

*"Strengthening Youth Involvement  
Through Conservation"*

**C E T Y**  
**Annual Report**  
 **2019**





# Calvert Environmental Trust for Youth



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Marrick Properties, Inc.

SMECO

Southern Maryland RC&D

P.O. Box 3348 • 489 Main Street  
Prince Frederick, MD 20678



## MISSION STATEMENT:

The mission of Calvert Environmental Trust for Youth is to provide a financial mechanism whereby projects that have positive influence on youth and/or the environment can be adequately funded through a local entity.

## VISION STATEMENT:

The vision of Calvert Environmental Trust for Youth is to see an increase and improvement in quality-based youth and environmental activities throughout the region.

In 1996 the Environmental Trust for Youth was formed to provide a funding mechanism that would support environmental and youth activities in Calvert County. Over \$100,000 was raised from local contributors within our first year. An additional \$387,350 has been contributed since then. The interest earned from these funds is used to support environmental projects throughout the county. Since its inception, the Trust has awarded \$255,119 in grants. This year, we had requests for over \$25,129 in grants. The Trust appreciates all funding received from local contributors and is now in the process of applying for major foundation funding to match local support.

Calvert Environmental Trust for Youth has 501(c)3 status as a nonprofit organization.

All Calvert Environmental Trust for Youth programs and services are offered on a nondiscriminatory basis, without regard to race, color, national origin, religion, sex, age, marital status or handicap.





# Calvert Environmental Trust for Youth Projects Fiscal Year 2019



2019 Calvert County Envirothon	\$8,841
CHESPAX: Calvert's Winged Predators	\$2,215
CHESPAX: Animals in the Classroom	\$2,000
Environmental Education Kiosk for Youngsters	\$982
Calvert County Farm Bureau National Ag Week Breakfast	\$2,500
Northern High School Wonders of the Earth (WOE) Day	\$965
Calvert Nature Society: Fly Like an Eagle Scout Projects	\$1,000
Calvert County Fair 4-H Livestock Auction	\$6,626

**Total**

**\$25,129**



# C E T Y 2019 P R O J E C T S

## Calvert High Places 10th at National Envirothon Competition!

This year had the highest student participation in the Envirothon program in recent history with forty students participating this year. There were teams representing all four of Calvert's public high schools once again. The teams were comprised of students with various abilities who demonstrated curiosity and proficiency about soils.

For the fall training in November students were afforded a longer training session, where the basics of soils science were introduced. An interactive sandbox was also utilized, demonstrating the relationship between topography and soils as well as the harmful effects of erosion. The spring training was in March and students discussed ways technology affects agriculture and completed a modified version of the exam. At both trainings, students analyzed soil profiles to make scientific interpretations and evaluated soil samples influenced by human management to determine soil health properties.

Eight teams from four high schools participated in the April competition at Kings Landing Park. Calvert High School won the overall competition, placing first in three out of four resource categories. Last year, they also placed first at the county level and won second place at the state level. This year, they competed at the state competition at St. Mary's College on June 18-20 and placed first for the state of Maryland! The team then headed to represent Maryland at the national competition July 28 through August 2, 2019 at North Carolina State University in Raleigh and placed an admirable tenth out of 53 teams!

Envirothon is just one way for students to explore and support their interest in natural resources. At the April competition, as scores were being compiled, several teachers and natural resources professionals spoke about camps, scholarships, and internships available to students interested in pursuing an education and career in natural resources. Organizations who provide these opportunities include the Calvert Forestry Board, Natural Resources Conservation Service, Calvert County Natural Resources Division, Calvert Nature Society, Morgan State University: Patuxent Environmental and Research Laboratory, and the American Chestnut Land Trust.

The District would like to thank its partners from Calvert County Public Schools, Maryland Department of Agriculture, Natural Resources Conservation Service, Calvert County Technology Services, and St. Mary's Soil Conservation District for their assistance with this year's Envirothon program.



