

# Florida Envirothon

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## INTRODUCTION

The Florida Envirothon is a problem-solving, natural resource education program for high school students. It is a field-oriented program in which students, working in teams of five, learn to use critical thinking skills, work as a team, and develop problem-solving and communications skills to answer written questions or conduct hands-on investigations about environmental issues.

The program focuses on the following five areas of study: AQUATICS, FORESTRY, SOILS, WILDLIFE, and CURRENT ENVIRONMENTAL ISSUES. The current environmental issue is different each year. These interrelated and broad study areas teach a holistic approach to natural resource conservation and can be incorporated easily into a teaching curriculum.

The Florida Envirothon stimulates, reinforces and enhances students' interest in the environment and Florida's natural resources. The concept was created in 1979 by the Pennsylvania Association of Conservation Districts as an outdoor, hands-on educational competition for students who are concerned about the conservation of natural resources and the environment. The Envirothon is an educational program that promotes good stewardship of the land while giving students an awareness of environmental issues and human impacts. From "Environmental Olympics," the concept expanded to other states, and when the national competition was added in 1988, the name was changed to Envirothon.

The Florida Envirothon stimulates practical curriculum development by establishing broad study areas and helping schools to find useful resources in their community. Partnering among schools, resource agencies and other environmentally concerned organizations is encouraged and promoted. The Florida Envirothon encourages a constantly changing curriculum and helps to build strong ties between schools and the organizations that help them teach a hands-on, interdisciplinary perspective of environmental awareness and education.

A resource packet with information on the five study areas is provided through local Soil and Water Conservation Districts or sponsoring groups to interested teams and schools. These materials can be used as supplementary curriculum materials for classroom study at any level. Conservation Districts, in conjunction with cooperating agencies, educators, and community and interest groups, conduct regional Envirothon competitions in the spring. Winners from the regional competitions compete in the state competition. The winning team from the state competition represents Florida at the National Event—Canon Envirothon.

# ENVIROTHON STRUCTURE

## STUDY AREAS OR TESTING STATIONS

### **Aquatics**

Water ecology, water chemistry, plants and animals living in or around water, water quality, water conservation, etc.

### **Forestry**

Forest ecology, tree identification, insects, diseases, timber measurements, forest management, urban forestry, forest economics, etc.

### **Soils**

Classification, soil formation, basic chemical and physical properties, profiles, soil characteristics, soil surveys, site suitability, erosion, land use, conservation practices, etc.

### **Wildlife**

Identification, habitat, foods, diseases, rules and regulations, management, etc.

### **Current Environmental Issues**

A topic selected annually by the State or Regional Envirothon Planning Committee. Most years the Florida Envirothon Committee selects the same topic as the National Committee and the Study Materials are found at [www.envirothon.org](http://www.envirothon.org).

## FIELD SITES

Local, regional and state Envirothons have a maximum of five test areas but may have more than five test stations set up in the field. A contest theme should be developed to drive the educational focus and ensure an interdisciplinary approach to learning. The Envirothon site, local topography, geophysical conditions or issues could determine the theme. Because themes, written questions and problem-solving tasks may be site specific, each competition may be different.

Envirothons, including both judging and results, should be conducted in one day. The following items should be considered when selecting a site: accessibility, rest rooms, handicap accessibility, picnic/lunch areas, display area, inclement weather facilities, appropriate areas for stations, distance between stations, and parking for school buses. Unique or outstanding environmental or habitat features (that can be incorporated into test questions or hands-on activities) will enhance the students learning experience. The outdoor area should have enough room to space the testing stations so that students won't be overheard by students at other stations. Every attempt should be made to dig a soil pit, to sample pond or lake water, to walk through a variety of trees and grasses, and to allow for a current event category - such as solid waste where you may want to demonstrate a hazardous waste site. Remember that any state park will require special permission before any digging can take place. If the park has been designated as a historical or archeological site, permission will be required from the Florida Governor's

Office.

