



**HANDBOOK**  
**for**  
**Advisors and Students**

**2023**

## DELAWARE ENVIROTHON

c/o Delaware Association of Conservation Districts (DACD)

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## INTRODUCTION

### WHAT

Envirothon is a problem-solving, natural resource education program for high school-aged students. The traditional Envirothon is a 'day-in-the-field' where students are challenged as they answer written questions and conduct hands-on investigations of environmental issues in the following areas: AIR QUALITY, AQUATIC ECOLOGY, FORESTRY, SOIL/LAND USE, WILDLIFE, PUBLIC SPEAKING, and CURRENT ENVIRONMENTAL ISSUES (topic changes each year).

### WHY

The Envirothon stimulates, reinforces, and enhances students' interest in the environment and our state's natural resources. It provides students with an integrated approach to exploring six natural resource categories and it tests their creativity, analytical thinking, and team-building skills in a competitive format.

Envirothon affords a unique approach to teaching environmental education, and it's fun!

The continuing support of the program reflects the participation and support of local county conservation districts, environmentally active groups, clubs, various state and federal agencies, as well as private corporations.

### HOW

Envirothon can be used as a curriculum guide for classroom study. Conservation districts in conjunction with cooperating agencies, educators, community and interest groups conduct the Delaware Envirothon Challenge in the spring. The winning team is afforded the opportunity to represent Delaware at the international NCF Envirothon that same summer.

## HISTORY

The concept was created by the Pennsylvania Association of Conservation Districts in 1979 as an outdoor hands-on competition designed to get high school students interested in natural resource conservation and environmental issues and careers. It was called the "Environmental Olympics" and challenged students' knowledge of aquatic ecology, forestry, soils/land use, wildlife, and current environmental issues. Since then, the program continued to grow, and in 1988 became known as the "Envirothon." The concept had also expanded to other states, and in 1988 the first "National Envirothon" was held with teams from Pennsylvania, Ohio and Massachusetts competing. In 1992 the first Canadian team (from Nova Scotia) participated in the National Envirothon.

The program continued to grow over North America and in 1997 gained the support of Canon U.S.A. In 1999, Canon became the title sponsor and the national event name changed to “Canon Envirothon.” This lasted until 2013. In 2014, the Envirothon became a program of the National Conservation Foundation (NCF) and the name changed to “NCF Envirothon.” The website is [www.envirothon.org](http://www.envirothon.org).

The year 2016 was exciting as the program continued to expand. China held their first ever “Envirothon China” national competition and began sending a representative team to the NCF Envirothon competition each year.

The Envirothon program is now international and currently active in over 50 states and Canadian provinces and China, and continues to grow each year.

Delaware held its first Envirothon challenge in the spring of 1996 and has done so each year since then (except in 2020 when a global pandemic prevented public gatherings). Organizational plans for this environmental team building and educational experience began back in 1994 with representatives from many private, state, and federal agencies and organizations forming a planning committee and working collectively to prepare for such an event. The planning committee still exists and meets throughout the year to plan the annual challenge, to provide training resources and workshops for advisors and students, and to raise funds for program among many other tasks. This Handbook is just one example of the commitment to helping secure environmental education throughout Delaware high schools.

## **MISSION, GOALS & OBJECTIVES**

### **EDUCATION**

Solutions to today’s natural resources problems may well come from a ‘grassroots’ concern for nurturing our quality of life. Envirothon can be adopted by local schools to enhance the current environmental curriculum. The challenges facing educators are formidable. Envirothon is a ready-made program to help teach environmental education.

### **FUTURE**

Tomorrow’s problems will be more challenging, but the solutions will be more apparent if students are encouraged to become environmentally aware, action-oriented adults. The competitive nature of the program motivates students to expand their knowledge of natural resources and realize their responsibility as stewards of our natural resources.