*The team receiving their first place award at the State Envirothon Competition at St. Mary's College. From left: Coach Chuck Gustin, Vincent Sullens, Ben Springer, Grace Miller, Kristina Dubé and Michael Deffinbauch.*



*The team at the National Competition held at North Carolina State University in Raleigh.*



# Environmental Educational Kiosk for Youngsters

This project is a touch-screen kiosk containing a program supporting children's environmental learning games that are based on Calvert County's nature and environment.

Computer programmer Ron Sharp donated his time writing a gaming program with audio and video output for four games: Match the Caterpillar to its Butterfly, Friendly Bug vs. Unfriendly Bug, Find the Vegetable/Fruit, and Conserve Energy in the Home. We are in the process of adding more games that reflect Calvert County's environment and natural resources. Ron intends to provide the program, at no cost, to any organization that is interested in using it. Master Gardeners from other counties and the Naturalists at Battle Creek Cypress Swamp Sanctuary have shown strong interest in the program and hardware.



*The kiosk at Children's Day on the Farm at Jefferson Patterson Park.*

Since completion of the kiosk, we have supported the Calvert Master Gardener's programs at Jefferson Patterson Park's Children's Day on the Farm, American Chestnut Land Trust's Nature Day, Annmarie Garden's Insectival, Spider Hall Farm's Buy Local Challenge, Calvert County Fair's Children's Day at the Fair, Calvert Marine Museum's Patuxent River Appreciation Day, and Huntingtown Elementary's Harvest Days. Our total contacts so far for 2019 are 437 children and 220 adults.

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## Calvert County Farm Bureau's National Ag Week Breakfast

On March 23, 2019 the Calvert County Farm Bureau, which included the Calvert County Young Farmers Committee, held its fifth annual Farm-to-Table Breakfast at the Calvert County Fairgrounds. Serving over 450 people within a four hour timeframe, this event exceed any previous attendance and profit margin. Farm Bureau members, 4-H clubs, and the FFA were all involved in setting up for the breakfast as well as cooking and serving the delicious meal!

The breakfast serves to build positive community relationships, provide agricultural education opportunities and fun activities for children, as well as affording the Farm Bureau the funds to award college scholarships to high school seniors and offset expenses for leadership training to our young people. This event has doubled in size and has also showcased what local farms have available to the citizens of Calvert County. Over 90% of the food purchased is locally sourced, with promotional literature and acknowledgement for the producers. A small farmers market is available and this year a picture display of Calvert County farms was added. Agricultural facts are printed and displayed on each table and fun farm related activities are presented for children by the Young Farmers Committee. Some of the activities included corralling balloon farm animals, farm coloring books, corn hole featuring "Feed the Pig," and stickers.

The CETY grant was appreciated and helped to offset the costs associated with the breakfast, allowing for more scholarships to be awarded and providing for more young people to attend conferences to give them better career opportunities. In the past donations were also made to the local 4-H and FFA groups.

The gross revenue for the breakfast was \$12,599, which included ticket sales, sponsorships, donations, and the CETY grant. The expenses were \$4,756 which included the food and supply purchases and the building rental as well as the activities for children run by the Young Farmers group. This gave a net profit of \$7,843 to be used for college scholarships and young farmers leadership training.





# Northern High School Wonders of the Earth (WOE) Day

On April 4, 2019 the Northern High School (NHS) Lorax group held WOE (Wonders of the Earth Day) at NHS. Ninety-seven third graders from Sunderland Elementary attended. Five stations were set up for the students to rotate through over the course of the day.

Each station had an activity for the students that teaches them about the environment and the part they can play to make it better. We had a soil group talk about the importance of bees, composting, and students were able to plant a flower for their class. Students also painted butterfly houses to take back to school with them. The stream group talked about habitats, pollution in the water, wildlife, and students participated in a watershed simulation activity.

The forestry group acted out a food chain and took a short hike on a trail through the woods. The Lorax group had face painting while NHS students read *The Lorax* to the students. The recycling group talked about the benefits of recycling, reusing and reducing. Students got a reusable bag and colored on the front of it.

Every station is run by a group of students from the NHS Lorax Club. We rented the sand table from Technology Services at Calvert County Government and had three rotating stations in the afternoon. They learned about Maryland's watershed and got to see where the water goes while interacting with the table. We also had the students help plant some polluter plants in our new flower beds here at the new NHS. It was great to see them still growing and flowering when school resumed after the summer.

