

Delaware Wetlands Advisory Committee Funding Coordination Discussion

Prepared for the Delaware State Wetlands Advisory Committee

June 13, 2014

DNREC Division of Watershed Stewardship

Approach

- Review the notes for the charge presented by the Chairman regarding coordinated funding.

There are a lot of different programs out there that have some things in common and maybe there are means by which these funds could be combined. Whether they are state funded, federally funded, county funded; or use local funding, private NGO or foundation funding; we should look at those. That concept (how these sources can be combined) should be introduced at the next meeting to be discussed if there is a way it can be achieved.

Committee Discussion

- Quick overview of approach to resource review
- Discussion – NRCS Conservation Programs under the new Farm Bill - Jayme Arthurs, NRCS
- Discussion – Coordination efforts for land preservation and conservation – Ron Vickers, DNREC
- Discussion – Case Studies in Innovative Funding Strategies

Approach

- Contact the DNREC Land Preservation staff to review program priorities and efforts. A short presentation will be offered by Ron Vickers.
- Contact NRCS regarding the suite of NRCS programs and specifically the new menu of conservation programs under the new Farm Bill. A short presentation will be offered by Jayme Arthurs.
- Contact Andy Manus for his perspective on the private land conservation efforts from the NGO perspective.
- Contact Kate Hackett Delaware Wild Lands Inc. for her perspective on the private land conservation efforts from the NGO perspective.
- Contact Jerry Kauffman from UD on a project they are doing with TNC with funding from WPF.

Approach

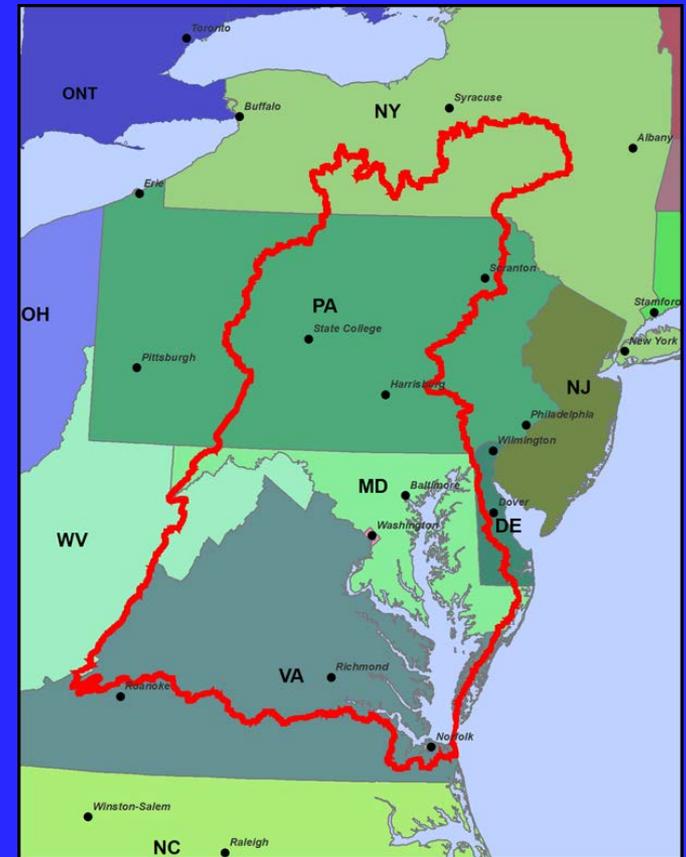
- Contact the Maryland Environmental Finance Center for input into any innovative federal/state/local program funding opportunities.
- Contact Environmental Law Institute for support that they could provide on related program funding.
- Investigate the next round of Chesapeake Bay Program funding to determine if there is any CB implementation funding under the new agreement.
- Review the land stewardship programs currently under review and being discussed through the Partnership for the Delaware Estuary Alliance.
- Follow up on the previously discussed Forestland Preservation Program and the land parcels identified for conservation.
- Map wetlands on those Forestland parcels.

