

# NC Sentinel Landscapes Program Evaluation

## Evaluation Plan

### *Program Description*

Unplanned development and the encroachment of incompatible land uses are threatening the health of working lands and natural systems with the same force that it threatens the viability of the military training network in eastern North Carolina. Through collaboration and innovation, The North Carolina Sentinel Landscapes Partnership is focused on the maintenance and enhancement of working lands and water resources, conservation, and military readiness for today and tomorrow. The partnership comprises five elements tasked with carrying out the program mission:

- Element 1: Enhancing the network and linkages
- Element 2: Agricultural Development and Farmland Preservation Trust Fund
- Element 3: Working Forests Initiative
- Element 4: Food and Fuel 4 the Forces
- Element 5: Market-Based Conservation Initiative

The partnership believes that increasing awareness, understanding and/or problem solving abilities among its stakeholders ~~they~~ will increase actions in favor of Sentinel Landscapes because stakeholders will agree that the program meets their mutual objectives. The partnership also believes that increasing the collective vision between agencies, organizations and others in Sentinel Landscapes' compatible resource uses will increase the frequency and length of participation in initiatives that promote the program mission while achieving robust interest in continued funding for the partnership through governmental programs, private organizations, and individual donors.

The program intends to achieve the preservation of compatible resource (land, water, air, and spectrum) uses for economic, social, and environmental benefits by:

- Institutionalizing regional cooperation for compatible resource use that promotes Sentinel Landscapes.
- Enhancing the value of working lands and living shorelines through increased conservation and/or crop opportunities.
- Sustaining Sentinel Landscapes for military training, conservation and working lands.

The partnership envisions that through their efforts, and the efforts of compatible programs, they will achieve the convergence of military readiness, working lands and water resources, and conservation providing prosperity, health and security for all.

### *Evaluation Criteria*

Program evaluation will be conducted by a qualified evaluation specialist to promote a quality process and increase credibility among its intended users. To develop synergistic efforts, key stakeholders will be required to participate in formal agreements (i.e. Memorandum of Understanding) that explicitly outlines the expectations for involvement among related stakeholders in order to provide clarity for what is to be done, how, by whom, and when. A stakeholder driven process will be evoked for negotiating agreements to identify what is fair and tenable for all parties and ultimately increasing evaluation buy-in. The agreements will focus on the consideration of the needs, expectations, and cultural contexts of clients and other stakeholders. Key stakeholders will inform the process by identifying their specific needs for the program and evaluation. This approach is necessary in order to devote attention to the full range of individuals and groups involved in the program and affected by the evaluation. The overall purpose of this evaluation will be identified and continually negotiated based on the needs of stakeholders. Table 1 outlines the information needs of each stakeholder group to produce an evaluation that meets the desired expectations of all parties involved.

**Table 1: Key stakeholders and their information needs**

<b>Key Stakeholders</b>	<b>Information Needs</b>	<b>Description of Needs</b>
Private Landowners (Target Audience)	<ul style="list-style-type: none"> <li>• Changes in participant knowledge and skills as a result of program activities (e.g. workshops, enrollment periods, and outreach events)</li> <li>• Outcomes: Actions/Opportunities (policies, entities holding contracts and easements, new crop and conservation opportunities, enrollment in cost-share and technical assistance programs) that enable landowners to maintain their working lands</li> </ul>	Participants need this information to understand if the program is effective in terms of meeting their learning needs and addressing the issues that are impeding their ability to maintain their lands in agriculture, forestry or ecosystem conservation. They also need to know when and where program activities will be held in order to participate.
Military (Main beneficiaries)	<ul style="list-style-type: none"> <li>• Program outcomes: Examples include acres held in compatible land use, length of easements and contracts, Cost-effectiveness, Improved markets through product use at installations, Follow-on funding</li> </ul>	The military will be interested in information of program outcomes in order to see the value of partnering with organizations, agencies, and landowners in eastern North Carolina to maintain their military footprint. They will also be interested in information about lessons learned and best management practices

