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Living to Serve Grants: Environmental Responsibility Focus Area

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This document serves as a guideline to assist advisors in planning, implementing and justifying participation in a Living to Serve grant that focuses on meeting an ENVIRONMENTAL RESPONSIBILITY need. Standards for Living to Serve grant focus areas are suggested standards based on classroom content and the community need being addressed. While not every standard may be covered during each service and or service-learning project, these lists should serve as a guideline to validate and actualize educational relevancy for Living to Serve grant projects that focus on environmental responsibility.

STUDENT LEARNING OBJECTIVES:

Living to Serve grants provide an opportunity for students to enhance their learning by applying classroom knowledge and leadership skills through related service and service-learning experiences in the local community. Grant funding supports diverse service focus areas that include community safety; environmental responsibility; hunger, health and nutrition; and community engagement. This resource focuses on grants that meet an environmental responsibility need. For suggested standards that align with any Living to Serve grant, visit https://www.ffa.org/SiteCollectionDocuments/edualignment_living_to_serve_grants.pdf.

ENVIRONMENTAL RESPONSIBILITY FOCUS AREA:

Living to Serve grants that focus on environmental responsibility address issues regarding air and water quality; energy and water efficiency; at-risk ecosystems; and conservation to protect and sustain the natural systems upon which all life depends. Living to Serve grant projects that address this focus area include, but are not limited to:

- Organizing a recycling program.
- Restoring local wetlands.
- Raising and releasing animals into the wild.
- Monitoring water and soil quality.

For more information on individual grant opportunities, visit [FFA.org/livingtoserve](https://www.ffa.org/livingtoserve).

ENVIRONMENTAL RESPONSIBILITY GRANT ACTIVITIES ARE ALIGNED TO THE FOLLOWING STANDARDS:

Agribusiness Systems

- ABS.01. Apply management planning principles in AFNR businesses.
- ABS.02. Use record keeping to accomplish AFNR business objectives, manage budgets and comply with laws and regulations.
- ABS.03. Manage cash budgets, credit budgets and credit for an AFNR business using generally accepted accounting principles.
- ABS.04. Develop a business plan for AFNR business.

Animal Systems

- AS.01. Analyze historic and current trends impacting the animal systems industry.
- AS.02. Utilize best-practice protocols based upon animal behaviors for animal husbandry and welfare.
- AS.03. Design and provide proper animal nutrition to achieve desired outcomes for performance, development, reproduction and/or economic production.
- AS.04. Apply principles of animal reproduction to achieve desired outcomes for performance, development and/or economic production.

- AS.05. Evaluate environmental factors affecting animal performance and implement procedures for enhancing performance and animal health.
- AS.06. Classify, evaluate and select animals based on anatomical and physiological characteristics.
- AS.07. Apply principles of effective animal health care.

Biotechnology Systems

- BS.01. NCAE Standard: Assess factors that have influenced the evolution of biotechnology in agriculture (e.g., historical events, societal trends, ethical and legal implications, etc.).
- BS.02. NCAE Standard: Demonstrate proficiency by safely applying appropriate laboratory skills to complete tasks in a biotechnology research and development environment (e.g., standard operating procedures, record keeping, aseptic technique, equipment maintenance, etc.).
- BS.03. NCAE Standard: Demonstrate the application of biotechnology to solve problems in Agriculture, Food and Natural Resources (AFNR) systems (e.g., bioengineering, food processing, waste management, horticulture, forestry, livestock, crops, etc.).

Environmental Service Systems

- ESS.01. Use analytical procedures and instruments to manage environmental service systems.
- ESS.02. Evaluate the impact of public policies and regulations on environmental service system operations.
- ESS.03. Develop proposed solutions to environmental issues, problems and applications using scientific principles of meteorology, soil science, hydrology, microbiology, chemistry and ecology.
- ESS.04. Demonstrate the operation of environmental service systems (e.g., pollution control, water treatment, wastewater treatment, solid waste management and energy conservation).
- ESS.05. Use tools, equipment, machinery and technology common to tasks in environmental service systems.

Plant Systems

- PS.01. Develop and implement a crop management plan for a given production goal that accounts for environmental factors.
- PST.02. Operate and maintain AFNR mechanical equipment and power systems.
- PS.03. Propagate, culture and harvest plants and plant products based on current industry standards.
- PS.04. Apply principles of design in plant systems to enhance an environment (e.g. floral, forest landscape, and farm).

Power, Structural and Technical Systems

- PST.01. Apply physical science principles and engineering applications to solve problems and improve performance in AFNR power, structural and technical systems.
- PST.02. Operate and maintain AFNR mechanical equipment and power systems.
- PST.03. Service and repair AFNR mechanical equipment and power systems.
- PST.04. Plan, build and maintain AFNR structures.
- PST.05. Use control, monitoring, geospatial and other technologies in AFNR power, structural and technical systems.