Presentations

- Jayme Arthurs, NRCS
- Ron Vickers, DNREC Land Preservation

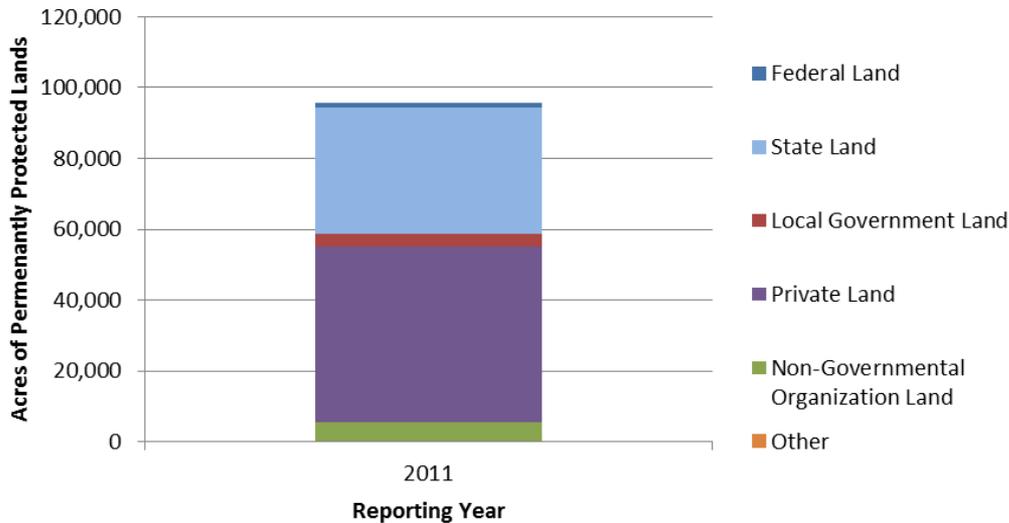
Chesapeake Bay Program

- Protect an additional two million acres of lands throughout the watershed currently identified as high conservation priorities at the federal, state or local level by 2025, including 225,000 acres of wetlands and 695,000 acres of forest land of highest value for maintaining water quality.
- Currently 8,000,000 acres protected in the watershed. Roughly 20% of the watershed area.
- Delaware may receive an additional \$750,000 CB Grant funding and 1:1 match required.

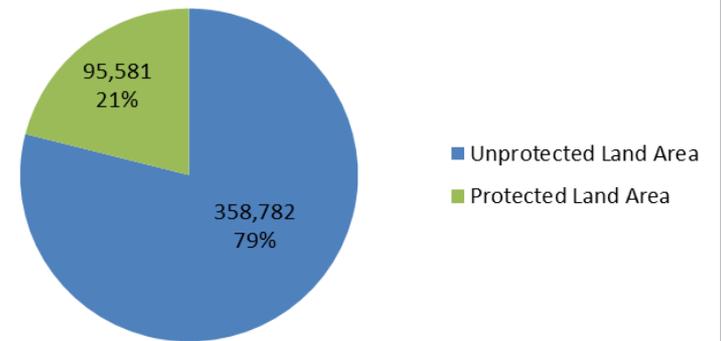


Delaware	2008	2011
Federal Land	14	1,286
Local Government Land	144	3,754
Non-Governmental Organization Land	0	5,452
Private Land	43,609	49,632
State Land	36,397	35,448
Other		8
Progress since previous tracking year		15,417
2011 is cumulative - Cumulative Total Acres Protected	80,164	95,581
Acres of Unprotected Land (Cumulative)	374,198	358,782
Total acres in watershed portion of state	454,362	454,362
Percent Protected (Cumulative)	18%	21%

Delaware Protected Lands by Ownership Type



DE-Acres of Protected Land 2011



ELI Environmental Law Institute

- Delaware Wetland Protection Vision and Strategic Plan – Interview Results and Assessment (Phase 1 Report)
- Complete description of DNREC programs related to wetland activities.
- Appendix 5: State Incentive Programs
- Toolbox of Landowner Incentives
 - Tax credits
 - Direct acquisition funding
 - Loan incentives such as SRF
 - State programs (Ag Lands and Forestland Preservation Programs, Open Space)
 - Federal Programs – NRCS
 - Strategic direction of enforcement or natural resource damage payments
 - Wetland mitigation banking and in-lieu fee programs
 - Development of a coordinated outreach campaign

ELI Environmental Law Institute

STATE COORDINATED FUNDING AND INCENTIVE PROGRAMS

- Maryland Green Print – Connecting Land Protection Programs with “Targeted Ecological Priorities”
- Minnesota’s Reinvest in Minnesota Reserve Program and the Clean Water, Land and Legacy Amendment
- Washington’s Forestry Riparian Easement Program
- California’s Oak Woodlands Conservation Program
- Real Property Tax Breaks for Wetlands – An Indiana Example
(details on above in PDF document on website)

