



Virginia
Master
Naturalist

**Virginia Master Naturalist Program
Strategic Planning Report
2015-2020**

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EXECUTIVE SUMMARY

This report summarizes the findings from a strategic planning process conducted by the Virginia Master Naturalist program in 2013-2014. The process involved three steps: a comprehensive needs assessment to identify program needs, strategic planning workshops to identify initiatives for addressing those needs, and online voting to prioritize proposed initiatives. The needs assessment provided evidence of the significant and positive impacts the program is having on its volunteers and the state through natural resource education and conservation. Its findings also showed rapid growth of the program since its inception in 2005. The level of growth demonstrates the overall success of the program but also poses some significant challenges as the program prepares for the future. Primary challenges include increasing administrative burdens placed on chapter volunteers, ensuring adequate volunteer support from the state office, and ensuring adequate oversight associated with risk management and other program policies. The program approaches these challenges in the midst of declining state and federal budgets.

Using data from the strategic planning process, we selected highly rated improvements for implementation to address the above challenges while also meeting our program goals. We used selection criteria that accounted for the impact, cost, and time associated with implementation of each improvement. Based on this assessment, our future strategic goals include:

- Goal 1: Training Improvements
 - Provide cost-effective mechanisms for supplying members with the skill sets needed to effectively participate in a variety of volunteering activities, while also supporting their personal growth and development within the program
- Goal 2: Volunteering Opportunities
 - Increase program impact by encouraging and facilitating volunteer participation in meaningful conservation projects at both the state and local levels
- Goal 3: Member Retention
 - Increase volunteering participation rates for current and new members
- Goal 4: Chapter Management
 - Improve the efficiency and effectiveness of chapter management practices as a means of increasing program impacts through more effective use of volunteering resources
- Goal 5: Fundraising and Financial Management
 - Define and exploit additional sources of funding needed to expand program activities and increase their impacts
- Goal 6: Communications
 - Enhance statewide communications infrastructure to make it easier for stakeholders to find and access state level information sources, connect to one another, and receive statewide communications

- Goal 7: Chapter Support
 - Enhance state program office capabilities and services to support high priority program improvements

With the writing of this report, several key initiatives to meet these goals have already been implemented. They include: initiation of a continuing education webinar series to increase access to quality training on topics of high relevance to program volunteers (Goal 1); providing mini-grants through external funds to support local volunteer projects (Goal 2); development of an account with the Virginia Tech Foundation to allow the statewide program and local chapters to accept and manage tax-deductible donations (Goal 5); diversifying funding support through grant writing and fundraising initiatives (Goal 5); development of a program newsletter (Goal 6); release of a new program website (Goal 6); implementation of a subscription service for statewide email communications (Goal 6); and hiring of staff to support implementation of these initiatives (i.e., Special Projects Coordinator; Goals 1-7). The Special Projects Coordinator has started work on the highest priority initiative identified during the strategic planning process (i.e., development of resources to support basic training and continuing education; Goal 1) with external funding support. Completion of this initiative will be dependent on the availability of funds to support this position.

Future planned initiatives will also span each of our strategic goals. These include the development of a list of sponsoring agency contacts who connect volunteers to service opportunities that address the needs of the agency (Goals 2 and 6); development of a list of volunteer educators who can lead educational programs on specific topics (Goals 1 and 2); and modification of program policies to require a volunteering component as part of the basic training course to support volunteer retention (Goal 1). These initiatives are planned with continued funding support of the program coordinator position while other initiatives will be dependent on additional staff and funding resources. These other initiatives include conducting a survey of inactive members to inform efforts to retain members (Goal 3); developing a chapter leadership course to build capacity for volunteers serving in these roles (Goal 4); and developing a searchable database of volunteer opportunities across the state (Goal 2).

Additional initiatives have been identified and included in this report, but they did not receive priority based on our selection criteria. However, throughout the period for which this plan is written (2015-2020), we will continue to reassess and make modifications as needed to support the program, its volunteers, and its sponsoring agencies.

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INTRODUCTION

The Virginia Master Naturalist Program

The Virginia Master Naturalist (VMN) program, created in 2005, is a corps of trained volunteers who provide education, outreach, and service dedicated to the beneficial management of natural resources and natural areas within their communities for the Commonwealth of Virginia. At the state level, the VMN program is sponsored jointly by Virginia Cooperative Extension (VCE) the Virginia Department of Game and Inland Fisheries (DGIF), the Virginia Department of Conservation and Recreation (DCR), the Virginia Department of Environmental Quality (DEQ), the Virginia Department of Forestry (DOF), and the Virginia Museum of Natural History (VMNH). We refer to these organizations as *sponsoring agencies* throughout this report. Partnerships at the local level are encouraged and might include other public agencies, as well as private organizations whose interests are within the boundaries of the program. We refer to these groups as *partnering organizations*.

The goals of the program are as follows:

1. Natural Resource Service. To provide, promote, and fulfill volunteer service while recognizing and utilizing sound natural resource research, management, enhancement and conservation practices in accordance with the sponsoring agencies' and program's mission.
2. Enhancement of Public Understanding through Education and Outreach. To enhance existing natural resources education and outreach activities by providing natural resources and interpretive training at the local level, thereby developing a supply of dedicated and informed volunteers.
3. Volunteer Network. To develop a Virginia Master Naturalist volunteer network that can be self-sufficient.

Program Structure

The VMN program exists as a collection of local chapters that adhere to a set of objectives, procedures, and minimum requirements set at the state level. VMN volunteers are trained and certified at the local level through their respective chapters. Each local chapter has at least one advisor from one of the program's sponsoring agencies to ensure that chapters maintain a working relationship with the statewide program and adhere to the policies and guidelines outlined in the Volunteer Policy Handbook.

A steering committee is comprised of appointed representatives of the sponsoring agencies and appointed certified VMN volunteers. Together with the program coordinator, the steering committee sets the minimum standards and curriculum requirements of the statewide program. They also review and approve new chapter development and both state and chapter educational curriculum materials.

An executive committee consists of representatives from each of the sponsoring agencies and makes final decisions about program personnel and budget. The program coordinator serves as the liaison among the executive and steering

committees, the chapter advisors, and volunteers. He/she also leads program development and provides a central source of program information.

Training and Volunteer Service

Interested Virginians become Master Naturalists through training and volunteer service. To become a Certified Virginia Master Naturalist, a volunteer must complete 40 hours of basic classroom and field training. Subject areas for training include, but are not limited to, ecology, forestry, ornithology, botany, and interpretive skills. Following this basic training course, volunteers must then complete 8 hours of continuing education and 40 hours of service annually to become certified and maintain that certification. Volunteer service falls within four key areas: education and outreach (e.g., youth programs), citizen science (e.g., water quality monitoring), stewardship (e.g., habitat restoration), and administration (e.g., chapter management).

Program Statistics

As of 2013, the program currently consists of a network of 29 local chapters across Virginia (Figure 1). It has 2,382 members (i.e., individuals that have taken the basic training course and have paid annual dues) and 1,385 active members (i.e., individuals that have taken the basic training course, paid annual dues, and submitted volunteer hours).

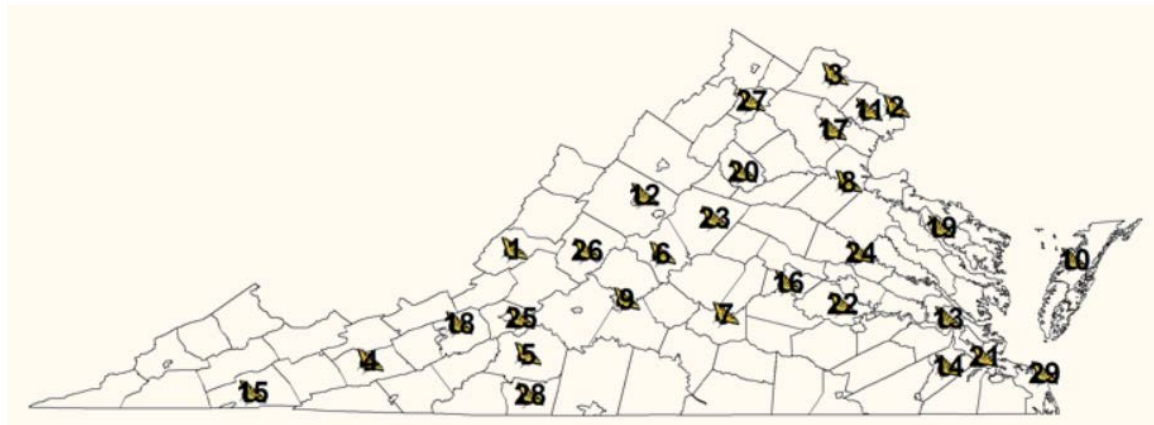


Figure 1. Locations of 29 VMN chapters.

The program has trained 3,465 volunteers, and approximately 550 new volunteers are trained each year (Figure 2). Existing volunteers have received 86,798 hours in advanced training or continuing education. They have also contributed significant volunteer time in the areas of education and outreach (109,545 hours), citizen science (105,095 hours), stewardship (91,400 hours), and chapter administration (111,907 hours; Table 1). In total, program volunteers have contributed 415,165 hours of service—with a value of \$9,118,384 million—to the Commonwealth of Virginia (based on the monetary value of volunteer time from the Virginia Employment Commission).

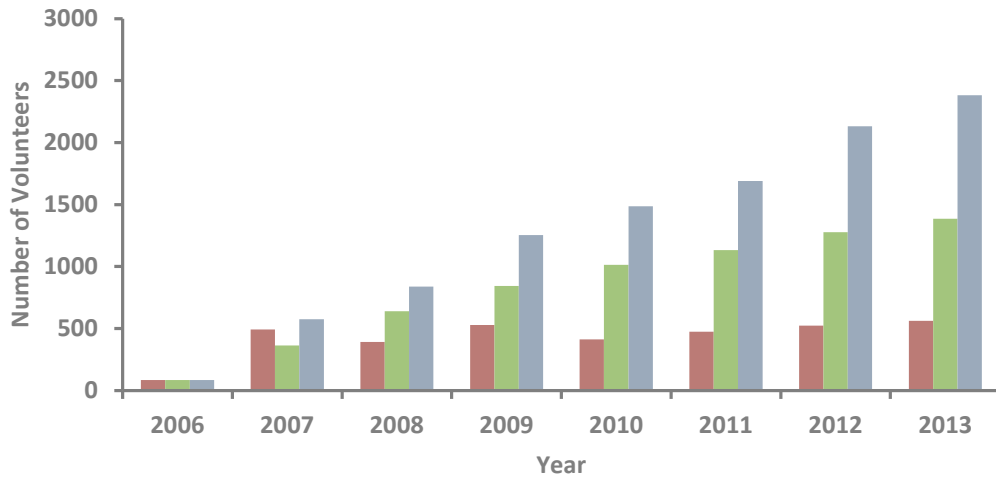


Figure 2. Number of chapter members (blue), active volunteers (green), and new trainees (red) for each year of the program.

Table 1. Number of volunteer hours and percentage of total hours contributed within each service area from 2006 to 2013.

Year	Environmental Education	Citizen Science	Stewardship	Administration
2006	173 (7%)	64 (3%)	144 (6%)	1961 (84%)
2007	3530 (21%)	2333 (14%)	1587 (9%)	9253 (55%)
2008	7116 (23%)	6155 (20%)	5254 (17%)	12064 (39%)
2009	13503 (30%)	9819 (22%)	9726 (22%)	11815 (26%)
2010	18067 (30%)	13438 (22%)	12971 (22%)	15715 (26%)
2011	21428 (29%)	18578 (25%)	16071 (22%)	18549 (25%)
2012	20941 (25%)	23480 (28%)	21658 (25%)	18894 (22%)
2013	24581 (24%)	29265 (29%)	23377 (23%)	20013 (23%)

STRATEGIC PLANNING SUMMARY

Strategic Planning Methodology

Since its inception in 2005, the VMN program has experienced rapid growth, with 29 chapters and approximately 2,000 volunteers across the state. However, to date, there has been no formal evaluation of the statewide program. In light of this, throughout 2013-2014, the program conducted a comprehensive needs assessment and strategic planning process to guide changes and future development of the program. The process involved multiple stakeholders, including volunteers, staff of the program's sponsoring agencies, and staff from partnering organizations. A detailed methodology can be found in Appendix 1.

The strategic planning process involved three primary steps: (1) a comprehensive needs assessment to identify program needs; (2) strategic planning workshop sessions to identify approaches for addressing those needs; and (3) online voting to prioritize proposed activities. During the needs assessment, qualitative data were collected through focus groups and interviews with stakeholders and appropriate survey instruments were developed from these data for collection of quantitative data.

Following the needs assessment, we hosted strategic planning workshops to receive program improvement suggestions in ten key areas identified through the needs assessment: (1) recruitment; (2) basic training resources; (3) advanced training opportunities; (4) volunteer opportunities; (5) retention; (6) chapter management best practices; (7) finances and fundraising; (8) annual reporting; (9) improving communications; and (10) Junior Master Naturalists.

We then compiled the suggestions proposed from these sessions into an online survey that was sent out to program stakeholders so they could "vote" on which of the proposed activities should be given priority within each of the ten areas. The survey had respondents rank activities from very low (0) to very high (100) priority. Participant ratings can be found within each focus area chapter in this report. Using these data, we have selected highly rated improvements for implementation in the context of program goals. These have been prioritized using the factors described below to develop a phased action plan.

Prioritization Factors

In prioritizing program improvements, it is important to determine the basic criteria for selection. Three factors were used:

- Impact – This represented an initial assessment of the contribution of each improvement to program goals and objectives.
- Cost – This represented an initial assessment of the overall costs of each improvement, including both hard dollar costs for items such as technology and external resources, as well as soft dollar costs for the use of internal program resources such as volunteers or state agency staff.

- Time – We tended to favor initiatives that could be completed in less time, with the aim of producing the most benefit in the shortest period of time.

Each of these factors will be discussed in greater detail in subsequent sections.

Impact Analysis

Guiding Principles for Impact Analysis

In any strategic planning exercise, it is important to ensure that all program initiatives are aligned with the organization's overall mission. Shown below is the mission statement for the VMN program.

Virginia Master Naturalist Mission Statement

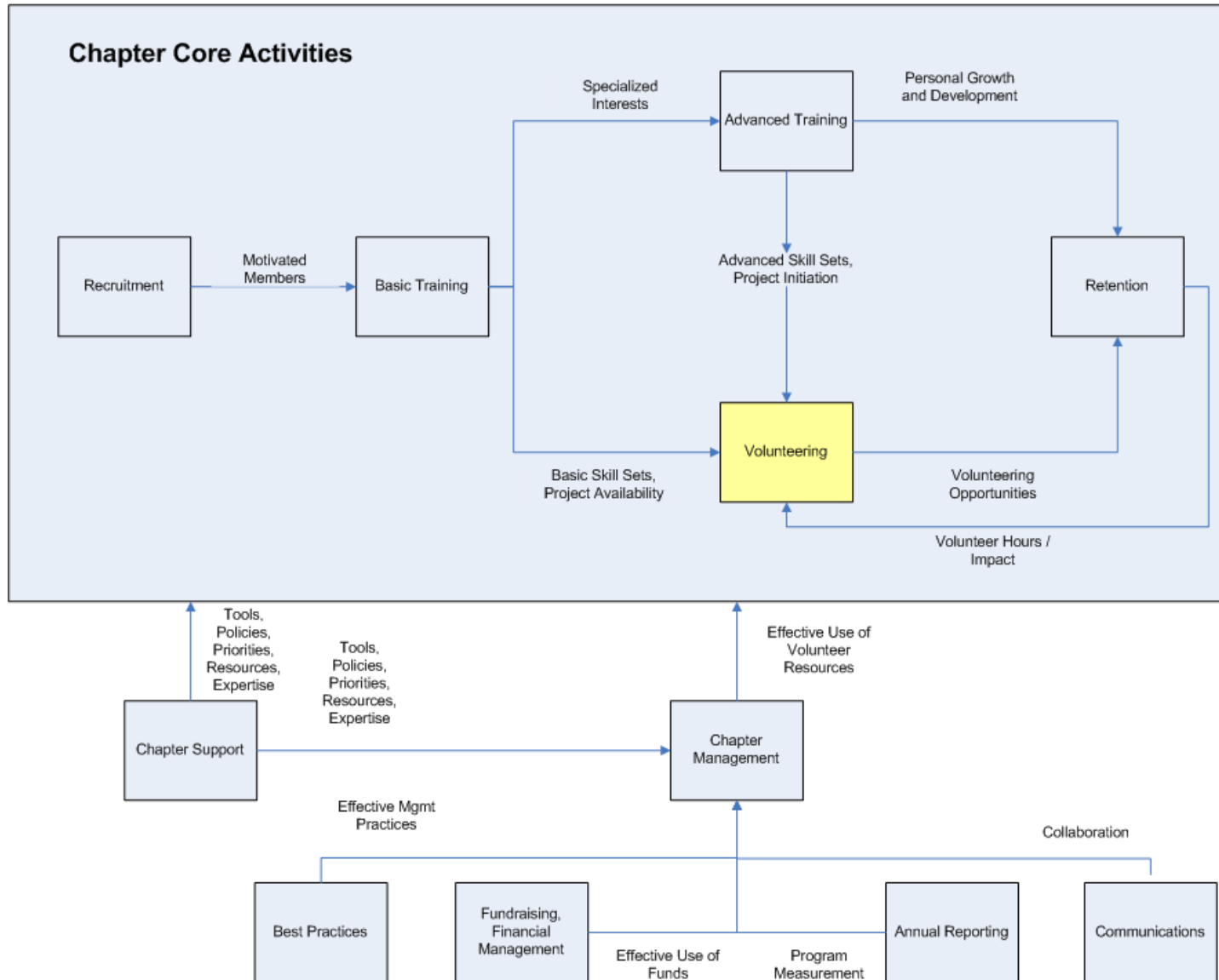
Build and sustain a statewide corps of volunteers providing education, outreach, and service dedicated to the beneficial management of natural resources and natural areas within their communities.

As indicated in the mission statement, the core activity of the Master Naturalist program is volunteering for conservation efforts. In assessing overall program impacts, one must determine the extent to which volunteer resources are being effectively used to support conservation goals and needs. Several program measures are or can be used:

- Volunteer Hours – This is a simple sum of volunteer hours devoted to various types of projects at the state and local levels.
- Volunteer Value Contribution – This involves estimating a dollar amount for volunteer hours as a means of determining their economic value.
- Goal Contribution – This is a subjective measure of the extent to which volunteer work has helped achieve state and local conservation goals and priorities. Program stakeholders would need to compare volunteer achievements to state and local needs.

Having established high-level goals for the program, the guiding principle for assessing strategic improvements is to focus on their potential contribution to the achievement of these goals. This requires a clear understanding of the ways in which chapter activities contribute to goal achievement. The flow chart below outlines the high-level dependencies between various chapter activities and their influence on volunteering impacts.

Master Naturalist Program Components



In assessing the impact of program improvements, we have organized the improvements in accordance with the basic program components outlined here. Each component has its own set of strategic goals tied to the program mission, along with measures of success. Improvements that have been highly rated by participants are assessed in terms of their impact on the latter set of goals.

Chapter Core Activities

Recruitment Improvements

Recruitment encompasses all activities associated with attracting and enrolling new members in the program. A variety of program improvements were mentioned during the needs assessment, most of them aimed at increasing the program's membership and expanding its reach to underrepresented demographic groups. This included programs targeted at low-income and minority groups, as well as a specific program (the Junior Master Naturalist program) aimed at children.

All of these program improvements received only modest support from participants. It appears that the majority of participants would prefer to focus on improving the efficiency and effectiveness of existing activities and programs before dramatically increasing program scope and size. Accordingly, we have not designated any strategic objectives and initiatives for this area of emphasis, at least for the current round of strategic planning. We can return to these objectives in subsequent rounds of planning and reassess their importance to program impacts. Given that some chapters already have programs targeted at children, we can use their experiences in that reassessment.

Training Improvements

This section combines basic training and advanced training activities, since they are obviously closely related. Training represents the single largest program investment, and is a critical success factor in volunteer efforts. For these reasons, participants tended to rate potential improvements in training programs highly.

Strategic Goal

Provide cost-effective mechanisms for supplying members with the skill sets needed to effectively participate in a variety of volunteering activities, while also supporting their personal growth and development within the program.

Strategic Objectives

- Improve the quality, consistency, and thoroughness of training through standardization.
 - Measure – Training participant evaluations.
 - Measure – Chapter management evaluations.
- Reduce the level of effort required at the chapter level to create, plan, organize, and coordinate training.
 - Measure – Pre- and post-project assessment of volunteer time spent on administering training activities.
- Enhance the availability and diversity of training opportunities.
 - Measure – Member assessment of training offerings.

- Provide training tuned to the needs and desires of volunteers to provide added incentive to remain engaged with the program.
 - Measure – Member assessment of the relevance of training to their personal goals.
- Provide training tuned to the needs of sponsoring agencies and partners in order to ensure preparedness to participate in their programs.
 - Sponsor and partner assessment of the preparedness of volunteers.
 - Sponsor and partner assessment of unmet training needs.

Strategic Initiatives

Initiative	Description	Benefits
Create online advanced training courses	Build webinars for selected advanced training topics and make them accessible to all members.	<p>Creates standardized training courses for specific topics.</p> <p>Saves chapters time in planning and organizing advanced training locally.</p> <p>Permits the delivery of training that might be cost-prohibitive or infeasible to develop at the local level, thereby increasing the diversity of training.</p> <p>Eliminates the travel and scheduling barriers associated with in-person classroom alternatives.</p> <p>Increases volunteer access to quality training.</p> <p>May make it feasible to deliver training targeted at highly specialized member interests.</p> <p>May make it feasible for state agencies and/or partners to build or influence training components directly targeted at their needs.</p>
Complete development of basic training course	Build a standardized set of basic training materials at the state level for use by local chapters.	<p>Saves chapters time by eliminating the need for curriculum development and content review for basic training.</p> <p>Saves instructors time by clearly defining content standards.</p> <p>Provides reference materials for members.</p> <p>Assures that all members are receiving a consistent set of training messages and have been provided with requisite skills.</p> <p>Helps ensure that training is tied to program priorities and purposes.</p>
Develop a list of available resources that support basic training course	Identify specific resources that can serve as reference guides for each basic training topic. This could include books, websites, state publications, and other sources. Include the list in the basic training manual and as a searchable index on the state website.	<p>Identifies trusted sources of additional information about each topic.</p> <p>Eliminates the need for local chapters to identify these sources and direct members to them.</p> <p>Allows members to pursue specialized interests with in-depth treatments of specific topics.</p> <p>Provides a mechanism to direct members to information</p>

		relevant to state agency or partner projects.
Offer 1 or 2-day regional conferences to provide additional training in the field	Plan and organize training events in multiple regions of the state.	Makes state-sponsored training more accessible by locating it closer to members' homes. Increases availability and diversity of advanced training options at the regional level. Saves chapters time in planning and organizing advanced training. Creates ability to select topics and speakers based on regional needs. Allows state agencies and partners to participate directly in training and focus on regional projects.
Provide list of educators of volunteers who can lead educational programs on specific subjects	Create a speakers bureau at the state and regional levels for both basic and advanced training. Define topics and qualified speakers, and make this information available to local chapters.	Helps ensure quality and appropriateness of training by careful selection of speakers and content. Saves chapters time in planning and organizing in-person training. Improves availability of training by expanding training resources. Creates ability to select topics and speakers based on member interests. Creates ability to select topics and speakers based on partner needs.
Develop list of approved publications on advanced training topics	Create a reference guide that covers advanced topics, similar to that created for basic training.	Identifies trusted sources of additional information about each topic. Eliminates the need for local chapters to identify these sources and direct members to them. Allows members to pursue specialized interests with in-depth treatments of specific topics. Provides a mechanism to direct members to information relevant to state agency or partner projects.

Impact Assessment

Initiative	Overall Impact	Training Standardization	Training Efficiency	Training Availability	Training Incentives	Preparedness for Sponsor Projects
Create on-line advanced training courses	H	H	H	H	H	M
Complete development of basic training course materials	H	H	H	M	L	L
Develop a list of available resources that support basic training course	M	M	M	L	M	M
Offer 1 or 2-day regional conferences to provide additional training in the field	M	M	H	H	M	M
Provide list of educators or volunteers who can lead educational programs on specific subjects	M	M	H	M	M	M
Develop list of approved publications on advanced training topics	M	M	M	L	M	M

Impact Assessment Notes:

- The impacts of the initiative to build basic training materials are magnified due to the importance of these activities to the program and the large investment required.
- Most chapters would appreciate state assistance in developing and delivering basic training programs, since this activity occupies considerable volunteer time at the local level. However, chapters also want to preserve the flexibility to devote training time to uniquely local or regional issues. It has been suggested that the basic training materials contain sections devoted to specific regions of the state and that local chapters have the opportunity to deliver location-specific training components.
- In-person training (such as regional conferences) is generally conceded to be the most effective form of instruction. However, it can also be quite costly for both sponsors and attendees. This includes not only facility and speaker costs, but also travel and time commitments. Therefore, these events are usually restricted in duration and frequency. Online training, on the other hand, has the advantage of being less costly to deliver and more capable of continuous and immediate accessibility. The trade-off is somewhat lesser effectiveness in knowledge transfer. Accordingly, in-person training should be focused on topics of the widest applicability and greatest importance, whereas online training may be more appropriate for more specialized topics and/or immediate needs. Both approaches are needed to improve the relevance and availability of training.
- Improvements in preparedness for sponsor projects cannot be truly successful without a clearer definition of the types of projects each agency or partner feels are appropriate for VMN volunteers and the types of skills required for those projects.