The Sunderland students wrote thank you letters. They really enjoy having the high school students take the time to interact with them and teach them about the environment.



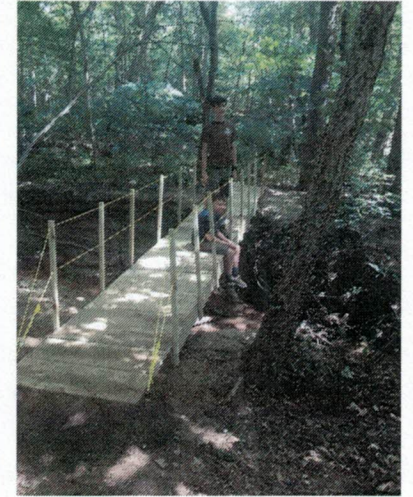


# Calvert Nature Society: Fly Like an Eagle Scout Projects

Calvert Nature Society was awarded a \$1,000 CETY grant to support the Calvert Stewards and Scout and Community Service Projects throughout the natural resources nature parks. Throughout the year, staff naturalists work with scouts, youth groups, and volunteers on a variety of projects. The CETY funds provide supplies and materials such as wood for construction projects, plants for habitat restoration and gardens, and tools such as shovels, rakes, and work gloves.

Following is an outline of the projects completed:

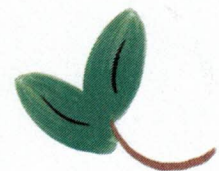
- Eagle Scout Nate Bell rebuilt the bridge site at Ward Farm Nature Park.
- Park Manager Melinda Whicher worked with Boy Scouts, Girl Scouts, and other community groups on the following projects at Kings Landing Park: Boy Scouts Western Shore District dug out bamboo and black locust trees (200 hours of volunteer time); Girl Scouts Service Unit 11-9 completed the meadow maze signs (25 hours); Calvert Middle School students planted 21 native seedling trees (15 hours); and students from Chesapeake Biological Laboratory helped to weed and mulch the butterfly garden (10 hours).
- Eagle Scout Steven Brissette built 11 bat houses to install throughout the nature park system.
- Eagle Scout John Tilton: predator guards for use at Gatewood Preserve.
- Eagle Scout Brendon Arce: nest box predator guard construction.
- Eagle Scout Rob Hupp: Battle Creek boardwalk construction.
- Eagle Scout Jadon Osterhouse: interpretive signs in the arboretum at Battle Creek.
- Girl Scout Emily Dunsmore and a crew of 13 volunteers worked a combined 55 hours in the Cypress Swamp meadow. They prepared a 5,000 square foot area by removing blackberry briars, Japanese stiltgrass, fescue, and some less-desirable weeds, and planted a dozen potted native plants such as goldenrod, asters, and milkweed. Another highlight was having close encounters with a Dekay's Brownsnake and a Northern Copperhead. The teens had fun watching Naturalist Shannon Steele try to take the copperhead for a walk on a pitchfork and to add cool animals to the City Nature Challenge.
- Naturalist Kim Curren helped a group of junior level Girl Scouts earn their "citizen science" badge. They compared the swamp and bay habitats at Flag Ponds, and were introduced to using iNaturalist as a citizen science tool. They also talked about ways they can volunteer with Calvert Nature Society to help with current research projects.
- Boy Scout Pack 407 did a trash pickup on the beach at Flag Ponds.



*Eagle Scout Nate Bell rebuilt the bridge site at Ward Farm Nature Park.*



*Middle school students planted 21 native seedling plants.*





# CHESPAX - Calvert's Winged Predators

The 7th grade science curriculum for Calvert County Public Schools (CCPS) has a strong emphasis on Life Science. The “Calvert’s Winged Predators” grant from the Calvert Environmental Trust for Youth provided important resources to help teachers engage their students with a hands-on exploration of targeted science concepts. The natural world provides a rich context for teaching and learning about science. CHESPAX programs and projects seek to engage students with authentic opportunities to investigate the local environment through field experiences and well-designed classroom activities.