Approach

- Specific case investigations of program funding opportunities for discussion.
 - Delaware SRF Land Conservation Loan Program.
 - William Penn Foundation/UD WRA/TNC Project

Innovative Land Conservation and
Water Quality Funding in
Delaware with State Revolving
Fund Loan Programs

EPA SRF

Loans Fund the Following Types of Projects:

A. Construction of municipal wastewater treatment facility improvements (POTW's).

B. Implementation of Non-Point Source (NPS) projects.

C. Development and implementation of Estuary Comprehensive Conservation and Management Plans



Delaware SRF Loan Incentive Programs

- Designed to provide incentives for innovative loan structure and leverage.
- Provides for land conservation and water quality improvements.
- Goal is to bring together traditional municipal loan borrowers and water quality project conservation partners.



Delaware State Revolving Fund Financing of Non-Traditional CWSRF Projects

Land Conservation Loan Program - Interest Rate Example

As of June 2013

Loan Term (years)	CWSRF Interest Rate	Water Quality Improvement Interest Rate	Water Quality Improvement Loan	Municipal Wastewater Loan	Total Annual Debt Service Payment	Life of Loan Debt Service Payment
			\$450,271	\$2,000,000		
20	3.82%	n/a	n/a	\$144,827	\$144,827	\$2,896,549
20	2.00%	0.000%	\$22,514	\$122,313	\$144,827	\$2,896,540
			\$675,410	\$3,000,000		
20	3.82%	n/a	n/a	\$217,241	\$217,241	\$4,344,824
20	2.00%	0.000%	\$33,771	\$183,470	\$217,241	\$4,344,813
			\$1,125,700	\$5,000,000		
20	3.82%	n/a	n/a	\$362,069	\$362,069	\$7,241,373
20	2.00%	0.000%	\$56,285	\$305,784	\$362,069	\$7,241,372
			\$2,251,400	\$10,000,000		
20	3.82%	n/a	n/a	\$724,137	\$724,137	\$14,482,746
20	2.00%	0.000%	\$112,570	\$611,567	\$724,137	\$14,482,744
			\$7,879,910	\$35,000,000		
20	3.82%	n/a	n/a	\$2,534,481	\$2,534,481	\$50,689,611
20	2.00%	0.000%	\$393,996	\$2,140,485	\$2,534,481	\$50,689,613

Notes: CWSRF Interest is 90% of the Municipal Bond Yield 4.24%

Land Conservation Loan Program

DDA Criteria

Property must (1) be enrolled in Delaware's Forestland Preservation Program (FPP) or enrolled in the Ag Lands Preservation Program and meet the requirements of the FPP and (2) have submitted an offer to sell their development rights.

Requirements of the FPP are:

- At least 10 (forested) acres in size

- Located outside state-designated growth zone

- Zoned agricultural and no major subdivision recorded for the property

- Have a forest management plan prepared by a professional forester and updated every five years

- All of the woodland on the property must be included and the land must remain forested (not cleared for cropland, structures, etc.)

Wastewater spray irrigation is permissible on the FPP parcel(s) utilizing best available treatment technology; however, all wastewater storage and treatment facilities must be located on lands other than the FPP properties.