### **OUTCOME**

Delaware Envirothon goals include:

- promoting environmental awareness and stewardship;
- developing students’ critical thinking, cooperative problem solving, and decision-making skills;

- presenting balanced options for management of our renewable and non-renewable natural resources; and
- providing awareness of and accessibility to resource organizations offering assistance in environmental issues.

## **THE DELAWARE ENVIROTHON CHALLENGE: IN-PERSON EVENT**

Themes, written questions and problem-solving tasks will be site specific to each year's event. Each Envirothon will be new and different. When the teams arrive at the event, they will register by confirming pre-registration information, receive and put on their Envirothon t-shirts, take a team photo, and receive an orientation briefing on contest format, rules, and scoring, and be matched with their assigned Team Guides.

Team Guides will lead their teams through their assigned ecostation test rotation. Each team will complete one collective answer sheet for each test category. Cooperative decision making, free exchange of ideas, and information pooling are desirable and give Envirothon much of its unique appeal.

All ecostations are staffed by resource specialists. Each ecostation requires approximately 40-50 minutes to complete all six tests. Completed test sheets are graded either at the station or off-site and scores are rechecked.

After the competition and scoring is completed, all participants assemble for lunch, results, announcements, and award presentations. The top team is announced and plans begin to send a Delaware representative team to the NCF Envirothon. The NCF Envirothon is a challenging four-day event. The Delaware Envirothon Planning Committee will work closely with this team to help prepare them for the North American contest and for trip arrangements.

## **THE DELAWARE ENVIROTHON CHALLENGE: VIRTUAL EVENT**

A virtual Envirothon event will include online computer-based tests for each competition category as well as pre-recorded and pre-submitted oral presentations. Links for each test will be made available to the teams during a designated testing period. The tests will be timed with submission required prior to the end of the allocated time. While all team members are encouraged to assist with answering test questions, only one designated team member will be permitted to complete the test and submit their answers. No tests will be accepted after the testing deadline has passed.

Oral presentations must be pre-recorded and submitted by a designated deadline. Presentations will not be accepted after the deadline has passed. Instructions will be provided in advance.

Scoring will be done after the test and oral presentation deadlines. An award ceremony will be held virtually during a designated time/date after those deadlines have passed. The top team scoring team will represent Delaware at the NCF Envirothon, which may be done virtually or in-person.

## RULES

### Delaware Envirothon

1. Only students in grades 9 through 12 are eligible to compete in the Delaware Envirothon.
2. Any organization may host a team (s) whose members are in grades 9-12.
3. Each team competing in the Delaware Envirothon must consist of five students. Schools/groups may provide a list of alternates who are eligible to compete for any of the teams representing their school or group. The total number of alternates registered cannot exceed a maximum of two per the total number of registered teams for that school/group. (For example, XYZ High School has two teams. They may register a total of four alternates, who are then eligible to serve on whichever team needs them.)

Alternates are NOT allowed to come to the State Challenge unless they are replacing a team member. If a team member becomes ill the day of the event, the team will be allowed to fully participate with only four members. (Adopted 2007)

4. Advisors must register their teams as directed by the deadline. Registration procedures including the current registration deadline will be emailed to advisors and a registration announcement will be posted on the Delaware Envirothon website.

The maximum number of teams per school or group is four, only if one of the teams will be competing as an FFA team. Otherwise, the maximum number of teams is three. (Adopted 2018)

5. Teams with less than five (5) members on the day of the State Challenge may compete for experience, but the scores will NOT count, unless due to illness the day of the event (see Rule #3).
6. Advisors are responsible for ensuring all students have parental consent to participate in Delaware Envirothon activities and that the Code of Conduct/Photo Release is completed.
7. The State Champion team must compete in the NCF Envirothon using the five students on the winning team or, if necessary, a registered alternate. If the first-place team cannot be available for the NCF Envirothon, the second-place team from that year would automatically advance to represent Delaware. If the second-place team is not available to compete, then the third place team from that year would be eligible to compete in the NCF Envirothon.
8. A team registration fee may be required for teams intending to compete. The registration fee will be determined by the Delaware Envirothon Planning Committee.
9. Teams must be accompanied to all events by an adult team advisor.
10. Rules of the Delaware Envirothon are subject to change. Any and all changes will be explained in advance to all teams and advisors. Any suggestions or improvements to the rules will be considered by the Delaware Envirothon Planning Committee.11. Any

infraction of any of the Rules of the Delaware Envirothon could result in disqualification and dismissal from the event and host site. Refer to the Delaware Envirothon Code of Conduct at the end of this Handbook.

