

When is the evaluation needed?

Evaluation instruments need to be developed for use at the initial train-the-trainer institutes. Evaluation of the curriculum and project integration implemented during the following new school year when the regionally adapted curriculum and supporting website resources are available to educators and students.

What evaluation design will you use?

Integrated methods: pre- and post-program survey questionnaires, observations, web-based reflective testimonials, document review, and interviews

Collect the information What sources of information will be used?

<i>Existing information:</i>	<i>Southeast Schoolyard Habitat Strategic Plan</i>
<i>People:</i>	<i>Students, teachers/educators, resource professionals, project partners</i>
<i>Pictorial records and observations:</i>	<i>Will be recorded during regional train-the-trainer institutes and at community-based events. Teams will document about environmental issues and restoration affecting local natural resources and communities.</i>

What data collection method(s) will be used?

<i>x</i>	<i>Survey</i>	<i>x</i>	<i>Document review</i>
<i>x</i>	<i>Interview</i>	<i>x</i>	<i>Testimonials</i>
<i>x</i>	<i>Observation</i>		<i>Expert panel</i>
<i>x</i>	<i>Group techniques</i>		<i>Simulated problems or situations</i>
	<i>Case study</i>	<i>x</i>	<i>Journal, log, diary</i>
	<i>Tests</i>		<i>Unobtrusive measures</i>
<i>x</i>	<i>Photos, videos</i>		<i>Other Website and exhibit interactive counters</i>

Instrumentation: What is needed to record the information?

Web-based survey and evaluation tools, pre and post training surveys, web-based service learning project reporting blog or other results reporting tool for student service learning reflections.

When will you collect data for each method you've chosen?

<i>Method</i>	<i>Before program</i>	<i>During program</i>	<i>Immediately after</i>	<i>Later</i>
<i>Survey</i>	<i>X</i>		<i>X</i>	<i>X</i>
<i>Video documentaries and other documentation</i>		<i>X</i>	<i>X</i>	
<i>Testimonials/service learning reflections</i>			<i>X</i>	<i>X</i>

Analyze and Interpret How will the data be analyzed?

<i>Data analysis methods:</i>	<i>Quantitative data – counts and percentages; Qualitative data – simple categorization/ summary of narrative comments</i>
<i>Who responsible:</i>	<i>Project Advisory Team and external evaluator</i>

How will the information be interpreted—by whom?

An external evaluator will review all data to determine the effectiveness of the train-the-trainer model in meeting objectives and addressing evaluation questions noted above.

What did you learn? What are the limitations?

In reporting and presentation of the evaluation results, include what is learned from doing this evaluation and any problems or limitations from the way the evaluation was conducted.

Use the Information How will the evaluation be communicated and shared?

To whom	When/where/how to present
<i>U.S. FWS, funding sponsors</i>	<i>Quarterly reports and final project report</i>
<i>Project Partners</i>	<i>Via monthly or greater Project Advisory meetings, final project report</i>
<i>Community leaders and educators, natural resource scientists, youth, educators serving youth</i>	<i>Community-level dialogue meetings with community leaders, scientists and educators. Presentations at national and regional conferences such as NAAEE, Green Schools, Society for Ecological Restoration, wetlands associations, etc.</i>
<i>Local communities</i>	<i>Media releases, youth produced video documentaries</i>

Next steps?

Revise train-the-trainer model per evaluation to achieve project goals and objectives. Expand train-the-trainer outreach to new communities and schools in Region 4 and beyond.

Manage the evaluation

Standards

<i>n/a</i>	<i>Human subject's protection</i>	<i>x</i>	<i>Utility- application to program expansion</i>
<i>x</i>	<i>Management chart Logic Model</i>	<i>x</i>	<i>Feasibility- on-going Initiative</i>
<i>x</i>	<i>Timeline</i>	<i>no</i>	<i>Propriety-results will be shared</i>
<i>x</i>	<i>Responsibilities-Project Partners</i>	<i>x</i>	<i>Accuracy-Advisory Team to check</i>
<i>x</i>	<i>Budget</i>		