Core Issues

Designing training programs for the Master Naturalist program requires a balancing act. On the one hand, training should be focused on the skill sets needed for high priority conservation projects, in order to enhance the impact of volunteer work. On the other hand, some members may value training itself as a learning experience and an opportunity to pursue personal interests. These two objectives may conflict for some groups of members, particularly those who are much more highly motivated by learning opportunities than by volunteering opportunities. The challenge is to motivate members to volunteer while supporting their learning objectives.

One way of approaching this challenge is to integrate volunteering into the training program. Volunteering can be presented as a method of “learning by doing”, or advancing skill sets through practical experience. As volunteers gain in knowledge, they will have the opportunity to apply their new skills in ever more challenging projects. This approach requires that both training and volunteering opportunities be designed to support the personal growth of individual members along predefined knowledge paths.

Volunteering Opportunities

The primary mechanism by which volunteering opportunities are created is through the initiation of volunteering projects at the local chapter level by individual members. The actual number and mix of projects varies from chapter to chapter, based on

member interests, as well as local needs and opportunities. However, the provision of a wide range of volunteering activities is deemed to be critical in attracting and retaining members, since it helps ensure that members will be able to engage in volunteering activities that fit their interests.

One way of increasing project opportunities is to expand the geographic scope of projects beyond the local area and to create cooperative projects with other organizations. This could be accomplished by further engaging state sponsoring agencies and other partners in the design and implementation of statewide and regional projects. This was an over-riding priority for the majority of participants. All of the strategic objectives and program improvements described below are focused on that priority, even though they may also have applicability to local projects.

Strategic Goal

Increase program impact by encouraging and facilitating volunteer participation in meaningful conservation projects at both the state and local levels.

Strategic Objectives

- Improve the accessibility and usefulness of project information as a means of facilitating member searches for projects of interest and encouraging their participation
 - Measure – Member evaluation of project search systems
- Increase the number and diversity of volunteer projects at the local and state levels as a means of enhancing volunteering opportunities for members, improving participation rates, and expanding the total contribution of the program.
 - Measure – Total number of VMN projects by project type
 - Measure – Total hours contributed by project type
 - Measure – Hours contributed on a per-member and per-chapter basis
- Support collaboration on projects at the state and regional levels as a means of expanding the scope of projects and addressing high priority regional and state conservation goals
 - Measure – Number of state and regional projects
 - Measure – Participation rates and hours contributed for state and regional projects

Strategic Initiatives

Initiative	Description	Benefits
Develop a searchable database of volunteer opportunities	Build a statewide database of all volunteering opportunities, containing details of available projects. Provide mechanisms to quickly set up statewide projects in the system and define their availability by service area. Provide capabilities to search the database for opportunities based on member interests, project types, geography, and other factors. Supply contact information and links to more detailed project documents on other websites. Offer a process to quickly sign up for projects on-line.	Facilitates the creation of state and regional projects, and allows members to sign up for projects outside of their chapter service area. Allows state agencies and other partners to publicize their projects to chapter members. Makes it easier for members to find and engage in projects that fit their interests, regardless of sponsorship. Facilitates the provision of more detailed information about projects, so that members can better assess their relevance to their interests.
Post volunteer opportunities on statewide website	Post project notices and/or project lists on the state website, targeting statewide programs. Provide contact information and links to additional project information.	Allows state agencies and other partners to publicize their projects to chapter members, particularly those with statewide impact. Facilitates the provision of more detailed information about projects, so that members can better assess their relevance.
Develop a list of agency contacts with volunteer opportunities	Provide a statewide directory of state agency personnel that sponsor local and state volunteering projects. Include project and contact information so that members can review project information and sign up through the contact. Organize list by geography and project types.	Allows state agencies and other partners to publicize their projects to chapter members. Makes it easier for members to find and engage in projects that fit their interests.

Impact Assessment

Initiative	Overall Impact	Project Information	Project Diversity	Collaboration
Develop a searchable database of volunteer opportunities	H	H	H	H
Post volunteer opportunities on statewide website	M	M	M	M
Develop a list of agency contacts with volunteer opportunities	M	L	M	M

Impact Assessment Notes:

- All three of the initiatives are aimed at improving communication and collaboration around volunteering projects. A searchable database could conceivably supersede the other two, since it would offer the same capabilities and more. As will be discussed later, however, the development of a project database could be costly and fraught with technical issues. The delivery of this system may therefore be delayed. The latter two initiatives could serve as interim steps to begin filling the gap. It should be noted that the lack of search capabilities in these alternatives could become a liability as statewide projects proliferate, since members may find it increasingly difficult to sort through all of the opportunities.
- As noted in the detailed needs assessment, there are a variety of other improvements that may be needed in this area. The initiatives emphasized here begin a process of sharing information and encouraging collaboration between local chapters and their various partners. Over time, additional steps may need to be taken to strengthen these relationships and improve the efficiency of the overall volunteering process.

Core Issues

Expanding volunteering opportunities at the regional and state levels is a clear program priority. It is important to recognize, however, that the existing VMN programs and systems may lack the capacity to adequately support this initiative. The Volunteer Management System (VMS) and other systems do not fully support cross-chapter communication and collaboration, and the lack of structured programs for building leadership capabilities at all levels may be a limiting factor. It will important to make needed enhancements to program infrastructure as a prerequisite for implementing projects with a broader scope.

Member Retention

As of 2013, 3,151 people had received Master Naturalist basic training. Of these, 2,382 were on the roster as dues-paying members, representing a 75% retention rate for membership. Of the current members, only 1,385 were actively engaged in volunteer service (as self-reported). This means that fewer than half of the total number of trainees and only 60% of current members are providing and reporting volunteer services. This indicates that more effort may be needed to retain members and engage them in program activities. Since volunteering is the main measure of program value, the focus should be on member participation rates for volunteer projects.

Strategic Goal

Increase volunteering participation rates for current and new members.

Strategic Objectives

- Determine causes for member attrition and inactivity, and design a member retention program that addresses key issues
 - Measure – Objective assessment of root causes for member inactivity
 - Measure – Creation of a strategic plan for member retention

- Facilitate the transition from basic training to volunteering as a means of improving volunteer participation rates
 - Measure – Percentage of members who participate in volunteer projects within 6 months of training

Strategic Initiatives

Initiative	Description	Benefits
Conduct survey of inactive members to determine reason for inactivity	Survey or interview inactive members to determine reasons for lack of involvement and/or impediments to engagement. Survey or interview leadership in similar programs in other states. Identify root causes for retention issues and design strategies for overcoming retention problems.	Provides the basis for retention strategies. Improves the effectiveness of member retention programs by tying them directly to root causes.
Requiring a volunteer component as part of the basic training course	Require volunteer hours as a condition for graduating from basic training. Integrate volunteering into training field exercises as a means of “learning by doing”. Help trainees select a volunteering project based on their interests. Offer project signup as a standard exercise at the conclusion of training.	Emphasizes volunteering as the key program component, and introduces trainees to volunteering opportunities. Allows trainees to develop and practice skill sets needed for volunteer work. Facilitates the transition to post-training volunteering by directly encouraging project sign-up.

Impact Assessment

Initiative	Overall Impact	Attrition Causes	Training to Volunteering
Conduct survey of inactive members to determine reason for inactivity	H	H	M
Requiring a volunteer component as part of the basic training course	M	L	H

Impact Assessment Notes:

- As part of the needs assessment, a variety of potential mechanisms for member retention were mentioned. However, the majority of participants felt it was critical to better define the reasons for member inactivity before implementing a formal set of retention programs. Hence the high rating for the member survey. It is expected that further program improvements will be driven by the findings of the survey.
- At the same time, participants felt that immediate action can and should be taken to integrate volunteering into the basic training program, since it represented an obvious weakness in the current program. By experimenting with the latter set of initiatives, we can learn more about members' actual motivations and real impediments to member engagement. This information can be combined with survey results to get a clearer picture of needed enhancements.

Core Issues

One of the findings of a survey of members is that fully 85% of them cited the opportunity to learn more about nature as one of the prime motivators for joining the program, whereas only 45% of the same group found volunteering to be of equal importance. This indicates a conflict between the mission and design of the organization and the motivations of many of its members. There have been suggestions that alternate programs be created that deemphasize volunteering requirements as a means of catering to those more interested in learning. The majority of participants have emphatically rejected that approach, because it clearly violates the primary program purpose. This reinforces the need to build stronger ties between members' learning objectives and volunteering opportunities.

Chapter Management

Chapter Management Best Practices

As the VMN program has grown in size, administrative and leadership duties have come to occupy more and more volunteer time, and chapter management has become a more challenging task. As administrative burdens have increased, it has also become more difficult to recruit and retain chapter leaders. As a consequence, program participants expressed a high level of interest in initiatives that support chapter leaders and enhance chapter management practices.

Strategic Goal

Improve the efficiency and effectiveness of chapter management practices as a means of increasing program impacts through more effective use of volunteering resources.

Strategic Objectives

- Provide mechanisms by which chapter leaders can share successful strategies and methods for managing specific chapter activities as a means of propagating effective management practices
 - Measure – Leadership evaluation of best practices documentation
- Enhance the efficiency of chapter management activities as a means of reducing volunteer hours devoted to administrative activities

- Measure – Pre- and post-project assessment of administrative hours at the chapter level
- Increase the speed and efficiency of new chapter startup activities as a means of accelerating chapter engagement in volunteering activities
 - Measure – Time to receiving charter for new chapters
 - Measure – New chapter volunteer hours within 6 months of chapter initiation
- Provide leadership training needed to prepare chapter leaders for their role, as well as to recruit and retain leaders
 - Measure – Leadership evaluation of training
 - Measure – Unfilled leadership roles
 - Measure – Leadership tenures

Strategic Initiatives

Initiative	Description	Benefits
Form across chapter volunteer working groups to address specific topics	Define management issues and activities most in need of improvement. Set up mechanisms by which chapter leaders can collaborate in defining best practices for those activities. Document best practices and disseminate to chapter leaders. Review priorities on an annual basis as part of a long-term program to enhance practices. Provide forums for on-going discussion of management issues.	Allows the collective wisdom of experienced chapter leaders to be codified into best practices. Ensures widespread use of effective management practices. Saves chapter leaders time when dealing with common issues or designing specific activities. Serves as a reference point for new leaders and new chapters. Promotes peer support systems.
Develop a chapter leadership course to be offered annually	Design a curriculum targeted at critical success factors, including leadership skills, management skills, and specific operational activities. Blend best practices information into the course curriculum. Vary instruction by target audience, to include new chapters, new leaders, and experienced leaders. Conduct an annual in-person class open to all leaders and potential leaders. Supplement in-person training with webinars as needed.	Provides a mechanism to integrate best practices into chapter management methods. Includes “soft” skills needed to recruit, motivate, and manage teams of volunteers in pursuit of program goals. Provides a vehicle to recruit chapter members into leadership training and prepare them for a leadership role. Provides in-person mentoring for chapter leaders and support for resolving specific chapter issues. Promotes peer support systems.

Impact Assessment

Initiative	Overall Impact	Best Practices	Management Efficiency	Accelerate Startup	Leadership Training
Form across chapter volunteer working groups to address specific topics	H	H	H	M	M
Develop a chapter leadership course to be offered annually	H	M	H	L	H

Impact Assessment Notes:

- Many of the initiatives mentioned elsewhere in this document are aimed at improving the efficiency and effectiveness of chapter activities. Examples include the development of a basic training manual and the creation of a project database. Best practices should be created in conjunction with these initiatives, since they complement one another.
- In the past, communication and collaboration among chapter leaders has been limited. By bringing leaders together to work in a team atmosphere, both initiatives have the added advantage of encouraging camaraderie within the group and commitment to common goals.

Core Issues

It is important not to underestimate the level of effort needed to implement the best practice initiative. At the state level, resources must be devoted to facilitating the meetings, documenting results, and creating a manual. Individual chapter leaders must contribute not only by brainstorming ideas, but also by providing detailed descriptions of their successful practices. Depending on the scope of the effort, this may be a years-long exercise with heavy involvement of many leaders. Therefore, it is vital that we focus on these practices with the biggest impact. This boils down to identifying ready-made procedures that can be replicated easily in many chapters, and/or tools that help automate onerous manual tasks. Eliminating administrative burdens is critical if we hope to continue to expand and grow the program.

Fundraising and Financial Management

Funding for local chapter activities comes primarily from membership dues and fees for the basic training course. Funding for the state program office is derived largely from contributions from the state sponsoring agencies. Total funding at all levels for the Master Naturalist program was approximately \$185,000 in 2013 (\$122,000 from state and \$63,000 local), and similar funding levels are projected for the next several years. This will probably be insufficient to support proposed enhancements to state-level technology infrastructure and support resources, as well as local program expansion initiatives. This has sparked an interest in building a platform for fundraising at both the state and local levels, which may require the creation of separate fundraising organizations and the creation of additional financial management procedures.

Strategic Goal

Define and exploit additional sources of funding needed to expand program activities and increase their impacts.

Strategic Objectives

- Provide a mechanism for soliciting and receiving charitable contributions from outside sources and using them to fund state and local activities
 - Measure – Contributions received at the state and local levels
- Identify and secure grants from outside state and local organizations to fund specific projects and activities as supported by the granting organization
 - Grants received at the state and local levels

- Build capacity for marketing and grant writing at the state and local levels
 - Growth trends over time for additional funding

Strategic Initiatives

Initiative	Description	Benefits
Provide ability to accept and separate donations for local chapters utilizing statewide 501(c)3 status	Set up separate 501(c)3 accounts for each chapter and the state coordinators office under the aegis of the Virginia Tech Foundation. Set up a statewide Advisory Board to guide fundraising activities. Define and implement needed accounting procedures. Define and implement methods for soliciting funds, and determining appropriate uses. Define and implement financial reporting procedures.	Offers an immediate entry into external fundraising by using an existing vehicle and related expertise and resources. Provides a tax benefit for contributors under the 501(c)3 designation. Provides the ability for both local chapters and the statewide program to engage in fundraising and to control funds designated for their use. Provides the foundation for expanding program activities in response to additional funding.
Mini-grant program to fund local projects	Identify existing sources of grants that can support small grants for local projects. Provide state-level support for matching grants to local needs and completing grant proposals. Set up mechanisms for administering grants and managing funds. Provide means for assessing project impacts and determining the applicability of grant programs for other chapters.	Offers a means to quickly begin funding high priority local projects for chapters that lack needed resources. Provides additional volunteering opportunities. Offers a means of introducing local chapters to the grant writing process and begin building needed skills. Builds relationships with granting organizations and an opportunity to build credibility.

Impact Assessment

Initiative	Overall Impact	Charitable Contributions	Grants	Fundraising Capacity
Provide ability to accept and separate donations for local chapters utilizing statewide 501(c)3 status	M	H	L	L
Mini-grant program to fund local projects	H	L	H	M

Impact Assessment Notes:

- Both initiatives can be viewed as initial forays into the fundraising arena, providing the opportunity to experiment with different fundraising methods. As we learn more, we can expand the level and types of activities involved. As we expand their uses, it is expected that additional emphasis will need to be placed on building marketing and grant-writing expertise at the local level, as well as defining best practices for these activities.

Core Issues

The core issue is balancing the need for sound financial management against the resource limitations at the local level. One initiative that received only moderate support was the development of a handbook containing guidelines for managing chapter finances – participants were more interested in filling funding gaps first. However, the additional fundraising methods described here carry with them requirements for additional accounting and reporting procedures. If these procedures become overly complex and time-consuming, it may become more difficult to find volunteers who are capable and willing to perform these duties. We may need to reevaluate whether it would make sense to invest time in designing simple procedures for meeting critical requirements.

Annual Reporting

On an annual basis, the state program office reports on program activities and impacts to all stakeholders. One of the primary data sources is the summary of volunteer hours collected from the project database (Volunteer Management System; the central application for chapter activities). This information is supplemented by additional information from the same source regarding populations served, trail miles improved, and so on.

A number of improvements were mentioned for this process, most of them related to data entry procedures and the types of information collected. None of these improvements achieved a high priority status. Accordingly, we have not set out any strategic objectives and initiatives for this component. Again, we can reassess this area in subsequent phases of strategic planning.

Communications

Communications is a critical factor for many, if not most program activities. It is not surprising, therefore, that many of the improvements described for other program components contain some element of enhanced communications. Most of these enhancements involve using the state website as a delivery vehicle for various types of information and applications. Examples include on-line training courses, a searchable database of volunteer opportunities, and a repository for the basic training manual. These enhancements will be outlined in more detail in a later section on technology and support costs for each initiative. Taken together, however, they constitute a trend towards using the state-level communications infrastructure as a central hub for program-wide information sharing and collaboration.

The current infrastructure is somewhat outdated and limited in its capabilities. In recognition of that fact, program participants were also interested in general improvements to statewide communications vehicles. These were aimed at improving existing capabilities and building a solid foundation for further advances.

Strategic Goal

Enhance statewide communications infrastructure to make it easier for stakeholders to find and access state level information sources, connect to one another, and receive statewide communications.

Strategic Objectives

- Improve the accessibility and usability of existing statewide information and document repositories
 - Measure – Participant assessment of information repositories
- Provide additional venues for communication between the state program office and program participants
 - Measure - Participant assessment of communications content and media
- Help program participants manage the flow of statewide communications and focus on topics of interest to them
 - Measure - Participant assessment of the communications management tools and the relevance of communications to their interests

Strategic Initiatives

Initiative	Description	Benefits
Develop a statewide program newsletter	Create and publish a statewide newsletter on a regular basis. Provide information regarding statewide programs and projects, as well as updates on program policies and issues. Include relevant information from chapters and state agencies regarding their activities. Deliver newsletter through email and the state website.	Improves communication between the program office and stakeholders. Improves communication between and among chapters and sponsoring agencies. Provides a vehicle for the delivery of vital program updates and notices. Helps build program cohesion and loyalty at the state and local levels.
Update and refresh existing state website	Redesign site to improve site navigation and visual appeal. Implement new design with web editing tools that allow for rapid development and deployment, as well as simplified maintenance. Reorganize existing information and documents to facilitate information searches. Design and implement site structures that will allow for rapid deployment of new features as required for other program initiatives.	Improves the visual appeal of the site, thereby enhancing program image with the general public and participants. Provides a mechanism for regular updates. Replaces outdated site design and development tools, thereby simplifying further site enhancements. Provides a framework for adding features and capabilities. Makes it easier for users to quickly find the information they need.
Implement subscription service for statewide email communications	Set up Constant Contact to help manage email communications between the state program office and program participants. Set up separate email feeds based on subject matter (continuing education, volunteering opportunities, etc.). Allow participants to subscribe to specific email feeds based on their interests. Use Constant Contact as the central hub for statewide communications. Assess whether this tool is appropriate for intra-chapter and inter-chapter communication.	Reduces “information overload” for participants as additional communication channels are created and expanded. Helps ensure communications are targeted at interested participants. Simplifies and automates statewide communications processes. Provides a framework for expanding communication and collaboration at the state level. Provides a test ground for further communications enhancements.

Impact Assessment

Initiative	Overall Impact	Information Accessibility	Effectiveness of State Communications Channels	Efficiency of Communications Management
Develop a statewide program newsletter	M	M	H	L
Update and refresh existing website	H	H	M	M
Implement subscription service for statewide email communications	H	M	H	H

Impact Assessment Notes:

- Work on each of these enhancements is already underway.

Core Issues

Communications strategies must support overall program strategies and objectives. Communications planning is the key first step in establishing the communications requirements for new program initiatives and designing integrated communications solutions. Given that many participants may be unwilling to participate in a long and involved planning process, it will be important to focus on communications improvements that support participant program priorities and use these requirements to design and select appropriate tools and technologies.

Chapter Support

Many of the program improvements described so far imply a much greater role for the state program office in supporting chapter activities and providing technology solutions. For example, the state program office has taken on the role of creating and publishing new basic training materials. These added support requirements will necessitate additional investments in staffing and technology resources. Current funding for the state program office is relatively modest. For many of the new initiatives, it is unlikely that their additional requirements could be adequately funded from the existing budget. Therefore, it is imperative to clearly define needed resources and identify sources of funding.

In the next section of this document, we will assess support requirements for each initiative and assign initial priorities. This will allow us to determine short-term needs for state-level support. As a follow-on activity, it will be necessary to further refine solutions and estimate costs. What remains is the need to seek additional funding, and that is the strategic goal for this component.

Strategic Goal

Enhance state program office capabilities and services in order to support high-priority program improvements.

Strategic Objectives

- Secure additional funding for program services
 - Measure – Adequate funding for high priority program improvements.

Strategic Initiatives

Initiative	Description	Benefits
Implement funding initiative to expand state program office services and activities in support of program improvements	Define resource and funding needs. Estimate costs. Match needs to funding sources, including state agencies, grants and charitable contributions. Write proposals and marketing materials as needed for each source. Set up accounting and reporting procedures as needed.	Provides infrastructure needed to improve the efficiency and effectiveness of chapter and state activities. Facilitates the deployment of other program improvements with high program impact. Removes administrative burdens currently placed on chapter leadership (e.g., Chapter Boards, advisors).

Impact Assessment

Initiative	Overall Impact	Secure Funding
Implement funding initiative to expand state program office services and activities in support of program improvements	H	H

Impact Assessment Notes:

- Work on this improvement is already underway.

Core Issues

Historically, the Master Naturalist program has relied heavily on local volunteers to provide administrative support and chapter leadership. With program growth and an emphasis on statewide collaboration, the state program office may need to be more active in planning and supporting common activities such as basic training. This will require a reassessment of the staffing needs at the state office and a reevaluation of its functional activities and roles.

Program Improvement Costs

The table below provides a high-level assessment of the requirements and costs for each improvement. These estimates will be used to help prioritize improvements by comparing the potential impacts of each improvement to their potential costs. These cost estimates will need to be further refined once improvements are selected for short-term implementation.

Program Improvement	Technology Requirements	Cost	State-Level Support	Cost	Chapter Support	Cost	Total Cost
Create monthly on-line advanced training courses	Webinar tools available through Virginia Cooperative Extension (i.e., Adobe Connect)	L	Project management, curriculum development, identification of presenters, content approval	M	Suggestions for courses, review of curriculum	L	L
Complete development of basic training course materials	State website content, on-line tools for webinars, communication tools	L	Project management, curriculum development, content development, editing, content approval, publishing	H	Review of materials, sharing of existing materials, administration of training course	H	H
Develop a list of available resources that support basic training course	Searchable index on state website	L	Review of available sources by topic, creation of bibliography, publishing	M	Suggestions for sources	L	M
Offer 1 or 2-day regional conferences to provide additional training in the field	Registration software	M	Program development, identification of speakers, identification of regional projects, conference logistics, marketing	H	Suggestions for topics, marketing to members, provide logistics support	M	H
Provide list of educators or volunteers who can lead educational programs on specific subjects	Searchable index on state website	L	Curriculum development, identification and approval of speakers, content guidelines, creation of searchable index	M	Suggestions for topics, identification of speakers, evaluation of speakers	M	M
Develop list of approved publications on advanced training topics	Searchable index on state website	L	Curriculum development, review of available sources by topic, creation of	M	Suggestions for sources	L	M

			bibliography, publishing				
Develop a searchable database of volunteer opportunities	Database and application development tools; application and data base development, testing, deployment, and maintenance	H	Project management, system requirements, tool and contractor selection, testing, quality control, collect and publish opportunities	H	User requirements, testing, user training, submit opportunities	H	H
Develop a list of agency contacts with volunteer opportunities	Create searchable indexes on state website	L	Collect and publish contact information	M	None	L	L
Conduct survey of inactive members to determine reason for inactivity	Survey tools freely available through Virginia Cooperative Extension (i.e., Qualtrics)	L	Design survey, conduct survey, analyze results, design strategic plan for retention	H	Review results, contribute to strategic plan	M	H
Requiring a volunteer component as part of the basic training course	None	N/A	Design and enforce policy	L	Design and conduct volunteering projects for trainees, mentor trainees, enforce policy	H	M
Form across chapter volunteer working groups to address specific topics	Utilize existing and freely available on-line forums, web meeting tools, web publishing of best practices	L	Project management, meeting facilitation, documentation, writing and editing of best practices manual, publishing	H	Participation in meetings, documentation of current best practices, review of best practices	M	M
Develop a chapter leadership course to be offered annually	Freely available webinar tools as needed	L	Curriculum development, identification of speakers, content approval, conference logistics, marketing, course expenses	H	Participation in training, presentations by experienced leaders, marketing to members, travel to attend	M	M
Provide ability to accept and separate donations for local chapters utilizing statewide	Use existing Virginia Tech Foundation resources	L	Use Virginia Tech Foundation expertise; provide administrative	H	Solicit contributions	M	M

501(c)3 status			support for accepting and managing donations				
Mini-grant program to fund local projects	None	N/A	Identify existing sources of grants, match grants to local needs, complete grant proposals, help administer grants, report outcomes	H	Plan and manage local projects, administer grants, report outcomes	M	M
Develop a statewide program newsletter	Web publishing and distribution	L	Solicit and/or write articles, edit content, publishing	L	Contribute articles	L	L
Update and refresh existing website	Use low-cost web editing and hosting tools	L	Design, test, and deploy site enhancements; update content as needed	M	Review and comment on changes; contribute appropriate content	L	L
Implement subscription service for statewide email communications	Communications management tools (Constant Contact)	M	Set up and administer Constant Contact, assist users, create and distribute communications content	M	Sign up for service, promote communications tools to members	L	M
Implement funding initiative to expand state program office services and activities in support of program improvements	None	N/A	Identify sources of funding; build funding plan; write grant proposals or marketing materials as needed; manage funds; identify, recruit, and steward donors	H	None	N/A	H

Program Priorities

Program improvement priorities are based on a rough assessment of their costs and benefits. In addition, there are a few initiatives that depend on the completion of other initiatives to be fully effective, so they must be deferred.

