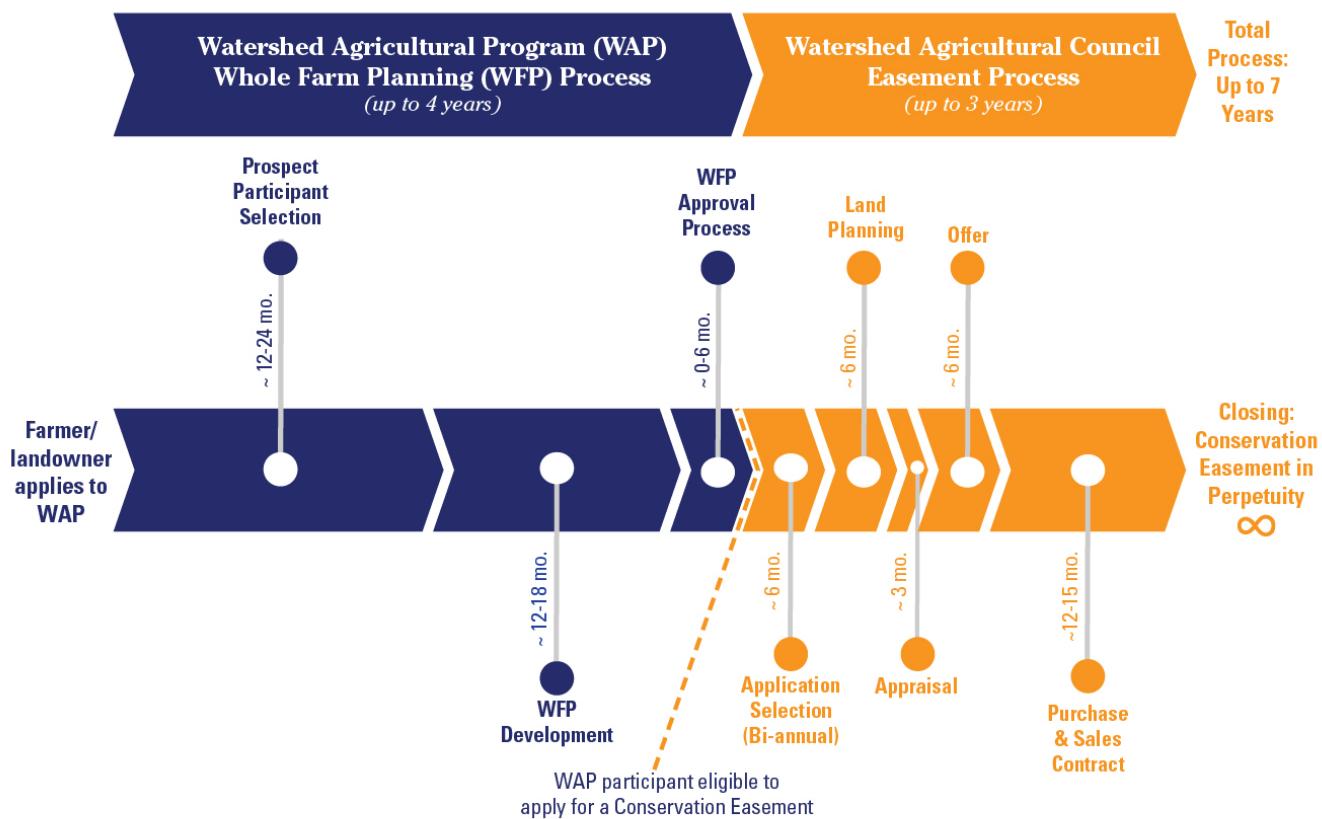


Realizing the Opportunity

Purchasing conservation easements is a complicated and lengthy process. Each step in this process requires approval by WAC's Easement Committee. It begins by soliciting interest from people who own land with a Whole Farm Plan (WFP) and that demonstrates a conservation value WAC aims to protect. These landowners are encouraged to complete applications that contain the information WAC needs to conduct initial selections.

Once a property is selected (Applicant Selection), landowners work with WAC staff to design a draft conservation easement and land plan (Land Planning) in accordance with WAC's land planning guidelines. This phase takes several months or more, depending on the complexity of ownership, estate planning, and property title issues, or issues related to agricultural activities that may affect the design of the proposed conservation easement.

After the draft conservation easement has been approved by the Easement Committee WAC hires a certified, independent New York State Appraiser to determine the value of the proposed easement. Appraisals take several months to complete. Review and approval by the WAC Easement Committee can take several more. The appraised value of the conservation easement becomes the basis for WAC's offer (Offers) to a landowner. Through this entire process WAC pays for all costs and provides the staff time required to design the proposed conservation easement.



Farm Rescue: Recognizing and Addressing the Needs of High Risk Lands

WAC's current Agricultural Conservation Easement can only help farmers who have a Whole Farm Plan (WFP). Targeting these properties has proven to be a very successful strategy, resulting in the conservation of nearly 25,000 acres of farmland in the Watershed. But it fails to protect participating farms owned by people in financial distress who are at high risk of liquidating their land.