Appendix A. Timeline and Budget

	Tasks	USFWS Capacity Building	Earth Partnership and other Key Collaborators Steps to Support Strategic Plan
2014	<ul style="list-style-type: none"> • “Schoolyard habitat” is defined and at least two regional examples highlighted on region’s website • Establish an annual two hour webinar for interested Refuge, Fisheries, and Ecological services staff on FWS Schoolyard Habitat. Included will be at least two regional examples of achievable projects, such as Athens field office work with pollinators and Kentucky field office work with Louisville schoolyards. • Encourage field staff to identify opportunities for student data collection. Specifically, authentic ways that students could be engaged in collecting data on migrating birds, pollinators, stream health, habitat health and monitoring completed projects. Incorporate this work into citizen science monitoring projects. 		<ul style="list-style-type: none"> • Explore grant and foundation support for strategic plan. • Submit EPA Grant to support Florida and Caribbean institute series (train-the-trainer, locally-based institutes and student symposium three-phase process) beginning in 2015 (task completed). • Identify and submit grants to support Georgia’s institute series beginning in 2015. • Convene conference calls with existing schoolyard state networks in Florida, Georgia and Puerto Rico. • Attend the Georgia Schoolyard Conference to establish partners for a summer 2015 train-the-trainer institute. Submit proposals to conferences following regional strategy suggestions. • Establish a regional community of practice network. This network would be piloted in Florida and include online communication and networking. The network would include FWS staff, teachers and local partners. • Develop relationships with state Departments of Education and curriculum and instruction personnel at the local level, in at least Florida, Georgia and Puerto Rico. Align curriculum to applicable standards and address needs of the school districts. • These steps will develop a template for integration into the education community for the rest of the states. • Identify and hire an evaluator(s) to evaluate strategic plan implementation and professional development institute series.

Earth Partnership and other Key Collaborators Steps to Support Strategic Plan			
	USFWS Capacity Building		
2014	<p>Resources needed</p> <ul style="list-style-type: none"> Request support from NCTC for webinar Support for a regional point person to coordinate efforts 		<ul style="list-style-type: none"> Dedicated staff time for grant writing and for partnership research, development and coordination. (\$40,000/year) A point person within Region 4 will coordinate strategic plan, interagency communication and citizen science monitoring
2015	<p>Tasks</p> <ul style="list-style-type: none"> Host the NCTC course for FWS field staff. Course would likely be located in Georgia or Florida and be targeted to field staff in Region 4. Continue to encourage field staff to identify opportunities for student data collection and citizen science monitoring projects. Track any schoolyard habitat projects established through HabITS 		<ul style="list-style-type: none"> Plan, prepare, implement and evaluate three train-the-trainer summer institutes in <ul style="list-style-type: none"> Georgia Caribbean Peninsular Florida Explore grant and foundation support for strategic plan. Hold the North Carolina Schoolyard Summit. Solicit grant and foundation support for the 2016 institute series in North Carolina - Albemarle and Pamlico Sound, Florida - Panhandle and River Basins, Coastal South Carolina and North Carolina - Piedmont and Sandhills and other possible institutes and symposia. Attend and convene schoolyard habitat meetings at environmental education conferences or similar venues in North Carolina, North Carolina, Georgia, Alabama, Puerto Rico and Florida. Organize conference calls to establish schoolyard state networks in Piedmont and Coastal North Carolina and Coastal South Carolina. Develop and expand the Region 4 community of practice network and include biannual webinars and other online communication to share progress and best practices among the FWS staff, teachers and other partners. Develop and expand relationships with state Departments of Education and curriculum and instruction personnel at state and local district levels, where appropriate. Provide support to train-the-trainer school teams as they begin to implement monitoring

		Earth Partnership and other Key Collaborators Steps to Support Strategic Plan	
		USFWS Capacity Building	
			<p>with students and developing local <u>model</u> restoration projects in preparation for the 2016 one-week institutes.</p> <ul style="list-style-type: none"> • Implement evaluation; use periodic reports to modify and improve the strategic plan process. • Employ citizen science data collection using protocols established by scientists and natural resource personnel.
2015	Resources Needed	<ul style="list-style-type: none"> • Request for support from NCTC for the face-to-face Schoolyards course. • Support a regional point person to coordinate efforts 	<ul style="list-style-type: none"> • Dedicated staff time for grant writing and for partnership research, development and coordination. (\$40,000/year). • \$50,000 per institute train-the-trainer institute (\$50,000 X 3 = \$150,000). Expenses include consultant and staff time for instruction and facilitation, travel, materials and supplies, field trip travel during the institute and participant costs. • \$5,000 per regional lead team to host community dialogues, recruit school teams and plan local 2016 institutes (\$5,000 X 12 = \$60,000). • A point person within Region 4 to coordinate strategic plan, interagency communication and citizen science monitoring.
2016	Tasks	<ul style="list-style-type: none"> • Continue annual Region 4 Schoolyard Habitat updates where all participating field, refuges and fisheries offices report on schoolyard habitat actions and projects. 	<ul style="list-style-type: none"> • Plan, prepare, implement and evaluate four train-the-trainer summer institutes in <ul style="list-style-type: none"> ○ North Carolina: Albemarle and Pamlico Sound ○ North Carolina: Piedmont and Sandhills ○ Coastal South Carolina ○ Florida Panhandle River Basins • Plan, prepare, implement and evaluate 12 local one-week institutes in <ul style="list-style-type: none"> ○ Georgia ○ Caribbean ○ Peninsular Florida