	<p>obtained to continue elements of the Pilot project and/or to begin the process of institutionalization</p>	<p>following the pilot to understand how natural resource conservation and working lands are compatible with military training and the value of providing resources to promote such activities. The military will be able to gain an understanding of the value of developing policies that encourage maximizing economic interaction with local landowners to create a sustainable food and fuel infrastructure.</p>
<p>Program partners and staff (managers/owners of the program)</p>	<ul style="list-style-type: none"> <li>• Program goals and objectives</li> <li>• Changes in participant knowledge, skills, behaviors and conditions.</li> <li>• Program inputs, outputs, and outcomes</li> <li>• Cost-effectiveness</li> </ul>	<p>Program staff needs this information to understand whether program objectives are achieved. They also gain insight into what works and what doesn't as well as what can be done to improve the cost effectiveness.</p>
<p>Academia</p>	<ul style="list-style-type: none"> <li>• Program outcomes</li> <li>• Lessons learned and best management practices</li> <li>• Cost-effectiveness</li> </ul>	<p>Fellow academic and extension professionals are always interested in knowledge of effective programming to understand what does and does not work under which condition. They can also gain insight into what can be done to improve the cost effectiveness of related programs.</p>
<p>Agricultural, forestry, and natural resource agencies and organizations</p>	<ul style="list-style-type: none"> <li>• Program outcomes: Examples include number of Voluntary Ag Districts, Easements, Cost-share contracts, entities holding working land contracts and easements, new crop opportunities and program participation and contract length.</li> <li>• Cost-effectiveness</li> </ul>	<p>These agencies and organizations need this information in order to identify program functionality and value in order to make judgments of the program alignment with their agency's or organizations long-term goal. They will also need information how cost-effective the program is at attaining mutual objectives in comparison to competitive or complimentary efforts.</p>
<p>Conservation Districts</p>	<ul style="list-style-type: none"> <li>• Program outcomes: enrollment statistics, new conservation opportunities, contract lengths, default rate,</li> <li>• MBCI lessons learned and best management practices</li> </ul>	<p>Conservation districts need this information to understand how to initiate, deliver, and/or promote programs that are not currently broadly available. They will be interested in information on program impact in order to perceive land uses</p>

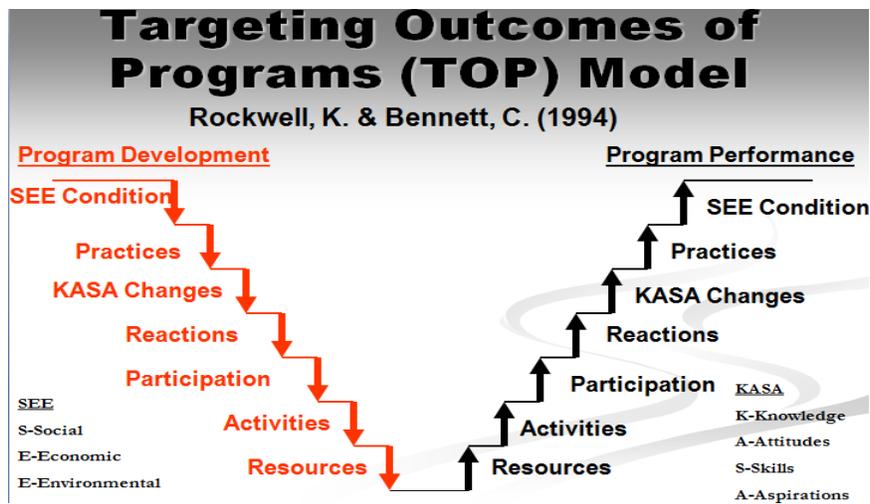
	<ul style="list-style-type: none"> <li>• Cost-effectiveness</li> </ul>	that meet Sentinel Landscape’s mission as an effective strategy to advancing their mission of natural resource conservation.
Economic development agencies and organizations	<ul style="list-style-type: none"> <li>• Program outcomes: Examples include new agribusiness opportunities, maintaining the ability for the military to continue to train in NC, participation in Sentinel Landscapes initiatives, and program funding (potential addition related to job-creation)</li> <li>• Cost-effectiveness</li> </ul>	Economic development agencies and organizations are interested in information that displays increased revenue generating (i.e. revenue generated based on continued military training in NC) and job creation opportunities as a result of the program. This information is needed in order for them to see collaborating with the partnership as a high priority for ensuring the economic prosperity of the state and as more important and valuable than promoting urbanization and other incompatible land uses. They must also gain an understanding of what program activities are available in order to effectively collaborate on those that achieve a mutual objective.
Governing Bodies (National, state & local levels)	<ul style="list-style-type: none"> <li>• Program outcomes: Examples include policies championed, new crop and conservation opportunities, landowner attitudes and aspirations, rate of losses of Sentinel Landscapes, enhancement of military training in NC.</li> <li>• Cost-effectiveness</li> </ul>	Legislators and local governments in North Carolina want information on how the program serves as a cost-effective means for enhancing the economic prosperity, health and security of North Carolina. They will be interested in gaining information based on lessons learned and best management practices in order to see value in developing policies, laws, and/ or regulations that enhance the Sentinel Landscapes mission.
Non-governmental organizations: Commodity Groups, Farming and Forestry Advocacy Groups and Local Foods and Fuels non-profits	<ul style="list-style-type: none"> <li>• Program outcomes: Examples include new agribusiness and conservation opportunities, acres under contract, extended contract length, and entities available to hold working lands contracts and easements.</li> <li>• Cost-effectiveness</li> </ul>	Non-governmental organizations are interested in this information to understand how the partnership’s efforts have achieved the maintenance of economically viable working lands and natural resources. They will also be interested in understanding program functionality in order to identify viable opportunities for collaboration.