The “Calvert’s Winged Predators” proposal identified what would be completed to achieve the following goal: Seventh grade students will understand the importance of wildlife habitats along the Patuxent River and Chesapeake Bay through a study of the ecology of these systems. Students will investigate the role of predatory birds within this ecosystem. Below is a description of how these objectives were met through the grant funded activities.

## **Objective 1: Students will monitor an osprey webcam to collect data about food items provided to the offspring.**

In the spring of 2019, students monitored the CHESPAX osprey webcam to learn about the role of ospreys as a top predator in the Patuxent River ecosystem. Students collected data about the birds’ nesting season as well as the feeding behaviors of these birds. Students shared their observations by capturing screen shots from their computers and phones.



*We've discovered that goldfish are an important component of our osprey's diet.*



*First osprey chick of the season.*

## **Objective 2: Students will investigate barn owl pellets to collect data about food preferences for these predators.**

CETY funding supported the development of class sets of owl pellets for every 7th grade class in the Calvert County Public Schools. Using additional funds from the CHESPAX budget, kits were developed that will allow for students to conduct investigations of the diet of barn owls. Due to a change in the curricular focus, this activity will take place during the second and third marking periods of the 2019-2020 school year. To further this objective, 7th grade teachers conducted an in-service at the CHESPAX office to learn about the process and to develop supporting activities for this project.



*CHESPAX staff working with 7th grade teachers on a barn owl pellet investigation.*



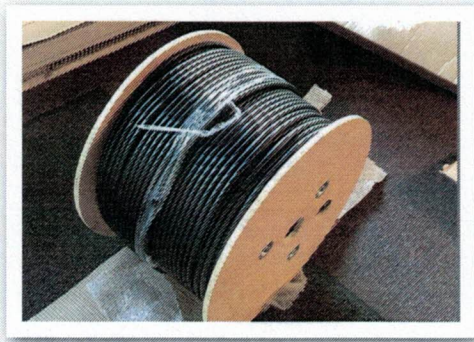
*Teacher training at CHESPAX.*



# CHESPAX - Calvert's Winged Predators (continued)

**Objective 3: Students will monitor the movements of osprey and barn owls tagged with Motus tracking devices.**

The Motus project in Calvert County is being run as a partnership between the CHESPAX program and the Calvert County Natural Resources Division. The project will allow researchers and 7th grade students to track the movements of birds that are tagged with tracking devices that communicate with a suite of receiver antennas placed throughout the United States and Canada (and other countries). There was a delay in the installation of the first receiver tower which would be integral to the tagging project. A request was made and approved to transfer some of the received CETY funds to help with the costs of the tower installation. Once the tower is installed and operational, birds will be captured and tagged as outlined in the original proposal. CHESPAX will be keeping CETY apprised of the project status.



*Cabling to be used for Motus antenna.*



*Assorted tools to be used for Motus antenna installation.*

The CETY grant program is an important resource for environmental education in Calvert County. The funds allow CHESPAX staff and classroom teachers to pilot new ideas that frequently become integral elements of the science curriculum. We are very grateful for the support of CETY for this exciting project.

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## CHESPAX - Animals (Aquariums) in the Classroom

What do Diamondback Terrapins and Gambusia, otherwise known as mosquito fish, have in common? If you said they both live in water, you'd be right. They are also both being raised in classrooms around Calvert County to help scientists with long-term studies.

Each year, the National Aquarium and Scientist Dr. Willem Roosenburg collect baby terrapins from Poplar Island to be "head started" by various schools throughout the state of Maryland. Calvert County elementary school students help to raise 13 of those terrapins for a year. At the end of the year, those terrapins are returned to Poplar Island. Through Dr. Roosenburg's study of these terrapins, he is learning if head starting is helping the survival of the population of the Terrapins.

Seventh grade students are working with a local mosquito control agency to raise mosquito fish in the classroom. Mosquito Control is using these fish in local water bodies to help control the mosquito population. In the classroom students learn about the life cycle of the mosquito and various ways to control them.