The liquidation of land means subdivision as a new generation of landowners struggle with the means and desire to own it. Within 20 years of subdivision each new parcel will add, on average, 3,200 square feet of impervious surface (Anderson et al. 2012) harming water quality.

The significant amount of time WAC needs to ease a property (27 months) means that landowners who are desperate to sell an easement are often unable to do so because they need financial relief immediately. This also means WAC is unable to protect the land that presents the greatest threat to water quality.

In the last several years, WAC has seen an influx in the number of landowners who are in financial distress yet hope to ease their land rather than selling or subdividing it. This may be the result of aging farmer demographics, financial hardship, or external market conditions (i.e. subdivision, property values, extractive leases, etc.). Whatever the cause, these pressures outpace WAC's ability to protect critical lands through its traditional Agricultural Conservation Easement Program.

The need to safeguard WAC's existing Best Management Practices (BMPs) only adds to the urgency. To date, WAC has invested in more than 5,000 BMPs on 288 farms. This accomplishment is unmatched, yet the future of only a small portion of these BMPs has been secured through a conservation easement.

Case Study: The Allan & Elaine Swantak Property – Kortright, NY

The Allan & Elaine Swantak Farm was the quintessential Delaware County dairy farm and WAP participant. The Swantaks partnered with WAP for 17 years through their Whole Farm Plan. More than \$1,000,000 was invested in farm infrastructure and management practices to ensure protection of water quality. Sadly, a combination of family health issues, personal finances and inter-generational hurdles came to a head in 2014. They looked to WAC for a life-line with sincere interest in preserving their 400 acre farm. The Swantak's desire to ease their property was not only challenged by their debt against the farm, but by the 27 month time frame needed to ease their property.

WAC was unable to ease their property and provide the Swantaks with the money they needed to pay their debt. WAC was also unable to prevent the threat to water quality posed by the subdivision and liquidation of the property. The bank holding the primary mortgage foreclosed on the property and quickly disposed of it through a short-sale to a land investment company.

As great a loss as that was, the real threat to working landscape and water quality is what ensued. Over the course of 2015, the company that purchased the property initiated a major subdivision. A public auction followed and in two years' time, the Swantak's farm is now 31 parcels each with new owners, building plans and septic systems. Furthermore, WAC's \$1,000,000 investment in agricultural BMP's will never again serve an active farm.

Over the next twenty years WAC can expect the addition of 99,200 square feet of impervious surface (Anderson et al. 2012) on the 31 lots subdivided from the former Swantak farm. The addition of this impervious surface and its accompanying degradation of water quality could have been prevented if WAC were equipped with a temporary in-fee acquisition program to rescue farms in financial distress.

A temporary in-fee acquisition program will allow WAC to purchase properties at high risk of imminent liquidation through distress sales and foreclosures. These properties will be promptly eased and placed on the real estate market by WAC for sale. WAC will recoup a significant portion of the original purchase price to use in the emergency acquisition of other high-risk lands.

Why is it faster to secure high risk properties through a temporary in-fee program than through WAC's traditional easement? Several time consuming steps in the easement process can be eliminated. With the temporary in-fee program there is no need to design a conservation easement and land plan (Land Planning). This step can take several months or more, depending on the complexity of the property. There is no need to give the landowner a period of six months to consider the easement offer because WAC would work directly with banks on the short sale. There would also be no need for a 12 month purchase and sales contract period. This could be shortened from 27 months to 90 days. With a temporary in-fee program WAC will be able to act swiftly to conserve high risk properties while following the necessary standards and practices associated with in-fee purchases.

FAD Recommendation #3: *Provide a contingency fund to WAC to secure in-fee interests on at-risk/transition lands with BMP investments. Such lands will be transitioned to new operations consistent with a WFP and are to be encumbered by a WAC Conservation Easement upon conveyance.*

A temporary in-fee farm rescue program targeting properties at high risk of liquidation will allow WAC to protect water quality, secure WAP's investment in agricultural BMP infrastructure and promote regional economic viability by conserving working farmland for future generations.

Summary of Recommendations for the FAD

1. **Forest Conservation Easement Pilot Program Evaluation:** WAC and NYC DEP shall evaluate the effectiveness of the Forest Conservation Easement Pilot Program and submit respective recommendations for its continuation to NYSDOH/EPA and NYSDEC no later than July 1, 2018 or immediately upon acquisition of 1,250 acres of Forest Conservation Easement (FCE) lands. If a determination is made by NYSDOH/EPA and NYSDEC to move beyond a pilot, remaining earmarked funds, as well as additional program funds totaling \$15 million shall be contracted to support the FCE program. If it is determined not to continue the program, all unused funds are to be returned to the City.
2. **Continued Acquisition:** Execute a contract with the WAC to provide \$18 million in supplementary funds to the Agricultural Conservation Easement (ACE) Program for the duration of the 2017 FAD.
3. **Critical Lands:** Provide a contingency fund to WAC to secure in-fee interests on at-risk/transition lands with BMP investments. Such lands will be transitioned to new operations consistent with a WFP and are to be encumbered by a WAC Conservation Easement upon conveyance.