## **DATE SELECTION**

Check local school calendars to eliminate as many conflicts as possible in selecting a date. The Envirothon should take place as a school-approved activity on a school day. School Board approval may be needed and the necessary forms and paperwork should be initiated during the summer before the beginning of the school year. Develop a time line as a guide to setting a date. Consider holidays, both religious and national, staffing and site availability. The best dates are usually between January and March, to allow adequate time to submit Florida Envirothon State Registration Forms (see forms section for due date).

## **ORGANIZING AN ENVIROTHON**

Critical to any successful Envirothon competition is the quality and enthusiasm of the Planning Committee. The first organizational meeting could be hosted by a Soil and Water Conservation District. The purpose of this first meeting is to introduce the Florida Envirothon and invite other agencies, groups and individuals to participate.

## **INVITATIONS**

Invitations to potential Planning Committee members may be accomplished by phone calls and letters. Many agencies or groups require a written request or letter in order to participate in programs. However, contacting people by phone will allow you to market the Envirothon concept to individuals who may not be familiar with the program. All phone calls should be followed up by a letter stating the purpose of the meeting, date, place, time and, if possible, a proposed agenda. People to consider for your Planning Committee are area/district representatives of agencies that have an vested interest in environmental issues. See listing provided under VOLUNTEERS for people to consider for the Planning Committee.

## **THE FIRST MEETING**

An agenda should be developed for this crucial meeting.

Welcome and introductions

History, purpose and objectives of the Envirothon, viewing of state or national video if available

Envirothon rules and regulations

Identification of other natural resource professionals or interested parties to include on committee

Establishment of committees and due dates for assignments

Test Sections

- Set current issue
- Establish test question format and criteria
- Solicit judges
- Develop testing questions

- Compile needed study materials for each section and develop resource packets
- Establish test question review committee, which will review all test questions

#### Judging

- Establish judging criteria
- Establish grievance procedures and hearing committee

#### Funding and media

- Solicit funding from a variety of sources
- Develop funding request package
- Coordinate media coverage
- Provide clipping of news articles, etc.
- Provide photo coverage of event

#### Logistics

- Establish site criteria
- Locate site (see Field Site section)
- Develop and distribute needed forms and materials
- Organize registration, sign-in, meals, etc.

#### Volunteers

- Solicit and organize volunteers for before, during and after the event
- Provide support for all volunteers and thank you at conclusion of event

#### Review Planning Committee responsibilities

Distribute Florida State Envirothon information

Establish time line and deliverable dates

Next meeting date, time and location

## **RESPONSIBILITIES OF PLANNING COMMITTEE**

The Planning Committee responsibilities are as follows:

1. To endorse and sponsor the regional competition within regional boundaries as established by the State Committee
2. To plan a year-round, school program that not only gets high school students and teachers informed about natural resources, but also emphasizes team building, problem solving and communications skills
3. To work with local school boards, teachers, 4-H, FFA, Project WILD, Project Learning Tree, Home School students, etc., to identify students and teachers interested in forming Envirothon teams
4. To identify natural resource professionals within the region who would like to work with the Envirothon teams as part of their outreach efforts toward high school students
5. To coordinate training between interested students, teachers and professionals through field trips, nature hikes, night hikes or presentations/demonstrations
6. To develop resource training packets for each station and distribute to each interested team and to continually update and revise packets
7. To hold regional competition in the spring that will identify a team of five students with an alternate to represent the region at the state competition

8. To raise the money necessary to accomplish the following
  - Hold the regional Envirothon competition
    - (Expenses may include money for food and snacks, Tshirts with Envirothon logo, awards, facilities, substitute teachers, transportation, overhead costs such as mailings, printing, etc.)
    - Send winning team or teams to state competition (optional)
9. To evaluate current competition and make meaningful adjustment in future competition

## **RESPONSIBILITY OF ENVIROTHON COORDINATOR**

The coordinator or program manager is responsible for the following:

1. Arrange for meetings and appoint chairperson of the Planning Committee.
2. Notify participants of meetings.
3. Write and distribute meeting summaries.
4. Draft letters to schools/teachers inviting them to participate.
5. Present Envirothon to the School Board if required by your school district.
6. Apply for School Board approval.
7. Gather all resource materials (in quantities if possible) from Planning Committee members for teachers.
8. Proofread all materials.
9. Copy all materials for distribution to schools that register for the Envirothon.
10. Write and distribute news releases through Logistics Committee.
11. Arrange for a field trip to the site; prep site.
12. Schedule volunteers for the day of the event through the Logistics Committee.
13. Develop operations budget.
14. Seek local sponsors through Funding Committee.
15. Send thank-you letters to all participants/sponsors on behalf of the Planning Committee.

## **RESPONSIBILITY OF OTHER PARTICIPATING AGENCIES**

Distribute the workload to ensure the Envirothon is a success.  
These are the items other Planning Committee members must do:

**Test Development** - questions; determination of correct answers; scoring systems

**Test Administration** - test site setup; staffing the testing stations; adequate staffing and volunteers to score test

**Technical Expertise** - available to answer teachers'/team advisors questions; available to visit schools

**Resource Study Packet** - writing sample test questions; providing a reference book list and glossary; provide sample materials in quantity and good quality photocopies of hard-to-find

articles

**Administration** - site inspection/field trip; site map/signs; attendance at meetings; volunteers for day of event to assist with setup/cleanup and other tasks

**Sponsors** - local sponsorships of lunches, T-shirts for participating teams, score sheets, etc.

## **SCHEDULING MEETINGS**

Schedule a second meeting. Establish a convenient day and time for all subsequent meetings. Mail meeting reminders, along with items due, one week in advance of a meeting. Make a reminder call the day before a meeting.

Provide a sign-in sheet and mail a copy to all Planning Committee members along with meeting minutes and committee reports. The committee reports should include accomplishments by the committee to date, outline the next steps of action with a clear notation of who is responsible and due date for each step. Mail minutes and reports as soon as possible after the meeting.

## **RESOURCE STUDY PACKETS**

The Florida Envirothon Committee has developed a Resource Study Guide that can be used by Regional Envirothon Committees. Regional Envirothon committees may also develop their own Guide tailored to their own region. Resource Guide materials may include: a description of each agency or organization participating in the competition, a glossary of terms relevant to your area of expertise, a reference list of publications that would be easily accessible to teachers and their students. If overheads, booklets and other items in quantity are to be used, they can be included in the resource guide sample test questions.

Many agencies or organizations have publications that would be applicable for the resource packets. Remember, enough copies will be required for each team to receive one. If enough copies of a publication are not available, photocopies could be used for material that is not copyrighted.

The Florida Envirothon Resource Study Guide is available at [www.flenvirothon.com](http://www.flenvirothon.com) and other materials are available at [www.envirothon.org](http://www.envirothon.org)

## **BUDGET**

Develop a potential budget for the competition that could include the following:

- Costs for mailings
- Photocopying
- T-shirts for participants and advisors
- Certificates for all participants

- Plaques for top three high school teams
- Monetary award for each member of top team (optional)
- Lunches for all participating Planning Committee members, advisors, and other helpers at the competition site
- Signs for each station table
- Two-way radios; water/refreshments at stations
- Lunches for participants
- Staging area with a microphone and sound system

Some of these materials could be funded through in-kind services or contributions, but should still be listed on your budget for grant purposes.

## **SPONSORS**

Sponsors can be solicited by the Funding Committee for the items above. For example, the local fast-food franchise may provide box lunches and drinks for the day of competition. Be sure all sponsors are recognized for their assistance both during the event and after the event. Sponsors may be listed in the program guide, acknowledged before distributing prizes, and/or sent letters of appreciation.