Program Improvement	Potential Impact	Relative Costs	Priority	Comments
Create on-line advanced training courses	H	L	1	Initiated monthly webinar series in January 2014. Defer additional development of courses until after completion of basic training curriculum, since the latter initiative provides the foundation for further curriculum development.
Complete development of basic training course materials	H	H	1	Highest potential for improving efficiency of local chapter operations.
Develop a list of available resources that support basic training course	M	M	1	Important component for implementing basic training course.
Offer 1 or 2-day regional conferences to provide additional training in the field	M	H	2	Can replace statewide conference in alternating years
Provide list of educators of volunteers who can lead educational programs on specific subjects	M	M	2	Dependent upon the development of the curriculum for basic and advanced training.
Develop list of approved publications on advanced training topics	M	M	2	Dependent upon the development of the curriculum for advanced training, and has a modest cost/benefit ratio.
Develop a searchable database of volunteer opportunities	H	H	2	Very high costs and potential technical issues – will need to be evaluated in greater detail.
Develop a list of agency contacts with volunteer opportunities	M	L	1	Easy win.
Conduct survey of inactive members to determine reason for inactivity	H	H	1	Critical to defining a retention program.
Requiring a volunteer component as part of the	M	M	2	May require further input and collaboration with

basic training course				chapter leaders, since they will bear the brunt of the effort.
Form across chapter volunteer working groups to address specific topics	H	M	2	Critical to improving efficiency of chapter operations and enhancing program collaboration.
Develop a chapter leadership course to be offered annually	H	M	1	Promotes efficiency of chapter operations and enhances collaboration among chapter leaders.
Provide ability to accept and separate donations for local chapters utilizing statewide 501(c)3 status	M	M	1	Important first step in securing additional funding.
Mini-grant program to fund local projects	H	M	2	Beneficial for chapter projects. Has been incorporated into other funding proposals.
Develop a statewide program newsletter	M	L	1	Easy win
Update and refresh existing website	H	L	1	Already mostly completed.
Implement subscription service for statewide email communications	H	M	1	Important first step in improving communications management and enhancing state-level communications channels. Completed, but needs additional marketing to ensure sign-ups.
Implement funding initiative to expand state program office services and activities in support of program improvements	H	H	1	Needed in order to accomplish other initiatives and to support the program's rapid growth.

Timing

Having established priorities, we can begin planning implementation. The table below outlines next steps for each initiative, while also outlining the current status for initiatives that have already begun. Note that even second priority items may have immediate actions associated with them. This usually involves planning activities and/or short-term initiatives of limited scope.

Program Improvement	Timing / Status
First Priority Items	
Complete development of basic training course curriculum and materials	Immediate action. Secured partial funding for the project and hired the Special Projects Coordinator. Project will start in September 2014.
Develop a list of available resources that support basic training course	Fold into the project for the basic training curriculum as described above. Complete resource listings as chapters are developed.
Develop a list of agency contacts with volunteer opportunities	Begin in 2015.
Conduct survey of inactive members to determine reason for inactivity	Funding proposal submitted in November 2014.
Develop a chapter leadership course to be offered annually	To be offered in 2015.
Provide ability to accept and separate donations for local chapters utilizing statewide 501(c)3 status	Complete. Build on this foundation in early 2015 by designing marketing plans aimed at increasing contributions.
Mini-grant program to fund local projects	Seek additional funds to support as needs and opportunities arise. Develop mechanism for soliciting and administering the program. Promote other funding opportunities to chapters.
Develop a statewide program newsletter	Launching October 2014, with assistance from Special Projects Coordinator.
Update and refresh existing website	Complete.
Implement subscription service for statewide email communications	Complete.
Implement funding initiative to expand state program office services and activities in support of program improvements	Kick-off fundraising efforts in 2015 as part of 10 year anniversary of the program. Continue to identify and apply for grant opportunities.
Second Priority	
Create online advanced training courses	Began a webinar series in January 2014. Continue delivering advanced training courses as opportunities arise. Fold the development of a more complete curriculum into the basic training project as an add-on activity.
Provide list of educators of volunteers who can lead educational programs on specific subjects	Begin with basic training topics as curriculum materials are completed.
Develop list of approved publications on advanced training topics	Fold the development of a complete curriculum into the basic training project as an add-on activity.
Offer 1 or 2-day regional conferences to provide additional	Begin hosting regional conferences in 2015.

training in the field	
Develop a searchable database of volunteer opportunities	Defer until funds are available.
Requiring a volunteer component as part of the basic training course	Integrate into basic training course curriculum development. Will discuss policy change with Steering Committee.
Form across chapter volunteer working groups to address specific topics	Define priority items and set up collaboration mechanisms. Begin with online discussion forum in 2015.

Milestone Plan

Below, we have included a table of the timing of implementation for each prioritized initiative over the next five years. Blue indicates those initiatives that have been completed at the time this report was written. Green indicated initiatives that have started and will continue with existing resources and funding. Red indicates future initiatives that can begin with existing resources and funding. Diagonal lines across green and red boxes indicate a dependence on the availability of additional staff and funding resources.

Initiative	Timing											
	Q2/14	Q3/14	Q4/14	Q1/15	Q2/15	Q3/15	Q4/15	2016	2017	2018	2019	2020
First Priority Items												
Complete development of basic training course curriculum and materials			Green	Green	Green	Green	Green	Green				
Develop a list of available resources that support basic training course			Green	Green	Green	Green	Green	Green				
Develop a list of agency contacts with volunteer opportunities								Red	Red			
Conduct survey of inactive members to determine reason for inactivity						Green	Green	Green	Green	Green	Green	Green
Develop a chapter leadership course to be offered annually						Green	Green	Green	Green	Green	Green	Green
Provide ability to accept and separate donations for local chapters utilizing statewide 501(c)3 status	Blue											
Mini-grant program to fund local projects			Blue	Green	Green	Green	Green	Green	Green	Green	Green	Green
Develop a statewide program newsletter			Blue	Green	Green	Green	Green	Green	Green	Green	Green	Green
Update and refresh existing website	Blue											
Implement subscription service for statewide email communications	Blue											
Implement funding initiative to expand state program office services and activities in support of program improvements	Blue	Blue	Blue	Green	Green	Green	Green	Green	Green	Green	Green	Green
Second Priority Items												
Create online advanced training courses	Blue											
Provide list of educators of volunteers who can lead educational programs on specific subjects								Red	Red			
Develop list of approved publications on advanced training topics			Green	Green	Green	Green	Green	Green				
Offer 1 or 2-day regional conferences to provide additional training in the field				Green	Green	Green	Green					

Develop a searchable database of volunteer opportunities													
Requiring a volunteer component as part of the basic training course													
Form across chapter volunteer working groups to address specific topics													

FOCUS AREAS

Focus Area 1: Recruitment

Background

Since its inception, the Virginia Master Naturalist program has grown rapidly and proven successful in aiding community conservation efforts. To add to this success, participants would like to attract more members and expand the program's reach within the communities it serves. At the same time, there is evidence that certain demographic and interest groups are under-represented in the membership. These groups may be fruitful target markets for program expansion.

Recruitment is a multi-dimensional issue with many interdependencies. In examining member bases and defining target markets, several factors will be assessed:

- Demographics: Who is joining or not joining?
- Motivation: Why are people joining?
- Barriers to entry: What is preventing motivated people from joining?

Demographics

The needs assessment survey (see Appendix I) collected a variety of demographic statistics. It revealed a demographic profile that differs sharply from the profile of the general population in Virginia. Specific demographic factors examined include: income, race, age, and gender. We describe the results of each below.

Income

As shown in the table below, the VMN membership is skewed toward the higher income brackets. More than half of the members have household incomes greater than \$100,000, compared to roughly 30% of the general population (Table 1.1). At the other end of the spectrum, less than 10% of the members earn less than \$40,000, compared to almost a third of the general population. People in the middle-income brackets are proportionately represented.

Table 1.1. Percentage of VMN volunteers with household incomes within specified ranges. The percentage of Virginians with household incomes within these ranges is also shown (U.S. Census Bureau, 2013a) along with the variance between the two populations.

Income Ranges	Percentage VMN, 2013	Percentage VA, 2013	Variance, VMN to VA Total
Less than \$40,000	9%	32%	-23%
\$40,000 to \$60,000	15%	15%	0%
60,000 to 100,000	26%	23%	3%
100,000 to 150,000	32%	15%	17%
Greater than 150,000	19%	15%	4%

Race

The racial composition of the VMN program is overwhelmingly white, with a 97% representation as compared to a 64% share of the Virginia population (Table 1.2). When comparing participation rates in the VMN program to the participation rates for all volunteers in the US as a whole, this disparity is lessened somewhat because other races have a lower propensity to volunteer (Table 1.3). Nevertheless, it is apparent that minorities do not participate in the VMN program to the extent that they volunteer for other causes.

Table 1.2. Percentage of VMN volunteers, Virginians, and US volunteers within race categories (Bureau of Labor Statistics, 2014; U.S. Census Bureau, 2013b). The variance between VMN volunteers to Virginians and US volunteers is also shown.

Race	VMN 2013 (%)	VA 2013 (%)	Variance, VMN to VA	US Volunteers 2013 (%)	Variance, VMN to US
White/Caucasian	97%	64%	33%	79%	18%
African American	0%	20%	-20%	8%	-8%
Hispanic	1%	9%	-8%	9%	-8%
Asian	1%	6%	-5%	4%	-3%
Native American	0%	1%	-1%	N/A	N/A
Pacific Islander	0%	0%	0%	N/A	N/A
Other	1%	3%	-2%	N/A	N/A

Table 1.3. Percentage of U.S. individuals who volunteer, shown by race categories (Bureau of Labor Statistics, 2014).

Race	Percent Volunteering, 2013
White	27%
African American	19%
Asian	19%
Hispanic	16%

Age

Approximately 72% of the VMN membership is over 54 years old, more than double their share of the Virginia population over 14. (Note: persons under 15 were excluded for the purposes of analysis, since they are not eligible to be VMN members). This can be contrasted with very low participation rates in all the age groups from 15 to 44. It is often thought that persons over 55 are more likely to volunteer, since they may be retired and have more free time. In reality, volunteering participation rates across the US peak in the middle years, then steadily decline thereafter (Table 1.5). The prime age for volunteering is the 35-44 age group, where we have the largest gap in participation rates as compared to US volunteering trends.

Table 1.4. Percentage of VMN volunteers, Virginians, and US volunteers within age categories (Bureau of Labor Statistics, 2014; U.S. Census Bureau, 2012). The variance between VMN volunteers to Virginians and to US volunteers is also shown.

Age Group	VMN 2013 (%)	VA 2012 (%)	Variance, VMN to VA	US Volunteers 2013 (%)	Variance, VMN to US
15 to 24 years	1%	17%	-16%	14%	-13%
25 to 34 years	5%	17%	-12%	15%	-10%
35 to 44 years	6%	17%	-11%	19%	-13%
45 to 54 years	16%	19%	-3%	19%	-3%
55 to 64 years	38%	15%	23%	16%	22%
65 years and over	34%	15%	19%	17%	17%

Table 1.5. Percentage of U.S. individuals who volunteer, shown by age categories (Bureau of Labor Statistics, 2014).

Age Group	Proportion Volunteering
15 to 24 years	22%
25 to 34 years	22%
35 to 44 years	31%
45 to 54 years	28%
55 to 64 years	26%
65 years and over	24%

Gender

As shown in the table below, there is also an imbalance in gender mix. Approximately 70% of the members are females versus 30% for males. As shown in the US volunteer data, females do tend to volunteer with greater frequency, thus explaining a part of the disparity. In addition, females outnumber males in the older age categories 54 percent to 46 percent, and the VMN membership is concentrated in these groups. Nevertheless, there is still an unexplained gap in male membership.

Table 1.6. Percentage of VMN volunteers, Virginians, and US volunteers within gender categories (Bureau of Labor Statistics, 2014; U.S. Census Bureau, 2013b). The variance between VMN volunteers to Virginians and to US volunteers is also shown.

Gender	VMN (%)	VA 2013 (%)	Variance, VMN to VA 2013	US Volunteers, 2013 (%)	Variance, VMN to US
Male	30%	49%	-19%	43%	-13%
Female	70%	51%	19%	57%	13%

In reviewing current demographic trends for the VMN program, it is important to realize that many environmental and conservation groups are facing similar challenges (Ponds, 1993; Taylor, 2014). It seems that many, if not most of the larger groups receive the vast majority of their support and engagement from a core group of committed environmentalists who tend to be white, affluent baby boomers (American Environics, 2006). Groups such as the Sierra Club have been trying for decades to increase the diversity of their membership, with only limited success (Navarro, 2009).

While it may be somewhat reassuring that the VMN program is by no means the only conservation organization experiencing these problems, there remain both short-term and long-term impacts. In the short-term, under-represented groups constitute an untapped source of members and volunteers, as well as communities that may be in need of program services. Over the long-term, there is a real concern that active support for this and other programs will wane as the baby boomer generation loses the energy and resources needed to help provide that support. It may be vital to begin building and reinforcing conservation engagement in younger and more diverse populations in order to prepare for the future.

At the same time, it would appear that diversity issues in the VMN program may be somewhat exacerbated compared to similar programs. For example, the median age in the Minnesota, Texas, and Missouri Master Naturalist programs appear to hover somewhere between 50 and 52, whereas the median age in the Virginia programs is approximately 60 (Bonneau, Darville, Legg, Haggerty, & Wilkins, 2009; Caroline, Caroline, Nilon, & Pierce, 2009; Guiney, 2009). Similarly, the median income in the Minnesota and Missouri programs is about 10% above the state median income, whereas median income for Virginia participants is somewhere around 50% higher (U.S. Census Bureau). It was in recognition of these facts that the VMN membership expressed at least a moderate level of support for taking action to improve diversity.

Member Motivations

The needs assessment survey (see Appendix I) asked respondents to rate the importance of several factors in their decision to join the program. Table 1.7 indicates the percentage of respondents who rated each factor to be of the highest importance to that decision. Learning is by far the predominant motivator among members, whereas volunteering was a driving force for fewer than half of the membership. This helps explain why less than half of the trained members are actively engaged in volunteer work. The other two motivations could be interpreted as social or recreational desires.

Table 1.7. Motivations for volunteers to join the VMN program.

Motivator	Percent Giving Highest Rating
To learn more	86%
To connect with nature	74%
To meet others with similar interests	48%
To volunteer and give back to my community	45%
Other	7%

Of interest is the fact that 7% of the respondents pointed to other key factors in their decision to join, and a number of them added comments to explain these motivations. Using these comments and the data shown above, we can create a more comprehensive list of member motivations. The list below provides a brief summary of each factor – we will discuss these at length later in this section.

- Learning – The VMN program as a form of continuing education and/or lifelong learning
- Volunteering – Giving back to the community and making a difference in protecting nature
- Social/Recreation – Enjoying the natural world, often in the company of others with similar interests
- Advocacy / Outreach – Convincing others of the importance of protecting nature
- Professional Advancement – Developing skills, experience, and credentials relevant to one’s chosen career
- Teaching – Teaching others about nature, especially children
- Family – Helping members of one’s own family appreciate and understand nature
- Special Interests – Pursuing a special interest such as birding in the context of the broader ecological systems that support these activities

Since most of these motivators were not directly addressed in the survey, it is difficult to assign them relative importance. However, a survey of the Texas Master Naturalist members may provide additional insights (Bonneau et al., 2009). Table 1.8 outlines the results of the survey, listing the importance of specific motivators in ranked order (4 being very important). An effort was also made to relate the Texas motivators to the categories described above for the Virginia program (although these associations are inexact). As with the Virginia program, learning is the predominant factor, with volunteering running in the middle of the pack. Advocacy and outreach also seems to be of importance, with many members expressing in interest in environmental issues and their impact on the communities in which they live. Professional advancement, on the other hand, did not seem to carry much weight with the majority of members. However, most of the motivators were of some importance to the average member.

Table 1.8. Ratings for various motivators for participants in the Texas Master Naturalist program. Participants could mark multiple responses, and rated choices as: 1 = Not at all Important; 2 = Slightly Important; 3 = Important; and 4 = Very Important.

Motivation	Related VMN Category	Rating
To learn more about nature	Learning	3.85
Concerned about nature in my community	Advocacy / Outreach	3.61
Increase my awareness of current issues	Advocacy / Outreach, Learning	3.44
Sense of personal responsibility	Volunteering	3.19
Interaction with resource professionals	Social / Recreational, Professional Advancement, Learning	3.14
Enhance my ability to influence others	Advocacy / Outreach, Professional Advancement	3.01
Pass knowledge on to my children and grandchildren	Family	2.89
Opportunity to volunteer	Volunteering	2.86
To meet people with similar interests	Social / Recreational	2.79

Childhood experience with nature	Social / Recreational	2.75
Opportunity to work with adults	Teaching	2.73
To learn how to manage my land	Property Improvement	2.61
Opportunity to work with youth	Teaching	2.59
Something fun to do with my spare time	Social / Recreational	2.5
Interested in an environmental career	Professional Advancement	2.3
Relates to present career	Professional Advancement	2.03
To accompany my spouse	Other	1.47

Understanding the motivators for members is critical for both recruitment and retention. To attract new members, one can design program offerings and marketing methods targeted at specific areas of interest. Once members have joined, they can be guided down a path that supports those interests and helps them achieve their goals. However, it is important to note that this discussion has focused on the motivations of **current** members. What is unknown is whether a lack of interest in a specific motivator among current members is influenced by the perception among the general public that the current program cannot satisfy that motivation. If true, potential members with that motivation may fail to join. For example, the current program has few direct ties to professional organizations and/or certifying bodies, and people interested in advancing their careers may therefore not view VMN certification as helpful to their careers.

Barriers to Entry

Members of the public may be motivated to join the program but be unable to overcome one or more barriers to their participation. In the needs assessment (see Appendix I), members pointed to a number of obstacles to recruiting specific groups. Each of these will be discussed at length later. Specific factors include:

- Time – The VMN program requires a large time commitment for training and volunteering. Some members of the public may be so busy pursuing their career, raising a family, and/or attending to other responsibilities and activities that they feel they are unable to add this activity to the list.
- Expense – The VMN program requires an outlay of cash for training costs and dues, and may also entail added expense for reference materials, tools for volunteering activities, and so on. People with very tight budgets may not be able to afford these expenses.
- Travel – The VMN chapters tend to cover large areas, and may require an hour or more of travel for training and volunteer activities for certain members. This adds both time and expense for members.
- Education / Skill Levels – Some potential members may be relative novices in the worlds of science, nature, and conservation. As a consequence, they may lack confidence in their ability to master the wide variety of knowledge areas and skill sets needed to become a Master Naturalist. This barrier may be exacerbated in those who lack a college education.
- Social Considerations – As noted earlier, the demographic profile of the current program is highly homogenous and restricted. Potential members who do not fit that profile may be wary of joining the organization, fearing that they would be

“out of place” within it and less able to fully engage in and influence the group’s activities. This barrier is also self-reinforcing. Minorities may not join because other people like themselves are not already members.

- Physical Abilities – Some people lack the physical abilities to participate in strenuous volunteer activities.

Recruitment Methods

The current program relies mainly on traditional mass media approaches to recruitment, combined with outreach at specific community events such as fairs. It appears that most marketing messages are aimed at the general public, as opposed to being customized for specific interests or motivations. In order to appeal to different target groups, it may be necessary to change or supplement our recruitment methods. Specific areas include:

- Program Design / Activities – Existing program policies, structures, processes, and/or activities may not be conducive to attracting new members, particularly those confronted with specific barriers to entry.
- Messages – It may be important to create recruitment messages targeted at specific groups.
- Channels – Different marketing channels may be more successful than others in reaching specific groups.
- Methods – Once contact is made, different methods for following up with potential recruits and completing enrollment may be needed.

We will discuss potential improvements in each area in the context of specific target groups.

Program Improvements

Recruiting the General Public

The first set of improvements relate to enhancing existing marketing and recruitment approaches aimed at the general public (as opposed to specific target groups). They do not include major changes to program design, focusing instead on marketing the current program. Note that added details will be discussed in the section on Communications. Following the scheme described above, we can categorize these improvements as follows:

- Messages
 - Standardized Marketing Messages – The state coordinator group could assist local chapters by providing standard presentations and marketing templates that could be customized for local use. This might include a standard press kit for communicating with members of the media.
 - Updated State Website – The statewide VMN website could be updated to focus on marketing messages and provide quick access to local contact information. Continuous updates on program activities and impacts would also serve to present an image of a vibrant and successful group that would be attractive to potential members.

- Focus on Local Project Impacts – Marketing content that focuses on the positive impacts of local projects would be appealing to potential members who want to make a difference in their communities.
- Clarify Program Purpose and Mission – It is possible that the public finds it difficult to differentiate between the VMN program and similar programs such as the Master Gardeners. Standard presentations should make it clear what we do and how it is different from their other choices.
- Channels – It was felt that more could be done to get the word out by expanding our use of available channels for communication with potential recruits. These included:
 - Partnering Organizations – Within each chapter’s service area, there are usually a number of organizations with similar interests. This approach involves capitalizing on the connections the chapter already has with these organizations and building new connections.
 - Creating Speakers Bureau – Creating and maintaining a list of local and regional experts on specific topics that can be deployed at educational events sponsored by partnering organizations.
 - Expand Outreach Venues – Use community contacts to unearth additional venues for outreach and educational activities, such as libraries and other organizations.
 - Cooperative Activities – Work with partner organizations to sponsor and market larger-scale educational events, such as regional wildlife fairs or nature camps.
 - Reciprocal Marketing – The VMN often provides volunteering services to partnering organizations and state agencies. We could reach agreements with these groups to co-market our programs. For example, a state park could provide a Master Naturalist brochure while the local VMN chapter could include state park activities on its website and elsewhere.
- Media – Expanding our use of various media channels would extend the reach and frequency of marketing messages:
 - Digital Media
 - Chapter Websites – Since the majority of potential members are likely to visit the chapter website to learn more about the organization, it is vital these sites be kept up-to-date and be designed with marketing in mind. It is important to include information about local activities and project impacts.
 - Social Media – Social media contacts can be important, particularly for younger age groups. This will be discussed in greater detail in the Communications section. This could include both social networks such as Facebook and text messaging.
 - Mobile Apps – It was mentioned that mobile apps could be deployed to assist with marketing. While the needs assessment was unclear as to their function, it might be possible to build an app to deliver activity calendars, invitations to volunteering activities, directions to events, and other utilities.

- News Media – This could include press releases, talk-show invites, and public service announcements.
- Branding – This involves using the Master Naturalist logo on promotional items such as T-shirts, tote bags, project signs, license plates, and so on. It might also be possible to sponsor activities such as Adopt-a-Highway or Adopt-a-Bench.
- Fliers – Blanket high-traffic areas with flyers marketing our program. This could include grocery stores, apartment complexes, local parks, military centers, etc.
- Methods
 - Standard Marketing Methods – Many members felt it would be beneficial if the state coordinator office could offer local chapters assistance with marketing needs. See the section on Recruitment Planning for more details. Of interest here is the suggestion that a standard, state-managed application process backed by a standard marketing and recruiting process would improve the efficiency and effectiveness of recruiting.
 - Chapter Communication Specialist – As marketing becomes an increasing focus for some of the local chapters, it may be necessary to appoint a local communications team leader to guide and direct these efforts.