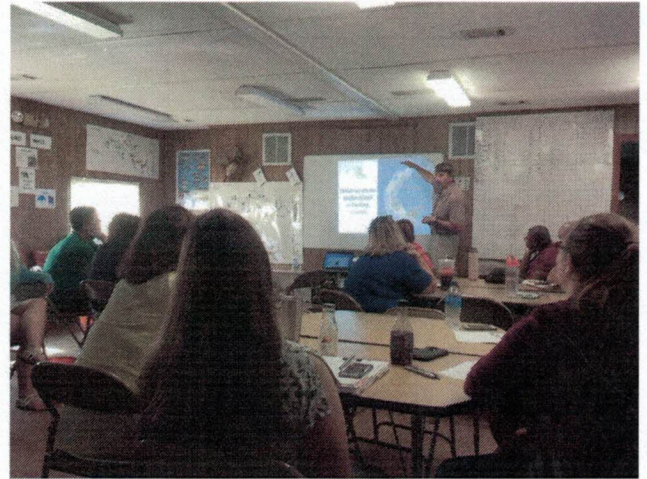
The materials purchased with this grant money helped to provide the necessary equipment to assist with the raising of these organisms such as lights, basking rocks, food, plants, and covers for the tanks. Through raising these two organisms, students have made a stronger connection to the interactions of these organisms and the real world.



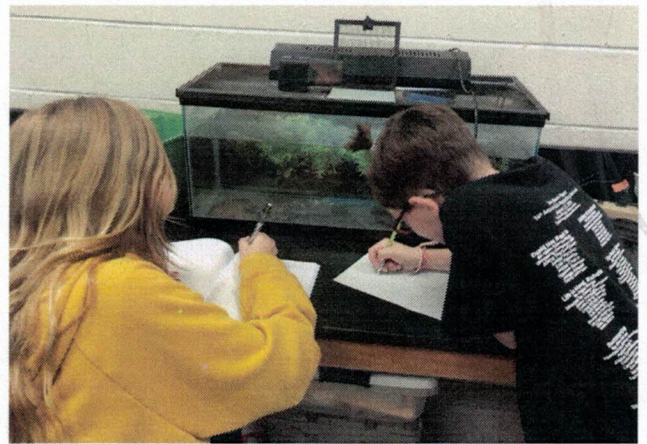
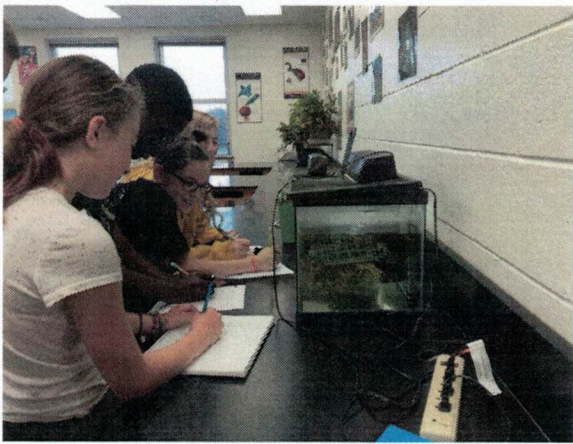
# CHESPAX - Animals (Aquariums) in the Classroom (continued)



*The scientist might be able to tell the students if the terrapin is a boy or girl.*