For purposes of accountability and program improvement, evaluation results will focus on the needs of the key stakeholders to achieve maximum credibility and acceptance. Each evaluation will be required to go through the institutional review process to guarantee that it will be designed and conducted to protect human and legal rights and maintain the dignity of participants and other stakeholders.

*Evaluation Approach and Model*

The program will utilize a goal-based evaluation approach designed for the measurement of planned outcomes. The program model is tasked with increasing awareness, understanding and problem-solving abilities among key stakeholders as they make choices about how to achieve mutual objectives in regards to the spectrum of resource uses. To evaluate the program’s ability to achieve these desired outcomes or conditions, Rockwell and Bennett’s (2004) Targeting Outcomes of Programs (TOP) Model will be used (Figure 1.) to ensure program impacts may be captured efficiently and effectively.

**Figure 1: Program Evaluation Model**



The program performance and evaluation begins at the right side of the model looking at the resources used to present the activities that ensure target audience’s participation and positive reactions. The evaluation will compare the actual program attendance to the desired target identified during program planning and design. Cost-effectiveness ratios will be calculated to compare program outputs (activities and participation) and outcomes (short, middle, and long-term) with program costs. These ratios will be measured at the activity level and be used in order to demonstrate the relative value of the program based on resource availability and allocation as well as provide a measure of evaluation for various program processes’ effectiveness in achieving program outcomes. The analyses will produce a benefit-cost ratio that is calculated as follows:

$$\text{Cost Effectiveness} = \frac{\text{The Value of Program Costs}}{\# \text{ of outcome/output units}}$$

Cost effectiveness ratios will also serve as a measure to compare the Sentinel Landscapes elements with other programs and inform compatible efforts that may be interested in transferring program concepts or adopting the Sentinel Landscapes model for their own efforts. Rather than evoking a traditional sign-in sheet, participants will be asked to complete a very short demographics survey to provide insight to program personnel of the effectiveness of program marketing efforts. A demographics survey will serve to understand the number of participants along with the collecting the following information:

- Name, affiliation, level of involvement and familiarity with partnership (Appendix A)

This approach will provide insight into the programs ability to reach its target audience while understanding key factors of familiarity and engagement among attendees. To ensure that the program is meeting the expectations of those attending quarterly meetings thus creating a positive reaction among its participants, a customer satisfaction survey (Appendix A) will be administered at intervals agreed upon among the steering committee (but at least once a year). This approach will be used to help measure satisfaction with the process and possibly measure satisfaction metrics among participants that remain engaged in the program.

The philosophy of this model is that these positive reactions help program participants gain desired knowledge, attitudes, skills and aspirations (KASA). When participants apply gained KASA, the desired behavioral changes will take place for achieving compatible resource uses for the maintenance and enhancement of military training, working land and water resources, and conservation. The evaluation will gather information systematically to determine whether the target resources were mobilized, activities were presented, target audiences participated, the audiences were satisfied, changed their KASA, changed their practices and achieved the desired conditions.

The development of a data collection instruments for other program related activities will be conducted on an as needed basis to ensure the evaluation is closely tied to both the program activity and the strategic plan of the partnership. The development of the activity specific evaluation will be led by the program evaluation specialist along with the element lead of the activity in question. Data collection instruments must be approved by the larger steering committee before the process of verifying instrument reliability and validity can be evoked.

#### *Evaluation Reliability and Validity*

To ensure evaluation is accurate and consistent, measures will be taken to ensure instrument reliability and validity. A test-retest method will be used to make sure that the evaluation instruments produce consistent results. The instruments will be administered to a sample of subjects on two occasions and correlation analysis will be run on the paired scores to measure and establish reliability. Evaluation validity will be addressed by evoking an extensive

expert review process of all instruments. Experts in evaluation, extension and outreach, organizational development and training will be used to evaluate the extent to which each instrument measures what it intends to measure. Instruments will not be implemented until a consensus is reached among all experts.

*Program Monitoring: Tracking Outcomes*

In order to ensure that the evaluation procedures are practical and responsive to the way the program operates, a logic model is used to develop the program monitoring framework. The logic model provides a holistic view of the program through the cause and effect relationships between inputs, outputs, outcomes, and impacts. It will help focus the evaluation on the key elements of the program, identify evaluation questions, and determine data collection points for systematic collection and review. Appendix C includes the logic model for this program that represents what is needed for overall success.