Removing Barriers to Entry

In addressing the barriers to entry, our attention will shift to changes in program design. Many of the obstacles described there have structural dependencies relating to program policies and processes. Later, we will relate these program improvements to specific target groups and describe marketing methods.

Time

Many survey respondents pointed to time commitments as being the major obstacle to increasing membership. Several types of solutions were suggested:

- Reducing Time Commitments for the Existing Program – Many busy people may be daunted by the 40-hour annual volunteering requirement. It was suggested that it be reduced to 20 hours, similar to the requirement for Master Gardeners. It might also be possible to reduce the number of hours for basic and advanced training. A variation on this theme would keep the 40-hour volunteering requirement in the first year, but reduce it to 20-24 hours in subsequent years.
- Allowing New Members to “Test Out” of Basic Training – Some new members may already possess much of the knowledge and skills taught during basic training. They would be given “credit” for basic training if they can pass a standardized test, bypassing the basic training program. Other options for increasing the flexibility of the basic training course will be discussed in the Basic Training section.
- Scheduling – In the section on Retention, it was mentioned that training and volunteering schedules can be an issue for some members (and potential members), especially those whose work schedules might interfere with regular participation. A number of suggestions were offered to ameliorate this problem:

- Schedule training and/or volunteering opportunities in the evening rather than work hours
- Provide training and/or volunteering opportunities on weekends
- Vary training times year-to-year to accommodate different needs (e.g., retirees versus workers)
- Creating New Certification Levels – Rather than changing the current certification requirements, one could add new levels of certification with lesser requirements. For example, a person could achieve certification as a “Naturalist” or “Apprentice” with fewer hours of training and volunteering (perhaps 10-20 hours apiece). The Master Naturalist certification would still exist in its current configuration and apprentices could achieve that certification if they were able to meet those requirements at some point in the future. It is expected that apprentices would not be able to initiate and manage projects on their own, instead volunteering for existing projects with adequate supervision.
- Creating a Volunteer Status – In this scenario, recruits could sign up for volunteering activities without any initial training or certification. It is assumed that training for the specific activity would come from the project coordinator, and volunteers would be limited to low-skill tasks. It is also presumed that some of these volunteers will be encouraged and motivated to achieve a higher status by completing further training and involvement, perhaps through the Apprentice program.

Expense

Several methods were mentioned for helping the budget-conscious recruit meet the expenses of the program:

- Scholarships – Scholarships or waivers could be offered for training fees and dues, based on need. These could be funded through outside contributions (see the section on Finance and Funding).
- Waivers / Discounts – Special discounts and/or fee waivers could be provided to VMN volunteers by our partners. This might include access fees to state parks and conservation areas.
- Expense Reimbursement – Reimburse members for expenses associated with volunteering, such as materials, tools, and so on.

Travel

Travel represents a special case, since it adds both time and expense for members. Suggestions include:

- Pay mileage reimbursements for volunteering activities
- Pay hospitality costs for longer-term stays outside of the home area
- Plan and encourage community-based projects located where members live
- Plan and encourage citizen science activities that can be performed in or near member’s homes
- Vary locations for training and chapter meetings within chapters with large coverage areas
- Count travel time towards certification requirements

Education Levels / Skills

The Apprenticeship and/or Volunteer programs described above may be attractive to recruits who fear their lack of knowledge and education may hinder their progress. They could enter the program with minimal skill sets and gradually build up their knowledge over time. This could be facilitated by an on-line training course that could be taken over an extended period of time.

Social Considerations

As noted earlier, one of the difficulties associated with recruiting from under-represented groups is that individuals fear social isolation. A possible solution is a focus on community projects located in minority communities and staffed by volunteers from that community. In this way, we can build social support mechanisms from the beginning, rather than attempting to recruit individuals over time. To be successful, these projects must meet a few requirements:

- Involve community organizations in defining needs and developing the project, and use those organizations to secure recruits
- Design the project to permit the use of untrained volunteers, at least initially, in order to maximize community involvement
- Provide a clear path for increased involvement in the project and the VMN program, perhaps through the Apprenticeship and/or Naturalist programs. This would need to include the possibility of leadership responsibilities.

Physical Abilities

This concern is mentioned most often by older members who might not be able to find volunteering opportunities to fit their current fitness profile, although it could apply to any group. Citizen science and education/outreach activities may be better suited for these folks, and chapters should strive to create these opportunities.

Targeting Demographic Groups

In the previous section, we discussed a number of barriers to entry for the VMN program. To varying degrees, these barriers undoubtedly influence low rates of participation for certain demographic groups. The table below indicates which barriers might be of particular importance to each demographic group (realizing that any barrier could be of importance to any single individual). The assumption is that the program improvements described with reference to each barrier could be applied in any recruitment aimed at each group. Any special requirements for each group will then be discussed in subsequent sections.

Table 1.9. Barriers identified for a set of target demographic groups.

Group	Time	Expense	Travel	Education / Skills	Social Considerations	Physical Abilities
Children – Under 18	Y			Y	Y	Y
Young Adults – 18-34	Y				Y	
College Students	Y	Y	Y		Y	
Middle Years – 35-54	Y				Y	
Parents with Children	Y					
Older Adults – 54 and up						Y
Lower Income	Y	Y	Y	Y	Y	
Racial Minorities	Y				Y	
Males					Y	

Children

Children under 14 are not allowed to participate in the program, and those 14-17 must be accompanied by a parent or guardian in any activity. One key initiative to serve children is the development of the Junior Master Naturalist program, which will be discussed in a separate section.

Young Adults

Remarkably few young adults have joined the program, especially in the 18 to 24 range. Social considerations and time are probably the primary barriers. Research has indicated that young adults are more likely to experience nature in an informal, recreational setting with friends than to participate in structured activities with many different participants (Hubbard & Young, 2010; The Nature Conservancy). In other words, social considerations may be stronger in this group than any other age group. When considering community projects as a tool to break down these social barriers, it is important to realize that most young adults spent a great deal of their time in virtual communities comprised of social and mobile networks of like-minded individuals of similar age. Marketing to this group will probably require social media tools and the ability to mobilize virtual communities through key contacts. In addition, young adults are especially sensitive to design and currency issues for websites such as the chapter site, since that is their primary source for learning about the organization and deciding whether to engage.

Young adults have a much lower propensity to volunteer than older age groups, so you have to work harder to gain their commitment. Moreover, research has indicated that a majority of them favor short-term, spur-of-the-moment activities as opposed to long-term commitments. However, a majority of them also say they would make exceptions to this rule for organizations they strongly believe in and in which there is a possibility to play a leadership role and/or advance their careers (Achieve & Johnson Grossnickle and Associates, 2012). This indicates that some form of apprenticeship program may be a winning strategy as long as there exists a clear path for greater responsibility and a firm understanding of the positive impacts of VMN projects.

College Students

College students are a subset of the Young Adult group, primarily in the 18-25 age range. Because they are not yet gainfully employed, they are likely to be more sensitive to program costs. While the recruitment methods described for Young Adults also apply to this group, many participants in the needs assessment felt that special attention should be paid to college students.

The VMN program could partner with Colleges and Universities. Colleges can provide expert resources for training and volunteering, especially those with environmental sciences curricula. In return, the VMN program could offer internships and other training opportunities for their students.

In addition, some colleges require (or strongly encourage) volunteering by their students. By establishing a partnership with a school, we could ask them to publicize our volunteering activities to students and actively encourage them to engage with us. While some students may seek Master Naturalist certification, an apprenticeship program might also be useful. In addition, we could waive fees for enrollees in colleges that partner with us, effectively allowing students to audit basic training while volunteering. While we could expect college students to leave us when they graduate, we would hope that the pipeline would be replenished with new students.

Middle Years

A distinction can be drawn between the age groups 35-44 and 45-54. We have been moderately successful in attracting members of the latter group, but have had dismal results for the younger cohort, despite their higher propensity to volunteer. This is probably a function of time constraints. The younger cohort tends to be in mid-career, while also being engaged in raising a family. They may find it difficult to commit large amounts of time to training and volunteering, and the volunteering they do perform probably centers around their children. The older age group contains more empty nesters, so these individuals may have a bit more free time. To attract more members of the younger group, several steps can be taken:

- Removing Time Barriers – The program changes for time barriers are especially applicable to this group.
- Technology – Members of the younger cohort tend to be as devoted to social and mobile technologies as young adults, and will require similar marketing approaches.
- Building on Family Ties – Involving children in our programs tends to engage their parents. See the next section on Parents with Children.

Parents with Children

As discussed above, parents with children may be focused on family activities. Several approaches for this group are possible:

- Junior Master Naturalists – The Junior Master Naturalist program is aimed at children, but could also require some form of parental involvement. It also provides the opportunity for parents to volunteer for activities that directly involve their children. This could take the form of a Volunteer or Apprentice program as

described earlier. See the section on the Junior Master Naturalist program for more details.

- Family Events – Design and sponsor nature fairs or similar activities geared toward families. Use these contacts to educate parents about the VMN program and/or enroll families in the Junior Master Naturalist program.
- Partners – Partner with family-oriented nature organizations such as 4H and the Boy Scouts for joint activities.
- Community Activities – Design and market citizen science and other family-oriented activities that can be done at home or in the neighborhood.

Older Adults

This is the predominant group, again largely as a consequence of their time availability. However, this group is probably most affected by concerns about their physical ability to perform certain volunteering activities. The high concentration of this group in the membership may partially explain why such a large proportion of trainees do not volunteer. In certain areas, these members may have difficulty finding volunteering opportunities that fit their physical profile (see the section on Physical Abilities above). At the same time, we may find that older members are more motivated by learning opportunities as part of a continuing education program for their retirement, and less motivated by opportunities to volunteer. The next section will deal with this issue.

Lower Income

This group faces the most barriers to entry, and would require a concerted effort to remove these barriers as described above. Members felt the most important first step was to conduct visible projects within lower income areas as a means of introducing the program to these communities. The process of engaging lower income populations would then follow the general approach described earlier of instigating community projects that require little investment of time and money on the part of volunteers while simultaneously involving groups of the target population.

Minorities

Since minority groups tend to have higher concentrations of lower income individuals, the previous recommendations for the latter group may apply to a lesser degree. Beyond that conclusion, social considerations may be the most important factor in attracting members of minority groups. Of particular importance may be identifying and using channels of communication that focus on these groups. Specific channels mentioned by members included church groups, minority-focused media, social groups, and others.

Males

While the reasons for lack of male involvement are unclear, it could be related to the fact that males are more likely to participate in active outdoor recreational activities such as hunting or fishing. It is often the case that their interest in conservation is sparked by a desire to preserve the habitats that support these activities. To date, there appear to be weak links between the state agencies that manage these habitats and VMN volunteering activities. The obvious solution is to partner with these agencies and other

sports-related organization to design and communicate volunteering opportunities and market the program. This also may help overcome any social barriers by encouraging group activities aimed at males with similar interests.

Native Americans

It has been suggested that Native Americans may bring a unique perspective to nature conservation and that various Indian tribes may be open to joint activities.

Marketing to Motivations

As described earlier, potential recruits may have a number of reasons for their interest in the program. In this section, we will discuss potential program changes and marketing approaches needed to appeal to each motivation.

Motivation: Learning

The central dilemma for the VMN program is the high number of “learners” who fail to volunteer. There are two schools of thought with regard to this dilemma. One school would discourage pure learners from entering the program by tying training directly to volunteering involvement. This option was discussed in the section on Member Retention. The other school would embrace learners as a form of community outreach that expands awareness of the program, while also providing income for the local chapter. Given that the core mission of the current program is to build a volunteer workforce, however, it may be necessary to make some changes to the program design to effectively implement the latter option. Specific suggestions include:

- Signaling Intentions – At a minimum, it would be important to know whether a new member has any intention to volunteer. As discussed in the Member Retention section, much effort may be expended in mentoring new members and guiding them towards volunteering opportunities. This effort would be wasted for pure learners and create a certain amount of tension and awkwardness in member relations. Providing a means to declare one’s intentions would eliminate these tensions, and would create an accepted learning track within the program.
- Recouping Costs – Because training is a costly endeavor (at least in terms of time and effort), it may be fair to expect non-volunteers to bear a greater portion of these costs by charging higher fees for the learning track. These added costs would apply to both basic and advanced training. This would add an incentive for learners to volunteer. In the absence of mechanisms to guarantee that those declaring an intention to volunteer do in fact volunteer, it must be taken on faith that they will do so.
- Formal Status – The next step might be to create a certification level for trained members who do not volunteer, since the Master Naturalist designation should be restricted to the volunteer population. The term “Naturalist” has been suggested. Again, Naturalists would be able to achieve the higher certification if they decided to volunteer and meet the other requirements.
- Separate Track – It can be debated whether learners should be included in standard training programs or grouped in a separate training process. On the one hand, one could argue that basic training presents an opportunity for

volunteers to bond together as a group, and including members who will “disappear” after training detracts from this purpose. On the other hand, failure to include learners may effectively foreclose the possibility that learners will become volunteers. It is possible that clearly defining each member’s track will help ameliorate the former problem.

- On-Line Training – One mechanism to manage training costs for non-volunteers is to provide training on-line or as a set of CD’s for home use. This may add a level of convenience by permitting learners to proceed at their own pace. It is debatable whether this option would actually be attractive to potential members, who may prefer classroom training with the ability to interact with instructors and other members and/or be uncomfortable using technology. This could be optional.
- Barriers to Entry – This approach would help address time constraints and social considerations as barriers to entry. Technological solutions such as on-line training may appeal to younger age groups.
- Channels – This approach could be marketed through partners involved in continuing education.
- Messages – Marketing would be focused on learning about the natural world and improving one’s skill sets.

Motivation: Volunteering

The program is clearly designed and marketed with a focus on volunteering. What is needed is to remove impediments to greater participation as described earlier.

Motivation: Social / Recreation

The section on Member Retention emphasized social activities as a key to keeping members involved. Social activities would be doubly important for this motivation. In addition, better mechanisms for connecting members with similar interests would be helpful in creating self-sustaining social groups that would serve to attract new members. Other considerations include:

- Barriers to Entry – Social barriers would be a significant block for this group. Providing forms of recognition of achievement would help overcome this barrier by providing social status within the group.
- Channels – Social media and other technologies would probably play a key role for this group, particularly among younger recruits.
- Messages – The focus would be on making new friends while performing meaningful work and enjoying nature.

Motivation: Advocacy / Outreach

The obvious approach for this motivation is to emphasize outreach opportunities and the chance to make a difference in members’ communities. It is important to note, however, that the VMN program is explicitly designed to be apolitical, and this prohibition may conflict with these members’ core desire to influence decisions and change communities for the better. Current members have expressed frustration with the inability of local chapters to fully participate in community political decisions that will affect that community’s environmental health and conservation status. While individual members can participate in these political processes, the organization cannot adopt

“official” positions and/or use VMN infrastructure to communicate and organize around political issues. It is important that members interested in advocacy clearly understand these limitations and be given guidance about their involvement in political processes. Other considerations include:

- Messages
 - The Junior Master Naturalist program offers a clear opportunity to influence the next generation’s attitudes towards nature and conservation, which may have the greatest long-term impact on environmental progress.
 - A more informed political participant is a more effective advocate, even when not backed by the weight of the VMN organization.
 - The VMN program does not just advocate, it takes positive action to improve environmental outcomes
- Channels
 - It may be possible to recruit members from other environmental and conservation organizations by emphasizing training opportunities and active volunteering in conservation projects. This could be facilitated by using the contacts of members with this motivation and experience with these other groups.

Motivation: Professional Advancement

Persons working in the environmental, conservation, and/or outdoor recreational fields would obviously benefit from the knowledge imparted through the program, and the certification itself may provide an added credential for their resumes. There is evidence that some state agencies are using the program for professional development, and at least a few members pointed to this motivation as an important factor in joining. In order to enhance recruiting in this area, several steps can be taken:

- Identify related professional organizations that have their own certification processes and establish VMN training as a component of that process. The example most often cited is teacher recertification with the Virginia Department of Education. If teachers could gain points towards recertification, it would be an added incentive for joining, particularly if volunteering hours could be counted towards those points. There may be other opportunities.
- Work with state agencies and other organizations to include the VMN program as an accepted component of professional development for specific job categories.
- Work with colleges and universities to allow students in specific programs to gain academic credit for VMN training, use VMN volunteering as internships, and/or gain credit for any service requirements for their degree.
- Use the institutions described above to help market to target groups.
- Provide a path for progressively increasing member’s responsibilities and involvement with the program, with a particular focus on project design and leadership. This may appeal to students and young adults who want to develop leadership skills.

Motivation: Teaching

There is anecdotal evidence that a fair number of current and retired teachers are already members of the program. A number of initiatives could be undertaken to build on this foundation:

- Ensure that chapters focus on educational volunteering opportunities. The Junior Master Naturalist program is an obvious fit for this group.
- Assistance with teacher recertification as described above would provide an added incentive.
- Provide advanced training opportunities that tie in with other teacher certifications, such as Project Wet or Project Wild.

Motivation: Family

The section on Parents with Children deals with this motivation. It is important to note that family-oriented members might include not only parents, but also grandparents.

Recruitment Planning

Recruitment is essentially a marketing activity. As can be seen above, there are many potential target markets for the VMN program. It is important to define which markets are likely to produce the best results and focus attention on those markets. One would then build a marketing plan for each market. It is likely that marketing plans will vary from one chapter to the next, given differences in their demographics, natural resources, and other factors. Therefore, each chapter would need to take these steps:

- Assess current demographics and resources
- Define target markets and approaches
- Build a marketing plan outlining specific program changes, channels, messages, and marketing activities for each target market
- Assign someone to oversee implementation and assess results

One way to facilitate this process is to conduct a preliminary assessment of methods that have proven successful in other Master Naturalist programs across the country and within local chapters of the Virginia program. This would ensure that each chapter does not have to “reinvent the wheel”. This information should be collected into a best practices document that is shared with all chapters.

Program Improvement Ratings

Table 1.10 outlines participant ratings for a number of initiatives mentioned in this section. Note that the bulk of responses came from volunteers. The remainder (Other category) came from program advisors, state agency representatives, and partnering organizations.

Overall, volunteers are less enthusiastic about most initiatives than the rest of the participants. Perhaps they feel that they are overtaxed already and do not want add additional initiatives unless they are critical to success.

Most of the general marketing improvements received fairly high ratings. The statewide basic training application is the least favored, perhaps because of perceived

technical or logistical difficulties. Opinion seems to be divided on the importance of producing a marketing video. It has a relatively high average rating, but fully a fifth of the respondents felt it was not needed. Volunteers gave only modest support to a statewide marketing campaign, whereas other participants gave it the highest rating in this group of initiatives.

- Target Marketing – Volunteering and Training Requirements
 - Time commitments for volunteering and training were a persistent theme when discussing barriers to entry. As seen in the table, the most highly rated improvement was requiring volunteering as a part of basic training, while the lowest rated was reducing required volunteer hours. This would seem to indicate a strong desire to keep the focus on volunteering within the program. However, at least moderate support was expressed for alternatives involving lesser requirements. Perhaps some participants believe a volunteer-focused Master Naturalist program could co-exist with other less-demanding tracks. It would appear, however, that they may be unconvinced of the immediate need for these alternatives.
- Target Marketing – Other Groups
 - The most highly rated improvement among volunteers was relaxing restrictions on property improvements counting towards volunteer hours.
 - Other participants rated the Junior Master Naturalist program and scholarships as their most favored improvements, whereas volunteers rated them as their least favored initiatives. Other survey results have indicated that volunteers prefer to use limited funds on projects.
 - The other improvements received modest support.

Table 1.10. Average responses of each stakeholder group (volunteers, others) to the question “please rank each of the following activities as a very low (0) to very high (100) priority for the statewide program.” Not Needed shows the percent of the total respondents indicating initiative is not needed (unweighted).

Initiative	Volunteers	Others	Variance, Vol to Others	Not Needed
General Marketing				
Develop a video available to all chapters on who we are, what we do, and what is expected of a volunteer in our program	68	66	-1	21%
Develop a template presentation for chapters to use with local civic groups	65	69	4	15%
Provide branding signage to chapters to advertise Virginia Master Naturalist projects	63	72	9	12%
Initiate state-sponsored community outreach events for the public to attend	62	66	4	17%
Provide online store for chapters to purchase program swag (e.g., t-shirts, tote bags, patches)	61	70	8	19%
Create a press kit for use by local chapters	58	68	10	14%
Develop a statewide marketing campaign	57	71	14	22%
Offer a statewide basic training application process	52	60	8	32%
Target Marketing - Volunteering and Training				
Requiring a volunteer component as part of the basic training course	71	85	14	N/A
Offering multiple levels of membership/commitment to the program (e.g., Naturalist, Master Naturalist, Master Naturalist Leader)	50	59	8	N/A
Develop a natural history course for those who just want the knowledge and do not want to volunteer	49	56	7	37%
Reducing annual volunteer service requirement to 20-25 hours after certification	43	54	10	N/A
Target Marketing - Other Groups				
Allowing volunteers to count stewardship hours when working on privately-owned conservation easements	64	66	3	N/A
Work with colleges and universities to provide credits and internships for students through program	63	68	6	17%
Develop an optional online basic training course	58	65	8	24%
Develop a Junior/Family Master Naturalist program to engage families	54	72	17	21%
Provide statewide scholarships for the basic training course	50	69	19	27%

Central Issues

From the outset, the VMN program has had a fairly simple mission – train members of the public to become an effective volunteer work force that can aid conservation efforts at the local level. Having become successful, we can now contemplate expanding membership into new markets and groups. Depending on the markets involved, we may need to make program design changes that will add complexity to the program and introduce new program purposes. A prime example is the introduction of new levels of certification, some of which deemphasize volunteering. In determining our course, we must balance expanding the reach of the program against the fulfillment of the original mission.

In assessing this issue, several factors need to be considered:

- Negative Impacts of Expansion
 - Designing programs around special interests and needs may encourage splintering of the organization, affecting organizational cohesion and cooperation.
 - Deemphasizing volunteering requirements may undermine the stated mission of the program and affect the morale of the core group of volunteers.
 - The energy spent on building new program components, recruiting target groups, and administrating and supporting new programs may detract from existing volunteering efforts.
- Positive Impacts of Expansion
 - Recruitment enhancements have the potential to dramatically increase membership, thereby significantly improving program impacts.
 - Some initiatives described here address issues that already exist within the current membership. Again, low volunteering participation rates is an important issue and must be dealt with.
 - Education and outreach is an important part of the mission, and inviting new members into the organization fulfills that mission, even if they may have different motivations from the core group of volunteers. Over the long-term, we may be able to not only improve new members' understanding of environmental issues, but also increase their commitment to volunteering and program outcomes.

In the end, the strategy may be determined by issues of capacity. Local chapters are staffed by volunteers and have a limited capacity to take on new programs and initiatives. Therefore, the sensible approach may be to attack immediate problems and issues, while also focusing on a couple of target markets that have the best chance of success within each chapter area. The idea would be to not stray too far from the original mission as we learn what approaches work for each chapter and the organization as a whole.

Issues of capacity are also important in building local marketing plans. Marketing and program design are specialized skills. It may be unrealistic to expect that every chapter will have these skill sets in its member base and be able to devote the volunteer hours needed to effectively design and implement these programs. Therefore, it is

expected that central support will be needed in defining marketing programs and plans, developing marketing methods and media approaches, and creating marketing materials. It will be important to assess the costs and funding requirements for these programs.

Focus Area 2: Basic Training

Background

The primary purpose of basic training is to provide new members with the knowledge and skills they need to effectively participate in volunteering activities. The state program office has defined the list of subjects that need to be covered in training and mandates that each member receive a total of 40 hours of training in these topics. It is up to each local chapter, however, to plan, create, organize, and manage the training. This includes identifying speakers for each subject and making determinations as to appropriate content.

Because basic training is a key program component, there are a number of dependencies with other program processes. In the sections on Recruitment (Focus Area 1) and Retention (Focus Area 5), a number of improvements in the basic training process are mentioned. These can be summarized as follows:

- Retention
 - Include social activities during basic training to improve program loyalty
 - Introduce volunteering during training to ease the transition from training to volunteer work, and guide members to volunteering activities that fit their interests
 - Emphasize volunteering as a program requirement before and during training
 - Offer flexibility as to the scheduling and location of training to ease the burden on new members with time and travel constraints
- Recruitment
 - Create different levels of certification with lesser training requirements to overcome time barriers
 - Provide scholarships for training for those unable to afford the expense
 - Create a separate training program for “learners”
 - Consider on-line training alternatives for “learners” and those with time constraints
 - Rather than rehash these suggested improvements, this section will focus on the content and logistics of the existing basic training process.

