

# **Chapter 10**

# **A Reviewer's Guide to**

# **Vermont's Wildlife Action Plan**

**Prepared for the Regional Review Team  
of the U.S. Fish & Wildlife Service**

**2015**

**This Reviewer's Guide to Vermont's Wildlife Action Plan** is provided to help Regional Review Teams (RRT) understand how Vermont addressed each of the eight required elements for Wildlife Action Plans and where that information can be found. It begins with an overview of how the report is organized and is followed by the eight elements and specifics as to where information satisfying the element can be found in the Action Plan.

Congress requires that each state revise its Wildlife Action Plan at least every 10 years if it wishes to remain eligible for State Wildlife Grant funds. There are eight congressionally required elements that Action Plans must address to be approved. Congress designated the Director of the U.S. Fish & Wildlife Service (USFWS) to make approval determinations. The USFWS assembled Regional Review Teams in each of eight regions across the country and charged these teams with reviewing each Action Plan, considering how well each plan addressed the required elements, and making approval recommendations to the USFWS Director.

The USFWS “believes it must make an affirmative finding that all of the eight required elements are satisfactorily fulfilled for an “approval” recommendation to be made to the Director of the U. S. Fish and Wildlife Service.”

## **Report Development & Organization**

The revision of Vermont's Wildlife Action Plan followed the eight required elements, revision guidance provided by the USFWS and that published in Best Practices for State Wildlife Action Plans (AFWA 2012) and The Northeast Lexicon: Terminology Conventions and Data Framework for State Wildlife Action Plans in the Northeast Region (Crisfield 2014).

The revision began in earnest September 2012 with an assessment of the vulnerability to climate change of species and habitats. In January 2013 a Revision Team of Vermont Fish & Wildlife Department (VFWD) staff met to begin project scoping. The Revision Team has representation from across the VFWD (Wildlife, Fisheries, and Outreach divisions and Business Office) and they have assisted by reviewing strategies, approaches, and our progress. Federal guidelines, planning literature and past planning efforts were reviewed and an organizational structure and revision process were subsequently developed. The identification of Species of Greatest Conservation Need (SGCN) occurred from July 2014 through January 2015. Habitat delineation for SGCN, problem assessment and strategy development occurred from October 2014 through June 2015. Integration and conservation planning ran from May through August 2015. Review and additional input by the VFWD, agencies and other stakeholders and the general public, occurred between September and November 2015. Final document preparation and editing occurred in December 2015. All sections of the Wildlife Action Plan have been revised or updated as needed.

With this revision we take advantage of the many tools, guidance documents and programs developed since 2005 designed to support the conservation and management of wildlife by partners and the general public—several of which were created as a direct result of the first Wildlife Action Plan. These include the [Community Wildlife Program](#), [Foresters for the Birds](#), [BioFinder](#), [Vermont Invasives](#), the [Landowners Guide - Wildlife Habitat Management for Lands in Vermont](#) and [Community Strategies for Vermont's Forests and Wildlife](#) among many.

**Notable changes/additions to the Vermont's Wildlife Action Plan with this revision include:**

- An expanded discussion of climate change impacts to SGCN and their habitats and strategies to help wildlife adapt and to improve resiliency (chapter 3).
- A focus on landscape conservation and habitat connectivity (chapter 6) and a design for landscape conservation (appendix F).
- Greater attention to diseases as significant threats to some species.
- Recognition of the important role pollinators play in their ecosystems and the addition of a suite of nine bumble bee species included as SGCN (Appendix A4). The 2005 Action Plan was silent on pollinators.
- A plant conservation summary (chapter 5). The 2005 Action Plan included only a list of plant SGCN.
- Expanded guidance to help municipalities implement the Action Plan (Appendix G).
- Addition of the state's Big Game Management Plan (for Black Bear, Moose, White-tailed Deer, and Wild Turkey) as an appendix (H).
- Revisions to Species of Greatest Conservation Need: SGCN lists have been updated (chapter 5) along with conservation summaries for each SGCN (appendices A1-A5). Table 10.1 summarizes these changes.