1. Frequently Asked Questions (FAQs)
2. Literature Cited
3. GIS Methodology
4. Conservation Easement Scoring Criteria
5. WAC Agricultural Conservation Easements (ACE) 2016
6. WAC Conservation Easement Program Potential Agricultural (ACE) Lands
7. WAC Conservation Easement Program Potential Forestry (FCE) Lands
8. WAC Conservation Easement Program Potential Agricultural (ACE) and Forestry (FCE) Lands

ANNEXES

Annex 1: Frequently Asked Questions (FAQs)

FAQs:

How does WAC define eligible agricultural lands?

WAC's current eligibility requirements for a conservation easement include the following: 1). Applicant's property must have an active and current Whole Farm Plan (WFP) approved by the Agricultural Committee 2.) Property's producer must be farming in accordance with the WFP. 3). Applicants may not have a suspended or inactive WFP. 4). Property must be a minimum of 50 Acres in size (exceptions considered as per the Applicant Selection Guidelines). 5). Applicant's property is not located in a 1997 New York City Memorandum of Agreement (MOA) hamlet designation area or a 2010 Proposed Hamlet Expansion Area (PHEA) where a municipality has adopted a resolution establishing a hamlet area. 6). Applicant(s) must own the property (tax parcels) listed on the application. 7). The proposed property to be eased must be wholly or partially located within the jurisdictional boundaries of the New York City West of Hudson (WoH) Watershed. 8). If an applicant already has a WAC Conservation Easement, the applicant must be in good standing with the Easement Program.

What is 480a?

480a is a tax incentive program administered through the New York State Department of Environmental Conservation (DEC) to encourage the long term management of woodlands to produce forest crops.

What is a WAC FMP?

A Forest Management Plan (FMP) is a plan that provides for the identification and application of resource specific management based on a landowner's goals and objectives, while also recognizing relevant Best Management Practices (BMP's) designed to enhance forest productivity in the long term while mitigating potential adverse environmental impacts associated with commercial forestry.

What is the acreage goal for the Easement Program for forest and farms?

With 215,000+ acres eligible for participation, WAC's Easement Program aims to partner with willing farm and forest landowners as long as there is a need to protect the working landscape.

What are Reserved Rights?

Reserved rights are activities requiring advance approval by WAC allowing for easement landowners to expand their opportunities for aesthetics, recreation, living amenities and economic initiatives.

You mention unanimous consent – what is the Governance Policy of the Easement Committee?

WAC's contract with the DEP requires that a committee provide oversight over the program and make all decisions concerning the program. The committee must consist of no more than 8 members appointed by WAC and one representative appointed by the DEP. A unanimous vote

of a full quorum of the Easement Committee is required for all matters related to the acquisition and stewardship of conservation easements.

Why have only 12 of the 20 Forest Easement applicants been approved?

Applications, as well as any action undertaken by the WAC Easement Committee, require unanimous consent. All members evaluate the merits of each property and do a cost benefit analysis between natural resource criteria, available funds and conformity with the mission and values of WAC. If there is not agreement, the application is denied.

What were the criteria for approval of the 12 applications for the FCE?

Beyond general eligibility, there are 6 scoring criteria categories by which a property is evaluated: total acreage, forest land coverage, water resources, adjacency to other protected lands, development potential {threat} and NYC priority basin locations.

What are “soft costs”?

Soft costs include all funds used to compliment program efforts excluding the purchase price of the conservation easement land itself. Acquiring interests via easement requires legal review, title work, surveying, environmental site assessment and other related expenditures.

What is the evaluation of the Forest Conservation Easement Pilot Program based on?

Unfortunately, there were no benchmarks established within the original pilot program or WAC/DEP contract. This paper aims to recommend those and demonstrate opportunities going forward. Such criteria and subsequent evaluations should clearly articulate that.

What are Supplemental Lands?

Supplemental lands are incorporated into a farmer’s Whole Farm Plan (WFP), but owned by another party. These lands serve critical roles in supporting forage production and nutrient management practices.

If the timeframe for getting an easement is long, is there a shorter option?

The process by which WAC acquires easements mirrors NYC DEP LAP program efforts. Traditional land trusts have the flexibility to move much quicker, but aren’t bound by as many provisions as land acquisitions within the NYC Watershed. WAC’s ability to move faster requires a change to contract and/or processes, or the independent means to capitalize on real estate opportunities.

Why is purchasing land in-fee faster than acquiring a conservation easement?