12. Training workshops will be offered to advisors and team members unless otherwise specified. All advisors are encouraged to attend and participate in every training session.
13. The Delaware Envirothon Challenge will reflect an 'ecostation' testing concept. This means all six resource topics will be tested at each ecostation. During the Challenge, only one test per each resource topic will be provided to teams at each testing ecostation.
14. Advisors may not travel with their teams during testing. Provisions will be made for advisors to visit test sites, separately from their competing team.
15. Snuff, tobacco, illegal drugs, alcohol, cell phones, smart watches or any other electronic devices are PROHIBITED during the entire competition. Rules applicable to the local area and sponsoring organization will also be adhered to.
16. Advisors will be responsible for assuring that teams display proper conduct during the competition.
17. Transportation to the Delaware Envirothon will be the responsibility of each team.
18. The competition will be conducted by the Delaware Association of Conservation Districts and partnership agencies, groups, and organizations.
19. Any special materials needed for the competition such as identification keys or maps will be provided by the testing station coordinators.
20. All volunteers located at each testing ecostation are to refrain from making disparaging comments about the test and to keep discussions quiet to provide the students with a respectable testing atmosphere.
21. Judges' decisions are FINAL on all events.
22. The team placement will be determined by the highest cumulative total points.
23. Cooperating agencies, sponsors, advisors, and participants involved in competition will be requested to complete an evaluation of the program following the competition event.
24. Any appeals must be submitted in writing within 10 days of the concern. Final decision will be made by the Delaware Envirothon Planning Committee. Appeals must be in writing and be sent to the Chairman at [rick.mickowski@delaware.gov](mailto:rick.mickowski@delaware.gov) or Delaware Envirothon c/o Del. Association of Conservation Districts, 1679 S. DuPont Highway, Dover, DE 19901.
25. Awards for the Delaware Envirothon will be determined by the Delaware Envirothon Planning Committee. An individual award is given to the state winning team and this is theirs to keep. Additional awards will be determined by funding.
26. During the State Challenge, all participating students will be identified as to their school/group.

27. The Delaware Envirothon Planning Committee will provide participating teams with clipboards, writing utensils and calculators, if needed, during the State Challenge. Students are not to bring any of these devices (including backpacks, etc.) to the testing sites. Students must bring their oral presentation note cards to the State Challenge and turn them in upon registration.
28. There will be a total possible 100—125 points scored for each discipline at each ecostation depending on the number of Ecostations that year. Scores will be in 'whole' numbers only.
29. If there is a tie score between two or more teams for first place, the Delaware Envirothon Planning Committee will use the Aquatic Ecology score as the tie-breaker and then the Forestry score, if further needed.
30. FFA environmental testing can take place immediately following the Delaware Envirothon Challenge.
31. Following the State Challenge, final team scores will be distributed to the advisors. Resource committee chairs will be available to assist advisors regarding their team's effort.
32. Team advisors may be provided an opportunity to evaluate the Delaware Envirothon during the State Challenge.
33. If any team member/advisor visits the scoring area during a state competition, that team will be disqualified immediately. (Adopted May 2012)

### **NCF Envirothon Challenge**

34. For the NCF Envirothon, any substitutes other than the registered State team and alternates must be first approved by the Delaware Envirothon Planning Committee and must be in accordance with NCF Envirothon rules and regulations.
35. If the team representing the Delaware Envirothon is noted for misbehavior or disqualified from further participation in the NCF Envirothon, that team's advisor and sponsor will be financially responsible for paying all expenses to this particular event.
36. Preparation material for the NCF Envirothon may be offered in metric and imperial measurement systems.
37. The Delaware Envirothon Planning Committee will meet with each year's Delaware Envirothon State Champions, and their advisors, prior to participation in the NCF Envirothon to review traveling procedures, registration requirements, Code of Conduct, etc.
38. Resource chairpersons and the Delaware Envirothon Planning Committee will hold an organized training workshop(s) with each year's Delaware Envirothon State Champions during the months of June and/or July in preparation for the NCF Envirothon.