**Table 10.1 Summary of Changes to SGCN Lists 2005:2015**

Taxon	2005 SGCN	2015 SGCN	Change Notes
Amphibians & Reptiles	19	19	No changes
Birds	58	51	Removed: Long-eared Owl, Henslow's Sparrow, Osprey, Cooper's Hawk, Barn Owl, Veery, Blue-winged Teal Added: None
Fishes	33	29	Removed: Arctic Char, Atlantic Salmon (anadromous), Brassy Minnow, Muskellunge and Quillback Added: Northern Pearl Dace
Invertebrates	191	200	Removed: 19 species Added: 28 including 9 bumble bee species
Mammals	33	33	Removed: Black Bear and Mink Added: Moose and Snowshoe Hare
Plants	577	645	Added 68 species

Although development of this Action Plan followed a bottom-up arc from individual species and populations to state and region-wide problems and solutions, its presentation in this report follows a somewhat more user-friendly format. Nine main chapters were selected to first provide readers with context and a big-picture view of wildlife conservation in the state, before diving deep in to the specifics of more 300 SGCN in the appendices. Additionally, because we anticipate that most users of this 1,000-page document will only read sections of it there is some redundancy in the report. Reviewers will find information to help complete their assessment in the locations noted in Table 10.2.

**Table 10.2: Organization of Vermont's Wildlife Action Plan Report**

(Locations beginning with a letter (e.g., "B") refer to appendices. Appendix "A" contains subsections A1 through A5, one each of the five wildlife taxa examined in the Action Plan (e.g. A3:1-6 refers to pages one through six if of appendix A3)

	<b>Chapter : Page</b>
Report Development/Methods	8:1-18
Species of Greatest Conservation Need	
Lists of SGCN	5:13-63
SGCN selection procedures	8:9-12
Overview of SGCN by taxonomic group (amphibians and reptiles, birds, fishes, invertebrates, mammals, plants)	5:2-64
Detailed SGCN information (e.g. status, distribution, habitat, problems, research & monitoring needs and conservation strategies)	A1-A5
Habitat Delineation & Assessment	
Methods	8:13-14
Rationale for habitat classification and organization	4:2-7
Descriptions: desired conditions, problems, research, conservation strategies for Landscapes Habitats	6:2-14, F B:9-130
Threats Impacting Vermont's Wildlife	
Threat identification and organization (methods)	8:4-5
Threat definitions	C:2-6
Summary of major threats	2:5-9
Threats impacting each SGCN	A1-A5
Threats impacting SGCN habitat	B:9-130
Climate Change	3:2-23
Conservation Actions	
Action development and organization (methods)	8:6
Definitions of action categories	C:7-9
Statewide goals and objectives	1:7-12
Conservation actions by taxon (birds, fishes, invertebrates, mammals, herpitiles)	5:2-64
Conservation actions for individual SGCN & SGCN Invertebrate Groups	A1-A5
Habitat conservation actions: Landscapes Habitats	6:2-14 B:9-130
Monitoring & Adaptive Management	7:1-10
Implementation	7:11-12
Review & Revision	7:12-13
Glossary/Acronym Key	9:1-5
Summary of 1 <sup>st</sup> Action Plan Implementation	E:2-23