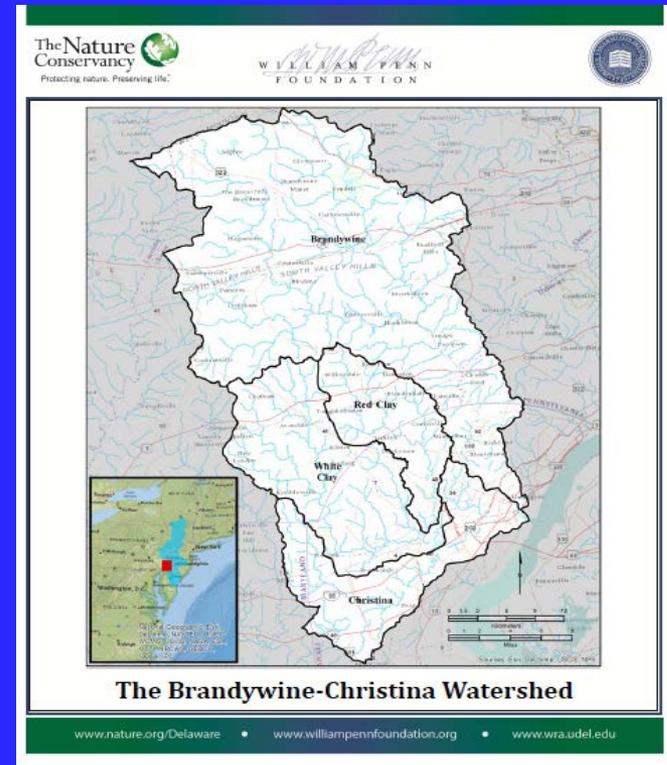
Delaware State Revolving Fund

Financing of Non-Traditional CWSRF Projects

- Kent County: CWSRF – Land Conservation Loan Program Project
 - A Pollution Control Strategy was developed for Murderkill Watershed in Kent County to return the impaired waters to a condition of permitted use as required by the CWA. Due to the importance of the waste load allocation, the following projects were undertaken with the assistance from the CWSRF program:
 - Double Run Wetlands Restoration and Nutrient Reduction Project - creation of a two acre wetland within the upper reaches of the Murderkill basin;
 - MeadowBrook Acres – septic elimination project; and
 - LCLP Project – to purchase and systematically/permanently restore 255 acres to their natural habitat (91 acres is currently cropland). In addition, the project will protect a riparian forest buffer of 164 acres from ever being developed and/or destroyed.
 - The CWSRF interest rate for an existing closed \$7.0 million loan was adjusted down from 3.609% to 1.0895%. This allowed the County to borrow an additional \$1.0 million without increasing the annual loan debt service payments for the fee simple land purchase and the existing wastewater loan.
 - The County entered into a LCLP Sponsorship Agreement with DNREC's Division of Fish and Wildlife. The agreement describes the County's responsibility/commitment to systematically/permanently restoring the land parcels to their natural habitat. The County paid DNREC a one-time \$10,000 fee for perpetual monitoring and inspections of the land parcels. All loan closing costs were paid by the County.

Brandywine-Christina Watershed Water Fund Research

- Joint Project - The Nature Conservancy/UD Water Resources Agency.
- Funded by William Penn Foundation
- <http://www.wra.udel.edu/brandywine-christina-healthy-water-fund/>



Brandywine-Christina Watershed Water Fund Research

- The Vision: To maintain and improve the health of the Brandywine-Christina watershed for the benefit of people who rely on it and plants and animals who live in the watershed.
- The Strategy: To implement a funding mechanism and science-based investment protocol to restore the Brandywine-Christina watershed to fishable, swimmable, and potable status by 2025.

Brandywine-Christina Watershed Water Fund Research

- The Project: Under a grant from the William Penn Foundation, The Nature Conservancy in Delaware (TNC) and the University of Delaware (UD) are conducting a feasibility study on the implementation of a "water fund" for the Brandywine-Christina watershed.
- At its most basic level, a water fund is a mechanism for downstream beneficiaries to invest in upstream conservation measures designed to secure freshwater resources – both quality and quantity – for man and nature far into the future.

Brandywine-Christina Watershed Water Fund Research

- The Target Watershed: The Brandywine-Christina is an integral part of the larger Delaware River Basin, 565 sq. mi. with $\frac{2}{3}$ of the watershed in Pennsylvania.
- The watershed spans three states, five counties and over 60 townships, boroughs, and cities and includes the Brandywine, Red Clay, and White Clay Creeks, and the Christina River watersheds.
- It provides many ecological and natural functions and provides over 100 mgd of drinking water for over half a million people. The Pennsylvania portion of the watershed is characterized by open space, including agricultural land and forests, while the more urban, southerly portion in Delaware tends to have more developed land. Only a very small piece of the watershed lies in Maryland.

Brandywine-Christina Watershed Water Fund Research

- Review many specific “water fund programs”
- Narrow down the best parts of the 5 or 6 selected.
- Combine elements to find out what would work best in the Brandywine – Christina Watershed