## PREPARING A TEAM

Advisors will be responsible for training their team.

Workshops for each competitive area will be provided for advisors and their students. A maximum attendance, per team, may be issued depending on the workshop location.

Resource materials are available on the Delaware Envirothon website ([www.delawareenvirothon.org](http://www.delawareenvirothon.org)).

Delaware Envirothon Planning Committee members are prohibited from conducting training outside scheduled workshops. However, advisors are encouraged to reach out to other resource professionals for additional training as they see fit.

Advisors will be encouraged to participate in independent programs, field trips, as well as other opportunities offered in related areas throughout the state.

### **Team Registration**

Final team registration must be submitted by the predetermined date selected for that year. See the current date on the website ([www.delawareenvirothon.org](http://www.delawareenvirothon.org)). This will require the naming of five (5) team members and a maximum of two alternates per team. Teams not registered by this deadline cannot participate in the State Challenge.

## HELPFUL HINTS

The Envirothon competition is designed to get students involved in learning about many different environmental disciplines. The amount of information provided to Envirothon teams may seem overwhelming to team members and advisors. Below are a few helpful hints:

1. There are six subject areas and five team members. A team could assign each member an area of primary concentration and secondary concentration. This way, each team will have two members knowledgeable about, for example, forestry. Then, share the information with the others in practice sessions. Another way to divide the labor is to have several team members focus on natural history and identification and other members focus on the resource management issues for each section. Assessing the skills of each member will determine which approach is best for your team. Remember, no resource professional can know everything.

Teamwork is essential in the real world. Learning how to work as a team is essential to your success in the Envirothon.

2. Make sure all team members are familiar with basic ecology terms and current environmental issues. They should also develop an understanding of the interrelationship between all the topic areas and how the management of one resource may affect another.
3. Map reading is an important skill for natural resource professionals. Learn how to read and interpret a variety of map resources, such as a U.S. Geologic Survey topographic map, aerial maps, etc.
4. The Envirothon website ([www.delawareenvirothon.org](http://www.delawareenvirothon.org)) contains resources for each of the six study areas. The introduction gives a rationale for studying the topic and the objectives provide a detailed outline of the kinds of information teams are expected to know. Based on these objectives, students can develop a strategy for studying each topic. Teams should use the practice exercises to strengthen their skills.

Also contained in these sections are training resources as well as sample test questions.

5. Advisors are encouraged to use the resource materials to develop environmental units for their classrooms. This will expand the Envirothon Program to include more students than just those on the team.

## VOLUNTEER SUPPORT

The Envirothon has become successful because of the help of many volunteers. Conservation district boards, organizations, and many others work together behind the scenes to make certain the Envirothon happens. Though their work is not highly publicized, it does not go unrecognized.

The Natural Resources Conservation Service (NRCS) is an agency of the U.S. Department of Agriculture and supports the Delaware Association of Conservation Districts' efforts in pulling together the Envirothon Program. A big part of the support from NRCS comes from its volunteer arm, the EARTH TEAM. EARTH TEAM volunteers are all types of people who have one common goal - they care about our environment and our future. EARTH TEAM volunteers donate their time and talents to help preserve and protect our nation's natural resources.

Volunteering for the EARTH TEAM can be a very rewarding experience, and it can also help you. Some schools give extra credit for volunteer efforts — the experience learned is invaluable for students who are interested in natural resources and conservation efforts. For more information about the EARTH TEAM, contact your local Earth Team Volunteer Coordinator at (302) 678-4179. EARTH TEAM volunteers must be at least 16 years of age.