*Program Monitoring Impact Indicators*

Program impact indicators were developed using consensus building processes among the Sentinel Landscapes steering committee. They have been agreed upon and objectives have been developed accordingly. Short-term program indicators will focus on key stakeholder needs related to changes in KASA. Program monitoring will capture data measuring these changes immediately following the program related events. In the medium-term, the impact indicators will focus on key stakeholders’ adoption or changes in behavior (actions taken) that are promoted by the KASA gained from the program. These indicators will focus on behaviors that are observed within a few years of engaging with program related activities and will look at the adoption of such behaviors as working land easements enabling landowners to maintain their land, enrollment in Sentinel Landscapes initiatives, increased contract length in compatible land use and robust funding. Finally the long-term indicators will focus on the ultimate goals of the program which are to preserve compatible resource uses with military training, working lands and water resources, and conservation. These indicators endeavor to understand the changes in specific conditions created as a result of this program. Table 2 outlines the comprehensive list of indicators that this program will use to capture meaningful program data for the purposes of program improvement and accountability.

**Table 2: Program Impact Indicators**

<b>Short-term indicators</b>	<ul style="list-style-type: none"> <li>• % of key stakeholders that will be able to identify program functionality and comprehend program value</li> <li>• % of participants of outreach events that will indicate their knowledge of working lands conservation is improved</li> <li>• % of training attendees that can describe working lands conservation strategies</li> </ul>
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	<ul style="list-style-type: none"> <li>• % of participants/stakeholders that perceive that program aligns with their agency/organization/leader's long-term objectives</li> </ul>
<b>Medium-term indicators</b>	<ul style="list-style-type: none"> <li>• # of entities available to hold working land trusts and contracts</li> <li>• # of acres held in working land trust contracts and/or easements</li> <li>• # of participants in Sentinel Landscapes initiatives</li> <li>• # of counties developing farmland and working land preservation plans</li> <li>• # of private lands enrolled in Present Use Value, Voluntary Agriculture Districts (VAD), or Enhanced VADs</li> <li>• % of new landowner agreements with durations of 20 years or more within Sentinel Landscapes initiatives</li> <li>• # of policies, laws and/or regulations developed and championed that support mission</li> <li>• # of key stakeholders represented at program meetings</li> <li>• # of dollars received for program sustainment</li> </ul>
<b>Long-term indicators</b>	<ul style="list-style-type: none"> <li>• # of other states initiating Sentinel Landscapes efforts (based on partnership efforts)</li> <li>• # of conservation and crop opportunities (as a measure of increased economic opportunities present that promote conservation and ag/forestry)</li> <li>• # of acres being maintained in compatible resource uses</li> </ul>

Based on the aforementioned indicators, objectives have been developed and agreed upon with the Sentinel Landscapes Steering Committee. They are structured to produce sound, measurable, attainable, realistic, time bound objectives to ensure effective utilization for program accountability and improvement. Table 3 outlines the immediate, middle and long-term objectives for the partnership.

**Table 3: "SMART" program objectives**

<b>Short-Term</b>
1. At least 75% of key stakeholders will be able to identify program functionality and comprehend program value by June 30, 2015, as measured by a survey.

<ol style="list-style-type: none"> <li>2. At least 75% of landowners participating in the outreach events will indicate their knowledge of working lands conservation is "improved" or "very improved" after each outreach event.</li> <li>3. At least 90% of training attendees will be able to describe 3 or more working lands conservation strategies after each training workshop.</li> <li>4. Over 75% of participants/stakeholders will perceive that the program aligns with their agency/organization/leaders long-term objectives and express interest in Sentinel Landscapes initiatives by June 30, 2015, as measured by a survey.</li> </ol>
<b>Medium-Term</b>
<ol style="list-style-type: none"> <li>1. The North Carolina Forestry Association (NCFA) Working Lands Trust is available to hold working land agreements and contracts by January 1, 2015</li> <li>2. The new entity (above) will hold working land trusts and/or contracts representing at least 1000 acres by September 29, 2018.</li> <li>3. At least 75% of Train the Trainer workshop attendees will use portions of the curriculum within the first year of completing the workshop.</li> <li>4. Participants will increase by 10% each year as measured by new applications and contracts within Sentinel Landscapes initiatives [e.g. ADFP, MBCI &amp; Working Forests] each year from September 29, 2015 to September 29, 2018.</li> <li>5. The number of counties developing farmland and working land preservation plans will increase by at least 1 per year.</li> <li>6. The number of private lands enrolled in Present Use Value, Voluntary Agriculture Districts (VAD), or Enhanced VADs will increase by 5% each year.</li> <li>7. 75% of new landowner agreements, which support North Carolina Sentinel Landscapes efforts, will have durations of 20 or more years by September 29, 2018.</li> <li>8. Existing contracts will have a default rate of less than 7% by September 29, 2018.</li> <li>9. At least 2 policies, laws and/or regulations will be developed and championed that support working lands, conservation, and military readiness at the state level by the end of FY 2018.</li> <li>10. Sentinel Landscapes has representation from each branch of the key stakeholder categories in 75% of Sentinel Landscapes quarterly meetings as measured by sign-in sheet.</li> <li>11. Sentinel Landscapes efforts receive at least \$1,000,000 in funds annually starting at the end of calendar year 2015.</li> </ol>
<b>Long-Term</b>
<ol style="list-style-type: none"> <li>1. At least 2 other states will initiate Sentinel Landscapes efforts as a result of the efforts of the North Carolina partners by FY 2021.</li> <li>2. At least 8 new opportunities will be created (e.g. Farmer's markets on installations, ecosystem services, renewable fuels, etc.) that align with the partnership mission by September 29, 2018.</li> <li>3. Increasing acres of compatible resource use as to decrease the rate of loss by 5% under the military footprint from FY 2014 numbers by FY 2021 as reported by the USDA Agriculture Census data.</li> </ol>