Program Improvements

Standardized Training Materials

Because each chapter is responsible for defining and creating content for basic training (with the help of presenters), there is some variability in the information presented. This process also requires a lot of effort. It is therefore unsurprising that many members felt that the creation of a state manual for basic training would help improve the efficiency and effectiveness of training. This would consist of individual chapters on each mandated topic with standard presentation material. A number of factors were mentioned with respect to this initiative:

Benefits

- Saving chapters time – The manual would provide at least a starting point for training development.
- Saving instructors time – Undoubtedly, many instructors are unsure as to the appropriateness of specific content to program purposes. In addition, they often must radically trim their pre-existing presentation materials to fit within the tight time constraints for each topic. A manual would provide a framework for these decisions.
- Resource for students – Having a manual at the outset of training will give students a head start on learning, serve as a reference during training, assist in preparing for testing, and offer additional background materials.
- Standardizing content – Assure that all members are receiving a consistent set of training messages and have been provided with requisite skills. Help ensure that training is tied to program priorities and purposes.

Defining Education Goals

In developing a manual, it is important to establish the goals and objectives for the initiative, and have these objectives inform content decisions. Specific areas of interest included:

- Tying content to volunteering opportunities and priorities – This involves ensuring that training prepares members for participating in volunteering by providing the knowledge and skills needed for the various types of volunteering opportunities, as prioritized by local and state members and agencies.
- Defining realistic goals for training outcomes – Given the limited time frame for basic training, one must evaluate what level of skills development is possible to achieve, particularly for relative new-comers to the environmental sciences. These decisions would also affect the purpose and content of advanced training, assuming that skills development will need to be an on-going effort (see Focus Area 3: Advanced Training).
- Determining the role of a systems approach to training – The current training program is organized by themes, such as entomology or water quality. At some point, it would be useful to introduce a systems approach that indicates how all these pieces fit together to support natural communities and ecological systems. Again, it may be difficult to impart all of this knowledge in a basic training course, but it may be possible to introduce these concepts in order to provide a foundation for further training.

Defining the Curriculum

This entails a reevaluation of the basic topics covered in training. Some members felt additional topics should be included, as shown below. Note that adding material to the standard curriculum may not be feasible, given that most training coordinators already feel pressed for time to cover the existing topics. Perhaps these subjects could be covered in optional appendices.

- Interpretive skills
- Native plants
- Climate change
- First aid

- Role, activities, and organization of state sponsoring agencies
- Purpose of program and the role of each member

Defining Content Guidelines

Specifying minimum expectations for content delivery and aligning content with established standards for each subject.

- Define base content standards – It is expected that each local chapter will customize the training to fit local needs (see below). It is important to define the base concepts that are critical to full understanding.
- Use Office of Environment Education Standards – This state agency has already set out content standards for various topics.
- Ensure local advisors can help interpret guidelines for chapters seeking to modify training.

Local Customization

There are certain topics that would be of greater importance to some localities. For example, a chapter in the Tidewater area might want to spend more time on the Chesapeake Bay and marine systems. It is important to preserve this flexibility within the context of content guidelines. This could be accomplished in several ways:

- Add regional sections to the manual that address specific issues relevant to each region. This might take the form of guides to ecoregions of the state.
- Set aside one class in the training schedule for local issues.

Building the Manual

There are several key steps in actually constructing the manual:

- Defining the Syllabus – It might be helpful to create a more detailed syllabus that outlines educational objectives for each topic and defines the logical order in which topics are presented.
- Creating Content – This would entail identifying appropriate Subject Matter Experts and asking them to write specific parts of the manual. In addition, there may need to be an editorial board to review content and ensure it matches program objectives. Local chapters could help with this process by identifying their best speakers, collecting and reviewing existing presentations, and/or accepting responsibility for writing a specific chapter.

Content Delivery –

There are several options for the form of the final product:

- Printed Book – A few members pointed to the book produced by the California Naturalist program as a viable option. The reservation is that printing costs would be a substantial investment, and it may be necessary to charge members for the book (\$35 for the California version). It would also make revisions more costly and difficult to complete.
- On-Line Files – Create a complete electronic version of the manual that members could view on-line and print out on a local computer.
- On-Line Web Pages – Create web pages organized by subject and subtopic.
- DVD's – Distribute copies by burning DVD's with the appropriate electronic files.

Making Revisions

It is important to have an established process for manual revisions, with an assigned group or individual.

Supplemental Resources

- References – The manual should also cite appropriate references for members wanting additional information. This would include books, websites, webinars, and informational brochures. These references should be posted on the state website for quick access.
- Field Guides – Some members indicated the need for field guides that would help with the identification of species common to Virginia. These could also be delivered as stand-alone products and/or be customized for regions of the state.
- Regional Guides – This might take the form of videos that describe the ecoregions of the state in visual format.

Standardized Instructional Materials

Having defined appropriate content for training in the manual, it would then be possible to translate this information into instructional materials for training classes. An issue is the degree of standardization in these materials that is possible and desirable. As shown below, there are several levels of standardization that could be considered.

Complete On-Line Training Program

In this scenario, standard presentations would be created and produced as webinars and/or videos. Members would view these either in private or together in a group in a common meeting area. In the latter situation, the group could review the presentation in a classroom setting, then ask questions of an expert instructor and/or go over additional materials deemed relevant for their locality. This would also be supplemented by field experience.

This would be the ultimate in standardization, since every member would receive the exact same training. However, there seems to be a general consensus that live classroom instruction is greatly preferred over on-line training, because the former produces much better educational outcomes and promotes social connections among members. Therefore, the on-line training method would likely be reserved for special situations, as described below.

On-Line Training as an Option

Similar to the previous option, webinars and/or videos would be produced for some or all of the topics. Each chapter would have the option of using them as needed. Specific uses for these materials include:

- Emergencies – If an instructor suddenly becomes unavailable, the on-line version of the topic could be used to fill in.
- Make-Ups – If a member misses a class, the on-line version could be used for make-ups.
- Lack of Local/Regional Expertise – Some chapters may have difficulty finding an appropriate speaker for one or more topics.

- Over-Taxed Instructors – Some instructors may have special expertise that is in great demand and have become over-burdened with speaking and training requests (particularly in regions with multiple chapters). Having them record their presentations for playback may be a better alternative to having them leave the program. A variation on this theme would be the use of distance learning tools that allow the instructor to remain at his/her home base while still interacting live with students. This can be useful for instructors facing excessive travel times.
- Refresher Courses – In this case, a volunteer who has already graduated could retake one or more classes on-line to refresh their memory about the topic.
- Class Preparation – Students could review the online presentation prior to the class as a means of familiarizing themselves with the topic, thereby getting more out the class.
- Substitute Method for Small Classes – If a specific chapter had a training program with only a few members, it might more sense to use the on-line version.

Creating a Speakers Bureau

Here, presentations would still be presented by live instructors in a classroom setting. However, local chapters and the state VMN office would cooperate to identify expert instructors, ensure they understand content guidelines, and promote their availability for training. Many members felt it was important to expand the list of available speakers, for all the reasons described above. There are a few practical details to consider:

- Identifying Speakers – There would need to be a concerted effort in multiple regions of the state to identify potential speakers from among the many state agencies, colleges, partnering organizations, and other sources.
- Approving Speakers – There would need to a clear process for assessing the credentials of each speaker. This could be a cooperative process between the state office and local programs. At issue is whether a high level of credentials is necessary. Some participants feel we should always strive for presenters with state or national reputations, whereas others believe that a presenter such as a high school science teacher could be as effective with standard materials created by experts, since he/she already has teaching skills. There was also a concern that restricting chapters to the use of pre-approved speakers would limit their flexibility and create an unwanted bureaucratic process for adding speakers. Most chapters would probably prefer that the speakers bureau be an option for training development.
- Controlling Content – Each approved speaker should be given a copy of the content guidelines for their area of expertise and a standard presentation (if available).
- Publicizing Availability – The state could maintain a list of approved speakers on the state website. It should include topics covered, time availability, geographical availability, and contact info.
- Evaluating Speakers – Students and training coordinators would have the chance to evaluate speakers, and these evaluations could be used to remove speakers from the list when necessary.

Sharing Training Resources

In this scenario, a document sharing area on the State website would be created to allow chapters to share training materials with one another. This could include training presentations, reference materials, and/or speaker lists.

Teaching Methods

Classroom instruction is the primary teaching method. Classes are supplemented by 10 hours of field trips, as mandated by state policy. Some members felt that both types of instruction tend to encourage passive participation, as opposed to active involvement by members to enhance their skills. Specific improvements included:

Self-Study

As noted earlier, it is difficult to adequately cover all of the relevant topics in the short time allotted for training. Some members felt that self-study activities could help expand topic coverage and skills development by requiring members to further explore topics on their own. There are several key aspects of this approach:

- There would need to be structured exercises that targeted specific topic areas as part of the standard curriculum.
- In order to avoid added expense for reference materials, it would be best if these exercises used publicly available information such as websites or pre-supplied handbooks.
- Given that the time requirements for training and volunteering have already been identified as a potential barrier to entry, we must be careful not to over-burden students with time-consuming exercises.

Practical Experience

Learning by doing has been proven to be a very effective method for skills development. It is also a good way to prepare students for volunteering by practicing the skills they will need to effectively participate in these activities. It might be possible to use field trips as the “lab” component of training, in which students actively participate in hands-on activities tied to a specific topic or skill. Suggestions included:

- Practicing field identification of species using dichotomous keys or other tools
- Role-playing for skills such as interpretation or outreach activities
- Collecting data for a citizen science project

Testing

Each student is required to pass a test covering all of the topics in basic training. This is an “open book” test that each student completes on their own time over a period of a week or two. Again, each chapter is responsible for developing and administering the testing process, and there can be variability in the content and testing methods. The development of standard tests at the state level might help improve the efficiency and effectiveness of this process. However, there may also be some differences of opinion as to the appropriate level of standardization. There are several options:

Standard Test Questions

This would involve creating a data base at the state level of standard test questions and answers. Local chapters could “mix and match” these questions to help build their own tests, while still having the flexibility to add questions focused on topics of local interest.

Field Exercises

In this scenario, a standard set of field exercises would be developed to test participants’ ability to engage in certain types of volunteering work. This might involve plant identification or citizen science. These would probably be used as a supplement for the written test.

Complete Standard Tests

This would involve creating a standard test that would be used universally across all chapters. The assumption is that such a test would assure that all VMN members share a common knowledge base and skill set. There could still be some level of flexibility for test questions at the regional level. There would also need to be a process for revising the test regularly as training content is revised.

On-line Testing

Once a standard test is available, it could be taken on-line.

Classroom Testing

This approach takes standardization a step further by eliminating open book tests in favor of a proctored exam with limited access to reference materials. The intention is to enhance the reputation and value of VMN certification by ensuring that members have mastered the relevant materials and can apply them without the need of information sources such as the Internet.

The question of testing raises a few essential issues for the VMN program:

- If the purpose of the program is to support volunteering, what must a volunteer know to effectively participate in these activities and how can we verify that?
- What level of knowledge transfer can we realistically expect in a basic training program with such broad coverage?
- What differences in useful skill sets are there when comparing local chapters and how do we account for those differences in testing?
- Would more stringent testing act as a barrier to entry and are we willing to trade program participation for a better qualified volunteer work force?

We will address some of these questions in the section on Central Issues.

Program Improvement Ratings

Table 2.1 outlines participant ratings for a number of initiatives mentioned in this section. Note that the bulk of responses came from volunteers. The remainder (Other category) came from program advisors, state agency representatives, and partnering organizations. Several points can be made:

- The development of the manual and related reference materials is clearly the priority for most participants and should be the focus of improvement initiatives.
- Changes to the current testing process received the least support as a group, with a large number of participants feeling they were not necessary. The one possible exception was the development of a database of standard test questions, which received modest support.
- Development of an optional on-line version of training was also disfavored, with a quarter of the participants indicating it was unnecessary.
- Supplemental materials such as field guides and/or eco-region videos were deemed useful, but of lesser importance.

Table 2.1. Average responses of each stakeholder group (volunteers, others) to the question “please rank each of the following activities as a very low (0) to very high (100) priority for the statewide program.” Not Needed shows the percent of the total respondents indicating initiative is not needed (unweighted).

Initiative	Volunteers	Others	Variance	Not Needed
Develop a list of available resources that support basic training course	83	83	0	4%
Complete development of basic training course manual (i.e., printable chapters by subject)	81	82	-2	5%
Develop field guides for program with key common species	64	72	-7	17%
Develop a database of test questions for basic training course assessment	63	72	-9	15%
Develop DVDs/videos to describe eco-regions of state	61	64	-4	14%
Develop a standardized test for assessment to ensure training standards are met across chapters	60	59	1	29%
Develop an optional online basic training course	58	65	-8	24%
Provide optional assessment measures for graduating basic training course that are not written tests	55	61	-5	22%

As shown in Table 2.2, respondents were also asked to identify appropriate uses of an on-line version of the training program. The clear winners were refresher courses and make-ups. Note that only a third thought that using on-line training as the basis for standard classroom instruction would be useful.

Table 2.2. Percentage of stakeholders that selected the listed responses for the following question: “If an online basic training course option was available, in which of the following cases do you feel its use would be warranted? Select all that apply.”

Response	Stakeholder			
	Volunteer	Advisor	Sponsor	Partner
To be used as a “refresher” by a volunteer that has already graduated	85%	80%	77%	70%
To be used if a trainee needs to make up a class they were unable to attend in-person	80%	60%	77%	70%
To be used at the discretion of each chapter	53%	50%	77%	70%
To be used if a chapter has not filled the minimum requirement of participants to host an in-person training	43%	50%	54%	30%
To be viewed by volunteers prior to an in-person class so all trainees enter classroom with equivalent background knowledge	39%	20%	38%	30%
To be used for classroom instruction so in-person training time can be spent on discussion, hands-on activities, and time in the field	34%	20%	38%	30%
An online option should never be used	5%	10%	15%	20%

The final question related to the time allotted to training, with respondents being asked whether 40 hours is enough time to cover the material. As can be seen in Table 2.3, the majority felt that 40 hours was sufficient. It is uncertain whether their answers were influenced by the potential negative consequences of adding training time for time-constrained members.

Table 2.3. Percentage of stakeholders that selected the listed responses for the following question: “Several volunteers felt that the 40-hour basic training requirement was not enough time to cover the material outlined in the basic training guidelines. Do you feel that the statewide policy should change to require additional training time?”

Response	Stakeholder			
	Volunteer	Advisor	Sponsor	Partner
No, I think the 40 hour requirement is sufficient to cover the material	61%	70%	77%	40%
No, I think the content required should be reduced instead of increasing the amount of training time required	8%	0%	8%	10%
Yes, I think the 40 hour requirement is insufficient to cover the material	19%	30%	15%	40%
I have no preference	11%	0%	0%	10%

Central Issues

A core assumption of the VMN program is that upon receiving basic training and a certain level of advanced training, new members will be qualified to participate in any number of projects, as well as defining and initiating their own projects. For members with a background in the sciences and/or experience in conservation, this assumption is probably valid. For real novices, however, this assumption may be unrealistic. The training includes a very broad range of topics in a very short period of time, some of which might be covered in multiple courses in a college setting. The result may be a knowledge deficit for certain types of volunteering. The consequences are several:

- Novices tend to lack the confidence to start their own projects, and therefore gravitate to existing projects that require only partially skilled labor, such as invasives removal. While useful, these projects may not serve the real priorities and needs for a given community and the state as a whole.
- In some chapters, there may be a limited number of members with the experience and confidence to manage projects. This means that the activities of a given chapter may be restricted to the interests and skills of these members.
- To participate in the work of some state agencies, novices may require additional training. This poses a dilemma for agencies that are under-staffed and under-funded. They must decide whether they should invest their limited resources in training a volunteer work force which may or may not stick with the agency and may or may not be able to adequately perform the tasks.
- Members may get stuck in a rut without the advanced training and experience needed to contribute in more and different ways, and eventually leave the program.
- There can be concerns about the accuracy and completeness of information provided to the public during education and outreach activities.
- There can be concerns about the accuracy and completeness of data collected for citizen science activities.

It is not known how many members are affected by these issues. However, it is still important to recognize that basic training may simply be the beginning of a potentially lengthy process of skills development for some members. To facilitate this process, several steps can be taken.

A previous section mentioned that training participants should be mentored to help guide them towards volunteering opportunities that fit their interests. This should include the identification of required skill sets for specific volunteering activities and the types and sources of available training and references. For example, a person interested in tree planting and tree care could be pointed to the Department of Forestry and various arborist groups and websites.

State agencies can assist in this process by clearly identifying and developing volunteering opportunities, and then defining skills requirements for each. By creating standard protocols for training, volunteer activities, volunteer management, and quality control, these agencies could improve the efficiency of volunteer use while encouraging members to become engaged. With appropriate references, members could use self-study to become more prepared for this engagement.

The citizen science project currently underway will assist with this effort by encouraging collaboration among experts and novices alike, while also teaching about the scientific process in various areas of interest.

To encourage members to continue their education, we could add a level of certification for members that can pass a more rigorous exam that covers all topics in depth. It is likely that implementing such an exam immediately upon conclusion of basic training would be a showstopper for some members, since they would need much more time to prepare. Instead, each member can proceed at his/her own pace.

To prepare members for greater responsibilities and engagement, project management training could be offered, along with a form of certification for project managers.

Focus Area 3: Advanced Training

Background

One of the requirements for certification is that each member complete eight hours of advanced training annually. This would occur after successful completion of basic training. While advanced training opportunities may originate from many different sources, it is up to the local chapters to review and approve each training opportunity prior to members' attendance. In addition, the local chapters communicate the availability of training to their members, including sessions that may be located outside of the chapters' service areas.

In the previous section on basic training (Focus Area 2), it was mentioned that training participants should be mentored to help guide them towards volunteering opportunities that fit their interests. This should include the identification of required skill sets for specific volunteering activities and the types and sources of available training and references. Given the diverse set of interests among the membership and the plethora of training needs and opportunities, this process can be difficult and time-consuming. As a consequence, the focus of program improvements for advanced training tends to revolve around organizing and simplifying all aspects of the advanced training program. The aim is to make it easier for chapters to satisfy the training needs of members and the program as a whole, while improving the availability and relevance of training opportunities.

Program Improvements

Defining Training Needs

The first step in enhancing the training program is to get a clearer picture of training needs and priorities. This might include completing the basic training course manual, surveys, and curriculum planning.

Complete Basic Training Manual

The top priority improvement for the Basic Training program was the completion of a training manual that defined standard content for each topic. This has relevance to advanced training by outlining the base knowledge each new member is expected to acquire during basic training. This would serve as the starting point for more advanced training for each subject area.

Surveys

A number of members suggested that the membership be surveyed as to their training interests and needs. This could be used to help define content areas and prioritize them. It could be viewed at both the chapter level and the state level.

Curriculum Planning

Having identified content areas, one can begin defining a curriculum for each. This would involve outlining a logical progression of training topics leading to more and more advanced skills. The intent would be to permit members to gradually improve their effectiveness as volunteers and project leaders, while pursuing their own interests. This

method will be discussed in greater detail later on in this section. At the initial stage, it would be useful to identify knowledge paths for the high priority subjects and volunteering opportunities, as a means of further clarifying training needs.

Defining Training Content

While a detailed survey would help refine training needs, participants in the needs assessment have already identified a number of subject areas that should be addressed. These include technical subjects, field methods/practical applications, organizational knowledge, supporting skills, chapter leadership, and news/updates.

Technical Subjects –

Some members felt that additional advanced training opportunities were needed for certain technical topics. Among them were:

- Native / Non-Native plants – Use of the Flora of Virginia in identifying plants, and more in-depth discussion of the issues surrounding the use and protection of native plants and the challenges of controlling invasives.
- Aquatic Ecology / Water Quality – Relating aquatic ecology to water quality issues and riparian habitats
- Wildlife Habitats – Identification of natural communities and methods for protecting them
- Additional Topics – Astronomy, Geology, Agriculture / Forest Management, Climate Change, Ornithology

Field Methods / Practical Applications –

While training imparts technical knowledge of a specific content area, many members felt they could benefit from better understanding of how to apply this knowledge in their volunteering and field work. Topics included:

- Basic Volunteering Skills – This entails providing training for non-technical skills important to specific types of volunteering activities. Examples include:
 - Environmental Education / Interpretive Skills – Teaching skills for interacting with both adults and children during outreach activities of various types.
 - Citizen Science – Basics of the scientific method as applied to citizen science activities
 - Observation Skills – Methods for observing and documenting natural environments, with an emphasis on the use of dichotomous keys.
- Project-Specific Training – Some members indicated that training directed at the concrete activities of specific projects not only improved their effectiveness as a volunteer for that project, but also enhanced their technical knowledge through learning by doing. Models mentioned included Project Wild and Bird Counts.
- Project Management – To be better prepared to define and manage their own projects, members would appreciate some form of project management training. To be most effective, this training should focus on the best methods for organizing and managing specific types of projects. Examples include leading an outdoor adventure or conducting a Bio Blitz.
- Risk Management – One of the responsibilities of both project leaders and volunteers is to manage liability and safety risks. Training could cover appropriate

risk management methods for different types of projects, and could include topics such as first aid and hiking safety.

Organizational Knowledge

Some members felt that a better understanding of the mission, organization, activities, and priorities for the various state-sponsoring agencies would improve cooperation among the groups involved and better align the VMN program with state objectives. This would include information about specific state projects, and a clear indication of the role of VMN volunteers in those projects and the contribution they make to program goals.

Supporting Skills

Certain skills may not be strictly necessary to participate in specific activities, but would improve volunteers' overall effectiveness and productivity. These include:

- Using a GPS
- Computer Basics (email, web browsing, Excel, VMS system, etc.)
- Social Media (Facebook, Pinterest, Instagram, Twitter, File Sharing)
- Photography / Video Production / Podcasts

Chapter Leadership

Leadership training would help prepare leaders for their duties and improve chapter management. See the section on Chapter Best Practices.

- News / Updates – Information about newly emerging issues and scientific advances

Identifying Training Sources

Having defined appropriate content, one can begin identifying the best sources of information and training for each. This will vary in accordance with subject matter. However, members had suggestions for engaging and using specific categories of training sources.

State Agencies

State agency staff are already heavily involved in both basic and advanced training. However, members felt that it might be possible to further engage them.

- Catalog and Distribute Existing References – Many agencies have an extensive set of publications and brochures on a wide variety of topics. These could be cataloged and made available through a common website.
- Develop Additional Training Materials – State agencies have a wealth of knowledge about all aspects of conservation and environmental sciences. This knowledge could be tapped to generate additional training materials about specific topics, tied to state priority issues. To promote maximum accessibility and availability, these materials could be delivered in electronic format through state-managed websites.
- Develop Additional Volunteering Opportunities – Some agencies may have additional volunteering needs. By establishing new volunteer programs, members would be given additional hands-on learning opportunities, especially if coupled with project-specific training.

Chapters

The local chapters often have members with extensive expertise in one or more subjects. In some cases, they have already developed training materials for key subjects, and could be asked to create additional materials. These materials could then be shared through the state website. At the same time, mechanisms could be created to allow members attached to one chapter to attend and receive credit for advanced training put on by other chapters.

Partners

Most chapters partner with local organizations with similar interests. Some of these partners have their own educational programs. Efforts could be made to strengthen these relationships and share educational materials. In some cases, it may be possible to negotiate no-cost or reduced-cost access to classes and lectures at a specific location in exchange for similar concessions for VMN advanced training. Specific groups mentioned include colleges, conservation sites, environmental groups, national parks, and so on.

Speakers Bureau

The state program could assist in the process of identifying training sources and making them available by creating a speakers bureau. This improvement was discussed in the section on Basic Training – see that section for more details. Basically, it involves creating a list of approved speakers by topic at the state and regional level. There were a few added issues for an advanced training program, as shown below.

- Expense – Because advanced training may require instructors with greater expertise and credentials than basic training, one may find there are fewer available sources and greater demand for their services. This may result in expenses for lecture fees and/or travel. To cover these expenses, it has been suggested that the state program provide funding for statewide training programs for critical knowledge areas. Alternatively, mechanisms could be set up by which local chapters could raise funds for advanced training. If chapters prefer a self-funded approach, it may be necessary to charge nominal fees for attendance. The state program could assist with this approach by providing an online registration and fee payment tool.
- Effort – Because of the breadth and depth of potential training topics, the process of creating the speakers bureau for advanced training could be time-consuming and complicated. It is important to set priorities for the speakers bureau in order to ensure critical topics are covered first.

Training Methods

A variety of training approaches can be used for advanced training. As described below, key choices involve classroom training versus on-line training and whether training is targeted at the members of a local chapter or a larger group. Within that context, there are a number of variations.