<b>Element 1. Information on the distribution and abundance of species of wildlife, including low and declining populations as the State fish and wildlife agency deems appropriate, that are indicative of the diversity and health of the State's wildlife.</b>		
<b>RRT Guidance</b>	<b>Chapter : Page</b>	<b>Detail</b>
<b>1A.</b> The Plan indicates sources of information (e.g., literature, databases, agencies, individuals) on wildlife abundance and distribution consulted during the planning process.	5:all  8:9-13  A1-A5:all	SGCN taxonomic summaries discuss data advancements since 2005. Vermont used the best available science and information on wildlife abundance and distribution including databases and records maintained by VFWD, NatureServe, NEAFWA, NALCC, universities and research facilities, regional and national monitoring efforts and the knowledge of technical experts. Together this represents the Vermont's current state of species knowledge.  Each Species Conservation Report includes a bibliography indicating sources.
<b>1B.</b> The Plan includes information about both abundance and distribution for species in all major groups to the extent that data are available.  There are plans for acquiring information about species for which adequate abundance and/or distribution information is unavailable.	A1-A5:all  A4:all  5:all A1-A5:all	Abundance is noted primarily by State rank as well as in conservation status narratives in Species Conservation Reports. Distribution is noted by biophysical region for terrestrial species and 8-digit watershed (HUC-8) for aquatics as well as in the distribution narrative in the Species Conservation Reports. Abundance and distribution data came from the Natural Heritage Database and was augmented by taxa team experts.  Due to the dearth of data on invertebrate species, invertebrate SGCN are treated by taxonomic and habitat groupings rather than individually (e.g., Bumble Bee Group, Odonates-Lakes & Ponds Group).  Research needs for each SGCN and SGCN Groups are included in the taxa summaries (chapter 5) and are detailed in the Research & Monitoring section of each Species Conservation Report (appendices A1-A5).
<b>1C.</b> The Plan identifies low and declining populations to the extent data are available.	8:9-10  A1-A5:all  A1-A5:all  A1-A5:all	VT's Action Plan focused on species with low and declining populations. Our SGCN list includes federal and state threatened and endangered species, species ranked S1 and S2, and species identified by our technical team experts, partners and scientific literature.  SGCN with low populations are identified with a State Rank of S1 (very rare) or S2 (rare) in the Conservation Assessment section of each Species Conservation Report. The "Regionally SGCN" field identifies those species selected by NEAFWA states as 'Regional SGCN.'  Declining populations are noted in the "State Trend" field of the Species Conservation Reports (see Conservation Assessment section). This field records population trends as "Stable," "Fluctuating," " <b>Declining</b> ," "Increasing," or "Unknown." In some cases "unknown" was selected because of knowledge gaps. The "Assessment Narrative" field provides details when available.  Research and monitoring needs are identified for species whose population trends are unknown or poorly known in the Research & Monitoring section of each Species Conservation Report.

**Element 1. Information on the distribution and abundance of species of wildlife, including low and declining populations as the State fish and wildlife agency deems appropriate, that are indicative of the diversity and health of the State's wildlife.**

RRT Guidance	Chapter : Page	Detail
<b>1D.</b> All major groups of wildlife have been considered or an explanation is provided as to why they were not. The state may indicate whether these groups are to be included in a future Plan revision.	8:9-10 5:1-3  5:26-36 A4:all	VT's Action Plan process considered all major groups of wildlife including, amphibians and reptiles, birds, fish, 15 groups of invertebrates, mammals. Vermont's Action Plan also includes plants.  While our knowledge of VT invertebrate is the most limited of all taxa great advances were made over the past decade. Research designed to further augment our knowledge of invertebrates is included in the Invertebrate Taxon Summary and Species Conservation Reports.
<b>1E.</b> The Plan describes the process used to select the species in greatest need of conservation. The quantity of information in the Plan is determined by the state with input from its partners, based on what is available to the state.	8:9-12 5:1-3  5:all  8:11-12 5:all  8:11, 5:20-23 A3:all	SGCN selection procedures (8:9-12). In general, expert input was incorporated through our Species Teams (a group selected for its expertise in a particular taxon such as mammals). Additional input was solicited from Conservation Partners during Partner meetings and through individual and group correspondence  SGCN lists are in each taxon summary.  Taxon specific selection procedures: Species Teams selected SGCN based on criteria and guidance developed by our Planning Team (core group planning and organizing the revision). There was some variation between teams in the threshold used for selection as SGCN (e.g. the Herp Team was the most conservative in selecting SGCN whereas the Mammal Team selected some SGCN based primarily on data gaps). Our priority was not to ensure parity in numbers across taxa but rather to ensure that experts within each taxon were in accord regarding the species selected.  While great advances were made over the past decade in invertebrate inventories, it was limited to a few groups. The sheer number of invertebrate species in VT (estimated at 21,000) combined with a dearth of expertise limited invertebrate SGCN selection. Whereas SGCN in other taxa are generally those species about which we know the <i>least</i> , invertebrate SGCN are generally those we know <i>best</i> . Future Action Plan directed research and surveys will further expand our knowledge of this taxon.