## **TIME SCHEDULE OR TIME LINE**

Draft a time line or schedule with deadlines for the Planning Committee to review and revise. Items to include on this time line include the following:

- School Board approval requests
- Letter soliciting school participation
- Deadline for schools to sign up for event
- Date resource materials are due to committee organizing packets
- Mailout date for packets
- Due date for test questions
- Due date for completion of test questions review
- Due date for volunteer sign up
- Date for final site selection (this item may be needed before School Board approval can be granted or information mailed to schools)
- Final registration deadline
- Date of contest (needed for School Board approval)
- Final mailing of site information, rules, etc., to schools
- Day of event timetable finalized

## **SCHOOL CONTACTS**

If you have an opportunity to address a group of science or agriculture teachers before the mailing to teachers, please use it to tell them about the Envirothon. Pre-service (teacher planning

time before school starts) Environmental Education workshops and Superintendent/Principals meetings are good places to start.

Request a listing of schools from your local Regional Service Project for Environmental Education or the Department of Education in Tallahassee. A listing of teachers in the areas of agriculture or FFA, science, environmental science and ecology is usually available. Advisors of environmental, ecology and/or science clubs should also be included. Send letters to teachers and principals for each school, and include background material on the Florida Envirothon and its objectives and a registration form and competition timetable.

### **REGISTRATION DEADLINE**

Allow enough time between the registration cutoff date and the actual competition date to seek more entries, volunteers and staffing, if necessary.

### **SITE INSPECTION**

The Planning Committee should tour the selected site to plan the layout of the event. This could be in conjunction with a planning meeting, but be sure to allow time for all committee members to thoroughly become familiar with the site and location of stations.

Communications between test stations and resource people should be planned. They can be maintained with two—way radios and volunteer “runners.” Small canopy tents for shade purposes may be needed along with tables or chairs for materials and judges. All of these needed equipment items should be planned during the site visit.

## **MEDIA RELATIONS**

### **NOTIFY MEDIA OF THE EVENT**

Once you know that you have high schools signed up, write a news release announcing the competition and the date, including a brief explanation of the Envirothon competition. Be sure to include a contact name and phone number for the reporter to use if they need additional information.

Send this basic release to the following individuals in your community:

- environmental reporters and broadcasters;
- directors at TV, cable and radio; and
- public service columns at newspapers.

Several weeks later, you may want to send out a second news release announcing the high school teams that will be competing. This release should be sent to the lifestyle editors and city desk editors at the newspapers. Also, send it to each of the high schools participating for inclusion in their school newspaper.

Two weeks before your Envirothon, send out a one-page information sheet to the photo desk and city desk editors at the newspapers and TV news assignment editors. Be sure to tell them about the visual hands-on elements of your Envirothon competition, and stress aspects that will translate to an interesting video story or make a striking photograph.

If you can get a volunteer to take black and white photos of your Envirothon, have some prints made and send them with a short description, or cut line, of who, what, when and where. It might also be valuable to have a volunteer take slide or color photos of the event for future slide shows or presentations.

These photos and descriptions can be sent to each newspaper in your community and can be used in the high school newspapers. They can also be used by Envirothon sponsors in their company newsletters and publications to show community involvement.

### **ANNOUNCE THE STATE FINALS**

The Florida Envirothon state competition will provide another opportunity to contact your local media. In this news release, mention which high school(s) from the community will be going to the state finals, along with the date and location of the finals.

## **FINAL COUNTDOWN**

At this point, the Envirothon is within four weeks. Here are a few items that need to be reviewed with the Planning Committee:

**Event Logistics** - after the final count of high schools, check the rotation times, the number of volunteers expected and adjust accordingly. Print a competition site map (indicating lunch site, awards presentation areas, restrooms, testing sites, trails, etc.) for distribution to school team members, alternates, team advisor, planning committee members and all volunteers.

**Banners** - a banner at the entrance to the competition site would be appropriate with wording "Welcome to the Florida Envirothon." A date may be placed on the banner, but its use will be limited. This is an item a sponsor might be willing to donate, provided their name is on the banner. If budget permits, banners or signs may be hung at each of the test stations for better visibility.