Depending on the funds applied and the process administered, it may not be. That said, any real estate opportunity hinges on adequate funding and the ability to act quickly. Funds dedicated to a program that looks to secure interest in-fee must be afforded reasonable liberties to act swiftly.

How could the easement process be streamlined for a shorter term in-fee option?

Following suit with many land trusts nationwide, separate, pre-conditioned funds are set aside ahead of time. When an opportunity presents itself, the commitment to save farmland is relegated to adherence to the restrictions set on that fund and approval by the governing body. Lengthy steps in the current easement process like appraisal/offer, surveying and title work may not be necessary, or can at least be accomplished to varying degrees in a shorter time frame.

How do you determine ‘financial distress’?

Financial distress is any condition where a farm cannot meet, or has difficulty satisfying financial obligations due to high fixed costs, liquid assets or revenues sensitive to economic downturns. Sadly, this has become more commonplace in the Watershed and in turn, creates a need WAC has no means to address.

What is a BMP?

A Best Management Practice (BMP) is prescriptive structural and/or management practice aimed at protecting water quality and complimenting agricultural operations.

How are BMPs ‘secured’ through having an easement?

A BMP on a WAC CE is secured because the deed of conservation easement limits the conversion of use of agricultural structures to nonagricultural uses, requires that any agricultural activity be in accordance to a Whole Farm Plan therefore increasing the value of the BMP, and it secures the land for future agricultural production.

What is the difference between WAC’s “Offers Conversion Rate” and WAC’s “Solicitation Conversion Rate?

The “Offers Conversion Rate” is a measure of WAC’s ability to actually complete an easement after a financial offer is made to purchase development rights. The “Solicitation Conversion Rate” is a measure of WAC’s ability to complete an easement for properties and landowner that were solicited to apply for WAC’s ACE or FCE. These conversion rates allow WAC to measure success, or problems, at various stages in the easement acquisition process.

Annex 2: Literature Cited

Literature Cited

- Anderson, N.M., R.H. Germain, and M.H. Hall. 2012. An assessment of forest cover and impervious surface area on family forests in the New York City Watershed. *North. J. Appl. For.* 29(2): 67-73.
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- Schiff, R. and G. Benoit. 2007. Effects of impervious cover at multiple spatial scales on coastal watershed streams. *J. Am. Water. Res. Assoc.* 43(3): 712-730.
- Stone, R.S. and M.L. Tyrrell. 2012. Motivations for family forestland parcelization in the Catskill/Delaware Watersheds of New York. *J. For.* 110(5): 267-274.
- [USFS] U.S. Forest Service. 2009. *Tools for engaging landowners effectively: Overview of woodland owners in New York*. Available online at http://www.engaginglandowners.org/profile/state/new_york/overview/36?selection=New%2BYork; last accessed June 24, 2013.

Annex 3: GIS Methodology

Methodology

Using the criteria outlined in the Selection Criteria Worksheets (Annex 4), geospatial analyses were conducted to estimate participation potential in the ACE (Agricultural) and FCE (Forestry) Conservation Easement Programs. Models were built in ArcGIS 10.2 Model Builder to query and calculate individual tax parcel scores and summarize watershed wide statistics.

Dataset, Preparation and Analysis Descriptions

The central dataset for all analyses was the tax parcel data provided by NYC DEP, clipped to the WOH boundary, with the SWIS_SBL attribute used to identify unique parcels. Table 1 describes input datasets, how they were prepared and their role in the analyses.

Table 1

Dataset	Source	Description	Prep, Query, Analysis
Tax Parcels	NYC DEP (from counties) (Received July 2016) (All counties current as of 2010)	Digital tax parcels and related assessment data from each county. Data updates are received from each county to NYCDEP once per year and mosaiced together and normalized	Input parcels to which criteria value and score attributes were appended
Designated Areas (Hamlets)	NYC DEP (Received July 2016)	Areas West-of-Hudson designated as receiving storm-water benefits and/or exclusion from the Land Acquisition Program	Excluded reverse selection of parcels intersecting designated areas
NYC Land (representing conservation corridor lands)	NYC DEP (Received July 2016)	Land currently owned or controlled by NYCDEP in their upstate Water Supply System	Calculated relevant points per Attachment A for selected parcels within 40 ft of roads, and/or conservation corridor lands
NY State Land (representing conservation corridor lands)	NYC DEP (Received July 2016)	New York State owned land	
Roads		Vector file of public/private streets compiled from orthoimagery and other sources	Calculated relevant points per Attachment A for selected parcels intersecting Priority Areas I/II and/or High Focus
Priority Areas	NYC DEP (August 2013)	Land Acquisition priority areas for solicitation according to the 1997 Watershed Memorandum of Agreement (MOA) and Filtration Avoidance Determination (FAD).	
WOH Watershed Boundary	NYC DEP (2009)	West-of-Hudson reservoir drainage basin boundaries delineated from 2009 LiDAR-derived 1-meter Digital Elevation Model (DEM)	Clipped parcels to boundary and recalculated acreage to represent only portions within WOH per CE requirements
Forest Land Cover	NYC DEP (2009)	Polygons classified as LU_Class_Short 'Forest *' within NYC DEP LULC dataset, which was derived from LiDAR, leaf-off and leaf-on imagery acquired by DEP in 2009	Used the Tabulate geoprocessing tool, joined output table to parcels by SSBL and calculated acreage and percent of forest, water criteria and developable slope per parcel
Water Critieria	NYC DEP		
DEMs Input to derived Slope Class (0-8% Rise)	NYC DEP (2009)	The 1m DEM was derived from airborne LiDAR data collected in 2009 as part of the NYS Digital Ortho Program under contract with NYCDEP under CAT-371	Parcels that were not part of the WFP Ag Footprint were excluded from ACE potential
WFP Ag Footprint	WAC (July 2016)	Subset of Digital Tax Parcels representing WAC's Agriculture Program Conservation Footprint as those parcels upon which WAP participants are conducting farming operations	