## DELAWARE ASSOCIATION OF CONSERVATION DISTRICTS (DACD)

### *WHAT A DISTRICT IS...*

A conservation district is a quasi-state agency authorized by state legislation responsible under state law for conservation work within its boundaries. In Delaware, conservation districts border county lines.

Conservation districts:

- focus attention on land, water, and related resource problems;
- develop programs to solve them;
- enlist and coordinate help from public and private sources to accomplish the district goals; and
- increase awareness of the inter-relationship between human activities and the natural environment.

Districts are managed by citizens who know local problems. Each conservation district is guided by a board of at least six supervisors - four elected by landowners in local elections, one representing county government, and a county extension agent.

It is the district supervisor's responsibility to plan and direct the district program, coordinate the help of governmental agencies, assign priority to requests for conservation technical assistance from private landowners, and serve as a community clearinghouse for information services.

### *HOW DISTRICTS WORK. . .*

The district board of supervisors meets at least monthly and all meetings are open to the public. Much of the districts' effectiveness is due to their ability to work with local, state, and federal agencies to solve local environmental problems. Districts enter into agreements (memorandums of understanding) with cooperating agencies and organizations that outline the obligations of each party and the assistance available.

Each conservation district employs a district manager and technicians who do the leg work for the nonpaid supervisors. District operations are supported by federal, state and local government and private individuals. The Natural Resources Conservation Service (NRCS) of the U.S. Department of Agriculture and the Delaware Department of Natural Resources and Environmental Control (DNREC) provide technical leadership to each conservation district. The districts receive an annual allocation from Delaware administered through DNREC. This funding supports personnel and administrative costs. Districts also obtain funding from county governments to address local resource needs. Additional funding is received through special conservation grants and equipment rental. Employees within the district provide technical, administrative, and clerical support to district programs. Earth Team Volunteers assist them in carrying out the district conservation programs.

Agencies cooperating with conservation districts include, but are not limited to: USDA Cooperative Extension, USDA Natural Resources Conservation Service, USDA Farm Service Agency, Delaware Department of Agriculture, Delaware Department of Natural Resources and Environmental Control, University of Delaware and the First State Resource Conservation and Development Council.

#### *WHAT DISTRICTS DO...*

Programs may vary from district to district since each conservation district develops its own program to best suit the environmental needs of the county's residents as well as the area's resources.

Delaware conservation districts work directly with farmers, landowners, and municipalities on the following types of challenges: water quality protection; storm water management; aquifer protection; land use planning; erosion and sediment control on land undergoing development, farmland, critical areas, and public lands; flooding problems; wetlands delineation; soil survey information; sustainable agriculture; and agricultural land preservation.

#### *STATE AND NATIONAL ASSOCIATIONS...*

Delaware's district supervisors have a statewide organization known as the Delaware Association of Conservation Districts (DACD). DACD is a voluntary, non-profit alliance, providing a forum for discussion and coordination among the districts as they work to ensure the wise use and treatment of renewable natural resources.

The 3,000 conservation districts across the United States belong to the National Association of Conservation Districts (NACD). This organization's primary goal is the conservation, orderly development, and judicious use of the nation's resources. Visit [www.nacdnet.org](http://www.nacdnet.org) for more information.

Both of these organizations make the effort of conservation districts more effective by providing a vehicle through which conservation districts can band together to promote their causes at the state and national levels.