**T-shirts** - Print T-shirts with the Florida Envirothon logo on one side and the date and name of your Envirothon on the other. Contact the State Envirothon Committee to get an original logo for use by printers.

Sponsors logos may also be used on these shirts. T-shirts may be given to steering committee members and other resource volunteers, as well as sponsors.

**Coordinating volunteers** - each Planning Committee member should be responsible for a test station and staffing it with volunteers. As a group, investigate other organizations that may volunteer on the day of the Envirothon.

**Tests and evaluation forms** - the tests and scoring grids, as well as the evaluation forms for advisors, should be given a final review by the Planning Committee and then printed in ample quantities for the individual who will be using them. Total or cumulative scoring is best done on a portable computer (if available) in either Lotus or Excel. These programs can be quickly programmed with team names and scoring formulas.

**Awards** - It is suggested that every participant should receive a certificate with the Envirothon logo and date of the competition. Medals or trophies may be used for first, second and third place team members and/or team trophies, and perhaps cash prizes to the schools, depending on the budget.

## **DAY OF ENVIROTHON**

Check and recheck everything before the teams arrive - banners, signs, test stations, communications.

Make sure scoring grids, site maps, rules and regulations, programs, tests, rotation time sheets, and evaluation forms are ready to hand out. Pencils and clipboards should be available, or ask students to bring their own.

Conduct briefing sessions with teams and advisors before the competition. Point out restroom facilities, first-aid areas, Envirothon coordinators and volunteers.

## **EVALUATIONS**

All aspects of the competition should be evaluated by all participants, volunteers and committee members. Evaluations should include questions about the following areas:

- Communications - before, during and after the competition
- Test stations - questions, understanding, resource materials, etc.
- Sign in, registration, awards procedures
- Whether team members, advisors, volunteers are willing to attend next year's competition
- Suggestions for changes, additions or deletions

After collecting all the evaluations, information should be compiled and distributed to all Planning Committee members at the synopsis meeting. Comments from the evaluations can assist you in planning a better competition each year. Remember, do not take evaluations personally. Use your good judgment and the judgment of your committee regarding comments and suggestions.

## **AFTER ENVIROTHON**

Before you get ready for your next Envirothon, there are a few additional tasks:

- Compile the evaluations/comments
- Discuss event at a wrap-up meeting
- Summarize the event and the budget
- Call your sponsors and ask what they liked/didn't like/how it could be improved, etc.
- Send thank-you notes to everyone who participated, including the Parks Department personnel
- Schedule the first meeting for next year.

## **Florida Envirothon Proposed Program Goals and Objectives**

**Goal 1: To promote a desire to learn more about the natural environment and skills to apply the basic principles and practices of resource management and ecology.**

- A. *Basic knowledge and awareness:* Students should be able to demonstrate a basic knowledge of concepts in resource management and ecology, especially in the areas of soil, water, forestry, wildlife and current environmental issues.
- B. *Analysis skills and resource management practices:* Students should be able to apply methods of analyzing soil, water, wildlife, forestry and current environmental issues to hands-on analysis or problem solving activities involving resource issues.

**Goal 2: To promote stewardship of natural resources and develop critical thinking, cooperative problem solving skills, and decision making skills of students to balance the quality of life and the quality of the environment.**

- A. *Identification of environmental problems:* Students should be able to identify environmental issues in a given situation and the various interests involved in the issues, taking into consideration ecological, social and economic factors.
- B. *Issue investigation:* Students should be able to investigate issues using both primary and secondary sources of information and synthesize the data gathered and demonstrate the following skills: listening with comprehension, collecting, organizing and analyzing information, framing appropriate questions to guide their investigation, use a range of resources and technologies in addressing questions, and critically examine information from a variety of sources.
- C. *Comprehension of different points of view:* Students should be able to assess the nature of information and materials from a variety of different viewpoints and evaluate their implications.
- D. *Ability to generate alternative solutions:* Students should be able to identify alternative solutions for various issues and value perspectives associated with these solutions. They should be able to evaluate alternative solutions with respect to their ecological and cultural implications. Alternatives generated should attempt to take into consideration the variety of interests involved while maintaining a healthy environment.
- E. *Evaluation of personal positions:* Students should be able to identify and evaluate their own position on environmental issues and associated solutions. These positions should be based on balanced information, critical analysis, careful synthesis, and test their position against new information and personal experiences and beliefs.