**Element 2. Descriptions of locations and relative condition of key habitats and community types essential to conservation of species identified in the 1st element.**

RRT Guidance	Chapter : Page	Detail
<b>2A.</b> The Plan provides a reasonable explanation for the level of detail provided; if insufficient, the Plan identifies the types of future actions that will be taken to obtain the information.	8:13-14	Protocols for describing habitats were developed by our Planning Team in consultation with Species Teams.
	4:2-7 (repeated at B:1-6)	Because no single habitat classification system satisfactorily integrated the aquatic and terrestrial communities, successional stages, cultural habitats and landscapes used by VT's SGCN, a hybrid of several classification systems with more 120 types organized into 24 major habitat categories was created.
	A1-A5:all	Habitat descriptions for each SGCN and Invertebrate SGCN Group are in the Species Conservation Reports. Each includes a narrative, general habitat preferences, landscape requirements and assignment to one or more habitat type.
	6:2-14 B:9-130	The landscape and habitat summaries each describe characteristics and locations, condition (historical, current and desired) and propose strategies to address data gaps where needed.
	I:all	Plant SGCN are cross-walked with habitat categories where possible.
	1:12	Statewide Goal/Action 3.1.4 identifies the need to continue and enhance habitat monitoring programs to better track the distribution, abundance and status of SGCN habitats.
<b>2B.</b> Key habitats and their relative conditions are described in enough detail such that the state can determine where (i.e., in which regions, watersheds, or landscapes within the state) and what conservation actions need to take place.	A1-A5:all	Key habitats for each SGCN are described in the Species Conservation Reports. Habitat descriptions include a narrative and associations with 120 habitat, community and landscape categories.
	6:2-14 B:9-130	Detailed assessments of the 24 major habitat categories comprising the 120 habitat types were created. Each contains descriptions, location, <b>current and desired conditions</b> , priority problems, research and monitoring needs and priority conservation strategies.

<b>Element 3. Descriptions of problems which may adversely affect species identified in the 1st element or their habitats, and priority research and survey efforts needed to identify factors which may assist in restoration and improved conservation of these species and habitats.</b>		
<b>RRT Guidance</b>	<b>Chapter : Page</b>	<b>Detail</b>
<b>3A.</b> The Plan indicates sources of information (e.g., literature, databases, agencies, or individuals) used to determine the problems or threats	8:10-14 A1-A5:all	Vermont used the best available science and information to identify priority threats and problems for SGCN and their habitats. Sources include records maintained by VFWD, NatureServe, NEAFWA, NALCC, universities and research facilities, PIF, PARC and the knowledge of our technical experts. Teams identified only those factors posing significant and potentially significant threats for a species or habitat (i.e., not exhaustive lists of all possible problems).
	A1-A5:all 5:4-59	The bibliography in each Species Conservation Report (A1-A5) identifies specific sources. This is also true for taxonomic summaries in chapter 5. Technical team and expert knowledge played a significant role in the identification of problems.
	6:11 B:9-130	The bibliography in each habitat summary identifies specific sources. Technical team and expert knowledge played a significant role in the identification of problems.
<b>3B.</b> Threats/problems are described in sufficient detail to develop focused conservation actions	A1-A5:all C:1-6 B:9:130	Threats/problems to SGCN are described in narratives in each Species Conservation Report. Each threat/problem was then assigned to one of 22 habitat related and non-habitat related threat categories (described in appendix C). Better known species generally have fuller problem descriptions. For some poorly understood SGCN descriptions of threats/problems were less specific. Species Teams have in some cases provided consensus recommendations of problems as a starting place for future research.
	5:4-59	Taxon-wide threats/problems are described in the taxa summaries.
	6:11 B:9-130	Threats impacting habitats are addressed in the threats section of each habitat summary. As with SGCN, each was assigned to a threat category (appendix C) and priority rank (high, medium, low).
	2:6-9	Major threats, those most frequently or broadly identified as impacting SGCN or their habitats are discussed in greater detail in chapter 2.
<b>3C.</b> The Plan considers threats/ problems, regardless of their origins (local, State, regional, national and international), where relevant to the State's species and habitats.	2:6-9 6:11 B:9-130	Threats, regardless of cause or origin, were considered. For example broad scale problems such as climate change and acid deposition as well as local problems such as the impact of recreational trails were all considered.
	8:13	Technical teams were instructed not to develop exhaustive lists of threats but rather to focus on the significant problems impacting a species or habitat.
<b>3D.</b> If available information is insufficient to describe threats/problems, research and survey efforts are identified to obtain needed information.	A1-A5:all	The Research & Monitoring Needs section of the Species Conservation Reports includes a "threats and their significance" data field. In some cases research is also identified in the conservation strategies section of the Species Conservation Reports.
	5:4-59	Taxa overviews note research needs that came up repeatedly.
	6:11-12 and B:9-130	Habitat summaries contain a "Threat and Information Needs" table where needed identifies 'insufficient information' problems.

