FORESTRY
Career Development Event
This is a Skills CDE

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Coordinator: Conservation Districts of Iowa – Envirothon Coordinator
Committee Personnel: Jim Green, St. Ansgar; Louis Beck, Retired

I. Overview

The Iowa Envirothon competition will serve as the official qualifying event for both the National FFA Environmental and Natural Resources Career Development Event and the National FFA Forestry Career Development Event. Teams must compete in a regional Envirothon competition to qualify for the state Envirothon event. Regional events are hosted at various locations across Iowa in March with the state competition held in April. Contact the Conservation Districts of Iowa for more information 515-289-8600 or visit the website at: http://cdiowa.org/get-involved/envirothon/.

II. AFNR Content Standards

CRP.04. *Standard*: Communicate clearly, effectively and with reason.

CRP.05. *Standard:* Consider the environmental, social and economic impacts of decisions.

> **CRP.05.01.01. b.** *Intermediate Measurement*: Analyze how the process of decision making is used in workplace and community

CRP.08 *Standard:* Utilize critical thinking to make sense of problems and persevere in solving them.

CS.10. *Standard*: Career Success: Plan education and career path aligned to personal goals.

> **CS. 10.01.** *Indicator*: Identify career opportunities within a career cluster that match personal interests, talents, goals and preferences.

> **CRP.10.01.02. a.** *Awareness Measurement*: Examine career clusters and identify potential career opportunities based on personal interests, talents, goals and preferences.

> **CRP.10.01.02. b.** *Intermediate Measurement*: Analyze skills needed for potential careers and compare and contrast skills needed with personal interests, talents, goals and preferences.

ESS.01. *Standard*: Use analytical procedures and instruments to manage environmental service systems.

> **ESS.01.01.** *Indicator*: Analyze and interpret laboratory and field samples in environmental service systems.

ESS.02. *Standard*: Evaluate the impact of public policies and regulations on environmental service system operations.

> **ESS.02.01.** *Indicator*: Interpret and evaluate the impact of laws, agencies, policies and practices affecting environmental service systems.

ESS.03. *Standard*: Develop proposed solutions to environmental issues, problems and applications using scientific principles of meteorology, soil science, hydrology, microbiology, chemistry and ecology.

> **ESS.03.01.** *Indicator*: Apply meteorology principles to environmental service systems.

> **ESS.03.02.** *Indicator*: Apply soil science and hydrology principles to environmental service systems.

> **ESS.03.03.** *Indicator*: Apply chemistry principles to environmental service systems.

> **ESS.03.04.** *Indicator:* Apply microbiology principles to environmental service systems.

> **ESS.03.05.** *Indicator*: Apply ecology principles to environmental service systems.

ESS.04. *Standard*: Demonstrate the operation of environmental service systems (e.g., pollution control, water treatment, wastewater treatment, solid waste management and energy conservation).

> **ESS.04.01.** *Indicator*: Use pollution control measures to maintain a safe facility and environment.

> **ESS.04.01.03. b.** *Intermediate Measurement*: Classify examples of pollution as hazardous or nonhazardous.

> **ESS.04.02.** *Indicator*: Manage safe disposal of all categories of solid waste in environmental service systems.

ESS.04.03. *Indicator*: Apply techniques to ensure a safe supply of drinking water and adequate

ESS.04.03.02. a. *Indicator*: Research methods commonly used to treat wastewater and septic waste.

ESS.05. *Standard:* Use tools, equipment, machinery and technology common to tasks in environmental service systems.

ESS.05.01. *Indicator*: Use technological and mathematical tools to map land, facilities and infrastructure for environmental service systems.

NRS.01. *Standard*: Plan and conduct natural resource management activities that apply logical, reasoned and scientifically based solutions to natural resource issues and goals.

NRS.01.01 *Indicator*: Apply methods of classification to examine natural resource availability and ecosystem function in a particular region.

NRS.01.03. *Indicator*: Apply ecological concepts and principles to atmospheric natural resource systems.