Main Training Options

It is generally conceded that classroom instruction is the most effective training method. However, it may not always be feasible or cost-effective. For example, it may not make sense to set up a class with an out-of-town instructor for an advanced training class that will have 3 or 4 students. Using this logic, members tend to favor certain methods over others in designing training programs. Specific examples include:

- Basic training – Members greatly favor local classroom instruction here, because all new members must attend, local instructors are usually available, and classes tend to be of at least moderate size.
- Common Skills – It may be possible to attract a fair number of attendees to local classes that involve skills that are useful in multiple volunteering activities and technical subject areas, such as project management or citizen science techniques. If this is not possible, then the fallback plan is use the methods described below.
- Specialized Skills – As training topics become more specialized and advanced, the number of attendees is likely to fall. In this instance, members tend to favor shared training mechanisms, including:
 - Joint Training Sessions – Nearby chapters co-host classroom training.
 - Regional or State Conferences – Attendees are pooled at the regional or state levels for instructor-led lectures or field trips. The expense of travel and conference fees tends to limit attendance, depending on the training location.
 - On-line Training – Training can be made available to all members from their homes, eliminating travel costs and fees. It may be the only feasible option for highly specialized subjects and/or instructors with statewide training responsibilities.

Classroom Instruction

- Chapter-Sponsored Training – The closer training is to their homes, the more likely it is that members will attend. For advanced topics, pooling attendees from multiple chapters in the same general location may be a viable option. This could be advantageous in areas such as Northern Virginia, Tidewater, and Richmond. The added advantage is that it would promote networking and cooperation among members in nearby chapters.
- Train the Trainer – In this scenario, members from various chapters (typically at a regional level) would be given advanced instruction in a specific topic, together with instructional materials and methods to use in teaching others. They could then teach the topic to other members of their chapter and/or the general public. The most-cited models for this approach include Project Wild. The advantage of this approach is that it expands the training force and relieves training burdens for scarce training resources.
- Colleges – In areas that have colleges with environmental science programs, it may be feasible to make arrangements for members to audit relevant courses at the college and/or involve VMN volunteers in student and professor research. This may require some form of quid pro quo, in which VMN volunteers provide services to the college, students gain access to VMN training and volunteering opportunities, and/or fees for VMN certifications are waived. The advantage of this approach is that it would provide more in-depth and extensive training than would be feasible for the VMN program.

Field Trips

Many members felt that more emphasis should be placed on field work as a means of reinforcing instructional materials with practical experience. Specific suggestions include:

- Combine training with field work for a given field trip. For example, an expert could provide a short lecture on plant identification methods and keys, and the students would then practice these skills in the chosen site.
- Plan joint field trips for multiple chapters, particularly when a rich natural resource such as a conservation area is available within the region and a recognized expert can lead the trip.
- Combine social and recreational activities with training objectives. For example, one suggestion was to plan a multi-day canoe trip to explore riparian habitats.

Training Events

This usually takes the form of a 1-3 day conference that combines lectures with field trips. The VMN program currently sponsors an annual statewide conference for all members, which is typically held in a central location for the state. In the past, there have also been regional training rallies focused on a specific region of the state. One example is the training rally held at Sweetbriar College in 2011. At issue is the role and purpose of each type of event and their frequency.

- Regional Conferences
 - Advantages: There seems to be a general consensus that establishing regional advanced training events is desirable. The advantages of this approach are several:
 - It may be difficult for some members to get to a state conference located in Central Virginia. It is a long drive from Southwest Virginia to Richmond. By holding conferences within each region, it is expected that more members will be able to attend.
 - A regional conference can focus on issues of greater importance to each region, and may spark more interest in that region's members.
 - Social networking is easier in a smaller, more local group.
 - May make it easier to focus on regional projects and help recruit volunteers for those projects.
 - Logistics
 - Length – Some would suggest a shorter conference (perhaps 1 day) to help boost attendance and reduce costs.
 - Location – It has been suggested that conference locations be linked to the 5 physiographic regions of the state. Travel times will play a key role in these decisions.
 - Frequency – Some members felt an annual conference in each region would be best, whereas others opted for bi-annual scheduling, perhaps by alternating between the state conference and regional conferences every other year.

- Attendance – Members from any chapter could attend any regional conference, thereby allowing members from one region to learn about another region.
 - Statewide Conference
 - Purpose - It appears that most members felt that a statewide conference still has utility. Specific purposes include:
 - Promoting cooperation and cohesion at the state level
 - Ability to focus on statewide issues and priorities
 - Ability to combine to combine leadership training with technical training and promote chapter best practices
 - Logistics
 - Combining Conferences – One issue that has been raised is whether it would make sense to join forces with other like organizations to create a joint conference. The conference most often mentioned is the annual Virginia Environmental Education Conference. There seem to be distinct advantages and disadvantages of this approach:
 - Advantages
 - Reducing average costs by sharing speakers
 - Enhancing the diversity of conference offerings
 - Ability to network with members of other organizations with similar interests and activities
 - Providing added perspectives and experience for conservation objectives and activities
 - Disadvantages
 - Undermines the objective of promoting organizational cohesion and identity within the VMN program through a focus on VMN priorities and social networking at the conference
 - May create conflicts for members that have an interest in both conferences and may not be able to attend all sessions
 - May create additional logistical issues as conference grows in size
 - May be difficult to effectively merge conference agendas
 - Frequency – As noted above, there is the option to alternate the state conference with regional rallies bi-annually.
 - Leadership Training – One must decide how to fit leadership training into the conference schedule. This could involve pre-sessions or an alternate training “track”.

Online Training

On-line training can generally take two basic forms. One approach is to use an instructor to create a digital version of a training class. The other approach is to make various reference materials available on-line for self-study.

- On-Line Classes - As noted earlier, most members feel that on-line classes will be necessary to provide the more advanced instruction. Content can be provided in

several ways: live webinars; recorded webinars; video recordings of classroom instruction available for download; video or telephone conference calls (primarily for follow-up questions); and/or interactive web apps. It is expected that webinars will become the predominant method for statewide content delivery. The key issues will be determining priority training subjects, defining the subjects that would benefit from instructor-led training, and identifying the appropriate sources for training.

- Self-Study
 - Uses - Self-study becomes the preferred alternative in several situations:
 - Topics are specialized and/or of limited interest to the general membership, and therefore do not warrant the effort of creating on-line instruction
 - Topics are too extensive to be realistically considered for a standard program (e.g., details of community ecology)
 - Students prefer learning about the subject from the source materials
 - Types of Content – These include:
 - Bibliographies by subject
 - Website links
 - Web apps
 - State publications and presentations
 - Textbook-style educational materials
 - Articles / blogs
 - Tools – Many members felt that the development of on-line tools for plant and animal identification would be very beneficial. It would be especially useful if the tools were limited to species found in Virginia, thereby narrowing the search.
 - Sources – There are a wide variety of on-line sites that already have collected information about specific subjects. We should rely on subject matter experts to help identify the best sources and select the appropriate materials.
- Testing – Some members felt it was important to test participants in on-line training in order to ensure that they have paid attention to the training and assimilated the key points. The example often given is the completion of a brief quiz in order to gain AT credits for having read an article or attended a live webinar.

Mentoring

Once a member has declared an interest in a specific topic (e.g., butterflies or native plants), it would be helpful to identify an acknowledged expert within the membership (if available) to help guide the member through the learning process. This person would help direct the member to training opportunities appropriate to their interests and answer questions.

Training Tracks

A number of members mentioned that the current advanced training program often does not facilitate the ability to delve deeply into a given topic. Because advanced training covers so much ground and is limited by the availability of training resources, there may be spotty coverage of the more advanced topics. The solution would be to build structured approaches to specific knowledge areas that permit the gradual

development of skills and combine available training sources and media. This approach will be discussed in more detail in the section on Critical Issues.

- Administrative Issues – There are a few improvements in the administration of training that were deemed important:
 - Name – A number of members felt that the term “advanced training” may confuse members and create the wrong impression as to the types of training being offered. Training levels for a given offering could range from “introductory” to “expert”, whereas the term “advanced” seems to connote the latter form of training. A better term may be “continuing education”, since it indicates any training that occurs after basic training and does not suggest content levels.
 - Scheduling – In the section on Basic Training, it was mentioned that added flexibility in training times and locations could help account for differences in the time availability for different groups of members and improve attendance. Similar methods could be used for advanced training. Additional improvements for advanced training included:
 - Combining Training with General Meetings – Conducting training before or after general chapter meetings might help improve attendance for both activities and provide added predictability for training schedules.
 - On-Line Training – It is expected that on-line training opportunities will increase over time. The ability for members to participate in training on-demand allows them to choose the most convenient time.
 - Communication – One goal is to improve the availability and accessibility of training statewide. As the number of training opportunities proliferate, better methods for organizing and communicating training information will be needed. This might include a statewide calendar of events. See the section on Communications for more information.

Program Improvement Ratings

As shown below, three improvements received a fairly high level of support. They were regional conferences, standard reference lists, and the speakers’ bureau. Financial support for speaker fees received only modest support, perhaps because participants were reluctant to set a precedent for paying these fees and/or felt that they could pay modest fees out of existing funds.

Table 3.1. Average responses of each stakeholder group (volunteers, others) to the question “please rank each of the following activities as a very low (0) to very high (100) priority for the statewide program.” Average, Others is the average of responses for advisors, State agencies, and partner organizations (unweighted). Not Needed shows the percent of the total respondents indicating initiative is not needed (unweighted).

Initiative	Average Volunteers	Average, Others	Variance , Vol to Others	Percent Not Needed
Offer 1 or 2-day regional conferences to provide additional training in the field	74	79	-5	4%
Develop list of approved publications on advanced training topics	73	79	-6	5%
Create statewide list of suggested speakers on specific topics	73	68	5	9%
Develop website that test species identification skills	65	65	0	13%
Provide financial support to cover speaker fees	57	60	-3	13%

As shown below, about a third of the participants felt combining the VMN and VEE conferences would benefit the program. However, a majority did not have a strong opinion on the subject. This may indicate a need to further assess the pros and cons of this approach.

Table 3.2 Percentage of stakeholders that selected the listed responses for the following question: “There have been discussions to combine Virginia’s environmental education conference with the Virginia Master Naturalist annual conference because our volunteers and the state’s environmental educators have overlapping interests. Would you be interested in having a joint environmental education and Virginia Master Naturalist conference?”

Response	Stakeholder			
	Volunteer	Advisor	Sponsor	Partner
Yes, the two conferences should be combined	33%	50%	69%	60%
No, the two conferences should not be combined	14%	20%	8%	0%
I do not have a preference	25%	10%	23%	20%
I need additional information to respond	28%	20%	0%	20%

Fully two thirds of the members felt that added on-line training opportunities would directly benefit them, with the remainder taking a wait-and-see attitude. This indicates that this initiative should probably be expanded by exploring additional training opportunities.

Table 3.3. Percentage of stakeholders that selected the listed responses for the following question: “The statewide program recently initiated an advanced training webinar series to provide additional opportunities for volunteers to receive their advanced training hours for certification and recertification. Do you feel this webinar series will be valuable to you?”

Response	Stakeholder			
	Volunteer	Advisor	Sponsor	Partner
Yes	67%	90%	85%	50%
No	3%	10%	0%	0%
Unsure	30%	0%	15%	50%

Almost half of the respondents felt a name change to “continuing education” made sense, with most of the rest having no preference. Given that there is relatively effort involved in this initiative, it would seem appropriate as an immediate action.

Table 3.4. Percentage of stakeholders that selected the listed responses for the following question: “Would you like to see the statewide program change the term “advanced training to “continuing education”?”

Response	Stakeholder			
	Volunteer	Advisor	Sponsor	Partner
Yes	43%	60%	38%	40%
No	7%	0%	8%	0%
No preference	51%	40%	54%	60%

Central Issues

Members are required to receive at least 8 hours of advanced training annually in order to maintain certification. Accordingly, one focus of each chapter’s training program is to help members meet the requirement by offering a diverse set of training opportunities that appeal to a variety of interests. However, it is also important to view advanced training as the mechanism by which members grow and develop within the program. As they learn more about specific topics, they can become more effective volunteers and take on added responsibilities.

While basic training provides new members with a good overview of environmental systems and concepts, there is still a large mass of knowledge that could be obtained about each topic. Some members may be daunted by this challenge, and become uncertain as to how to proceed. The key is to give them a series of small steps that they can accomplish without massive effort. This would entail a sequence of learn and do activities, all guided by a mentor or project manager. An abbreviated example is shown below.

Learning About Native Plants

- Learn about the difference between invasive plants and native plants.
- Learn how to identify and control a specific invasive plant, and participate in a project to remove it from a specific site.

- Learn how to identify the native plants on a specific project site, using keys and the help of the project manager.
- Learn how to identify the other major invasives in Virginia and control them, and then participate in their removal, where possible.
- Learn the uses of native plants in gardening and habitat restoration, and how to identify key species. Practice your skills in native plant gardens and field trips.
- Learn how to plant and care for key species. Participate in a gardening project.
- Gain project management skills in order to define and initiate one's own project, perhaps to create a native plant garden at a local school, in cooperation with VMN members and school students.
- Gain interpretive and teaching skills for working with youth, and use the native plant garden as a teaching resource for students, in cooperation with the teachers.

In assessing this approach, several key points can be made:

- The path for each student will be somewhat different, based on their interests and abilities.
- Mentoring is important:
 - Provides guidance in matching interests to volunteering activities and training
 - Provides local knowledge and contacts
 - Helps identify sources of information
- Creation of standard paths and resources for specific subject areas would reduce the total burden for mentoring and speed up the process. This would require an evaluation of the common interests and goals for members and the creation of curricula to support their progress towards goals.
- Total training effort would be reduced by using existing sources (e.g., Cornell birding site for birding) and/or standard training presentations delivered on-line.
- At the more advanced levels, self-study or external instructional organizations may be the only option. Reference materials and/or college classes may need to be identified.
- It seems inevitable that the state coordination office and other state agencies will need to play a bigger role in advanced training. The proliferation of training needs and demands may outstrip the resources of local leadership. This would include not only cataloging and disseminating training opportunities and resources, but also the creation of standard training materials and curricula.

Focus Area 4: Volunteer Opportunities

Background

Volunteering represents the core mission of the Master Naturalist program. The primary mechanism by which volunteering opportunities are created is through the initiation of volunteering projects at the local chapter level. Individual members may conceive and design their own projects or volunteer for projects with local partner organizations. In both cases, their project plan is reviewed and approved by the local chapter board. Once approved, projects are set up in the chapter site for the VMS system. Other local members can then review available projects and volunteer for one or more of them. The VMS system is also used by each member to record their volunteer hours for each project as a means of satisfying the 40-hour volunteering requirement for annual certification.

Project types fall into one of four categories:

- Education and Outreach – Teaching members of the public about nature and/or helping them experience nature directly.
- Citizen Science – Collecting data to assist research projects and/or on-going monitoring of environmental conditions.
- Stewardship – Activities aimed at conserving and enhancing wildlife habitats and/or improving public access to natural resources.
- Administration – Helping to plan, manage, and administer chapter activities, as distinct from work on specific natural resource projects.

The actual number and mix of projects varies from chapter to chapter, based on member interests, as well as local needs and opportunities. However, the provision of a wide range of volunteering activities is deemed to be critical in attracting and retaining members, since it helps ensure that each member will be able to engage in volunteering activities that fit their interests. At the same time, a fully engaged volunteer force is the key component in achieving the program mission by multiplying the program's impact on conservation goals.

Because volunteering is the focus of the program, many of the program improvements are aimed at increasing participation in volunteering activities and/or providing volunteering opportunities that would appeal to specific groups of members or potential members. A brief summary of these improvements is shown below.

Table 4.1. Summary of program improvements identified in other sections of this document.

Section	Improvement
Retention / Recruitment	<ul style="list-style-type: none"> • “Signature” projects help retention by providing a “home base” for all members and a wide range of volunteering activities in which all members can participate • Citizen science projects help members with time and travel constraints by allowing activities to be done in or near their homes and independently. • Community projects provide a means to engage whole communities in a project, and may offer a means to overcome time, travel, and social constraints for potential members • Varying the times and geographic locales for project work helps account for differences in the time availabilities for members and relieves travel constraints • Participation in college-sponsored research creates additional volunteering opportunities and could potentially attract college students • Family-oriented outreach activities are a means to attract parents to the program • Allowing volunteering credit for work done to improve private property while producing a public benefit would appeal to “property improvers”
Basic Training	<ul style="list-style-type: none"> • Include volunteering activities as part of the basic training program • Use “volunteer fairs” to recruit new (and existing) members to projects
Advanced Training	<ul style="list-style-type: none"> • Tie advanced training to the skills needed to undertake specific types of projects • Combine advanced training events with volunteering activities in the field
Junior Master Naturalist Program	The creation of special programs for children is a means to introduce younger people to nature and the VMN program

As the table indicates, a wide variety of enhancements to volunteering projects and programs are possible. Each chapter will need to assess which improvements make sense for their service area, based on member demographics, local needs, and local program objectives. In this section, we will emphasize improvements to the overall process of creating volunteering opportunities, rather than specific types of projects, since the latter have been covered elsewhere.

The other major focus of this section will be on expanding the range and type of project opportunities through collaboration with partners. As noted earlier, most projects are initiated by individual members and are restricted to the local service area. One way of increasing project opportunities is to expand the geographic scope of projects beyond the local area and to create cooperative projects with other organizations.

Program Improvements

Defining Volunteer Opportunities

The first step in expanding the number and type of volunteering projects is to identify new opportunities for VMN involvement. This can occur at the local, regional, and state levels.

Local Opportunities

As noted earlier, there is an existing process for creating local projects at the chapter level. The main focus here is on uncovering unexplored needs and opportunities.

- **Community Assessment** – A number of members felt that a community-wide needs assessment within each chapter’s service area would help clarify project needs and priorities. This would involve discussions with a variety of local organizations with similar interests and activities. There would be several steps in this process:
 - Inventory existing and potential partners
 - Survey these like-minded organizations to identify unfulfilled service needs and project opportunities
 - Prioritize these opportunities based on match to VMN program criteria, availability of resources, and potential impact on local conservation needs and priorities
 - Create a work plan that includes support for expanding the local VMN project list
 - Create an implementation plan for each opportunity, to include any additional training and support as described in later sections.
- **Partner Relationships** – In a recent survey, more than 89% of the existing local partnering organizations indicated that they cooperated with the VMN program in volunteering activities. Roughly half of these groups felt that they would not be able to support all of their activities without VMN assistance. Many members felt that it was important to build on these successes to expand project activities. This initiative could have several components:
 - **Identify partners** – As described above, one must first inventory like-minded organizations. Members mentioned several specific types of organization that may have been overlooked in the past:
 - Colleges and high schools
 - Local recreational agencies and groups
 - Local and state parks
 - Other outdoors groups such as the Boy/Girl Scouts and 4-H
 - **Establish strong relationships with partners** – By developing strong personal relationships with existing and new partners, it becomes possible to establish a “common cause” as the basis for further cooperation
 - **Enhance collaboration** - Investigate any additional possibilities for integrating VMN volunteers into the partner’s existing programs and/or expand these programs with VMN help
 - **Improve reporting** - Provide mechanisms by which VMN volunteers can easily count their hours working on partner-sponsored projects. This might take the form of umbrella projects that cover all activities with the partner (see below).

Regional Opportunities

In the current environment, each chapter has its own list of projects that is accessible only to its own members. This means that members in one chapter cannot easily participate in another chapter's projects and record their hours for credit. It also creates practical difficulties in setting up projects that span an entire region with multiple chapters. To promote regional cooperation, members suggested several improvements:

- **Changes to VMS** – The first step in this process would be to revise the VMS system to allow members to view other chapters' project lists and volunteer for these projects. Members must then be able to record and receive credit for volunteer hours spent on these projects regardless of whether the sponsoring chapter is the member's "home" chapter. While actual requirements for system changes are beyond the scope of this document, the basic approach mentioned by a number of members entailed allowing members to belong to more than one chapter. The VMS would then need to accumulate the member's volunteer hours across all chapters to determine total hours for certification purposes.
- **Regional Projects** – In this scenario, multiple chapters would sponsor a project with regional impacts, cooperatively defining project activities and outcomes. Again, VMS would need to provide a method for members in multiple chapters to easily view project descriptions and record their hours. Examples of regional projects included work with the Chesapeake Bay Foundation or other common interests within an eco-region.
- **Potential Impact** – By pooling resources, chapters may be able to undertake larger, more impactful projects. Cooperation among chapters on issues of regional importance can also result in better-coordinated responses and action. In the end, this may mean more meaningful opportunities to volunteer for all members.

State Opportunities

There may also be possibilities to develop and implement statewide projects. While these projects could involve any organization with a statewide presence and focus, the initial emphasis has been on the 6 state agencies that sponsor the VMN program. These agencies are already familiar with the program, and provide funding, advisors, training, and other assistance. To varying degrees, volunteering opportunities already exist within most of these agencies, but these opportunities are primarily reliant on local connections. In other words, a local or regional office of a given agency typically works with one or more local chapters to define and implement volunteer projects. There is no clearly defined mechanism in place to replicate local successes in the form of statewide projects that can be readily implemented in other chapters. To improve the consistency of state and local collaboration, several steps can be taken.

- **Build Understanding and Mutual Goals** – The first step in improving collaboration between any set of groups is to build understanding of each group's goals, objectives, and activities. Members and agency personnel mentioned several key components:
 - **Acknowledging Potential for Miscommunication and Misalignment** - It is important to recognize that VMN program design naturally creates a certain amount of tension between sponsoring agency priorities and the priorities of

each local chapter. Each chapter has a great deal of autonomy in determining which projects to sponsor, based on members' interests and local needs. Each member then has the freedom to choose which projects he/she will volunteer for. While this approach helps ensure a motivated volunteer force and locally relevant projects, it does not provide an easy way for state agencies to contribute to local decision-making and communicate their needs. This acts as a barrier to cooperation and collaboration in several ways:

- State agencies may perceive the VMN program as being unresponsive to its needs, despite their contributions of funding and other support. In a recent survey of agency personnel, respondents were asked whether they agree or disagree with the statement "Virginia Master Naturalists do not spend enough time on projects for my agency", using a scale of 0 (do not agree) to 100 (completely agree). While responses tended to vary from one agency to another, the average response was 50 (somewhat agree). This indicates that the majority of the agency personnel feel that more work needs to be done in this area, even if it is not a critical issue. At the same time, the statement "I do not know how to engage VMNs in my work", received a rating of 40. Again, this indicates that at least some agency personnel are unsure how to connect to and engage volunteers at the local level.
- Chapter members may not understand agency goals and activities, and be unclear as to how that they can meaningfully contribute to these objectives. In the worst-case scenario, members may feel that statewide projects are irrelevant to local needs and their own interests. In order to overcome these obstacles, one must work to define volunteering activities at the state level that are perceived as mutually beneficial to all parties. This boils down to creating volunteer projects that are attractive to VMN volunteers and contribute to statewide objectives.
- Improving Lines of Communication – To begin building a platform for collaboration, one must first establish open lines of communication. At the simplest level, this entails promoting an understanding of what each party does, how they do it, and why they do it. Several improvements were suggested:
 - Agencies could make presentations at VMN conferences and other venues to inform members of their activities and priorities. They could also receive feedback from members as to the types and shape of volunteering activities that would be meaningful to them.
 - The state coordinator could make presentations at agency meetings to explain the VMN program and receive feedback regarding agency use of VMN volunteers.
- Conducting Joint Planning Sessions – Having established common understanding, the groups can then work together to determine how to integrate VMN volunteers into agency activities. This would involve some form of joint planning sessions, using the existing steering committee or a separate group created for this purpose. This group would include the state VMN coordinator and personnel from each state agency, together with a

- select group of local chapter leaders. Its purpose would be to establish areas of need and set preliminary priorities for collaborative efforts.
- Identify Roles and Opportunities for VMN Volunteering – Having established overall priorities, the next step is to clarify what roles VMN volunteers can and should play in each area and begin defining specific volunteering projects. There are several components to this process:
 - Identifying Constraints on Volunteer Use – State agencies recognize that there are a number of factors that constrain the use of VMN volunteers in agency activities. It is important not only to identify these constraints, but also to assess whether any of these obstacles can be overcome with additional support and/or process changes. The next section will mention potential program improvements aimed at specific constraints – details will be covered in later sections.
 - Legal / Regulatory / Liability Constraints – There are certain activities that need to be performed by agency personnel due to legal or regulatory restrictions. Examples include law enforcement or regulatory reviews. In addition, agencies are leery of exposing VMN volunteers to potentially dangerous situations, due to liability and safety issues. Examples often given are using chemical herbicides to combat invasives or firefighting. It is possible that additional training and certifications might overcome these obstacles for specific members, but it is expected that the average VMN volunteer would not possess them. One solution might be the creation of a skills database that would pinpoint volunteers that already have these skills (see below).
 - Member Constraints – These constraints involve members' ability and willingness to perform certain tasks.
 - Skill Levels – Certain activities require a high level of training and experience to perform. For example, some forest management activities demand a forestry degree, and most VMN volunteers lack that credential. Again, a skills database might help uncover a few VMN volunteers that could handle highly skilled tasks. One example given is that of a retired forester who is a key volunteer for a forestry program. In addition, the VMN advanced training program could focus on a few key priorities as a means of building required skill sets.
 - Scheduling – In many cases, the bulk of agency work occurs on weekdays, whereas many volunteers are seeking weekend opportunities. One solution might be to identify experienced local project managers that can run weekend projects without agency supervision. Another solution might be to use the skills database to identify and recruit volunteers with weekday availability.
 - Travel – Some work sites may be remote from populated areas, creating significant travel time and expense for members. One

solution may be the provision of travel reimbursements for specific projects.