Criteria Value and Score attribute fields were added to the parcels dataset in order to hold the selection results for each of the queries. A query was built for each criteria range, which resulted in a selection of parcels. Each selection of records was attributed with the criteria values, and then scored according to the Criteria Worksheets. Scores were then added to obtain a total score for ACE and a total score for FCE. Parcels with total ACE scores of 35 or greater were assigned to the potential ACE group. Parcels with total FCE scores of 35 or greater, but with ACE scores less than 35, were assigned to the potential FCE group. Total polygon counts and acreage statistics were then summarized for each group.

Data preparation and relevant queries were dependent upon the criteria being considered, which can be grouped into the following 4 broad categories of tax parcels' inherent attributes and/or their spatial relationships with other geospatial features.

- A. *Inherent* attributes of tax parcels: parcels less than 50 acres and those owned or eased by NY State or NY City (including WAC) were removed from the dataset.
 - a. Parcel acreage (calculated from polygon geometry) \geq 50 acres (ACE) or \geq 100 acres (FCE)
 - b. Parcel ownership: public excluded (ACE, FCE)
- B. *Adjacency* of parcels to other features: parcels within 40 feet were considered adjacent
 - a. Roads (FCE)
 - b. Conservation Corridors (WAC, NYC and NYS easements and conservation areas) (ACE, FCE)
- C. *Wholly or partially within* other features: parcels intersecting relevant features were considered wholly or partially within.
 - a. Priority Areas (ACE, FCE)
 - b. Participation in WAC Whole Farm Plan (i.e. ag footprint parcels) required for ACE (ACE)
 - c. WOH Watershed: parcels clipped to watershed boundary (ACE, FCE)
 - d. Designated Areas: excluded (ACE, FCE)
- D. *Area or percentage* of other features within parcels: the Tabulate geoprocessing tool was used to calculate the acreage and portion of relevant features per parcel.
 - a. Forest Cover (FCE)
 - b. Water Resources (ACE, FCE)
 - c. Developable Slope (less than or equal to 8% rise) (FCE)

Annex 4: Conservation Easement Scoring Criteria

Attachment "A"

Selection Criteria Worksheet

I. Water Resources: 30 possible points

Emphasis will be given to properties which contain the greatest percent of hydrologic activity based upon the following categories:

- Streams, Lakes, & Ponds buffered by 300ft
- Reservoirs buffered by 1000ft
- NWI wetlands
- NYSDEC wetlands
- FEMA 100-year floodplain boundary

Scoring:

<u>Points</u>	<u>Criteria (Acres with Water)</u>
30	> or = to 27 acres
15	15 — 26.99 acres
5	< 15 acres

II. Priority Areas in Watershed

New York City has established priority areas within the watershed to designate those areas most critical to the long-term water quality of its reservoirs. The permanent protection of farmland with Whole Farm Easements within these priority areas will aid in the long-term water quality of the reservoirs. Emphasis will be placed on farms located within the top priority areas within the watershed.

NYC DEP Priority Areas: 10 possible points

<u>Points</u>	<u>Criteria</u>
5	Within a Priority I or II area
5	Wholly or partially within an area of High Focus

III. Conservation Corridors: 20 possible points

Adjacent farm land allows for the future expansion of agricultural operations and supports the future viability of farming

Conservation Corridors and Prospects for Continued Agricultural Use: May receive points both categories.

Points	Criteria
15	Adjacent to WAC protected farm
5	Adjacent to DEP fee or easement

IV Acreage: 40 possible points

In an effort to protect the maximum natural resources within the watershed, emphasis will be given to farms greater than 300 acres.

Acreage to be protected by Applicant under a Conservation Easement:

Points	Criteria
40	>300
35	200—299
25	100-199
15	50-99

Total Score _____ /100

Forest Easement Applicant Selection Criteria Worksheet

Landowner / ID#: _____

I. Acreage: 25 possible points

Emphasis will be given to those properties with the greatest acreage.