*Program Monitoring: Tracking Processes and Outputs*

Consensus building processes were also evoked to promote collaborative discussion among steering committee members for the development and refinement of process and output metrics. These metrics were developed based on the core set of essential program functions. Each program element and associated element lead has different responsibilities under the umbrella of the partnership which is reflected within their list of performance metrics. Table 4 outlines these metrics for the overall program as well as for each element.

**Table 4: Program Action Plan with Objectives**

<b>Overall Program</b>
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- A minimum of **2** programs will be supported by the Partnership each year that promotes the Sentinel Landscapes' mission.
- A minimum of **2** Sentinel Landscapes' projects will be initiated and/or delivered each year.

### **Element 1: Coordination**

- **The Steering Committee lead by NCSU** will coordinate the identification of tasks and annual funding needs for all Sentinel Landscapes elements **once a year no later than April 15.**
- **The Steering Committee led by NCSU and Texas A&M University** will communicate the value of Sentinel Landscapes by meeting and discussing opportunities for collaboration and perpetuation at the state and federal level **no later than 6 months following the finalization of the communication plan** with:
  - Office of the Secretary of Defense (Acting Deputy Under Secretary of Defense- Installations & Environment; Director-Training Readiness and Strategy, Program Director- Readiness and Environmental Protection Integration (REPI) Program)
  - Executive branch agencies and programs (US Secretary of Agriculture; Secretary of Commerce; Secretary of the Treasury; US Department of Interior (Assistant Secretary for Fish and Wildlife and Parks))
  - Military Service Commands
  - US Congress/Senate
  - USDA State Directors
    - Natural Resources Conservation Service
    - Rural Development
    - Farm Service Agency
    - Risk Management Agency
  - NC Department of Commerce, Division of Rural Development (Assistant Secretary)
  - NC Military Operational Leaders (Air Force, Army, Marines/Navy, Coast Guard and National Guard)
  - NC Commanders' Council
  - NC Military Affairs Commission
  - NC Governor's Military Advisor
  - NC General Assembly and Legislative Entities
  - NC Department of Agriculture (Commissioner)
  - NC Department of Environment and Natural Resources (Secretary)
  - NC Department of Transportation (Deputy Secretary)
  - Local elected officials and decision makers (city/town councils and mayors)
- **NCSU and element leads** will develop and implement a communication plan no later than **November 30, 2014.**
  - Publishing a **general readership article in at least two outlets** including: Ag Review, Farm Bureau outlets, Land Trust Alliance outlets, NC Magazine, NC Electric Co-op, NC State Grange, and/or REPI newsletter no later than **May 31, 2015.**
  - **NCSU and TAMU** will improve understanding of Sentinel Landscapes by presenting at no less than **1 regional meeting/conference** on Sentinel Landscapes by **June 30, 2015.**
  - **NCSU** will coordinate **10 monthly conference calls** per year with at least **75%** attendance from the steering committee members **per call.**
  - **NCSU** will coordinate at least **2 in-person meetings** per year and achieve representation from each key stakeholder group in **75%** of Sentinel Landscapes quarterly meetings as measured by sign-in sheet.
    - **NCSU** will maintain the website by providing **quarterly** updates (or as needed) of site content.
- **NCSU** will complete the development of the program evaluation and monitoring framework by no later than **May 31, 2015**

### **Element 2: Agriculture Development and Farmland Preservation Trust Fund**

- **ADFP Trust Fund representatives** will develop a plan and place under a 20 year term easement contract **435** acres of farmland for compatible land use for military training by **September 29, 2015.**

- **ADFP Trust Fund** in collaboration with NCDA&CS and USDA-NRCS will conduct **6** workshops pertaining to working lands preservation by **November 30, 2014**.
- **ADFP Trust Fund** will develop a report of acres and location of protected compatible use lands no later than **September 29, 2015**.

