

Recommendation 19: *Develop an interpretation strategy that builds upon current Service standards and guidelines, takes advantage of multiple modes of delivering messages, reaches diverse audiences, and measures the effectiveness of our programs in partnership with key governmental agencies, the National Association for Interpretation and other professional organizations.*

Recommendation 20: *Develop an environmental education strategy that inventories existing efforts, identifies priorities for investment of staff and funds, and outlines basic standards for all refuges.*

Overview: Conservation and cultural resources education and communication programs serve multiple purposes and many National Wildlife Refuge System audiences, including our visitors, partners, and broader segments of the American public. Interpretation and environmental education programs are complementary activities that enable our staff to engage Americans in a dialogue to build appreciation of the Refuge System’s conservation mission and reach a deeper understanding of science, ecology, and the care of our lands and waters. While both share common objectives and anticipated outcomes, there are key differences between environmental education and interpretation programs as defined by the U.S. Fish and Wildlife Service (Service). Perhaps most significant is the difference between the intended audiences. Interpretation audiences most often participate voluntarily, and do so because it enhances their appreciation and enjoyment of natural and cultural resources. Environmental education participants, especially student groups, have specific learning objectives to meet, and usually interact as part of an established curriculum. In addition to different audiences, the two activities frequently differ in their delivery modes. However, both programs should be designed to build a broader appreciation of our natural and cultural resources and result in the direct engagement of Americans in active conservation-oriented work, both on and off of our lands and waters. And both are effective at linking people to nature through direct personal experiences in natural areas that create lasting personal memories across all audiences.

According to Service policy, environmental education is a process designed to teach citizens and visitors the history and importance of conservation and the biological and the scientific knowledge of our Nation’s natural resources. Through this process, we can help develop a citizenry that has the awareness, understanding, attitudes, skills, motivation, and commitment to work cooperatively towards the conservation of our Nation’s environmental resources (605 FW Chapter 6). Interpretation is a communication process that forges emotional and intellectual connections between the audience and the resource. Recognizing that current and new audiences have interests beyond conservation, wildlife and habitat, our team will clearly articulate the shared benefits of an increased concentration to interpret and educate the Refuge System’s abundant and special cultural resource stories (605 FWS Chapter 7). We recognize that our interpretation and environmental education programs are uniquely suited to engage both

established supporters and new, diverse and younger audiences to wildlife conservation, our mission and our work.

Our programs must also support building knowledge and skills among staff, volunteers and partners to deliver the Refuge System’s mission “for the benefit of present and future generations of Americans.” Interpreting the right information in the right format to visitors, partners, and segments of the American public, both on and off of our lands and waters, is crucial. Delivering effective environmental education programs is essential, especially for younger Americans in their most formative years. Both programs are important for building a better and broader constituency around what famed scientist and author, Aldo Leopold, called the “land ethic.” The team will develop strategies to educate, inspire and engage present and future generations of conservation ambassadors, in collaboration with key conservation and education partners; and, examine ways to support our staff, volunteers and partners to deliver interpretation and education more effectively.

Additionally, the team will examine other types of “anytime and anywhere” learning methods and programs that are being embraced by many institutions. These programs support hands-on and observational learning that offers meaningful skills and knowledge to complement formal classroom and interpretive programs. Examples might include techniques built around digital resources, interpretive signs that incorporate new design techniques, educational media, interactive programs offered by zoos and museums, and community based programs that are focused on hands-on and results-oriented conservation learning.

The team has identified seven products described below. Two separate strategy documents will be produced, one for environmental education and one for interpretation. Together, these strategies will include the seven products and deliverables listed in this work plan.

Deliverable 1: Strategic Plan - Interpretation

- *Responsibility:* Entire Team
- *Purpose:* The Team charter requires that we develop a strategy for the Refuge System interpretation program. The strategic plan will serve to guide FWS employees, volunteers, Friends organizations and external partners serving in some capacity to design, promote and/or deliver components of the program. Particular importance will be given to strengthening connections with traditional audiences while simultaneously developing program elements to attract and welcome new ones. We will examine the results of recent Refuge System visitor surveys and other resources to identify strengths and needs of our interpretive programs.
- *Product:* Drawing on existing internal and external program guidance, the interpretation strategy will include special emphasis on (1) key audiences with which to engage; (2) central messages about the Refuge System’s mission, resource management priorities and

the value of conservation to all Americans; (3) communicating our messages in ways that make conservation relevant to our audience; and, (4) using innovative delivery modes and partnerships to achieve our interpretation objectives, e.g. the “anytime and anywhere” approach. As part of its effort, the team will also assist in developing and reviewing content of the Service’s Sign Handbook to ensure that appropriate designs and messages for delivering quality interpretive programs are developed. New designs and methods of delivery will be cross-referenced in the Interpretation Strategic Plan. We will examine partnership resources, such as those offered by American Trails, to integrate new outdoor interpretive designs into our programs.