<u>Points</u>	<u>Criteria</u>
25	501+ acres
15	201-500 acres
5	100-200 acres

Total Acres _____
Score _____

II. Forest Land Coverage: 25 Possible Points

Emphasis will be given to properties with the greatest percent of forest cover.

<u>Points</u>	<u>Criteria (% Acres with Forest Coverage)</u>
25	> or = to 95%
15	71% - 94%
5	< or = 70%

Acres _____ % Total Acres _____
Score _____

III. Water Resources: 25 Possible Points

Emphasis will be given to properties which contain the greatest percent of hydrologic activity based upon the following categories:

*These surface water features and buffer distances are based upon the Natural Features Selection Criteria identified in the MOA Paragraph 63(b).

- Streams, Lakes, & Ponds buffered by 300ft
- Reservoirs buffered by 1000ft
- NWI wetlands
- NYSDEC wetlands
- FEMA 100/500 year floodplain boundary

<u>Points</u>	<u>Criteria (% Acres with Water)</u>
25	> or = to 25 %
15	11% - 24%
5	< or = 10%

Acres _____ % Total Acres _____
Score _____

IV. Conservation Corridors: 10 Possible Points

Emphasis will be given to properties adjacent to other protected lands.

<u>Points</u>	<u>Criteria</u>	<u>Score</u> _____
5	Adjacency to WAC protected property	
5	Adjacency to DEP, DEC or other similar protected properties	

V. Development Potential: 10 Possible Points

Emphasis will be given to properties with physical characteristics more conducive to development.

a. Slopes: 5 Points

<u>Points</u>	<u>Criteria</u>
5	>50% slopes between 0-8%

b. Road Frontage: 5 Points

<u>Points</u>	<u>Criteria</u>
5	> 1000' Road Frontage

Score _____

VI. Priority Areas: 5 Possible Points

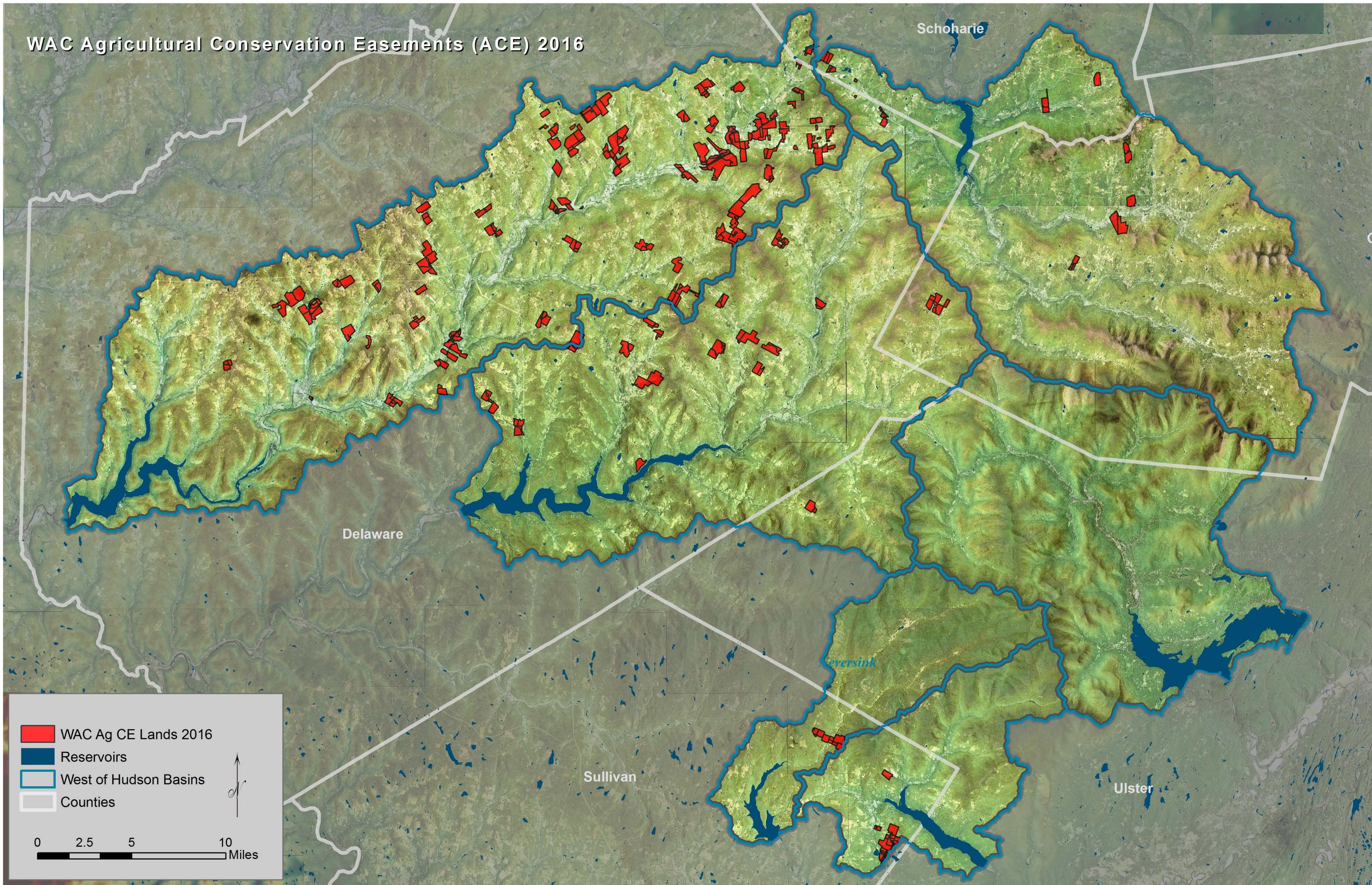
Emphasis will be placed on properties located within the top priority areas within the watershed. New York City has established priority areas within the watershed to designate those areas most critical to the long-term water quality of its reservoirs. The permanent protection within these priority areas will aid in the long-term water quality protection efforts.