### **Element 3: Working Forests**

- **Working Forests representatives (NCFA and NCSU)** will improve understanding of Sentinel Landscapes by presenting at no less than 1 regional meeting/conference by **June 30, 2015**.
- **NCFA** will develop a white paper identifying gaps and barriers in regulations and policies impeding the conservation of working lands by **September 29, 2015**.
- **NCSU** will develop a training curriculum to educate landowners about preserving working lands no later than **April 30, 2015**.
- **NCSU** will conduct a train the trainer workshop no later than **May 31, 2015**.
- **NCSU** will conduct at least 4 county level outreach events by **September 29, 2015**.

### **Element 4: Food and Fuel 4 the Forces (FF4F)**

- **FF4F** will improve understanding of Sentinel Landscapes by presenting at no less than 1 regional meeting/conference by **June 30, 2015**.
- Promote the use of local food in all base venues to include mess halls, commissaries and Marine Corps Community Services activities by initiating the following activities no later than **September 29, 2015**.
  - Local food event focused on landowners
  - Marketing events such as highlighting of local foods in commissary, guest chef events, and Flavors of NC television episode
  - Farmers market on an additional installation
  - Change from canned and frozen foods to fresh, local foods

### **Element 5: Market Based Conservation Initiative (MBCI)**

- **MBCI** will identify the average contract cost/acre of land offered for enrollment as bid by landowners no later than **December 31, 2015**.
- **MBCI** will describe lessons learned from the pilot project no later than **August 1, 2015**.
- **MBCI** will begin monitoring any signed contracts no later than **August 1, 2015**.
- **MBCI** will calculate monitoring cost per acre no later than **August 1, 2017**.

Regular updates will be provided by each element lead regarding progress on the objectives outlined above. These updates will be presented to the group during monthly steering committee conference calls as well as in-person quarterly meetings. These objectives will continually be updated and negotiated among the group to ensure attainment of desired program outcomes.

#### *Evaluating the Program Context*

Once every five years, program element leads and key stakeholders will be asked to participate in qualitative interviews in order to understand lessons learned and best management practices gained from the work of the collaborative partnership. The qualitative interviews are structured based on the theories of collaboration in order to identify the variables that impact the inter-agency partnership. The variables of interest are:

- Social/political climate
- Communication and decision making processes
- Social capital
- Governing policies
- Availability of resources



Finalize specific information needs.	X								
Develop impact indicators and key questions.		X							
Decide evaluation designs and Develop data collection tools		X	X						
Collecting data				X	X	X			
Analyzing data							X		
Writing report							X	X	
Communicating results with stakeholders									X

This aforementioned timeline is predicated on the ability to have a full-time employee carrying out the program evaluation efforts. If a full-time employee is not available, the timeline is meant to serve as a reference for adaptation based on the human resources available to the partnership for evaluation. The tasks and general structure of the timeline must be taken into consideration when making appropriate adaptations.

*Program Accountability*

For purposes of program accountability, the evaluation results will focus on the justification of the resources invested in the program. The evaluation report will summarize the program results to key stakeholders and funding resources to provide insight into the cost-effectiveness of the program, target audience participation, client satisfaction and program impact. The program will disseminate this information in a timely manner following the completion of the program to give key stakeholders insight into program value and build awareness for continued program funding.

Partnership element leads will provide timely updates of program progress based on collaboratively outlined goals and objectives by utilizing online dashboard structure. The dashboard will be available to element leads as well as the steering committee to ensure collective recognition of program effectiveness. The information provided will serve to demonstrate program value related to actual actions taken by participants and any emerging needs that may require additional resource allocations. Program outputs and outcomes will be included in cost effectiveness ratios that will serve as a summary of program value to government agencies and funding entities as justification to receive continued funding. This

information will also provide fellow professionals with best management practices and lessons learned for effective programming that achieves the conservation of compatible resource use that will maintain and enhance working lands, conservation and national defense.

The final phase of accountability information in the evaluation report will focus on the rate of losses of land and water resources that comprises Sentinel Landscapes in eastern North Carolina. The evaluation report will reference reliable sources (e.g. REPI Annual Report) that report on these trends on a seven year cycle. This information will serve to update the strategic plan and provide key stakeholders with program results in the context of state policies and initiatives. Since program alignment is important for achieving statewide goals, this program will make sure that it stays in tune with the needs of the state as a whole as well as those local residents of eastern North Carolina.