- F. *Ability to think ahead:* Students should be able to evaluate the interaction of proposed solution with other ecological and social factors and to plan ahead when evaluating the long and short-term implications of possible solutions to environmental problems.
- G. *Ability to communicate:* Students should be able to communicate information and view points regarding environmental issues effectively based on balanced information, critical analysis and sound resource management principles and practices.

**Goal 3: To provide students with experience in environmentally-oriented activities to enable them to become environmentally aware, action oriented citizens**

- A. *Knowledge of strategies:* Students should have a knowledge of a wide range of action strategies involved in seeking solutions to environmental problems.
- B. *Working with resource management agencies and organizations:* Students should have a knowledge of agencies and organizations that can be used as resources to seek solutions to environmental problems.
- C. *Evaluating the effect of personal actions:* Students should be able to evaluate the impact of their own actions affecting a particular environmental problem and devise alternative actions to work towards improving environmental conditions.
- D. *Ability to work alone and with others:* Students should be able to work individually and cooperatively with others to develop action plans for solving environmental problems.

## **Soil Key Points**

Students should be able to:

- recognize soil as an important dynamic resource.
- describe basic soil properties and soil formation factors.
- understand soil drainage classes and know how wetlands are defined.
- determine basic soil properties and limitations, such as mottling and permeability by
- observing a soil pit or soil profile.
- identify types of soil erosion and discuss methods for reducing erosion.
- use soil information, including a soil survey, in land–use planning discussions.
- discuss how soil is a factor in, or is impacted by, nonpoint and point source pollution.
- interpret maps and other images.

## **Wildlife Key Points**

Students should be able to:

- identify common wildlife species and wildlife signs. Keys will be used for more
- extensive identification.
- identify basic wildlife survival needs.
- describe specific adaptations of wildlife to their environment and role in the ecosystem.
- describe predator–prey relationships and identify examples.
- describe food chains and food webs and cite examples.
- describe factors that limit or enhance population growth.
- evaluate a given habitat for its suitability for designated species when given a description of
- their habitat needs.
- describe ways habitat can be improved for specific species based on their requirements.
- discuss the concept of carrying capacity and limiting factors.
- discuss various ways the public and wildlife managers can help in the protection,
- conservation, management and enhancement of wildlife populations.
- describe the potential impact of the introduction of non–native species.
- describe major factors affecting threatened or endangered species and methods used to
- improve the populations of these species.

- interpret maps and other images.

## **Aquatic Key Points**

Students should be able to:

- identify the processes and phases of each part of the water cycle.
- describe the chemical and physical properties of water and explain their implications for freshwater and marine ecosystems
- analyze the interaction of competing uses of water for water supply, hydro power, navigation, wildlife, recreation, waste assimilation, irrigation, industry and others.
- discuss methods of conserving water and reducing point and non-point pollution.
- explain the different types of aquifers and how each type relates to water quantity and quality.
- describe the function and value of wetlands.
- describe alterations to the aquatic habitat caused by changes to aquatic ecosystems.
- know how to assess and manage aquatic environments and how to determine the general water quality of a given water body. This includes sampling techniques and water quality parameters used to monitor point and non-point pollution.
- be familiar with major methods and laws used to protect water quality, both surface and groundwater, and be able to use this information to make management decisions to improve the quality of water in a given situation.
- interpret maps and other images.
- explain groundwater and its uses in Florida including recharge and discharge points or areas (springs and artesian wells).
- understand how soils can influence water quality and serve to filter some pollutants from the water.
- understand the biological components of aquatic systems.
- understand how water regimes influence habitats.