- *Major Milestones:*
 - August 25, 2012: complete draft strategic plan
 - April 1, 2013: submit final strategic plan
 - February 2013: Sign Handbook Revision Completed

Deliverable 2: Strategic Plan – Environmental Education

- *Responsibility:* Entire Team
- *Purpose:* The Team charter requires that we develop a strategy for the Refuge System environmental education program. The strategic plan will serve to guide FWS employees, volunteers, Friends and external partners serving in some capacity to design, promote and/or deliver components of the program.
- *Product:* Expand and modify the “Draft National Strategy for Environmental Education in the National Wildlife Refuge System” to meet and build upon the five objectives of a quality environmental education program. New and existing successful and sustainable examples will be included in the plan for employees and partners to incorporate into their environmental education programs. We will partner with agencies and organizations, including the Aldo Leopold Foundation, Department of Education, and the North American Association for Environmental Education, to develop and deliver program elements that will contribute to implementation of the strategic plan. We will examine the results of recent Refuge System visitor surveys and other resources to identify strengths and needs of our environmental education programs. Current environmental education grant opportunities managed in partnership with the National Fish and Wildlife Foundation will be examined and re-focused to support needs identified as part of this strategy.
- *Major Milestones:*
 - August 25, 2012: complete draft strategic plan
 - April 1, 2013: submit final strategic plan

Deliverable 3: Community of Practice Resource Hub

- *Sub-team:* Marianne Aplin, Mike Carlo, Jennifer Jewett, Laura Beauregard, Aaron Mize, Molly Stoddard, Kristine Askerooth, Michelle Donlan, Art Needleman, Doug Staller, Flisa Stevenson (Cornell Lab of Ornithology)
- *Purpose:* Provide interpretive and education program resources for Service employees, volunteers, and Friends organizations in support of the strategic plans. Foster a community of practice to share experience/expertise and support staff responsible for any aspect of visitor services delivery (e.g., virtual teams). Locate resource hub in an interactive, web-based and supportive forum environment.
- *Product:* Create an inter-active resource hub of established and relevant Service policies, templates, models, checklists, best management practices, handbooks, guidance, references and other tools available for FWS interpretive and educational staff, volunteers, Friends and partners. We will incorporate citizen science and cultural resources themes and information into the resource hub to enable our staff to deliver effective interpretation and education programs to new and diverse audiences. Interpretation and environmental education are also effective tools to help provide other quality wildlife-dependent recreation programs on national wildlife refuges, including wildlife observation and wildlife photography.
- *Communications:* We will coordinate with the National Conservation Training Center to integrate our web-based inter-active resource hub under a broader network. We will communicate with the Volunteers, Friends and Community Partners team, Hunting, Fishing and Outdoor Recreation team, and Science teams to identify overlapping elements and shared ideas to develop our content. Key partners will be consulted to develop strategies for engaging both internal and external audiences and offer resources.

Deliverable 4: Program delivery partnerships and opportunities

- *Sub-team:* Jennifer Owen-White, Angelina Yost, Tonya Nix, David Ellis, Beth Goettel, Karen Drews
- *Purpose:* Develop guidelines for the Refuge System to effectively leverage and share resources to offer high quality interpretation and education programs. Partner with National Conservation Training Center to explore and employ social media and other innovative communications methods to help deliver interpretation and environmental education. Collaborating with federal, state, regional and local partners with shared environmental education and interpretation goals will enable refuge staff to engage with new and underserved audiences. Key partners include, but are not limited to, the National Association for Interpretation, North American Association for Environmental Education, Eppley Institute, Aldo Leopold Foundation, Association of Zoos and Aquariums, American Association of Museums, National Trust for Historic

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- Preservation, Association of Fish and Wildlife Agencies, Department of Education, National Science Teachers Association, National Center for Accessibility, American Trails, and National Environmental Education Foundation.
- *Product:* Identify needs and create two action plans to deliver programs using partners at the national/regional level and at the field station level.
 - *Communications:* We will coordinate with the Volunteers, Friends and Community Partners team to survey and analyze data important to partnership strategy elements. We will work partners within and outside of the Service to include important program elements, identify shared goals, and offer creative modes of delivery.