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 WILLIAM PENN FOUNDATION



Summary of Select Case Studies

Program Name	Location	Acres Enrolled/ Protected	Funding Source	Revenue
N. Everglades & Estuaries PES Program	Lake Okechobee watershed, FL	171,000 acre-feet of storage created	Water Management District budget allocation	\$46 million committed through 2016
Edwards Aquifer Protection Program	San Antonio, TX	116,683 acres	1/8 cent sales tax approved	\$225 million since 2000
Upper Neuse Clean Water Initiative	Raleigh and Durham, NC	5,170 acres, 63 miles of stream	Raleigh: 1 cent per 100 gallons per month in water rate; Durham: 1 cent per cubic foot in water rate	\$17.7 million since 2005
New York City Source Water Protection Program	Catskill, NY (East Branch, West Branch Delaware River)	156,690 acres acquired or under easement; 93% of farms with Whole Farm Plans	NYC DEP budget allocation	\$186 million to date; \$300 million committed 2007-2017
Eugene Water and Electric Board VIP	Eugene, OR (Mackenzie River)	N/A	1% utility rate increase to fund initial program	\$200,000 to \$250,000 annually anticipated
Denver Forest to Faucet Partnership	Denver, CO (South Platte River)	4,700 acres treated	14 cents per household per month or 4 cents per 1,000 gallons of water withdrawn	\$16.5 million from USFS; \$16.5 million from Denver Water
Truckee River Fund	Lake Tahoe, CA/ Reno, NV	101 watershed projects completed	2% of utility annual budget	\$9,200,000 since 2004
Central Arkansas Water	Near Little Rock, AR	1,800 acres	Utility rate includes watershed protection fee based on meter size; averages 45 cents per month	Fee raises approximately \$1 million per year
Saugatack River Watershed Partnership	Fairfield County, CT	Opened up 7 miles of river to fish passage	Annual contributions of \$5000 from larger municipalities; \$1000 from smaller municipalities	\$306,624 in contributions (municipal, private individual and foundation); \$243,849 in federal grants
Rhode Island Water Resources Board	Providence, RI (Narragansett Bay)	2,410 acres protected	Initial state budget allocation; 10 cents per 1,000 gallons surcharge	\$18,343,382 allocated for source water protection since 1991
New Jersey Water Supply Authority	Raritan and Manasquan River basins; Delaware & Raritan Canal basin, NJ	4,000 acres protected	Source water protection component to water rate; \$24 per million gallons	\$112,536 for 2014
Portland Water District	Portland, ME	1,500 acres	Budget allocation	\$175,000 annual allocation; \$500,000 in NRCS grant; \$500,000 in-kind match
Fondo para la Protección del Agua (FONAG)	Quito, Ecuador	1.2 million acres	Voluntary; 2 % of Quito water utility revenue	\$8 million in fund
Agua Por la Vida	East Cauca Valley, Columbia	19,000 acres	Voluntary contributions from water users	\$3,891,340 through Dec 2013; \$4,700,000 with matching funds through Dec 2010