<u>Points</u>	<u>Criteria</u>	<u>Score</u> _____
5	Within a Priority I/II area and/or wholly/partially within an area of High Focus	

Total Score _____

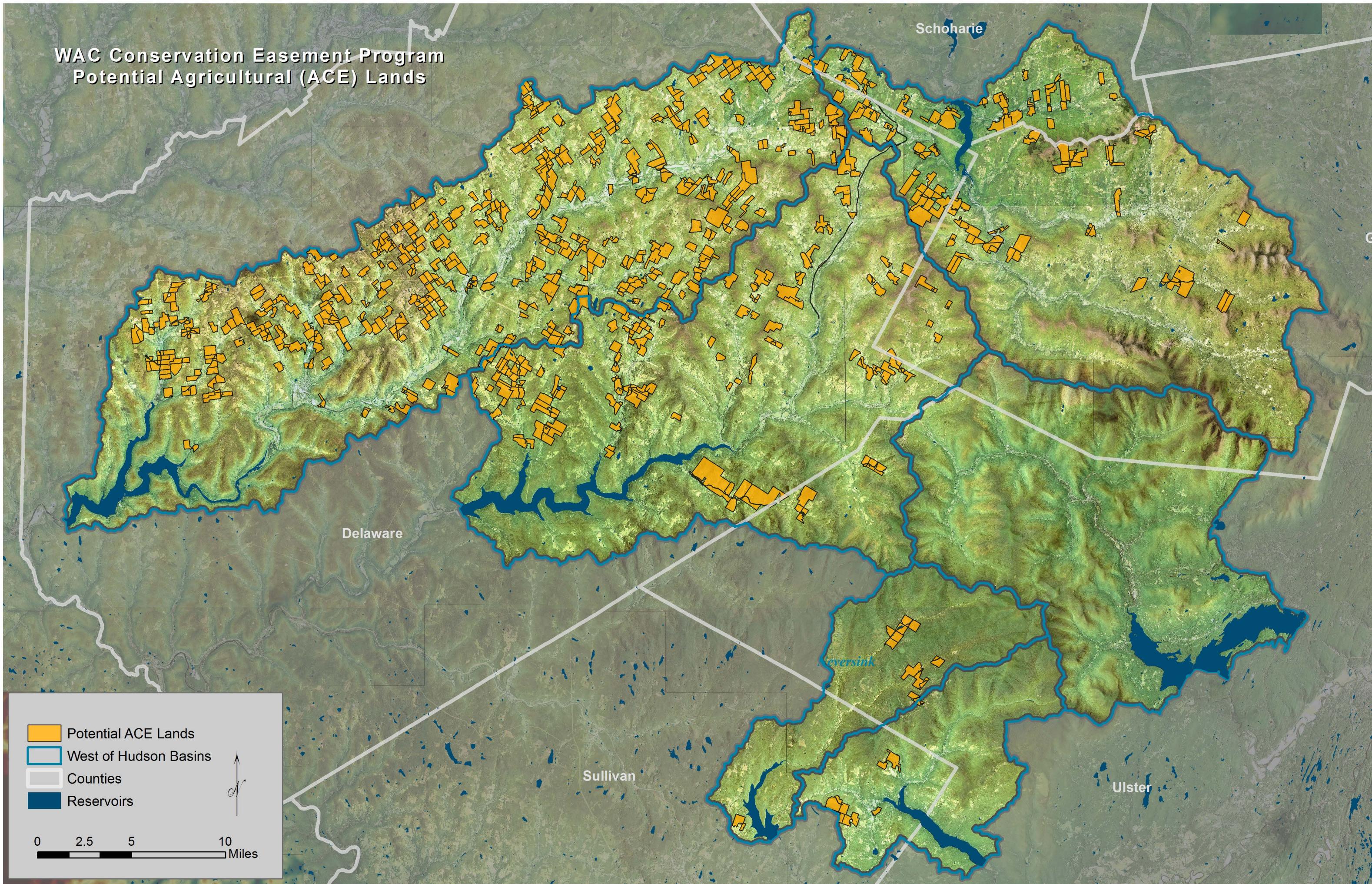
Annex 5: WAC Agricultural Conservation Easements (ACE) 2016