### *Marketing*

The partnership has developed a marketing and communications plan that will guide the dissemination of evaluation results and programmatic activities. The plan was developed from the framework of social marketing that is tasked in promoting favorable behavioral change. Marketing efforts will focus on outcome results that demonstrate the value of the NC Sentinel Landscapes Partnership. The goals of these efforts are to increase awareness, understanding, and problem-solving abilities among key stakeholders in order to increase behavioral changes that promote Sentinel Landscapes.

Marketing will also take advantage of engaged stakeholders to raise awareness among potential participants for future programs. These programs will also be marketed to potential funding entities to ensure adequate resources for the NC Sentinel Landscapes Partnership and the entire catalogue of compatible programs. This marketing opportunity also provides a chance to market the broader concept of Sentinel Landscapes. As much as this plan is focused on a particular program, it is important to take full advantage to market working lands, conservation and national defense. These marketing efforts will focus on providing a positive spin towards relevant activities and programs in general demonstrating its benefit for creating promising social, economic and environmental conditions.

The marketing plan will employ a multi-media approach in order to take advantage of information dissemination in the 21<sup>st</sup> century. Various media such as television, radio, internet, and newspaper will be leveraged to disseminate information. The partnership will take a strategic approach of tailored messaging based on the audience of each particular medium. The program will also develop and disseminate materials (e.g. newsletter, flyers, and online postings) to keep participants, funders, and a broader range of stakeholders informed.

### *Program Improvement*

This program evokes the theories of adaptive management allowing evaluation results to continuously inform the program process. Figure 4 shows the program's adaptive cycle and provides an outline demonstrating the role of evaluation.

### **Figure 4: Program adaptive management cycle for program improvement**



Program improvement will begin by using the process evaluation results. Implementation data about inputs, outputs and client participation will be compared with the targets developed by the program. Cost-effectiveness ratios will include outputs and client participation at a programmatic, element and activity level to understand the full scope of processes. This approach will allow faculty and staff to develop a holistic understanding of the program strengths as well as associated challenges. Based on the process evaluation results recommendations will be made for program improvements focused on reaching program targets.

The program will be proactive in its implementation of remedial actions, so improvements will not wait until the final evaluation report is created and disseminated. Program improvement will be a continuous process and based on the expectations of key stakeholders and program partners. The existing structure for coordinating the program will be evoked for such discussions --monthly steering committee conference calls and quarterly meetings. The purpose of these meetings is to allow program personnel to discuss their impressions of the program while evaluating results from initial data analysis.

The results of the recurring contextual evaluation (APPENDIX C) will be used to ensure that the collaborative dynamics of the partnership are effective and meet the expectations of both key stakeholders and program leadership. It will provide an opportunity to identify the internal strengths and weaknesses of the partnership as well as the external opportunities and threats that the partnership should address in order to maintain successful collaborative efforts. These results will inform the actions taken by the partnership to ensure the program is responsive to its environment.

Discussions regarding planned actions will depend on milestones based on behavioral objectives and agreed upon amongst the program's element leads and steering committee (Table 7). These discussions will be focused on providing insight into key stakeholder actions, participant challenges, emerging needs and other participant insights that may affect the strategies presented, the methods for presenting them and/or the emphasis of certain topic areas.

**Table 6: Medium Term Objectives' Milestones for Program Improvement**

Objective #	Milestone 1	Milestone 2	Milestone 3	Milestone 4	Milestone 5	Milestone 6	Milestone 7	Milestone 8
2	4/2015: 125 acres	9/2015: 250 acres	4/2016: 375 acres	9/2016: 500 acres	4/2017: 625 acres	9/2017: 750 acres	4/2018: 875 acres	9/2018: 1000 acres
4	4/2016: 0%	9/2016: 1.5%	12/2016: 3.75%	4/2017: 5.0%	9/2017: 6.25%	12/2017: 7.5%	4/2018: 8.75%	9/2018: 10.0%
7	4/2015: 53.125%	9/2015: 56.25%	4/2016: 59.375%	9/2016: 62.5%	4/2017: 65.625%	9/2017: 68.75%	4/2018: 71.875	9/2018: 75.0%
9	4/2015: 0	9/2015: 0	4/2016: 1	9/2016: 1	4/2017: 1	9/2017: 2	4/2018: 2	9/2018: 2

*\*\*Objectives referenced from medium-term ordered list in Table 3.*

Cost effectiveness ratios will also evaluate the program processes in relation to achieving desired outcomes based on resource availability and allocation. The aforementioned information will provide program partners and key stakeholders with a rich description of the overall experience and perception following participant engagement with the program and how the program was able to provide the necessary KASA to effectively navigate stakeholders through the path of compatible behavioral change. The measurement of program impact will identify potential areas of improvement based on the external factors identified by program participants that may compromise ultimate program success. Program personnel, representatives of the target audience, government officials, other extension professionals, and funding entities will be invited to attend program discussion to ensure a stakeholder driven process for program improvement.