## **Forestry Key Points**

Students should be able to:

- identify common trees without a key and identify specific or unusual species of trees or shrubs through the use of a key.
- understand forest ecology concepts and factors affecting the, including: the relationship between soil and forest types, tree communities, regeneration, competition and succession.
- understand the cause and effect relationship of factors affecting tree growth and forest age structure, snags and dead trees, availability of food and riparian zones.
- understand how the following issues are affected by forest health and management: biological diversity, forest fragmentation, air quality, aesthetics, fire, global warming and recreation.
- understand basic forest management concepts and tools, such as how various silviculture practices are used, the use of tree measuring devices and the use of best management practices.

- apply silviculture concepts and methods to develop general management recommendations for a particular situation and set of management goals.
- identify complex factors that influence forest management decisions (economic, social and ecological).
- understand the value of trees in urban/suburban settings and the factors affecting their health and survival.
- interpret maps and other images.

## **Current Issue 2011**

### **Salt and Fresh Water Estuaries**

Salt water estuaries are semi-enclosed areas where sea water and freshwater mix. Freshwater estuaries are regions where lake and river waters mix. Estuaries are among the most productive ecosystems on earth and have been considered by some to be second only to the rainforests in productivity. They also are important as a first line of defence against the destructive power of the oceans caused by hurricanes, tropical storms, strong gales, high tides, and other natural disturbances. New Brunswick borders the southern Gulf of St. Lawrence which has been called one large estuary. Many of the coastal estuaries in New Brunswick are sheltered by sand dunes, bays, harbours, and salt marshes. These systems are driven mainly by fresh water runoff and tidal influences of the saltwater resulting in rich and diverse aquatic and terrestrial ecosystems.

As an example, one of the largest estuarine areas in Eastern Canada is the Tantramar Salt Marshes, located adjacent to the 2011 Canon Envirothon base in Sackville, New Brunswick, Canada. Estuaries in New Brunswick as in other parts of North America are under pressure for habitation, industrial uses, and recreation. Since Acadian settlers arrived from France in the mid 1500's, the Tantramar marshes and estuaries have been dyked, drained for farming and even mined for salt. Even prior to this the Mi'Kmaq First Nations used these lands for bird hunting, shellfish gathering and fishing, sometimes modifying streams and drainages to facilitate their gathering.

Despite these changes, these estuarine marshlands still provide valuable ecosystem functions such as habitat for wildlife, a place for hundreds of marine organisms to spawn, filter sediments and pollutants, and acting as a buffer between land and ocean by absorbing floodwaters and dissipating storm surges.

#### **Resources:**

<http://www.envirothon.org/component/content/article/199-2011-current-environmental-issue.html>

[Material for Estuaries \(pdf\)](#)

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850.236.8675 extension 222  
[decronwell@pbsj.com](mailto:decronwell@pbsj.com)

## **Florida Envirothon Rules and Regulations**

1. The rules and regulations of the Florida Envirothon are subject to change the Florida Envirothon Board. Any and all changes will be provided in advance to all teams and advisors. All changes will be announced and distributed upon request to all Envirothon organizing groups.
2. All Envirothon organizing groups that plan to conduct a regional Envirothon must complete and submit The Florida Envirothon Intent to Compete Form found in the current manual to the Florida Envirothon Board by **January 14, 2011**, in order to be recognized as an official regional Envirothon.
3. It is suggested that all correspondence to the Envirothon Board be via a local Soil and Water Conservation District representative.
4. All Envirothon competitions must include hands-on and problem solving activities in five areas: soil, wildlife, forestry, aquatics and current issues.
5. Students must be registered in grades 9–12 for the current school year to compete in the Florida Envirothon.
6. The use of tobacco products, drugs and alcohol is prohibited at any activities associated with the Florida Envirothon. All rules of the host facility will apply.
7. Transportation, lodging and meals are the responsibility of the team members and their advisors, unless otherwise indicated.
8. Teams must consist of five members who represent the same school or organization and must participate in all planned Envirothon activities.
9. All participating Envirothon team members must wear Envirothon T-shirts and name tags, for safety and identification purposes.
10. Resource materials to prepare the team for the competition will be provided by the regional and state resource committees for their respective competitions.
11. Resource materials are prohibited at testing sites during the competition unless provided by the testing proctor.
12. All regional Envirothon organizing groups must complete and mail or fax The Florida

Envirothon Regional Participation Form and the Florida Envirothon State Registration Form to the Florida Envirothon Board by **April 15, 2011**.