WAC Agricultural Conservation Easements (ACE) 2016



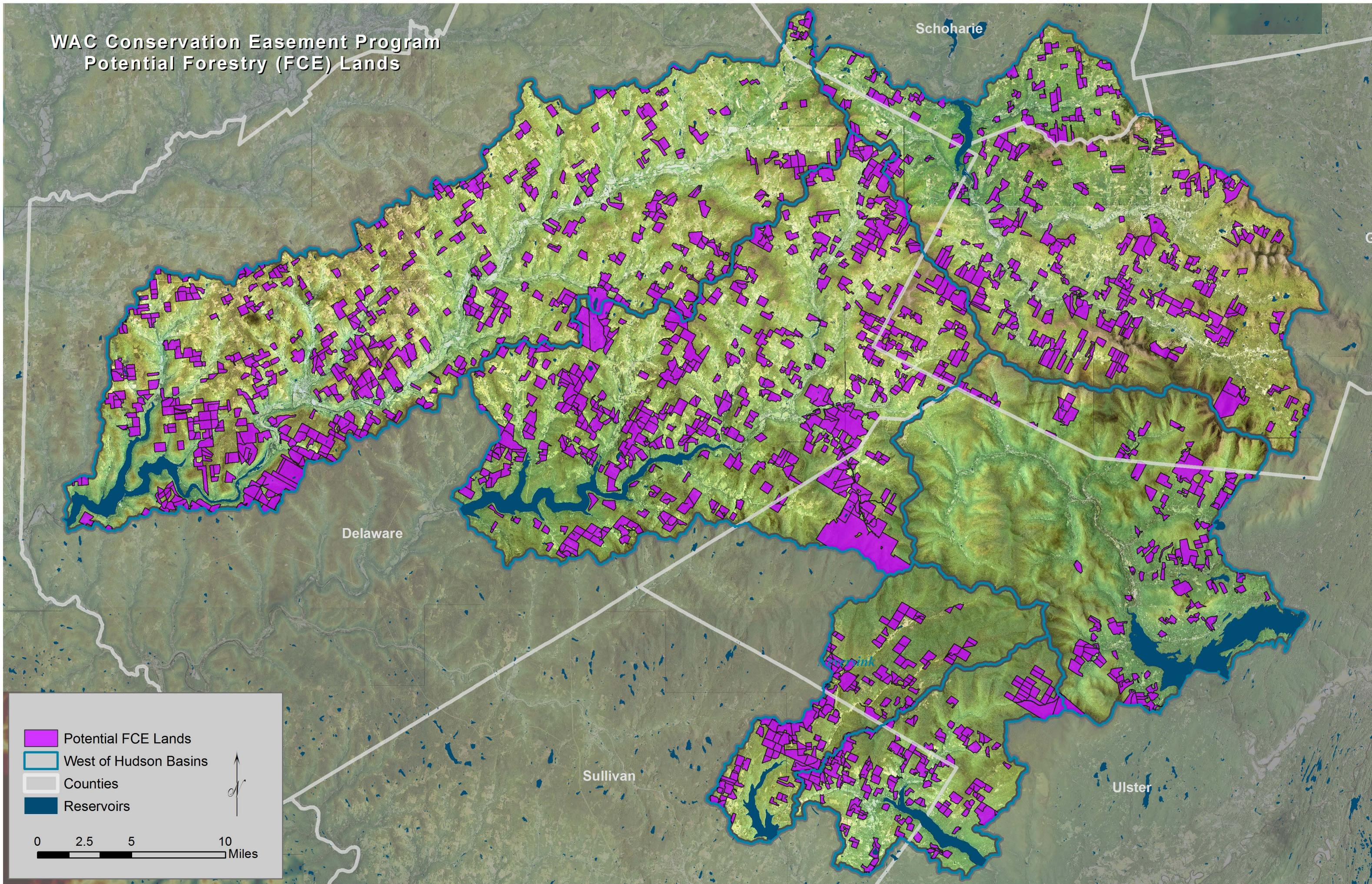
Annex 6: WAC Conservation Easement Program Potential Agricultural (ACE) Lands

**WAC Conservation Easement Program
Potential Agricultural (ACE) Lands**



Annex 7: WAC Conservation Easement Program Potential Forestry (FCE) Lands

**WAC Conservation Easement Program
Potential Forestry (FCE) Lands**



Annex 8: WAC Conservation Easement Program Potential Agricultural (ACE) and Forestry (FCE) Lands

WAC Conservation Easement Program
Potential Agricultural (ACE) and Forestry (FCE) Lands