For more information contact:

Delaware Association of Conservation Districts  
1679 S. DuPont Highway  
Dover, Delaware 19901  
Phone: (302) 608-5370  
Fax: (302) 736-7920  
[www.dacdnet.org](http://www.dacdnet.org)

# **DELAWARE ENVIROTHON PLANNING COMMITTEE**

## **CHAIRMAN**

Rick Mickowski (New Castle Conservation District)

## **VICE CHAIR and AIR QUALITY**

Michelle Jacobs (DNREC – Division of Community Affairs)

## **SECRETARY and ORAL PRESENTATIONS**

Sarah Culler (Delaware Solid Waste Authority)

## **TREASURER**

Gayle Wills (Delaware Association of Conservation Districts)

## **DACD REPRESENTATIVE**

Jennifer Nelson (Del. Association of Conservation Districts)

## **AIR QUALITY**

Dawn Minor (DNREC – Division of Air Quality)

## **AQUATIC ECOLOGY**

Kenny Smith (DNREC – Division of Watershed Stewardship)  
Laurel Sullivan (DNREC – Division of Climate, Coastal & Energy)

## **CURRENT ISSUE**

Jayne Arthurs (USDA Natural Resources Conservation Service)  
Sharon Webb (DNREC – Division of Watershed Stewardship)

## **FORESTRY and NCF OPERATING COMMITTEE**

Ashley Melvin (Delaware Forest Service)

## **SOILS/LAND USE**

Tim Garrahan (USDA Natural Resources Conservation Service)

## **WILDLIFE**

Mark Ostroski (DNREC – Division of Fish & Wildlife)

## **MEMBERS**

Alisa Bentley (Kent Conservation District)  
Jacquelyn Waller (Sussex Conservation District)  
Kerin Hume (Delaware Dept. of Transportation)

## Delaware Envirothon Team Code of Conduct/Photo Release

When a Delaware Envirothon team and their advisor(s), represent the State of Delaware and/or the Delaware Envirothon at in-person or virtual events (meetings, trainings, competitions, award ceremony, etc.) they shall conduct themselves so as to not blemish or discredit the Delaware Envirothon program. This includes proper dress and language, attending all sessions in the planned program, following event rules and abiding by instructions according to Delaware Envirothon planning committee requests and recommendations. Behavior that is abrasive, violent, irresponsible, abusive, rude, or illegal will not be tolerated. The use of tobacco, alcohol, electronic devices and non-prescribed drugs is prohibited at all Envirothon events. Students participating in a virtual Envirothon competition shall refrain from use of literary resources, cell phones, web browsers (except to access the competition tests) and/or other electronic devices while completing online exams (this includes the person completing the test and all other supporting team members). If, at any time, a Delaware Envirothon team member or their advisor(s) causes action that result in a discredit to the Delaware Envirothon program, they shall immediately be removed from the program at their expense. If this occurs during an event, the organization that sponsored this team will be responsible to reimburse the Delaware Envirothon program for all expenses incurred.

I/we have read the Delaware Envirothon Handbook for Advisors and Students, including the Code of Conduct, and agree to abide by to the expectations as stated. I realize that failure, on my/my child's part, to do so will result in the immediate loss of the privilege to be a part of the Delaware Envirothon Program.

Additionally, I grant the Delaware Envirothon Planning Committee, or its representatives, permission to take photographs and/or video of me/my child in connection with Delaware Envirothon activities, i.e. training, competition, etc. Photographs may be taken at in-person events and screen shots may be saved from virtual events. I authorize the Delaware Envirothon to use and publish the same in print and/or electronically. I agree that the Delaware Envirothon, or its representatives, may use such photographs or video of me without my name, and for any lawful purpose, including for example, such purposes as publicity, illustration, advertising, and Web content.

Student's Name (print clearly)\_\_\_\_\_

Student's Signature\_\_\_\_\_

Date\_\_\_\_\_

Parent/Guardian Signature\_\_\_\_\_

(required for students under age 18)

Date\_\_\_\_\_

As sponsoring organization of (list team name)\_\_\_\_\_, I fully agree with the Delaware Envirothon Code of Conduct and will support the Delaware Envirothon Planning Committee in the performance of their responsibilities to see that appropriate behavior is maintained.

Advisor's Signature\_\_\_\_\_

Date\_\_\_\_\_

Form must be completed and returned to the Delaware Envirothon prior to participating in Delaware Envirothon events.