		USFWS Capacity Building	Earth Partnership and other Key Collaborators Steps to Support Strategic Plan
2016	Tasks	<ul style="list-style-type: none"> • Continue to encourage field staff to identify opportunities for student data collection and citizen science. • Track any schoolyard habitat projects established through HabITS 	<ul style="list-style-type: none"> • Solicit grant and foundation support for 2017 institute series in Southern Appalachia, Lower Mississippi River, Kentucky and other possible institutes and symposia. Seek additional funding for implementing institute series. • If needed, solicit funding for the first biannual Region 4 student summit in 2017 where students will present inquiry research projects related to monitoring and restoration. • Implement evaluation; use periodic reports to modify and improve the strategic plan process. • Organize conference calls to establish statewide contacts in Louisiana, Mississippi and Tennessee, Kentucky to identify and secure local support and partnerships. • Attend and convene schoolyard habitat meetings at environmental education conferences or similar venues in Louisiana, Mississippi, Kentucky and Tennessee. • Continue to develop areas of SYH program growth in North Carolina, South Carolina, Georgia, Florida and Puerto Rico. • Use conference calls to establish and strengthen state networks in Louisiana, Alabama, Arkansas, Mississippi, Kentucky and Tennessee. • Continue to Develop and expand the Region 4 community of practice network • Develop relationships with state Departments of Education and curriculum and instruction personnel at the local district level. • Provide support to 2016 train-the-trainer school teams as they begin to implement monitoring with students and develop local restoration projects to use as community-based restoration models for 2017 one-week institutes. • Employ citizen science data collection using protocols established by scientists and natural resource personnel.
2016	Resources Needed	<ul style="list-style-type: none"> • Request for support from NCT for webinar. 	<ul style="list-style-type: none"> • Dedicated staff time for grant writing and partnership research, development and coordination (\$40,000/year). • \$50,000 per institute train-the-trainer institute (\$50,000 X 4 = \$200,000). Expenses include consultant and staff time for instruction and facilitation, travel, materials and

Earth Partnership and other Key Collaborators Steps to Support Strategic Plan			
	USFWS Capacity Building		
2016	Resources Needed	<ul style="list-style-type: none"> Support for a regional point person to coordinate efforts 	<ul style="list-style-type: none"> supplies, field trip travel during the institute, and participant costs. \$10,000 per 2015-trained lead team to hold one-week local summer institutes in 2016 and follow-up continuing education during the 2016-2017 school year (\$10,000 X 12 = \$120,000). \$5,000 per 2016 trained lead teams to host community dialogues, recruit school teams, and plan local 2017 institutes (\$5,000 X 16 = \$80,000). A point person within Region 4 to coordinate strategic plan, inter agency communication and citizen science monitoring.
2017	Tasks	<ul style="list-style-type: none"> Continue annual Region 4 Schoolyard Habitat updates where all participating field, refuges and fisheries offices report on schoolyard habitat actions and projects. Continue to encourage field staff to identify opportunities for student data collection and citizen science monitoring projects. Track any schoolyard habitat projects established through HabITS 	<ul style="list-style-type: none"> Plan, prepare, implement and evaluate three train-the-trainer summer institutes in <ul style="list-style-type: none"> Southern Appalachia Lower Mississippi River Kentucky Plan, prepare, implement and evaluate sixteen local one-week summer institutes in <ul style="list-style-type: none"> North Carolina: Albemarle and Pamlico Sound North Carolina: Piedmont and Sandhills Coastal South Carolina Florida Panhandle River Basins Solicit grant and foundation support for train-the-trainer institutes and local institutes in new locations and to expand to new audiences in current locations. Implement evaluation, use periodic reports to modify strategic plan and professional development and improve process. Continue to develop and expand the Region 4 community of practice network. Develop relationships with state departments of education and curriculum and instruction personnel at the local district level. Provide support to 2017 train-the-trainer school teams as they begin to implement monitoring with students and develop local restoration projects to use as community-based restoration models for 2018 one-week institutes. Provide support to <u>all</u> school teams implementing monitoring and restoration.