A final stage of evaluation will focus on long-term partnership goals following the final stage of data collection, archive retrieval. These discussions will take conversations to a policy level but will remain centered around identifying areas for program improvements. Meeting participants will evaluate the program’s contribution to overarching statewide policies and initiatives. Invited policy makers and government officials may provide insight for clearer funding paths and additional resources that may improve program delivery based on mission and goal alignment. These areas of improvement will provide most benefit for continuous marketing efforts targeting social change among various stakeholder groups. While these meetings are meant to serve as opportunities to improve the program they will also serve to increase buy-in especially among potential political sponsors.

Program improvement will also look at improving the evaluation process. Once the evaluation is complete, meta-evaluation will provide a critical review of the evaluation procedures. The evaluator will conduct a critical review of his/her evaluation to identify problems and weaknesses to improve before conducting the next program evaluation.

APPENDIX A: Quarterly Meeting Sign-In Sheet

**Table 7: Demographics survey for sign-in sheet**

Name	Affiliation	Level of involvement	Familiarity with Program (Circle one)
		1: Never 2: Occasionally 3: Fairly many times 4: Often 5: Always	1: Very familiar 2: Somewhat familiar 3: Somewhat unfamiliar 4: Very unfamiliar

*Sentinel Landscapes Quarterly Meeting Survey*

Q1. What do you find most useful at the *Sentinel Landscapes quarterly meetings*? (Please provide written explanation)

Q2. What was least useful at the *Sentinel Landscapes quarterly meetings*? (Please provide written explanation)

*Please circle the appropriate number for your level of response.*

How satisfied are you with:	Not Satisfied	Somewhat Satisfied	Satisfied	Very Satisfied
The relevance of information to your needs?	1	2	3	4
Presentation quality?	1	2	3	4
Subject matter knowledge of presenter(s)?	1	2	3	4
Meeting facilities?	1	2	3	4
The overall quality of the <i>quarterly meeting</i> ?	1	2	3	4

Q3. How could the *Sentinel Landscapes quarterly meetings* be further improved upon to be of more value to you/your organization? (Please provide written explanation)

Q4. Would you recommend the *Sentinel Landscapes quarterly meetings* to others that are not currently attending? (Circle the corresponding response).

1. Yes
2. No

Please explain (if yes, who & what organizations; if no, why not):

## **APPENDIX C: Qualitative Context and Process Evaluation Interview Protocol for Program Leadership**

1. How would you describe your experience with the North Carolina Sentinel Landscapes Partnership?
  - a. (Probe) What worked well?
  - b. (Probe) What didn't?
2. What were the key factors that influenced the outcomes of the program?
  - a. (Probe): [For each key factor identified] How did [it] impact the outcome of the program?
  - b. (Probe): Why should future collaborative partnerships take into consideration the aforementioned factors when developing their own Sentinel Landscapes program?
3. Did policies and/or guidelines of an agency or organization influence decision making in your organization?
  - a. If so, how?
4. How did state mandates help or hinder the collaboration?
5. How did federal mandates help or hinder the collaboration?
6. How did funding structures help or hinder the collaboration?
7. How did board (steering committee) policies help or hinder the collaboration?
8. How would you describe the partnership's leadership?
  - a. Strengths?
  - b. Weaknesses?

9. How did the partnership establish goals and objectives?
  - a. (Probe) How did the partnership agree on roles?
  - b. (Probe) How did the partnership make decisions?
  - c. (Probe) How did the partnership resolve conflicts?
10. Which of the problem-solving processes were most important to you?
  - a. (Probe): Why?
11. Which of the communication processes were most important to you?
  - a. (Probe): Why?
12. Describe your relationship with leaders of the other agencies/organization in the partnership.
  - a. (Probe) What impact did personal relationships have on the collaboration?
13. Were there any shifts in perspectives or relationships among key stakeholders that impacted the outcomes of the program?
  - a. (Probe): If so, what were they?
  - b. (Probe): How did these shifts impact the outcome(s) of the partnership?
14. How would you describe the human resources available to your organization?
15. How would you describe the financial resources available to your organization?
  - a. (Probe) What other resources were available to you?
  - b. (Probe) What resources did your organization have that were able to be exchanged in the collaboration?
16. Describe the general feelings, attitudes, beliefs, and/or opinions of the stakeholders in eastern North Carolina toward the social issues impacting their communities?

17. Describe the general feelings, attitudes, beliefs, and/or opinions of the stakeholders in eastern North Carolina toward the political issues impacting their communities?
18. What impact did the aforementioned social and political climate have on the [creation, development, and implementation] partnership?
19. What would you tell the leadership of future endeavors to ensure the success of respective programs?
20. What would you or your organization do differently based on your experience with the partnership?
21. What additional observations would you offer?