13. All requests for extensions past the **April 15, 2011**, deadline must be made in writing and will be granted at the discretion of the Florida Envirothon Board of Directors.
14. The team with the highest cumulative score is eligible to participate in the next level of competition; however, if the team chooses not to participate, the team with the next highest score becomes eligible.
15. Each county may send one representative team to the state Envirothon competition, providing that team has competed against at least one other team from at least one different school or organization within the same county. If several counties hold a competition and are represented by only one school or organization, only the highest scoring team will be sent to the State Envirothon.
16. All late arriving teams will be placed at the next beginning rotation or other appropriate starting point rather than be inserted into the middle of a location or test section. No provisions will be made for teams to make up missed test section.
17. All late arriving teams will be ineligible to be overall winners of the competition.
18. Team registration fee of \$20.00 per person must be paid for a team to be eligible to participate in the Florida Envirothon competition.
19. To be eligible for placement at the state competition, the team must be made up of the original five team members, or an alternate who participated on the same team at the regional Envirothon.
20. Alternate team members are allowed to attend only as a replacement for an official member.
21. Contact the Florida Envirothon Board if team members with special needs will be competing.
22. Tie-breaker procedures and appeals committees must be established before the competition. Judge's decisions are final.
23. The overall winner of the Florida Envirothon competition is the team that is eligible for placement, participates in all planned Florida Envirothon activities and receives the highest cumulative in the five testing areas.
24. For more information, contact the Florida Envirothon Chairperson or Events Chair. (see page 18).

The Florida Envirothon  
Intent to Compete Form  
Location: Jonathan Dickinson State Park  
Date: **April 30, 2011**

Name of Regional Envirothon:

Counties Included:

Anticipated number of teams competing at Regional:

Contact Person:

Address:

Phone:

FAX :

E-Mail Address:

Location of Regional Competition:

Expected Date of Competition:

Number of teams expected to attend Florida Envirothon:

E-mail to : [babgill@windstream.net](mailto:babgill@windstream.net)

Or online:

<http://flenvirothon.com/index.htm>

**DUE DATE: JANUARY 15, 2011**

**The Florida Envirothon  
State Registration Form  
Location: Jonathan Dickinson State Park  
Date: Saturday, April 30, 2011**

Name of Regional Envirothon: \_\_\_\_\_

Winning Team Name: \_\_\_\_\_ County \_\_\_\_\_

School or Organization: \_\_\_\_\_

Team Advisor: \_\_\_\_\_ Phone: \_\_\_\_\_

E-Mail Address \_\_\_\_\_ T-size \_\_\_\_\_

Mailing Address: \_\_\_\_\_

Team Members:

- |    |       |              |
|----|-------|--------------|
| 1. | _____ | T-size _____ |
| 2. | _____ | _____        |
| 3. | _____ | _____        |
| 4. | _____ | _____        |
| 5. | _____ | _____        |
| 6. | _____ | _____        |
| 7. | _____ | _____        |

Note: Advisor must select five team members, no more than five students allowed at the competition. \$20.00 per person, 5 team members plus 2 advisors = \$140.00 Registration Fee (non-refundable). Number of vegetarian meals required; \_\_\_\_\_

Will your team attend pre-registration on Friday night?       Yes       No

E-mail to : [babgill@windstream.net](mailto:babgill@windstream.net)

Or online:

<http://flenvirothon.com/index.htm>

DUE DATE: **April 14, 2011**