		Earth Partnership and other Key Collaborators Steps to Support Strategic Plan	
		USFWS Capacity Building	
2017	Tasks		<ul style="list-style-type: none"> Employ citizen science data collection using protocols established by scientists and natural resource personnel. Hold the first Region 4 Student Summit.
2017	Resources Needed	<ul style="list-style-type: none"> Request for support from NCTC for webinar. Support for a regional point person to coordinate efforts 	<ul style="list-style-type: none"> Dedicated staff time for grant writing and partnership research, development and coordination. (\$40,000/year). \$60,000 per institute train-the-trainer institute (\$60,000 X 3 = \$180,000). Expenses include consultant and staff time for instruction and facilitation, travel, materials and supplies, field trip travel during the institute, and participant costs. \$10,000 per 2016 trained lead team to hold sixteen one-week local summer institutes in 2017 and follow-up continuing education during the 2017-2018 school years (\$10,000 X 16 = \$160,000). \$5,000 per 2017 trained lead teams to host community dialogues, recruit school teams, and plan local 2018 institutes (\$5,000 X 12 = \$60,000). A point person within Region 4 to coordinate strategic plan, inter agency communication and citizen science monitoring.
2018 & Beyond	Tasks	<ul style="list-style-type: none"> Establish annual Region 4 Schoolyard Habitat update where all participating field, refuges and fisheries offices report on schoolyard habitat actions and projects. Continue to encourage field staff to identify opportunities for student data collection and citizen science monitoring projects. 	<ul style="list-style-type: none"> Plan, prepare, implement and evaluate 12 one-week local summer institutes in <ul style="list-style-type: none"> Southern Appalachia Lower Mississippi River Kentucky Solicit grant and foundation support for train-the-trainer institutes and local institutes in new locations and to expand to new audiences in current locations. Complete summative evaluation and distribute to FWS, LCCs, EPS, partners and other stakeholders. Convene stakeholders to reflect and plan future steps. Disseminate results of Region 4 Schoolyard Habitat initiative at conferences, through

Earth Partnership and other Key Collaborators Steps to Support Strategic Plan			
2018 & Beyond cont.	Tasks	USFWS Capacity Building	<p>journal articles and webinars, etc.</p> <ul style="list-style-type: none"> • Continue to develop and expand the Region 4 community of practice network. • Provide support to <u>all</u> school teams implementing monitoring and restoration. • Continue to employ citizen science data collection using protocols established by scientists and natural resource personnel.
2018 & Beyond	Resources Needed	<ul style="list-style-type: none"> • Request for support from NCTC for webinar. • Support for a regional point person to coordinate efforts 	<ul style="list-style-type: none"> • Dedicated staff time for grant writing and partnership research, development and coordination (\$40,000/year). • \$10,000 per 2017 trained lead team to hold one-week local summer institutes in 2018 and follow-up continuing education during the 2018-2019 school year (\$10,000 X 12 = \$120,000). • Establish a point person within Region 4 to coordinate strategic plan, inter agency communication and citizen science monitoring.

Appendix B. eeEcology Map¹⁷

The following complimentary eeEcology Map is a “practical theory of change” showing how activities lead to their goals. The map suggests multiple relationships among social and environmental contexts, activities, goals, participants and place. These relationships are not linear and include feedback loops to be able to adapt activities and/or inform new opportunities.

- The *Context Zone* identifies the social and environmental conditions that impact Region 4 communities.
- The *Who and Where Zones* indicate where the action takes place and identifies the participants.
- The *Activity Zone* identifies the activities implemented.
- The *Connection Zone* fills in the pathways of how the activities contribute to the goals.
- The *Feedback Arrow* indicates how activities may change when the goals are reached.

¹⁷ The eeEcology Map was created by New Knowledge Organization Ltd., Game Gurus and Cornell University's Department of Natural Resources Civic Ecology Lab in association with the North American Association for Environmental Education and OutdoorAfro.com, with financial management by the Institute for Learning Innovation.