Deliverable 5: Training Framework and Ambassador Program

- *Sub-team:* Sarah Bevilacqua, Stacy Armitage, Matt Gay, Scott Owen, Jenny Owen, Hallie Rasmussen
- *Purpose:* Foster professional development and skills-based training to staff, volunteers and Friends who are responsible for providing interpretive and environmental education programs. In addition, the Team feels that an internal staff training module about interpretation and environmental education is needed for all employees (e.g., ambassadors program).
- *Sub-Products:*
 - Training Framework - Using the existing Refuge System's Visitor Services Career Pathways report and training needs assessment administered by NCTC staff, create a training framework to address multiple tiers of career development and leadership skills among FWS employees and volunteers.
 - Ambassador Program – Revise existing “Ambassador Program” training module for Refuge staff, intended to help staff and volunteers deliver consistent service and information to Refuge visitors. Develop this in-reach training strategy that is appropriate for all staff, volunteers, and partners.
 - Long-term visitor services training plan, including national training workshops, visitor services fundamentals, e-learning, live broadcasts, and programs offered by key partners and universities that will enhance employee and volunteer learning opportunities.
- *Communications:* We will coordinate with the National Conservation Training Center, National Park Service, and National Association for Interpretation to develop our training program and critique our Ambassador Program and develop a long-term training plan that incorporates environmental education and interpretation of natural and cultural resources.

Deliverable 6: Comprehensive Evaluation Kit to Measure Program Success

- *Sub-team:* Cindy Samples, Georgia Jeppesen, Matt Connor, Robin Will, Sue McDonald, Julie Ernst (University of Minnesota, Duluth)

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- *Purpose:* Guide Refuge System staff and partners to monitor and evaluate the quality and effectiveness of their interpretation and education programs, enabling the regions and headquarters to assess program success at regional and national scales.
- *Products:* Assess existing evaluation tools and resources, and recommend several more stream-lined tools for use at different levels. Develop a rapid-assessment tool for refuge staff based on the visitor services handbook guidelines and create a standardized teacher-oriented evaluation form. Tools and resources will be developed to supplement “Visitor Services Standards: A Handbook for Evaluating Visitor Services Programs.”
 - Analyze and use results of the Partnerships team’s employee survey, existing refuge visitor surveys, and other partner data to identify needs and gaps to be addressed in both strategies. Examine the applicability of renewing approval of the visitor survey beyond 2013 to develop a long-term method for evaluating programs. Results of the surveys will be incorporated, as appropriate, into strategies to identify future needs and directions.
- *Communications:* We will coordinate with the National Conservation Training Center and the Eppley Institute to compile, evaluate and develop the evaluation kit. We will work with the University of Minnesota Duluth to review and evaluate our kit components.

Deliverable 7: Interpreting Cultural and Heritage Resources Handbook

- *Sub-team:* Mike Carlo, Marianne Aplin, Eugene Marino, Shaun Roche, Carla Burnside
- *Purpose:* Provide initial guidance for Refuge System staff and partners to interpret cultural resources.
- *Product:* Develop an introductory handbook to introduce staff to the special opportunities and challenges of interpreting historical and heritage resources of the Refuge System. An updated FWS Sign Handbook will be reviewed to include examples of interpretive signs for important cultural resources.
- *Communications:* We will coordinate internally with national and regional archaeologists and interpreters, National Conservation Training Center training and education divisions, and Refuge System visitor services staff. Also, we will work with interpretive specialists from the National Park Service, National Association for Interpretation, National Trust for Historic Preservation, FWS Heritage Committee, and other agencies in developing key elements into the handbook.

Metrics or Evaluation Methods:

- Number of refuges trained in the Ambassador program.
- Number of new program elements for new audiences (i.e., visitors with disabilities, diverse cultures and languages)
- Number of refuges completing rapid-assessments and receiving teacher orientation forms

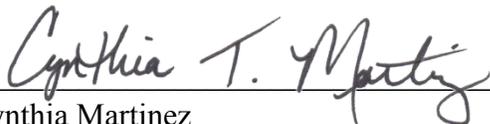
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- Institute refuge system visitor surveys beyond 2013 to measure visitor satisfaction of interpretation and environmental education program elements
- Number of new training opportunities (courses, participants, and variety of delivery methods) in interpretation and environmental education
- Number of new partnerships with non-traditional institutions specializing in interpretive and education programs for visitors and communities

Coordination with other Teams: In addition to working with external partners, the Interpretation and Environmental Education Implementation Team will work closely with internal partners. Our group will collaborate with the Scientific Excellence, Community Partnerships, Communications, and Hunting, Fishing and Outdoor Recreation implementation teams.

Executive Implementation Council Approval:



Cynthia Martinez
Deputy Assistant Director – National Wildlife Refuge System
U.S. Fish and Wildlife Service

APR 30 2012
Date