**Element 3. Descriptions of problems which may adversely affect species identified in the 1st element or their habitats, and priority research and survey efforts needed to identify factors which may assist in restoration and improved conservation of these species and habitats.**

RRT Guidance	Chapter : Page	Detail
3E. The priority research and survey needs, and resulting products, are described sufficiently to allow for the development of research and survey projects after the Plan is approved.	A1-A5:all	Priority research and survey needs are described for each SGCN in the Research and Monitoring section of the Species Conservation Reports. Five research and monitoring categories were selected to help manage data collection (Habitat Requirements, Threats and Their Significance, Habitat Change, Monitor Threats, and Other Monitoring Needs). Technical Teams provided a narrative description of the research or monitoring need, and a priority rank of low, medium and high. As noted earlier teams were directed to focus on significant problems (medium and high). For most SGCN distribution and abundance data is the primary need.
	5:4-59	Priority research and survey needs applicable taxon-wide are broadly described in the taxa overviews
	6:11-12 and B:9-130	Priority research and survey needs are described for each habitat category in the Problem and Information Needs section of each Habitat Summary
	5:1-12	Research and survey needs spanning multiple species and taxa will be addressed in the statewide wildlife monitoring and adaptive management program that will begin with Action Plan implementation.
	1:11-12	The need for a wildlife monitoring and adaptive management program is identified as goal #3 in the statewide goals section.

<b>Element 4 Descriptions of conservation actions determined to be necessary to conserve the identified species and habitats and priorities for implementing such actions.</b>		
<b>RRT Guidance</b>	<b>Chapter : Page</b>	<b>Detail</b>
<b>4A.</b> The Plan identifies how conservation actions address identified threats to species of greatest conservation need and their habitats.	A1-A5:all 6:11-14 B:9-130 C:7-11	<p>Priority conservation actions were developed for SGCN (strategies section of each Species Conservation Report) and for habitats (strategies sections of the landscape and habitat summaries). Each was then assigned to an action category (appendix C 7-9).</p> <p>Generally, the connection between the problems and conservation actions identified in the Action Plan are intuitive and self-evident (e.g. habitat threatened by encroaching development would be targeted through a suite of strategies including technical assistance to developers and municipal planning authorities, conservation easements and efforts to increase funding for land acquisition).</p> <p>Actions are included to address immediate localized threats as well as broader, diffuse stressors and problems that may cause or exacerbate the localized problems (e.g. riparian habitat restoration to improve stream water temperatures and adaptation strategies in response to climate change).</p>
<b>4B.</b> The Plan describes conservation actions sufficiently to guide implementation of those actions through the development and execution of specific projects and programs.	8:14-16  C:7-11  1:7-12  5:4-59 A1-A5:all 6:11-14 B:9-130	<p>Teams developed conservation action as narrative statements for priority problems to SGCN and their habitats.</p> <p>Each action was then assigned to an action category (appendix C 7-9).</p> <p>Actions balance the need to guide implementation with the need to maintain relevance and flexibility through the life of the Action Plan (~10 years) and therefore are broad and directional. This allows for different approaches to implementation, leaves the door open to a variety of potential implementers and allows for adaptation in response to changing conditions and new information.</p> <p>Where action implementation is to be funded by the State Wildlife Grant program the approach will be consistent with the mission and strategic plan of VFWD, and precise procedures will be detailed in operational plans once the Action Plan is finalized.</p> <p>Conservation strategies are found in the following locations:</p> <ul style="list-style-type: none"> <li>1) Statewide Goals/Actions (those that appeared repeatedly across taxa and habitats, and strategies actions address statewide, regional, and national problems).</li> <li>2) Taxon-wide actions</li> <li>3) Species and invertebrate group specific strategies</li> <li>4) Habitat and landscape strategies</li> </ul>
<b>4C.</b> The Plan links conservation actions to objectives and indicators that will facilitate monitoring and performance measurement of those conservation actions.	A1-A5:all 6:11-14 B:9-130 1:11  1:11-12	<p>Performance measures are included for conservation actions in the Species Conservation Reports and in the Habitat Summaries. Some measures are very specific, others are general. This Wildlife Action Plan identifies significantly more species, problems and needs than we expect can be addressed in the coming decade assuming current budgets and staffing levels for VFWD and all our partners. Prior to implementing actions identified in this plan, we will develop include indicators and performance measures where appropriate.</p> <p>The need for a wildlife monitoring and adaptive management program is identified as goal #3 in the statewide goals section.</p>