NRS.01.01.01. a. *Awareness Measurement*: Summarize and classify the different kinds of natural resources using common classification schemes (e.g., living versus non-living, renewable versus nonrenewable, native versus introduced, etc.).

NRS.02. *Standard*: Analyze the interrelationships between natural resources and humans.

NRS.02.02. *Indicator*: Assess the impact of human activities on the availability of natural resources.

NRS.02.04. *Indicator*: Examine and explain how economics affects the use of natural resources.

NRS.02.05. *Indicator*: Communicate information to the public regarding topics related to the management, protection, enhancement, and improvement of natural resources.

NRS.02.05.03. a. *Awareness Measurement*: Examine and describe how communication can be used to influence behavior, call people to action and instill a sense of civic behavior related to the conservation, management, enhancement and improvement of natural resources.

NRS.02.05.03. b. *Intermediate Measurement*: Analyze and summarize examples of how communication can be used to influence behavior, call people to action and instill a sense of civic behavior related to the conservation, management, enhancement and improvement of natural resources.

NRS.02.05.03. c. *Advanced Measurement*: Create a communication plan to influence the behavior of people, call people to action and instill a sense of civic behavior related to the conservation, management, enhancement and improvement of natural resources.

NRS.03. *Standard*: Develop plans to ensure sustainable production and processing of natural resources.

NRS.03.01. *Indicator*: Sustainably produce, harvest, process and use natural resource products (e.g., forest products, wildlife, minerals, fossil fuels, shale oil, alternative energy, recreation, aquatic species, etc.).

NRS.03.02. *Indicator*: Demonstrate cartographic skills, tools and technologies to aid in developing, implementing and evaluating natural resource management plans.

NRS.03.02.01. b. *Intermediate Measurement*: Apply cartographic skills and tools and technologies (e.g., land surveys, geographic coordinate systems, etc.) to locate natural resources.

NRS.04. *Standard*: Demonstrate responsible management procedures and techniques to protect, maintain, enhance, and improve natural resources.

NRS.04.01. *Indicator*: Demonstrate natural resource protection, maintenance, enhancement and improvement techniques.

NRS.04.02. *Indicator*: Diagnose plant and wildlife diseases and follow protocols to prevent their spread.

NRS.04.03. *Indicator*: Manage fires in natural resource systems.

PS.01. *Standard*: Develop and implement a crop management plan for a given production goal that accounts for environmental factors.

PS.01.01. *Indicator*: Determine the influence of environmental factors on plant growth.

PS.02. *Standard*: Apply principles of classification, plant anatomy, and plant physiology to plant production and management.

PS.02.01. *Indicator*: Classify plants according to taxonomic systems.

III. Event Rules
A. The Regional and State Envirothon events are governed by the rules set and published each year by the Conservation Districts of Iowa.
B. At the state event, the top two FFA teams that each consist of five FFA members, will be named either the Iowa FFA Environmental and Natural Resources Career Development Event Champion or the Iowa FFA Forestry Career Development Event Champion. The top FFA team will make their choice as to which National FFA Career Development Event they want to compete in and the second place FFA team will compete in the other National Event. Each team will be certified to represent Iowa in the designated National Career Development Event in October.
C. FFA membership will be checked by the Iowa FFA Association from the list of registered teams secured from the Envirothon.
D. In the event that substitutions must be made on the National FFA CDE qualifying team, the FFA Chapter must retain at least two members from the qualifying team to represent Iowa at the National level--the National FFA events are a four (4) member team.

IV. Event Resources
John Whitaker, Director, Conservation Districts of Iowa

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c/o Conservation Districts of Iowa
315 E. 5th, Suite 134
Des Moines, Iowa 50309

Phone:	515-289-8300
Email:	envirothon@cdiowa.org
Website:	http://cdiowa.org/get-involved/envirothon/

V. Awards

Awards Sponsored through the Iowa FFA Foundation

Environmental and Natural Resources CDE Champion Team	Cash Award for travel to National Convention
Forestry CDE Champion Team	Cash Award for travel to National Convention
All Teams/Individuals	Certificates

All awards subject to available sponsorship.

Approved: September 21, 2019