Appendix C.1

State	Status of Environmental Literacy Plan (ELP)
AL	An ELP has been written but is not finalized. A draft is available online (http://eeaa.us/what-were-doing/alabamas-environmental-literacy-plan/)
AK	No ELP has been written, but some interested parties are just beginning to develop the project.
FL	Education mini-grants have recently been approved in order to fund and hasten the ELP planning process. There is some difficulty in getting grant proposals due to a lengthy RFP process. The current plan for the ELP does not list specific program types.
GA	There is currently no ELP, although state-level North American Association for Environmental Education, Department of Natural Resources and Department of Education had at one point been preparing one. The ELP has been tabled due to other priorities within the Department of Education.
KY	The ELP was finalized and approved by Board of Education in 2011. It was fully implemented alongside the Next Generation Science Standards in June of 2013.
LA	In the spring of 2013, the plan was in its final stages. A letter from Department of Education had approved the ELP, but final review stages and a signature were necessary next steps.
MS	There is no ELP in the state.
NC	There is a draft ELP that has been developed over the past couple of years with the aid of colleges, non-formal educators and the Department of Public Instruction.
SC	There is no ELP in the state. The Environmental Education Association of South Carolina is working to put together a plan, but it is in the very early stages.
TN	An ELP has been written but is still under review from the State Board of Education. It is currently being partially implemented, although it is uncertain if the ELP will be officially adopted due to concerns over synchronizing with new curricular standards.
PR	There is no ELP in the commonwealth.

Appendix C.2

State	Common Core Standards	Next Generation Science Standards (NGSS)
AL	2010: Adopted Common Core State Standards; 2011-2012 School Year: Math standards implemented; 2013-2014 School Year: English language arts standards implemented.	Alabama has not adopted NGSS.
AK	2010: Adopted Common Core standards in math and English language arts; 2013-2014 School Year: standards fully implemented.	A decision regarding adoption is expected to be reached in early 2014. Regardless of the official NGSS decision, AK will align their science standards with the framework document used to create the NGSS. Arkansas was a NGSS Lead State Partner*.
FL	2010: Adopted Common Core standards in math and English language arts; 2014-2015 school year: standards will be fully implemented.	No decision has been made at this time regarding adoption of the NGSS.
GA	2010: Common Core Georgia Performance Standards adopted; 2012-2013 School Year: standards fully implemented.	Georgia Science performance standards are based on The Project 2061's Benchmarks for Science Literacy. Georgia was a NGSS Lead State Partner*.
KY	2010: Adopted Common Core standards in math and English language arts; 2011-2012 School Year: standards fully implemented.	The NGSS were approved by the Kentucky Board of Education in June 2013, but will still have to undergo legislative review before being finalized. Kentucky was a NGSS Lead State Partner*.
LA	2010: Adopted Common Core standards in math and English language arts; 2014-2015 School Year: standards will be fully implemented.	Louisiana has decided to adapt the NGSS in order to create the "Louisiana Science Education Standards". This process will begin in May 2014 and will be completed by late fall of that year.
MS	2010: Adopted Common Core standards in math and English language arts; 2012-2013 School Year: standards fully implemented.	Legislators are anticipated to adopt NGSS at some point. However, the 2010 Mississippi Science Framework will be used for the foreseeable future.

NC	2010: Adopted Common Core standards in math and English language arts; 2012-2013 School Year: standards fully implemented.	No timeline has been set for implementation of the NGSS, but North Carolina intends to continue collaboration with other states to better understand the standards and assessments modes. *North Carolina was a NGSS Lead State Partner.
SC	2010: Adopted Common Core standards in math and English language arts; 2014-2015 School Year: standards will be fully implemented.	Current science standards, the 2005 South Carolina Science Academic Standards and Grades 6-12 Standards for Literacy in Science and Technical Subjects, are under revision.
TN	2010: Adopted Common Core standards in math and English language arts; 2014-2015 School Year: standards will be fully implemented.	No decision has been made at this time regarding adoption of the NGSS. Tennessee was a NGSS Lead State Partner*.
PR	Puerto Rico has not adopted the Common Core standards.	Puerto Rico has not adopted the NGSS.
*NGSS Lead State Partners showed support for and assisted in the writing and development of the standards. They have committed to, among other obligations, giving serious consideration to adopting the NGSS.		

Learn

language arts, science, math, social studies, music, art, skills for living, love of nature



Connect

community resources and partners

Study

native species, habitats and ecosystems



Investigate

site history: surveyors' notes, historical maps, written and oral histories



Research

ask questions, make observations throughout the restoration process



10

Restoration Education Steps

Analyze

soil, water, slope, sun/shade, vegetation, physical and aesthetic qualities



Prepare

the site; remove existing vegetation, layout the design



Plan

a butterfly garden, rain garden, grassland, woodland or wetland restoration



Plant

sow seeds, transplant seedlings and celebrate!



Manage

invasive species (weeding, clipping, mowing, prescribed burning); signage