<b>Element 4 Descriptions of conservation actions determined to be necessary to conserve the identified species and habitats and priorities for implementing such actions.</b>		
<b>RRT Guidance</b>	<b>Chapter : Page</b>	<b>Detail</b>
<b>4D.</b> The Plan describes conservation actions (where relevant to the State's species and habitats) that could be addressed by Federal agencies or regional, national or international partners and shared with other States.	1:7-12 A1-A5 all 6:11-14 B9-130 G:all	<p>Vermont's Action Plan was developed as a statewide, all species conservation plan that all partners can take part in which all partners can take part. Indeed, for successful implementation broad partner participation is vital. Moreover, for many actions included in the Action Plan, partners may be the more logical and appropriate project leaders.</p> <p>Each action in Species Conservation Reports and Habitat Summaries includes a list of <i>potential</i> partners that could help implement it. No attempt is made to assign specific actions to specific partners, and neither is implementation limited to those listed.</p> <p>Expanded guidance and support to help municipalities implement the Action Plan is provided in Appendix G.</p>
<b>4E.</b> If available information is insufficient to describe needed conservation actions, the Plan identifies research or survey needs for obtaining information to develop specific conservation actions	A1-A5 all  6:11-14 B9-130	<p>Research and survey needs are identified for each SGCN in the Species Conservation Reports (in the Research &amp; Monitoring Needs section and in some cases in the Conservation Strategies section)</p> <p>Research and survey needs for habitats are described in the Priority Conservation Strategy section of each Habitat Summary</p>
<b>4F.</b> The Plan identifies the relative priority of conservation actions.	7:10 8:13  A1-A5:all  6:11-14 B9-130  7:10	<p>All strategies selected for inclusion in VT's Action Plan are deemed "priority" strategies and are ranked "medium" or "high" priority (low priority strategies were dropped from consideration). No further prioritization is included here. The rationale is that no prioritization scheme was identified that satisfied all partners and their varied missions and interests. Detailed discussions with the Conservation Strategy Review team focused prioritization efforts on problems impacting SGCN and habitats rather than on strategies.</p> <p>For species-level conservation, strategy ranks are found in the Species Strategies section of each Species Conservation Report.</p> <p>For habitat level conservation, all strategies found in the Priority Conservation Strategies section of habitat summaries are considered "priorities."</p> <p>Allocation of SWG funds will require additional strategy and action prioritization that will occur at the operational planning level where prioritization will also be based on the impact of threats to SGCN and habitats, a project's ability to affect positive change, other conservation and social impacts and the availability of matching funds and project personnel.</p>

**Element 5. Descriptions of the proposed plans for monitoring species identified in the 1st element and their habitats, for monitoring the effectiveness of the conservation actions proposed in the 4th element, and for adapting these conservation actions to respond appropriately to new information or changing conditions**