- Matching Interests – Some agencies are uncertain as to whether potential volunteering opportunities match members' interests and would attract sufficient numbers of volunteers. Again, a skills database would help identify the interests of members in a specific locality or region. At the same time, the provision of advanced training opportunities in conjunction with specific projects would increase their appeal (see Advanced Training). Similarly, member understanding of and recognition for their contribution to agency goals may help improve recruiting and retention.
- Volunteer Management Constraints – These constraints involve the added effort and skill needed to manage volunteer involvement in specific agency activities.
 - Information / Data Quality - Some projects involve collecting and analyzing data for research and analysis, on-going monitoring of environmental conditions, and/or diagnoses of environmental problems (e.g., run-off abatement or tree health). In at least a few instances, volunteers have lacked the training and/or experience to adequately perform these tasks. These situations undermine agency confidence in using volunteers and create extra effort to assess and correct data quality problems. There are a variety of potential improvements for this process:
 - The current citizen science project may help alleviate some of these issues by creating more efficient methods for collecting data and analyzing quality, while also teaching volunteers basic data collection and analysis methods.
 - The creation of project blueprints could help clarify data collection protocols, training requirements, and diagnostic techniques for specific projects (see below).
 - Local chapters could help provide training for specific project activities.
 - A skills database would help identify members that already have the requisite skill sets.
 - Agency Investment – In order to engage volunteers in their work, agency personnel must expend time and energy in defining projects, recruiting volunteers, training volunteers, and then managing the volunteer work force. There can be questions as to whether this investment of agency resources will be justified by project benefits. This determination will vary in accordance with each project. However, there can be several ways to improve cost/benefit:
 - As discussed below, the creation of standard project blueprints may offer the opportunity to hand off standard

- projects to local chapter project managers. The added advantage is that the blueprint can be created once and applied with minor modifications to multiple sites.
- As discussed below, the provision of volunteer management training for agency personnel may improve the efficiency of the process.
 - As discussed below, improvements in the recruiting process such as an enhanced skills database will further improve efficiency.
 - Local chapter involvement in scheduling volunteer activities and following up with volunteers that fail to show would help improve the reliability of the volunteer work force.
- **Overlap with Existing Volunteering Programs –** Several state agencies, such as DGIF, already have volunteering programs in place. There will need to be consideration of whether VMN volunteers can easily be absorbed into these programs or a separate volunteering mechanism needs to be set up.
- **Identifying Activities For Volunteering Development –** Having defined constraints, the next step is to review agency activities and determine which activities have the fewest constraints for volunteering and the greatest potential benefits. Some activities, such as regulatory reviews, can be immediately eliminated, but the remainder will require a more careful assessment. There are several parts to this equation:
 - Where possible, consider how to integrate VMN volunteers into local and regional functional activities, helping to fill service gaps and expand service offerings. An example given is the involvement of VMN volunteers in agency-led stream restoration plans at the local level. They can be involved in educating the public about water quality, monitoring streams, and performing stewardship activities that improve water quality.
 - There are a number of instances where VMN volunteers already have provided crucial services at the local level in all three areas of education, citizen science, and stewardship. Identify and expand on these successes.
 - The VMN state office can assist this effort by providing at least preliminary information on the following topics:
 - Member interests and skills
 - Member geographic and time availability
 - Feasibility of providing additional support in the form of advanced training and communications tools
 - Examples of successful state agency projects that could serve as blueprints for other projects
 - Define Priorities – Having defined potential candidates for volunteering expansion, the VMN program and state agencies must then set priorities for development, based on effort and

impact. This would become an annual exercise, in which state priorities and VMN strategic goals are aligned and published.

Set Up State-wide Project Opportunities

Priorities must translate into action through project planning and implementation. This involves several key considerations:

- **Creating Project Blueprints** – For activities that are common across the state, it may be possible to create project blueprints. These documents would outline standard methods for setting up and managing specific project types. This could include project design criteria, resource and skill requirements, volunteer activities and expectations, training materials, data collection methods, and other pertinent facts relating to project organization and tasks. These blueprints could then be used by local project managers to jumpstart project initiation and execution, and help ensure project success. One example given is the DGIF program for schoolyard habitats. This program provides basic information about designing and building habitats, and using them for teaching purposes. It also provides references for detailed information on planning and organizing these types of projects.
- **Defining Project Management Approaches** - There are four basic approaches:
 - **Statewide Project Implemented by Local State Staff** – In this scenario, a standard project blueprint would be created for a common project, and local agency personnel would be responsible for implementing it at a specific site. This approach is appropriate for projects that require close supervision of volunteers. An example given is the assessment of natural regeneration on clear-cut forest plots. A forester could use volunteers to survey a portion off the plot and oversee their work.
 - **Statewide Projects Managed by Chapter Volunteers** – With this approach, local agency staff would be involved in project planning and design, but eventually hand off the project to project managers in the chapters. This would typically occur after appropriate training has occurred and the project managers have proven themselves. The project blueprint would assist the transition by clarifying project requirements. There may be significant potential for this approach in the education and outreach arena. By using a train-the-trainer approach, chapter volunteers may be able to conduct public training and educational sessions on their own. The most-cited models for this approach include Project Wild.
 - **Statewide Projects Initiated by Volunteers** – Some projects do not require a high level of expertise to design and adjust for local conditions. In these instances, chapter volunteers can use the project blueprint to initiate their own projects. Local agency personnel would simply need to review and approve their plan where it affected state-managed sites or activities. An example given is setting up wood duck boxes in a state-owned lake.
 - **Statewide Projects Managed Centrally** – In this approach, a project would be initiated and managed at the state level, without local supervision. This would probably work best for citizen science projects aimed at data collection for specific environmental factors. The VMN program is currently working on a program to set up web-based collaborative spaces for citizen science

- projects. The aim is to provide on-line instruction for data collection and analysis, allow on-line data entry, and promote collaboration and knowledge transfer between project managers, experts, and citizen scientists. While the details of this approach have not yet been worked out, this model could be considered for citizen science projects on state-managed lands. Examples include measuring tree diameters in state forests or recording bio-inventories. The key consideration will be the extent to which participants can be properly trained or selected based on prior experience. Data quality issues must also be addressed. In some cases, a local or regional state office may want to offer some forms of supervision while using on-line tools for data collection and analysis.
- Set Up Project Approval Procedures – In the current environment, each project must be approved by a local chapter board. This approach could become cumbersome and time-consuming for statewide projects that might be applicable to many different chapters. Several suggestions were offered to improve this process:
 - State Level Approval of Statewide Projects – There seemed to be consensus that it would be appropriate for the VMN coordinator to review and approve state agency projects with statewide applicability. This might occur in conjunction with the steering committee, using a standard project outline and established review criteria. Once approved, any chapter and member could participate. This might include activities such as Project Wild.
 - Creation of Umbrella Projects – Another mechanism would be the creation of “umbrella” projects that cover specific activities over a period of time. One advantage of this approach is to provide pre-approval for recurring activities that cannot be scheduled well in advance. This might involve stream monitoring or forest surveys. This approach could also be used for statewide recurring events such as invasive plant removal days.
 - Set up in VMS – Procedures must be established for activating these projects in VMS and making them available to all VMN members. Issues to consider with this regard are several:
 - The proliferation of projects at the state level may create information overload when members review the project list for their chapter. It may be necessary to improve the organization of project information within VMS. See below.
 - Some statewide projects will be initiated and managed at the local level. Members will need access to local contact information.

Recruit Volunteers

There are three basic methods for recruiting volunteers, each of which may need improvements to support statewide projects. It should be noted that these improvements would also be beneficial for local and regional projects.

- Passive Recruiting – The current method for recruiting volunteers primarily involves listing projects on the VMS system for each chapter, often supplemented by project announcements in chapter communications to members. Volunteers review these announcements and contact the project manager if they are interested in a specific opportunity. Of course, chapter project managers may also use their personal

relationships with members to recruit volunteers. Because statewide projects may not have a local chapter champion and agency personnel may not have direct access to chapter communication vehicles, these projects may not receive the attention they deserve. Improvements include:

- Communications Planning – A separate section on Communications will outline a method for creating a communications plan that will cover the communication needs of all stakeholders in the VMN program. It will be important to include sponsoring agencies and partners in this planning effort. This section will focus primarily on the communications needs for project opportunities.
- Required Content – In order to recruit volunteers for specific projects, members must have ready access to project information. Specific types of information mentioned by participants included:
 - Needs and Priorities – Presumably, each project will be related to statewide priorities established earlier in the process. Providing information about these priorities helps members understand how a project supports state objectives and emphasizes the importance of their contribution to these objectives.
 - Basic Project Information – Project listings in the VMS system often do not provide many details about the project. In order to attract recruits, it may be necessary to provide additional information, such as training requirements, specific tasks, and so on. If a project blueprint has been created, it might be possible to link to that document from VMS and/or other project listings.
 - Contacts – As noted earlier, statewide projects typically are initiated by a local project manager. There needs to be a mechanism by which potential volunteers can contact this project manager for more information.
 - Activities and Events – The creation of umbrella projects involve recurring events. There needs to be a method to alert chapter members of an upcoming event. This would need to include a method for volunteers to quickly sign up for these recurring events.
- Media – The Communications section will sort through the various communications options and begin the process of matching media to communication needs. For project opportunities, participants mentioned a number of options.
 - Project Database – As project opportunities expand to include regional and state projects, enhancements to the VMS system may be needed. Many participants mentioned the creation of a service project catalog, located within a searchable database. While it is premature to get into the details of database design, one clear requirement is the ability to expand the focus of project searches from a purely local view to regional and state views. It would also be helpful if volunteers could narrow their searches based on project types and/or member preferences. Each project entry could also provide links to project documents and contact information.

- Website – The state and local websites could supplement a service catalog by providing more detailed information about projects, agency project priorities, contact information, and so on.
 - Calendar - A statewide and/or regional calendar would allow all participants the means to view upcoming events for recurring projects.
 - Email – Many, if not most chapters email project opportunity information to their members. This sometimes takes the form of a digest or summary of all upcoming chapter activities, include training, meetings, and others. The key issue will be integrating information about state and regional projects into this process. One suggestion is that state and regional personnel have direct access to the email lists in the existing listserv system, permitting them to send messages to all members and chapter subsets. The main difficulty will be distinguishing between statewide projects (e.g., an umbrella project for a state invasive species removal day) and state-sponsored projects of purely local relevance (e.g., forest inventory in a local state forest). There is also the potential that the proliferation of these emails will create information overload. The separate section on Communications will discuss methods for managing information distribution, and this content will be included.
- Cooperative Recruiting – This method involves working with liaisons within each local chapter to cooperatively develop projects and seek recruits. Part of this effort involves working with the liaisons to assess chapter interests and priorities in order to define projects that would fit these requirements. State agency personnel could also present project information at chapter meetings as a means of making direct appeals for volunteers. One advantage of this approach is that the liaisons could ensure that state projects are included in chapter project announcements. A broader issue is that neither local chapter members nor state agency personnel may have contact information for their local counterparts. This may require a contact database organized by locality, organization, and function.
- Active recruiting – In this approach, state personnel would contact individual members directly to seek their involvement. There are two basic methods:
 - Skills Database – As noted earlier, one of the difficulties state agencies face in recruiting volunteers is finding members with matching skills and interests. The skills database is aimed at overcoming this information gap and permitting state personnel to directly appeal to members. Its requirements are:
 - Factors – The database must contain key information about members. This might include:
 - Skills and Experience – Training and/or certifications received, project experience
 - Availability – Time of day, day of week, advance notice requirements
 - Geographic range – Willingness to travel
 - Interests – Types of projects, subject matter
 - Physical capabilities – Ability to perform strenuous tasks

- Functions
 - Ability to search database based on project criteria and receive a list of matches
 - Ability to email matching members
 - Regular updates of member information
 - Accessibility for local, regional, and state personnel, and the ability to restrict results based on geography
 - Ability to automatically post state-level certifications (e.g., VCE training) to members' records
- Construction
 - Requirements Development – The state coordinator would work with chapter leaders and state personnel to define requirements.
 - Privacy Concerns – The state coordinator would work with members to ascertain whether there any concerns about divulging personal information and to design data safeguards.
 - Funding – The creation and maintenance of this application may require funding, and these costs must be estimated.
- Issues
 - In order to be successful, member information must be complete and regularly updated. This will require local chapters to strongly encourage members to participate and follow up with those who do not comply.
- Volunteer Fairs – Volunteer fairs have been discussed in previous sections as a means of recruiting volunteers directly. State and regional personnel could participate in these fairs at the local and regional level. In addition, volunteer fairs could be set up as a standard component of regional training conferences described as part of the training program, with state agency involvement.

Measure Success

Once new state initiatives are underway, it is important to measure their impacts. While the section on Annual Reporting will go into further details, the obvious factors are contribution to state objectives and priorities, as well as the value of volunteer work to the public and state agencies. These results should then be reported to state agencies, members and the general public. This would help build momentum for further expansion of these efforts.

Build Capacity for Project Leadership

Volunteer projects normally require leaders to plan, organize, and oversee the work. There is a limit on the number and types of projects any given leader can manage. As we expand the number of project opportunities, it will be important to identify and support additional project leaders. New leaders may come from local chapters, state agencies, and partner organizations. To facilitate their transition into leadership roles, there are two types of training and support programs that they may need.

Project Management Training and Tools

Some members may already have extensive project management experience. Those who do not would benefit from a structured process for gaining these skills. This might include the following components:

- Organizational Status – It has been suggested that special status be given to project managers, which they must earn through additional training and experience.
- Training Program – This would include the basic principles of project management, together with information specific to the project guidelines for the VMN program. As noted in the Advanced Training section, this training should focus on the best methods for organizing and managing specific types of projects. Examples include leading an outdoor adventure or conducting a Bio Blitz.
- Mentoring – New leaders could be mentored by existing project managers, preferably ones with experience managing projects of interest to new leaders.
- Tools – Project blueprints and a skills database would make it easier for new leaders to get started.

Volunteer Management Training and Tools

Volunteer management has its own special challenges. A number of participants felt that added training and tools would promote more effective use of volunteer resources. This might include:

- Training Program – This would include the basics of organizational development and work force supervision, together with specifics on volunteer management techniques that have worked in other VMN projects.
- Tools – Project blueprints could include information on recruiting and organizing volunteers for specific projects.
- Protocols – This involves standard methods for data collection, risk management, scheduling, and other processes common to many projects.

Record Keeping

As noted elsewhere, it is important that volunteers accurately report their time, and that changes be made to the VMS system to simplify this process. This will be discussed in greater detail under Annual Reporting.

Program Improvement Ratings

As shown in the table below, stakeholders seemed to be most interested in improving the availability of information on volunteering opportunities at the state level. Very high (and roughly equivalent) ratings were given for posting volunteering opportunities on the state website, creating a service catalog, and developing a list of agency contacts.

Lesser support was expressed for the skills database and the ability to be a member of multiple chapters. As expected, non-chapter stakeholders were more interested in the skills database, since they would tend have lesser insight into the skills of existing members. The least support was offered for job fairs, with almost a third of participants feeling they are not necessary.

Table 4.2. Average responses of each stakeholder group to the question “please rank each of the following activities as a very low (0) to very high (100) priority for the statewide program.”

Initiative	Average Volunteers	Average, Others	Variance, Vol to Others	Percent Not Needed
Post volunteer opportunities on statewide website	81	81	0	11%
Develop a searchable database of volunteer opportunities	80	80	0	11%
Develop a list of agency contacts with volunteer opportunities	79	80	-1	11%
Develop a searchable database of volunteer skills to match volunteers to right project	66	73	-7	21%
Allowing membership and volunteer credit in multiple chapters	66	61	5	N/A
Host a volunteer “job” fair with representatives from projects	56	59	-3	31%

Central Issues

Expanding volunteering opportunities at the regional and state levels is a clear program priority. It is important to recognize, however, that the existing VMN programs and systems may lack the capacity to adequately support this initiative. VMS and other systems do not fully support cross-chapter communication and collaboration, and the lack of structured programs for building leadership capabilities at all levels may be a

limiting factor. It will be important to make needed enhancements to program infrastructure as a prerequisite for implementing projects with a broader scope.

Volunteering is the primary mission for VMN. Once we have established goals and objectives for enhancing volunteering opportunities and outcomes, we should reassess every other aspect of the program to ensure that they support these objectives. For example, advanced training should focus on skill sets needed for priority projects, as well as training required to build project leadership capabilities.

Recruiting volunteers to participate in specific projects is a critical success factor for program effectiveness. We may want to reassess this entire process to make it easier for members to find and participate in projects that would be meaningful to them.

Focus Area 5: Retention

Background

The primary mission of the Master Naturalist program is to create a volunteer work force that engages in nature conservation and education efforts at the local level. Each member receives 40 hours of basic training and is expected to complete an additional 8 hours of training annually. The member is also expected to complete 40 hours of volunteer service annually to gain and retain certification as a Master Naturalist.

As of 2012, 2,801 people had received training. Of these, 2,132 were on the roster as members, representing a 25% turnover ratio for membership. Of the current members, only 1,300 or so were actively engaged in volunteer service (as self-reported). This means that fewer than half of the trainees are providing and reporting volunteer services, and only 60% of the current members are volunteering. This indicates that more effort may be needed to retain members and engage them in program activities.

One of the findings of a survey of volunteers is that fully 85% of them cited the opportunity to learn more about nature as one of the prime motivators for joining the program, whereas only 45% of the same group found volunteering to be of equal importance. This indicates a conflict between the mission and design of the organization and the motivations of many of its members. There have been suggestions that alternate programs be created that deemphasize volunteering requirements as a means of catering to those more interested in learning. Dramatic changes in program design will be treated in a subsequent section on recruitment, since the aim there will be to create new programs for specific target groups. Here, the focus will be on fully engaging current members in the current program. This may mean that we will need to work to encourage “learners” to be doers.

At the same time, it is important to note that recruitment, retention, and volunteering opportunities are all inter-related. Matching marketing and programs to potential members' interests and requirements is more likely to foster longer-term retention. Similarly, the availability of volunteering opportunities that satisfy individual members' needs is a key component in their engagement in volunteering activities. We will treat these three issues separately, but note the connections where appropriate.

Program Improvements

Develop Best Practices

There may be a need to further define and assess retention issues and design best practices aimed at enhancing retention and engagement. A separate section of this document deals with the mechanics of setting up and facilitating a process by which chapters can gather and share best practices information. However, some members feel it is important to gather additional information about this specific topic in the following ways:

- Survey or interview inactive members to determine reasons for lack of involvement and/or impediments to engagement
- Survey or interview leadership in similar programs in other states

- Review and assess requirements for different demographic groups, such as young people

Developing Social Connections

It is an established fact that strong social connections within an organization are a key determinant of member loyalty. It may be somewhat more challenging to build and sustain these connections within the VMN program, due to program design and purpose. Most activities center on specific volunteer projects, often with limited exposure to the chapter group as a whole. To overcome this obstacle, several improvements were mentioned:

Chapter Social Activities - Plan and schedule purely social activities for the chapter as a whole. This might include potluck dinners, walks and talks, holiday parties, mid-winter movies, social get-togethers after formal meetings, and others.

Support Social Activities During Training - Build on the relationships that develop during training. This might involve small group activities such as mini-projects, devoting more time during training to sharing personal histories and interests, and class reunions.

Recognition - Provide recognition and awards to individual members. This would acknowledge the importance of their contributions and provide them status within the organization. It may also motivate members to become more active. Specific awards might involve hours of service and training, length of membership, leadership or achievement, and so on.

Recruiting and Diversity – Social connections are more easily formed among members with similar interests and backgrounds. Efforts to increase membership among under-represented groups may help retain and engage existing and new members of those groups. See the section on Recruitment.

Volunteer Opportunities

Since volunteering is a key component of member engagement, it is important that each member have the opportunity to find and commit to projects that fit their interests, skills, and abilities. A separate section will treat this issue.

Communicating with Members

Improvement in volunteer communications is such an important issue that it warrants its own section in this document. However, it may be useful to stress its special relevance to retention, and mention a few potential improvements:

Direct and Personal Communication to Members – In addition to mass mailings of announcements and posting project descriptions, some members felt it important to directly address members by name. This might include personal invitations to activities or personal recruitment for projects, either by email or phone. The idea is to make direct appeals for involvement and acknowledge each member's potential to contribute.

Communicating Organizational Impact – Members want to feel that they are making a difference in their communities and having an impact on important issues. By highlighting specific chapter activities and their contribution to the cause, members may feel proud of their organization. This might also include words of appreciation from those who benefit.

Retention Programs – In larger chapters, it may be desirable to establish a formal retention program with assigned volunteer support. This person could organize activities, follow up with lapsed members, and perform other tasks aimed at keeping members engaged.

Assisting the Transition from Training to Volunteering

Once trained, it is largely up to each member to either create their own project or join an existing project as posted on VMS and publicized by the chapter. As discussed earlier, it appears that some new members may not fully commit to this process. While it may be that some members are not highly motivated to volunteer, there are other impediments. For example, some members may be unclear as to their own interests or preferences, suffer from social anxiety, doubt their own ability to contribute, or otherwise be uncertain as to their next steps. There are a number of actions that can be taken to smooth this transition to active volunteering:

Introduce Volunteering During Training – Where possible, have a set of simple projects ready for each class during training. These projects could be tied to specific training subjects (e.g., invasive removal for plant biology and habitats). Invite each member to participate as a sort of intern in one or more projects to get a feel for the types of work being done. Each project would have its own leader, who could provide any needed training and oversee the work. At the same time, this would be an opportunity to discuss the value and impact of volunteer work.

Mentor Members During Training – The VMN program covers a wide base of volunteering opportunities and potential member interests, and members may have difficulty making choices and charting their course. One solution might be to have experienced chapter participants mentor members during and/or after training to help them decide how to get engaged in volunteering. This process would involve assessing members' interests, skills, and requirements, and then matching them to volunteering opportunities. This consultation could be facilitated by a standard set of paths for member growth and development in specific areas of interest (water quality, citizen science, etc.), and might include consideration of advanced training.

Offer Project Sign-Up at the Conclusion of Training – This would involve a review of existing projects and clear instructions as to how to contact the project leader and sign-up. A more proactive version of this approach might be to host a volunteer fair, where project leaders could discuss their projects with members and actively recruit them.

Emphasizing Volunteering as a Program Requirement

The previous section focused on assisting and encouraging members to volunteer. The improvements in this section take the emphasis on volunteering a step further by setting an expectation that volunteering will follow training. This could occur in several ways:

Communicating Program Purpose and Impact – Many chapters have an information session prior to member signup for training. In this session, it is important to explain program objectives, organization, and impact. As part of this discussion, one can also stress that the main purpose of training is to prepare members for volunteering, and that it is expected that all trainees will contribute volunteer hours. This point can be buttressed by pointing to the value and impact that volunteering has on communities and sponsoring agencies, and indicating how members can work with state agencies in a volunteer capacity.

Making Training Contingent on Volunteering – This approach involves strengthening the tie between training and volunteering. This could occur in several ways:

- Requiring volunteer hours as a requirement for graduating from basic training, and testing trainees on knowledge gained through planned volunteering activities.
- Linking access to advanced training to completion of a certain number of volunteer hours. This might require a provisional status for newly trained members and a way to control their access to training.
- Write contracts with each new trainee indicating their agreement to participate in volunteering upon completion of training. While not legally binding, it would at least constitute a promise on their part.

Removing Barriers to Retention/Engagement

New members may find it difficult to fulfill the requirements of the program, often through no fault of their own. This might include changes in work schedules, family issues, money problems, and so on. While the next section will deal with significant program changes aimed at groups with special needs, it may be useful to add some flexibility to the existing program to accommodate unforeseen barriers to completion for current members. This might include:

Training Make-Ups – For members who miss a class, it would be helpful to provide alternatives for make-ups (see the section on Basic Training for more details). Options include:

- Attending the same class in another chapter
- Providing on-line versions of each class

Training Times – Training schedules can be an issue for some members, especially those whose work schedules might interfere with regular attendance. A number of suggestions were offered to ameliorate this problem:

- Schedule training in the evening rather than work hours
- Provide training on weekends
- Vary training times year-to-year to accommodate different needs (e.g., retirees versus workers)

- Vary training locations year-to-year to reduce travel times

Volunteer Travel Times/Expense – Some projects may require significant travel times, particularly in large coverage areas. Suggestions include:

- Pay mileage reimbursements
- Plan and encourage community-based projects located where members live
- Plan and encourage citizen science activities that can be performed in or near member’s homes
- Allow projects that improve member’s property as long as they serve a public purpose (Note: this would require a change in policy – see the section on Recruitment)

Testing – Some members may have difficulty studying for the certification test and/or have test anxiety. It is important to provide study aids and ask trainees if they need any assistance in preparing for the test. In addition, some chapters may offer open-book and/or take-home tests. It has also been suggested that all or part of the test be given as a field exercise as a way to test practical skills.