*Dr. Willem Roosenburg explains his research to the teachers.*



*Students making observations of their fish.*



*Release day at Poplar Island.*

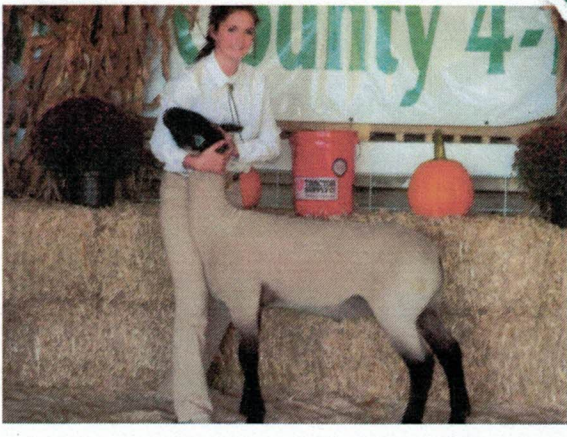
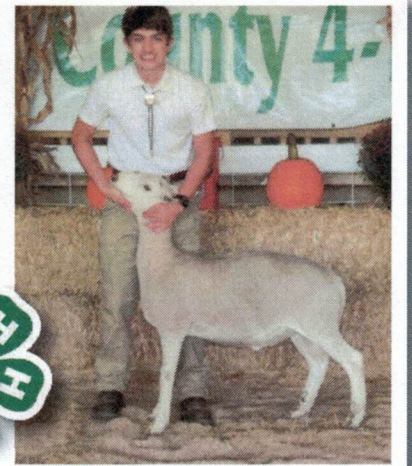
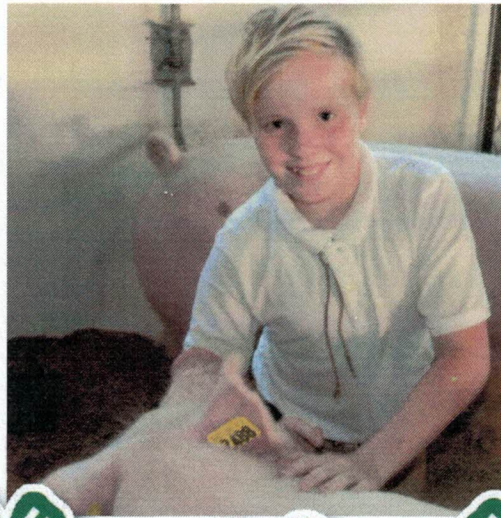
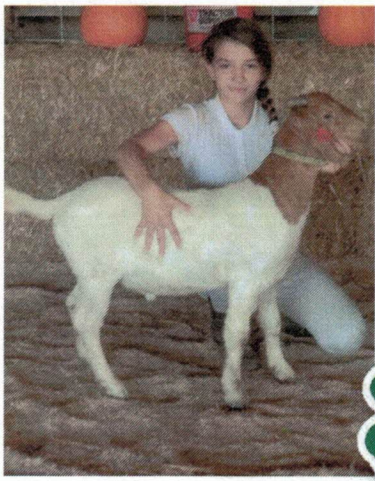






## 4-H Club at the Calvert County Fair

The 4-H Youth Livestock Auction is held each year during the Calvert County Fair. This is the time when animals that 4-H youth have cared for are sold to the public. It is the final step in their livestock project where the educational marketing aspects are put into action. Each year Calvert Environmental Trust for Youth supports the 4-H Club by purchasing animals and donating them back to the club at the 4-H Livestock Auction. 4-H is an excellent way to learn about agriculture, the value and reward of work, and the importance of good land and livestock management.





**CALVERT ENVIRONMENTAL TRUST FOR YOUTH**  
**Statement of Receipts and Disbursements**  
**For the Period of January 1, 2019 through December 31, 2019**

**OPERATING & GRANT FUNDS AVAILABLE JANUARY 1, 2019 .....\$22,538.29**

**RECEIPTS:**

Grant Funds (85% of 2019 Interest Earned) .....\$18,780.00  
 Operating Funds (10% of 2019 Interest Earned).....2,209.00  
 Donation from CSCD (specified to go to grants).....8,000.00  
 Grant #202 The Journey Outdoors Project (returned grant).....376.00

**TOTAL RECEIPTS.....\$29,365.00**

**SUBTOTAL.....\$51,903.29**

**DISBURSEMENTS:**

**Operating Expenses:**

Rymer & Assoc. (tax preparation) .....\$615.00  
 Maryland Nonprofits (information service) .....100.00  
 Postmaster (Post Office box fee).....134.00