www.nature.org/Delaware • www.williampenfoundation.org • www.wra.udel.edu

Ducks Unlimited Partnering for Wetland Protection

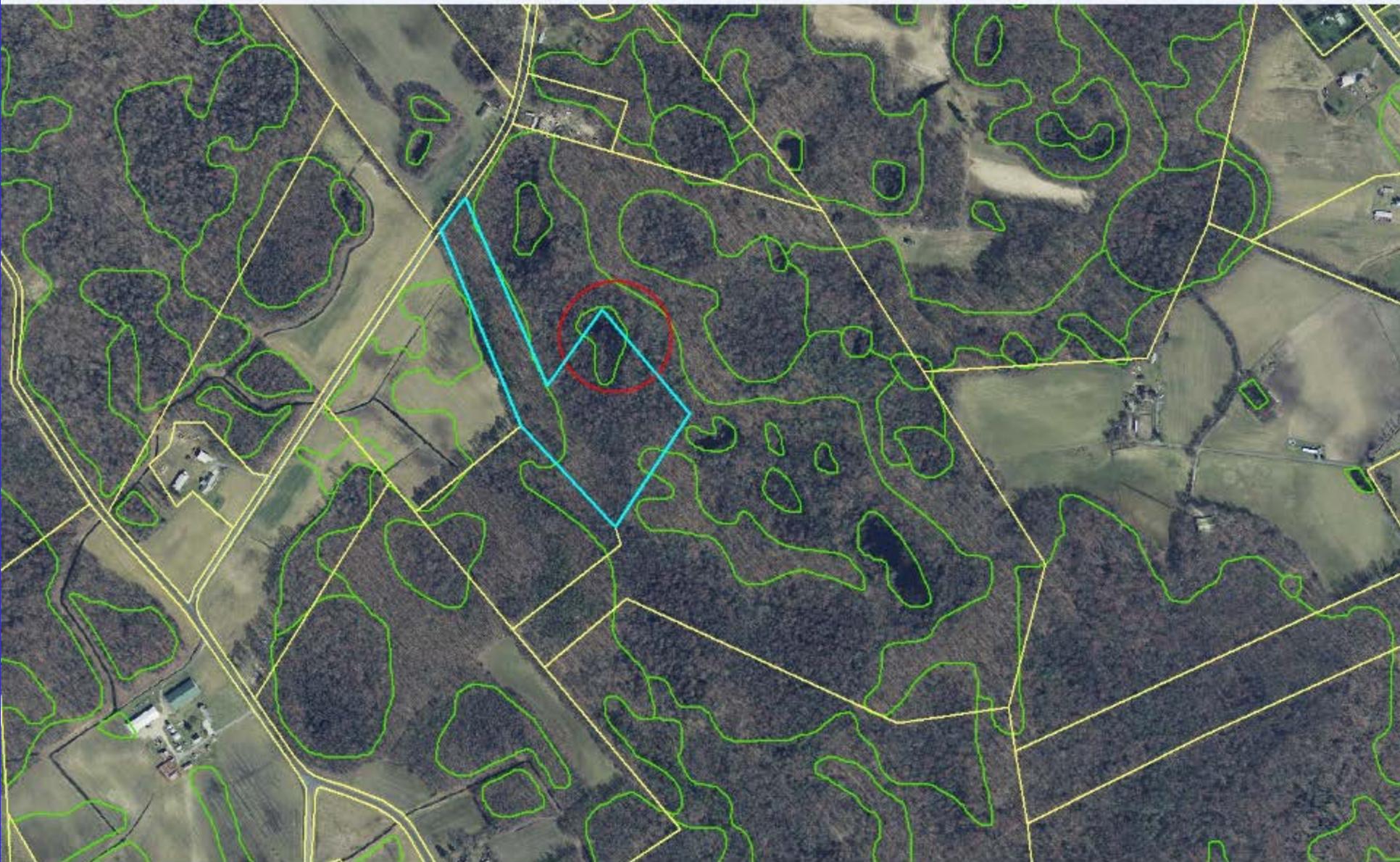
- DU recently awarded a North American Wetlands Conservation Act (NAWCA) grant requires a 1:1 match using non-federal funds.
- This \$1 million grant has the potential to utilize \$2 million + in total funds. DU wanted to actively look for funding that has not been leveraged/matched before with a focus on wetlands.
- Some of these matching funds will be coming from the Ag Lands Preservation Program which has leveraged Farm Bill programs in the past but the majority of these funds have not been fully matched.
- Approximately \$500,000 of these funds will be used for restoration at Prime Hook, Bombay Hook, working with Delaware Wildlands in Milford Neck, and at the Ted Harvey State Wildlife Area. Partnering with the Ag Lands Preservation Program will allow for wetland easements and can also contain cropland and upland forest easements.

Forestlands Preservation Program

- Successful when funded once in 2009
- \$1 million in state funds leveraged \$500,000 in partnering with TNC provided by the Longwood Foundation
- 835 acres of forestland were protected
- \$2.8 million in additional investment from private landowner discount

Forestlands Preservation Program Update

- 9 parcels originally funded in 2009.
- 34 parcels remained in the FPP queue in 2009.
- Since then, 24 additional parcels have been protected through the Aglands Preservation Program.
- Of the 10 remaining, only one has a Cat 1 wetlands on it, crossing parcel lines approximately 1.5 acres.



Other Land Conservation Partnership Opportunities

- Open Space Institute's Bayshore Highlands Fund

<http://www.osiny.org/site/News2?page=NewsArticle&id=8779>

- Schuylkill River Restoration Fund

<http://www.schuylkillriver.org/grants/2014%20SRRF%20grant%20guidelines.pdf>

- Common Waters Program

<http://www.commonwatersfund.org/partners>

- The Conservation Fund Gladfelter Forest Project

<http://www.conservationfund.org/projects/glatfelter-forest/#>

Approach

- Discussion for the Committee
 - *With the numerous opportunities for collaboration among the public and private funding agencies and organizations, how do we effectively coordinate funding prospects for open space, forestland, wetlands, source water, ag lands and riparian corridor preservation and protection...or are we doing it well enough?*

Possible Schedule for Final Report

- Draft outline sent to Committee - August 1
- Comments on Draft outline from the Committee by August 15
- Draft Report October 15th to Committee for review
- Meet October 30th in person Committee to discuss
- Final Draft from DNREC Secretary to Committee November 30th
- Letters of support or opposition to the final report from Committee to the DNREC Secretary December 15th
- Final report submitted to the General Assembly December 31, 2014.