RRT Guidance	Chapter : Page	Detail
<b>5A.</b> The Plan describes plans for monitoring species identified in Element #1, and their habitats.	A1-A5:all 6:11-14 B9-130  5:4-59  7:4-8  1:11  7:4-6	Monitoring needs are described for each SGCN in the research and monitoring needs section of each Species Conservation Report.  Survey and monitoring recommendations are described for habitats in the Priority Conservation Strategies section Habitat Summaries.  Taxonomic summaries include priority monitoring needs and those that frequently cited within the taxon.  While monitoring the status of all SGCN, and their habitats, and threats to each is not possible under current funding/staffing constraints (or necessarily wise) a process for meeting the congressional requirements for monitoring and adaptive management is described in chapter 7.  Statewide goal #3: “Inventory, monitor, and research SGCN, their habitats and natural communities to provide baselines for conservation and to maintain ecological integrity.”  Summary of existing broad-based VT monitoring programs addressing SGCN and habitats is at 7:4-6.
<b>5B.</b> The Plan describes how the outcomes of the conservation actions will be monitored.	A1-A5:all 6:11-14 B9-130  7:4, 7:4-8	Performance measures are included for conservation strategies in the Species Conservation Reports and in the Habitat Summaries.  Monitoring guidelines in chapter 7 will include implementation, effectiveness and validation monitoring procedures.
<b>5C.</b> If monitoring is not identified for a species or species group, the Plan explains why it is not appropriate, necessary or possible	7:4-8	Not every SGCN or SGCN group will be directly monitored. Attempting to do so would quickly grind VT's Action Plan program to a halt. The monitoring program that will be developed as part of VT's Action Plan implementation will include coarse filter strategies (e.g., landscapes, habitats) that will provide a more effective means of monitoring most SGCN. The monitoring plan to be developed will also identify those SGCN that cannot be served by indicator or habitat monitoring, and those that are extremely rare or threatened. These will be monitored directly where appropriate.
<b>5D.</b> Monitoring is to be accomplished at one of several levels including individual species, guilds, or natural communities.	1:11  7:4-8	The monitoring program to be developed as part of VT's Action Plan implementation will monitor landscapes, habitats, select SGCN, threats and actions at multiple scales.
<b>5E.</b> The monitoring utilizes or builds on existing monitoring and survey systems or explains how information will be obtained to determine the effectiveness of conservation actions.	7:4-6 A1-A5 4:12-34  7:4-8	Existing monitoring and survey systems are reviewed in the monitoring section of chapter 7 and noted in some Species Conservation Reports and Taxon Summaries.  Utilizing and where needed, building on effective existing monitoring systems will be stressed in the development of VT's Action Plan monitoring program.

**Element 5. Descriptions of the proposed plans for monitoring species identified in the 1st element and their habitats, for monitoring the effectiveness of the conservation actions proposed in the 4th element, and for adapting these conservation actions to respond appropriately to new information or changing conditions**

RRT Guidance	Chapter : Page	Detail
<b>5F.</b> The monitoring considers the appropriate geographic scale to evaluate the status of species or species groups and the effectiveness of conservation actions.	1:11 7:all  7:10	Monitoring of species, habitats, threats and strategies should be at scales appropriate to provide meaningful data for a broad array of users.  Regional and sub-regional scale monitoring will be coordinated via NEAWA's Fish and Wildlife Diversity Tech Committee and its RCN program as well as through the NALCC
<b>5G.</b> The Plan is adaptive in that it allows for evaluating conservation actions and implementing new actions accordingly.	7:2 7:8  A1-A5:all 6-11-14 B:9-130	Implementation, effectiveness and validation monitoring will be important components of VT's Action Plan monitoring program and will be used to assess our efforts and to focus future conservation actions.  VT's Action Plan encourages adaptive management by including performance measures for strategies in the Species Conservation Reports and Habitat Summaries.

**Element 6. Descriptions of procedures to review the Plan at intervals not to exceed ten years.**

RRT Guidance	Chapter : Page	Detail
<b>6A</b> The State describes the process that will be used to review the Plan within the next ten years.	7:4-10  7:11	Vermont's Action Plan will be reviewed on a 10-year cycle. That cycle begins almost immediately as monitoring and reporting described in the Action Plan and new and ongoing collaboration with partners will contribute significantly to the review of the Action Plan. In 2025 we expect to show that we've reviewed and adapted VT's Action Plan accordingly from the outset.