**Total Operating Expenses.....\$849.00**

**Grants Awarded:**

Grant #196 Calvert SCD Envirothon Competition .....\$8,841.00  
 Grant #197 CHESPAX - Calvert's Winged Predators.....2,215.00  
 Grant #198 CHESPAX - Animals in the Classroom .....2,000.00  
 Grant #199 Univ. Of MD/Master Gardeners Kiosk.....982.00  
 Grant #200 Calvert Co. Young Farmers Nat'l Ag Week.....2,500.00  
 Grant #201 Northern High Wonders of the Earth Day .....965.00  
 Grant #202 The Journey Outdoors Project (money returned).....376.00  
 Grant #203 Calvert Nature Society - Fly Like an Eagle .....1,000.00  
 Grant #204 Calvert Co. LAC - 4-H Club at the Fair.....6,626.00

**Total Grants Awarded .....\$25,505.00**

**TOTAL DISBURSEMENTS .....\$26,354.00**

**OPERATING & GRANT FUNDS AVAILABLE DECEMBER 31, 2019 .....\$25,549.29**



**CALVERT ENVIRONMENTAL TRUST FOR YOUTH**

**Account Information and Donations Received**

Edward Jones Investment Account Value December 31, 2018 .....\$488,085.53  
Edward Jones Investment Account Value December 31, 2019 .....\$540,903.84

Donations received in 2019:

Calvert Soil Conservation District.....\$13,000.00  
Jeff Quesenberry .....500.00

Total Donations received in 2019.....\$13,500.00

**2020 PROPOSED BUDGET**

**INTEREST ALLOCATION:**

2019 Interest Earned .....\$22,094.53  
85% to Grants .....\$18,780.00  
10% to Operating Expenses .....\$2,209.00  
5% to Principal.....\$1,105.53

**GRANT FUNDS:**

Grant Funds available after 2019 grants awarded.....\$1,373.67  
Return of money Grant #202 the Journey Outdoors .....376.00  
2019 interest earned (85%) .....18,780.00

**Total 2019 Grant Funds Available.....\$20,529.67**

**OPERATING FUNDS**

Operating Funds available after 2019 expenses.....\$2,810.62  
2019 interest earned (10%) .....2,209.00

**Total 2020 Operating Funds Available.....\$5,019.62**

**ESTIMATED OPERATING EXPENSES**

Tax preparation .....\$700.00  
Annual post office box fee .....140.00  
Maryland Nonprofits Membership .....100.00  
Renewal of Charitable Registration/State of Maryland .....100.00

**Total 2020 Estimated Expenses .....\$1,040.00**



**Calvert Environmental Trust for Youth (CETY)  
Summary of Grants Approved by Year**

<u><i>Year</i></u>	<u><i>Total</i></u>
1997	602
1998	1,000
1999	4,960
2000	7,979
2001	7,472
2002	4,500
2003	9,133
2004	8,554
2005	7,115
2006	7,357
2007	10,161
2008	9,985
2009	8,828
2010	10,473
2011	11,022
2012	8,806
2013	11,523
2014	16,796
2015	18,164
2016	25,926
2017	19,035
2018	20,599
2019	25,129

**Total Amount of Grants Awarded**

**\$255,119**



## Calvert Environmental Trust for Youth (CETY)

### Summary of Grants Approved by Organization 1997 – 2019

	Number of Grants	Amount
Battle Creek Nature Center (Outdoor Heritage Foundation, Junior Ranger Corp Projects, Girl Scout Gold Award)	11	9,175
4-H Livestock Auction at Calvert County Fair	7	36,537
Boy Scouts	12	9,010
Girl Scouts	2	1,015
Calvert County Public Schools	83	49,779
Calverton School	1	200
CHESPAX (Calvert County Public Schools)	19	18,793
Calvert County Forestry Board	1	40
Calvert Marine Museum	2	1,550
Calvert Farm Bureau	3	3,450
Calvert Future Farmers of America	3	1,400
Cooperative Extension Services (4-H)	10	8,080
Envirothon	24	90,033
Combined Groups (Student Ambassador) (Agricultural Educational Center) (Ann's Circle, Inc.) (Friends of Jefferson Patterson Park) (Calvert Nature Society)	14	26,057
<b>TOTAL</b>	<b>192</b>	<b>\$255,119</b>