**Element 7. Descriptions of the plans for coordinating, to the extent feasible, the development, implementation, review, and revision of the Plan with Federal, State, and local agencies and Indian tribes that manage significant land and water areas within the State or administer programs that significantly affect the conservation of identified species and habitats**

RRT Guidance	Chapter : Page	Detail
<b>7A.</b> The State describes the extent of its coordination with and efforts to involve Federal, State and local agencies, and Indian Tribes in the development of its Plan.	8:6-7	There are no federally recognized Native American tribes that manage significant land and water areas within Vermont or administer programs that significantly affect the conservation of SGCN or their habitats. According to information provided by the USFWS, the Stockbridge-Munsee Band of the Mohican Nation, based in Wisconsin, has interests in its ancestral lands in Vermont. We invited the Stockbridge-Munsee Band to participate in Action Plan revision twice (11/24/2014 and 3/20/2015). We have not received a response.
	8:7	The four bands of the Abenaki Tribe recognized by the state of Vermont were invited to take part in the development of the Action Plan as Conservation Partners and through the general public input process.
	8:1-2, 8:6-7	Federal, State and local agencies and non-governmental organizations were invited to participate in Action Plan development. Twenty-one groups were represented on Action Plan technical teams (Table 8.1) and many others provided comments on Action Plan drafts.
<b>7B.</b> The State describes its continued coordination with these agencies and tribes in the implementation, review and revision of its Plan.	7:9	Effective implementation of VT's Action Plan will require ongoing collaboration and coordination among partners (including local, state, and federal agencies—as well as with neighboring states and Quebec provinces). This is stressed throughout the document.
	A1-A5:all 6:11-14 B:9-130	Implementation of many of the conservation strategies included here will require continued coordination and collaboration with other agencies.
	7:11	The review and revision process will follow the same process used in the development of the Action Plan and will include participation by agencies.

<b>Element 8. Descriptions of the necessary public participation in the development, revision, and implementation of the Plan.</b>		
<b>RRT Guidance</b>	<b>Chapter : Page</b>	<b>Detail</b>
<b>8A.</b> The State describes the extent of its efforts to involve the public in the development of its Plan.	8:1-2, 8:6-7	<p>The public involvement process is described in chapter 8. Public involvement occurred particularly through non-governmental organizations and citizen committees such as the VT Forest Roundtable and the VT Agency of Natural Resources' Endangered Species Committee. Public involvement began early in the Action Plan development process. Many participated in Action Plan development as Conservation Partners providing review and comments on draft products, and staff representing 21 organizations and agencies served on Action Plan technical teams (Table 8.1).</p> <p>The general public was invited to review and comment on the draft Wildlife Action Plan. Outreach to the general public occurred via press releases, news interviews, postings to the VFWD website and Facebook pages and via listserves and newsletters of partner organizations. A Wildlife Action Plan Revision <a href="http://www.vtfishandwildlife.com/cms/one.aspx?portalid=73163&amp;pageid=480687">website</a> (<a href="http://www.vtfishandwildlife.com/cms/one.aspx?portalid=73163&amp;pageid=480687">http://www.vtfishandwildlife.com/cms/one.aspx?portalid=73163&amp;pageid=480687</a>) was created to provide additional information and direct access to the Action Plan drafts.</p> <p>The public review period for the draft Wildlife Action Plan was October 9 through November 15, 2015. We accepted all comments that came in after that date and through 12/31/2015.</p>
<b>8B.</b> The State describes its continued public involvement in the implementation and revision of its Plan.	1:3 7:9  7:9  7:12-13	<p>It is clear from a variety of surveys that wildlife is very important to the people of Vermont (1:3). Implementation of many of the conservation strategies in this Wildlife Action Plan will require public involvement—particularly through NGOs and municipalities (7:9). Effective implementation of VT's Action Plan requires ongoing collaboration and coordination with the public. This is stressed throughout the document.</p> <p>VFWD will work to keep conservation partners and the public informed of Action Plan implementation through communications with partners, partnerships and collaborations, requests for proposals, meetings and conferences as well as through general outreach and technical assistance programs.</p> <p>The review and revision process will follow the same process used in the development of the Action Plan and the public will again be encouraged to participate. VFWD will work to keep Conservation Partners and the public informed of Action Plan revision through communications with partners, partnerships and collaborations, meetings and conferences as well as through general outreach, education and technical assistance programs.</p>