Improve Data Accuracy

Anecdotal evidence indicates that some members may not be consistently recording their volunteer hours. Depending on the prevalence of this problem, we may be significantly understating volunteer contributions and overstating issues with member engagement. To attack this problem, several steps can be taken:

Educate Members – Chapter leaders should educate members on the importance of entering hours and its use in determining the impact and value of the program. Information from the annual report can be distributed to demonstrate how members’ input is used to assess impact. Members could be sent occasional reminders to enter their hours. Tying recognition to hours worked might also serve as an added incentive.

Simplify Data Recording Process – It was mentioned that the VMS is a vast improvement over paper-based systems, but may still need a few tweaks. Details will be outlined in the section on Annual Reporting, but can be summarized as simplifying the coding process, providing on-line training for the coding process, and providing administrative assistance at the chapter level where needed to assist with recording hours.

Central Issues

Training requires a considerable investment of time, effort, and money on the part of the chapters and the state sponsoring agencies. Given that the primary mission of the program is to create a volunteer work force operating in each community, this investment will not pay off in the context of that mission if substantial numbers of the members do not volunteer. In addressing this issue, several approaches are possible:

- Continue to offer training to all, with the hope that “learners” will be motivated to volunteer once they are introduced to volunteering opportunities that match their

interests, are offered advanced training tied to volunteering, and develop social ties within the organization that exert added influence on that decision. This approach also recognizes that training is a form of community outreach, expanding awareness of the program and creating goodwill for the organization.

- Discourage “learners” from entering the program by emphasizing and/or requiring volunteering as a condition for basic and advanced training.
- Create a separate program for “learners” designed specifically as a form of community outreach, with mechanisms to control and/or offset costs. (See the Recruitment section for details).

In the short-term, it may make sense to try measures aimed at encouraging volunteering among the current members, while also correcting any data accuracy issues, before attempting more drastic measures. This will give us the chance to better assess the gravity of the situation and determine if simple improvements can have a significant effect.

Focus Area 6: Chapter Best Practices

Background

The VMN state program provides an established procedure for setting up a new chapter, together with a recommended organizational structure and job descriptions. These guidelines are supplemented with an operating handbook and a set of standard program policies. Each new chapter is provided assistance during the initial set-up phase, and recruits a chapter advisor from one of the sponsoring agencies to provide on-going advice and guidance. Once the new chapter has met the requirements for the setup phase and has an established Board of Directors and officers, it receives its charter. From this point on, chapter leaders have a great deal of autonomy in planning and managing the activities of the chapter, as long as these activities conform to state policies.

Many chapters have been in existence for at least several years. Over time, each chapter has confronted a number of problems and opportunities and devised their own approaches to each. As has been noted elsewhere, communication and collaboration between chapters has been restricted in the past, so there have been limited opportunities for chapters to share what they have learned in dealing with these challenges. Many program participants feel it would be beneficial to gather the collective wisdom of chapter leaders into a set of best practices for managing and improving chapter activities. In this way, leaders could rely on the experiences of others when confronting a new challenge, thereby saving them time and increasing their chances for success.

This section will not attempt to catalog best practices, since this effort will require additional input and collaboration on the part of chapter leaders. Instead, it will focus solely on defining a process for building and maintaining the best practices inventory. The exception will be program improvements aimed at enhancing chapter leadership capabilities.

Program Improvements

Establishing Best Practices

Defining Objectives

- **Best Practices** – A number of participants emphasized that differences in chapter characteristics mean that not all “best practices” would be appropriate or useful in every chapter. For example, leadership challenges and common activities may vary based on the size and location of a given chapter. Accordingly, they envision the best practices document as a source of useful ideas and procedures from which individual chapter leaders can choose those that apply to their situation.
- **Problem Resolution** – Best practices typically focus on planning and management methods for the most common chapter activities, and emphasize those methods with applicability to the most chapters. Occasionally, a chapter leader may encounter an issue that is not covered in the best practices inventory. In these circumstances, it is important to provide a mechanism by which a leader can still seek the advice and

opinion of other leaders who may have encountered similar situations. We will outline a few alternatives in this document.

Defining Scope – The first step in building a best practices inventory is to decide what topics should be covered. There are several key components to this process:

- Identify Topic Categories – This involves organizing best practices into high-level categories. One method would be to align topics with the basic activities of each chapter. This might include recruitment, basic training, and so on. This would help leaders focus on improvements to specific chapter processes that must be managed.
- Identify Subtopics – Within each topic category, one can then identify specific practices that serve a specific objective. For example, chapter social activities have been identified as a prime contributor to member retention. In this area, we could identify the types of activities that have been successful and the best methods for planning and organizing these activities.
- Define Priorities – Chapter leaders would be polled as to the subtopics that would have the biggest impact on chapter management success. This strategic planning document may serve as a starting point for this process, since it identifies specific program areas that need improvement. As time goes on, leaders would add subtopics as new issues arise.
- Create a Structured Agenda – The next step is to create a prioritized list of subtopics and begin working on each subtopic in priority order. The prioritized list could be adjusted over time, perhaps on an annual basis.

Brainstorming Best Practices – Chapter leaders would be invited to regular meetings aimed at discussing best practices for each subtopic. To accomplish this, one must establish a structured process for the meetings and select one or more venues.

- Brainstorming Process – Participants recommended that brainstorming meetings conform to several key guidelines:
 - Clear Agenda – Meetings should focus on 1 or 2 priority topics. These topics should be published in advance and participants should be asked to come prepared to discuss best practices.
 - Facilitation – Each meeting must have a facilitator that keeps the discussion on topic and collects best practice information.
 - Follow-Up – At the conclusion of each meeting, it is important to identify any follow-up items that are needed to finalize best practices information. This will be discussed later.
- Venues – Participants had a number of suggestions regarding the appropriate venue for best practices discussions. These included:
 - Conference Calls – The state program coordinator has already initiated a monthly conference call for best practices. Participants felt this process could be improved in several ways:
 - Frequency – While some participants felt a monthly call is necessary to make progress on the best practices effort, others questioned their ability to make time for meetings of that frequency. Some suggested a quarterly meeting might be more appropriate.

- Advance Notice – Meetings should be scheduled well in advance to allow leaders to make time for participation. Where possible, consideration should be given to scheduling after-hours meetings to accommodate those with stringent work schedules.
 - Participation – A number of members indicated that more effort needs to be placed on encouraging leader participation in this process. Scheduling flexibility may help with this.
 - Focus – Meetings of this type sometimes stray into problem resolution for specific chapter issues, as opposed to a focus on successful practices applicable to all or most chapters. As will be discussed below, it will be important to set up separate mechanisms for problem resolution, and to refer these issues to the appropriate venue.
- State Annual Conference – A number of participants felt that the statewide conference offered an opportunity to gather leaders together to discuss and/or review best practices. Face-to-face meetings tend to improve participation and input. One suggestion is that the leaders arrive ahead a day or so ahead of the scheduled conference start in order to devote specific time to this effort. With sufficient time set aside, it may be possible to discuss a fair number of topics and brainstorm specific ideas. Another option is to use this time to review and finalize best practices that have already been created and/or provide training on this subject.
- Stand-Alone Meetings – Some participants felt that this process was of sufficient importance to warrant organizing a stand-alone meeting separate from the state conference. One alternative would be to set up meetings in the different regions in the state, as a means of increasing attendance by reducing travel time and expense. It may also be possible to open attendance to VMN members, not just chapter leaders.
- Forums - Another way to solicit best practices information is to set up online discussion boards. These boards could be organized by topic and subtopic as described above. Members could submit their own best practice recommendations and comment on the suggestions of others. Information about each subtopic could be then summarized into a FAQ available within the forum and/or on the state website. The forum itself would have search capabilities to allow a member to quickly find information relevant to a specific issue or practice. Some members also suggested that access to the forum be limited to VMN members, as opposed to the general public.
 - Advantages:
 - Members could participate at any time, making it easier on those with time constraints.
 - It would be easier to open these discussions to the entire membership.
 - Many topics could be discussed simultaneously, and members with specific interests could be more successfully engaged in the process.

- This mechanism provides a way to receive immediate feedback on suggestions and conduct on-going conversations about issues.
- Disadvantages
 - Discussions are not facilitated and would tend to stray off topic.
 - Discussions may become focused on unique problems.
 - Summarizing the information submitted may be time-consuming.
- Best Uses – In examining the advantages and disadvantages of this approach, it may be especially useful in receiving feedback on draft versions of best practices, as well as to flesh out specific brainstorming ideas. It could also play a key role in problem resolution for chapter leaders. A leader could post a particular problem or issue in a support forum and receive advice from other chapter leaders. It may be necessary to further restrict access to these forums in order to encourage open and frank discussion of sensitive issues.
- Other Potential Venues – A few members mentioned the existing email listserv as another way to solicit opinions from chapter leaders and/or seek problem resolution. Another supplemental method would be to encourage the leaders of adjacent chapters to get together on a regular basis to share knowledge.

Follow-Up Items - It is difficult to collect all of the details regarding a specific best practice in a conference call or meeting of limited duration. Therefore, it may be necessary for the facilitator to assign one or more participants the task of fully documenting the methods they use in their chapters. A standard template for this process could facilitate the effort.

Summarizing Meeting Findings – At the conclusion of each meeting, the facilitator would need to summarize the initial set of best practices and distribute this summary for additional comments. This information could be posted on the website, added as a topic to a forum, and/or emailed to chapter leaders. The draft versions of best practices will probably go through several iterations to reflect additional member input.

Publishing Best Practices – As best practices are completed, they would be added to a best practices manual managed by the state program office. This manual could have several components. One section could contain a FAQ for the most common issues that leaders face, with a quick summary of possible solutions. Another section could contain more detailed templates for specific management practices, outlining methods and procedures.

Sharing Best Practices information – As sections of the best practices manual are completed, they can be posted to the state website. Many leaders also indicated a need for better mechanisms for sharing other types of useful information, such as training materials or leader contact information. Since these needs were discussed at length in the Communications section, we will only provide a quick summary here.

- State Website – This would involve setting up a members-only section of the website and permitting chapter leaders to upload documents and files that other chapters may find useful.
- Forums – Discussion boards can be used to continue the conversation about specific best practices and/or raise new issues.
- Leaders Newsletter – A few members indicated that a regular newsletter targeted at chapter leaders could provide information about current issues and solutions, as well as updates on chapter activities and columns for leadership skills development.
- Emails – Email would be a good way to alert leaders to any recent changes in program policies, priorities, and documents.

Training on Best Practices – Once a substantial number of topics have been completed, it may be beneficial to conduct training on best practices for chapter leaders. Many participants felt that this should be combined with a broader program for developing chapter management skills. This program might include not only best practices information, but also basic leadership skills. It will be described in the next section.

Enhancing Chapter Management Capabilities

While the creation of a set of best practices for chapter management is the top priority for enhancing chapter management capabilities and results, program participants also pointed to a number of additional challenges that need to be addressed. These included:

Training – Some people are described as “born leaders”, indicating that they have a natural ability to communicate and direct teams of people towards a set of common goals. Unfortunately, not everyone has innate leadership capabilities and instincts, and those who do may not have experienced some of the common challenges of a leadership role. At the same time, running a chapter is a complex process requiring a wide variety of skills and knowledge, ranging from financial management to risk management. While the state program has provided a variety of resource materials for chapter management, many program participants felt that a structured training program for chapter leaders would help them integrate this knowledge into effective management practices and hasten the learning process for new leaders. Components of this program might include:

- Content
 - Leadership Skills – At its core, this training is focused on attracting, motivating, and managing volunteers in the pursuit of program goals and objectives. Program participants mentioned a number of key training topics:
 - Strategic Planning – Defining program goals and objectives and translating them into effective action plans.
 - Marketing – Designing effective marketing plans for attracting new recruits.
 - Communications – Communicating effectively with all chapter stakeholders and motivating them to become and remain engaged in the program.

- Team Building – Methods for building, motivating, and overseeing teams for specific purposes, including the facilitation of team meetings.
 - Board Operations – Methods for organizing the work of chapter boards and ensuring effective collaboration and communication.
 - Management Skills – This training is focused on core management skills for higher-level chapter leaders:
 - Project and Task Management – Ensuring chapter projects are properly designed and managed to achieve desired results.
 - Risk Management – Assessing all initiatives and activities through the lens of risk abatement.
 - Program Policies – Understanding program policies and applying them to chapter activities.
 - Financial Management – Ability to oversee chapter finances and tie spending to strategic goals.
 - Operational Skills – These skills involve designing and managing the daily activities of the chapter. It is envisioned that the best practices manual will provide detailed methods for key chapter processes. There will be a certain amount of overlap with some of the training topics discussed above. For example, best practices for recruiting would certainly include marketing techniques. However, the focus of leadership and management training will be on planning these activities at the strategic level, as part of an overall chapter guidance approach. At the operational level, one would outline the specific tasks and procedures needed to effectively satisfy the requirements of each activity. Again, training sessions would be focused around the subtopics described above, and would be completed in priority order.
- Training Methods – The section on Advanced Training described the various training methods available for all types of training, and outlined some of their advantages and disadvantages. Here, we will focus on the training venues relevant to leadership training.
 - Classroom Instruction
 - State and Regional Conferences – Many participants felt that leadership training could be included in state and regional conferences. This could take the form of a leadership “track” for conference sessions, or a special pre- or post-conference gathering for leaders only. Sessions could be led by experts on leadership topics and/or experienced chapter leaders.
 - Stand-Alone Training Conferences – A number of members felt that leadership training should be conducted apart from the state conference, in order to remove the distractions of conference activities and eliminate conflicts with other training and learning opportunities. Training could occur at either the state or regional levels. A model occasionally mentioned is the Leadership Academy that has been offered in the past by the Missouri Master Naturalist program. This has been a one-day program focused on topics such as action planning, volunteer management, team building, and so on.

- Team Training – Some members felt it is important to train not only chapter presidents, but also members of the chapter Board. If training were to occur close to chapter home bases, it might be possible to train chapter Boards as a team, helping to ensure that all Board members are on the same page and promoting team building.
 - Webinars – Webinars have the advantage of being available at all times, as opposed to training conferences that will be offered only periodically. If we were to build a library of training modules over time, these modules would be immediately accessible to new leaders who need help in fulfilling their new role. They would also provide useful reference materials for experienced leaders who are encountering a specific problem or issue within their own chapter. This approach may be especially appropriate for the best practices training, since it allows us to bring training online as new sections are completed.
 - Mentoring – In addition to standard training programs, both the state program office and experienced chapter leaders can help mentor new leaders and new chapters by answering their questions and helping to resolve issues.
- Audiences – There are several different types of training candidates, each with slightly different needs:
 - New Chapters – The primary focus for these leaders is establishing the basic structures and procedures for chapter operations. This includes bylaws, organizational structures, program policies, basic training, and other start-up activities. Mentoring may be especially important during this phase.
 - New Leaders – The main focus for this group might be on basic leadership and management skills. The availability of webinars might be important for this group.
 - Experienced Leaders – The primary focus would probably be on best practices as a means of improving chapter operations.

Recruiting Leaders – A number of participants mentioned difficulties filling leadership roles at the chapter level. While this phenomenon is fairly common in volunteer organizations, it has had several negative consequences. These include unfilled positions, leader burnout, and stagnation in the leadership ranks. There may be a natural reluctance on the part of the typical volunteer to take on the added responsibility of a leadership role. This reluctance may be fueled in part by uncertainty as to the duties of specific leadership positions and their own capability to fulfill them. By opening leadership training to the ranks, we may be able to inform potential leaders and assure them that they will receive adequate training and support if they accept a leadership position. This should be coupled with active efforts to identify capable individuals within the membership, encourage them to attend training, and recruit them for positions as they become available.

Communications – A number of participants felt that one vital enhancement to chapter management practices is improvement in communication among chapter Board members, and between the Board and the general membership. As noted in the

section on Communications, this should be an important component of communications planning and enhancements. It is also an important part of leadership training.

Policies – As described below, program participants raised a number of policy issues relating to chapter management. These issues could be addressed as part of the Best Practices initiative.

- *Terms of Office* – Participants sought guidance on the appropriate length of term for officers and the number of consecutive terms officers should serve.
- *Political Advocacy* – Participants sought clarification of the policy that prohibits any form of political advocacy on the part of VMN chapters. In particular, members were unsure how the policy applied to individuals.

Advisor Role – As noted earlier, each chapter has a chapter advisor drawn from the ranks of one of the state sponsoring agencies. The operating handbook lays out their responsibilities in very general terms. In essence, their role is to advise the chapter as to best practices and help ensure that chapter activities conform to program policies. Interviews with advisors uncovered a few key issues with fulfilling that role.

- *Definition of Duties* – Advisors tended to be unclear as to what level of authority they can and should exercise in requesting changes to chapter practices and activities. They may also be unsure which activities should be monitored and at what level of detail. Moreover, there are no established criteria for assessing conformance to policies and standards. Several participants mentioned the creation of a Memorandum of Understanding, which lays out in greater detail the responsibilities of the chapter advisor and his/her role in guiding chapter activities.
- *Training* – Having defined clear responsibilities, many advisors felt they would benefit from training that spells out how to perform these duties, perhaps on an annual basis.
- *Advisor Meetings* – There are currently few opportunities for advisors to share knowledge and support each other. As a consequence, most advisors are in favor of organizing an annual meeting for all advisors. This would be an opportunity not only to receive training, but also to discuss current issues, policy changes, and chapter problems.
- *Supervision / Mentoring* – Chapter advisors typically have other duties within their home agency, and VMN activities may not be part of their job description. As a consequence, the latter activities may not be closely supervised and some advisors may receive little guidance from their management. Some advisors felt they could benefit from a closer relationship with the state program office, to help ensure they are meeting expectations and to receive added support and guidance.

Program Improvement Ratings

As shown in the first table below, both the best practices and leadership training initiatives were fairly well received by program participants. However, the initial conference calls for best practices were only lightly attended (second table). The primary reasons for lack of attendance were those mentioned earlier – scheduling conflicts and notification issues. This may indicate that we need to evaluate our various

options for venues and schedules. It is possible that a combination of approaches will be needed to achieve full participation.

Table 6.1. Average responses of each stakeholder group to the question “please rank each of the following activities as a very low (0) to very high (100) priority for the statewide program.”

Initiative	Average Volunteers	Average, Others	Variance, Vol to Others	Percent Not Needed
Form across chapter volunteer working groups to address specific topics	70	78	-8	3%
Develop a chapter leadership course to be offered annually	65	77	-13	3%

Central Issues

As chapters have grown and program activities have expanded, administrative burdens have naturally increased. Not only have the number of leadership roles increased, but also the time devoted to each activity has ballooned. Most members joined to do meaningful conservation work in the field, not to perform administrative duties. As a result, it is becoming increasingly difficult to recruit members into leadership roles. One of the primary purposes of the best practices effort is to make chapter management processes more efficient, thereby reducing the time devoted to administrative duties. When combined with other supporting measures, such as enhanced communications tools and the basic training manual, it is hoped that the net result will be an increased impact for the program by devoting more time to projects.

It is important, however, not to underestimate the level of effort needed to complete this process. At the state level, resources must be devoted to facilitating the meetings, documenting results, and creating a manual. Individual chapter leaders must contribute not only by brainstorming ideas, but also by providing detailed descriptions of their successful practices. Depending on the scope of the effort, this may be a years-long exercise with heavy involvement of many leaders. Therefore, it is vital that we focus on these practices with the biggest impact. This boils down to identifying ready-made procedures that can be replicated easily in many chapters, and/or tools that help automate onerous manual tasks. Eliminating administrative burdens is critical if we hope to continue to expand and grow the program.

Focus Area 7: Fundraising and Finances

Background

VMN policies require that each VMN chapter have a Treasurer. This person is responsible for chapter financial management duties. This includes creating budgets, receiving and dispersing funds, maintaining financial records, and producing financial reports. On an annual basis, the Treasurer is required to provide financial records to the chapter Audit Committee for their review. VMN policy also requires an external audit every five years. Given that the program has been in operation since 2006, a number of chapters have or soon will have a need to perform an external audit. This requirement has provided added impetus for consideration of appropriate chapter financial management practices.

At the same time, VMN stakeholders are seeking additional funding to support program expansion and improvement. Funding for local chapter activities comes primarily from membership dues and fees for the basic training course. Funding for the state program office is derived largely from contributions from the state sponsoring agencies and grants. Total funding in 2013 at all levels was approximately \$200,000, and similar funding levels are projected for the next several years. This will probably be insufficient to support proposed enhancements to state-level technology infrastructure and support resources, as well as local program expansion initiatives such as the Junior Naturalist program. This has sparked an interest in building a platform for fundraising at both the state and local levels. This may require the creation of separate fundraising organizations and the creation of additional financial management procedures.

Program Improvements

Chapter Financial Management Practices

These improvements relate to the methods currently used to manage chapter funds, as distinct from any new requirements imposed by additional fundraising activities.

Financial Handbook – Although current policies outline the basic duties of the Treasurer, they do not provide any guidance as to the appropriate procedures and policies for performing these duties. Many program participants felt that the creation of a chapter financial handbook at the state level would help ensure that proper accounting and reporting processes are used in each chapter, while also providing a template for setting up financial management procedures. Participants offered a number of suggestions for creating this handbook.

- Forming a Work Group – Participants recommended that a work group be formed at the state level, with the task of creating the handbook. This would be a small group of experts in the field of finances, drawn from chapter membership and state sponsoring agencies.
- Defining Requirements – The first task of the work group would be to define basic requirements for the handbook. This would involve consideration of several key factors:

- Accounting best practices for similar organizations. This might include polling Master Naturalist programs in other states.
- Requirements and expectations of state sponsoring agencies
- Legal requirements
- Auditing requirements
- Build Handbook – Based on the requirements, the working group would construct a written handbook comprised of sections containing guidelines and procedures for key financial management processes. To facilitate rapid adoption of procedures, it would be important that they be designed for simplicity. Overly complex and/or rigid methods may be difficult for volunteer Treasurers to implement.
- Review and Finalize Handbook - Once complete, the handbook should be reviewed and revised. Several groups could be involved in this process:
 - Expert Review – A review committee comprised of additional experts would provide a “second set of eyes” to assess content.
 - Legal Review – State legal counsel and/or other experts such as tax lawyers would help ensure all legal requirements are met. It was suggested that Virginia Tech counsel could help with this process.
 - Leadership Review – The advisory board for the VMN program should review and approve the final draft.
- Publish Handbook – The handbook could be published as a PDF on the state VMN website.
- Provide Training – A webinar could be provided on-line for Treasurers and others who want an overview of handbook procedures.

Financial Oversight – Participants also emphasized several forms of oversight for chapter finances. These included:

- Chapter Oversight – It was suggested that the handbook contain a template for monthly financial reports that could be provided to chapter leaders and members. Chapter finances should be reviewed in regular chapter meetings.
- Chapter Comparisons – A comparison of chapter financial reports with the reports of other chapters may provide added insight into chapter spending patterns and financial health.
- State Program Oversight – It must be decided whether any or all of the standard procedures and guidelines outlined in the handbook will be considered mandatory practices for each chapter. If any are mandatory, it will be important to further define what methods and measures will be used to assess compliance, as well as thresholds for corrective action. Reviews could be performed by the program coordinator, a state-level finance committee, and/or the state steering committee. In any case, members stressed that state involvement in this process be focused on helping chapters manage their finances, without emphasizing punitive actions and/or bureaucratic procedures.
- Auditing – Members stressed the need for clarification of auditing requirements and guidelines. This would include consideration of the types of information Treasurers need to provide to auditors, and the specific points of emphasis in financial reviews.
 - State-Level Support – In addition to the production of the handbook, the state program office may need to provide specific advice and counsel to chapter

Treasurers to resolve issues and problems. Some felt that it may be necessary to have a designated state-level finance coordinator to provide this support, particularly if financial management procedures become more complex.

Fundraising

Fundraising initiatives are focused primarily on receiving contributions from the general public to support local and state activities. These contributions could also be supplemented by grants for specific projects and programs. Program participants offered a number of suggestions for establishing mechanisms for supporting fundraising activities.

Establish a Tax-Exempt Fundraising Organization

- The typical vehicle for fundraising activities is the creation of a 501(c)3 organization, which represents a non-profit, tax-exempt structure. The moniker for these organizations refers to a section in the federal tax code. One of the advantages of this type of organization is that donors can claim tax deductions for their contributions.
- There are two options available for the creation of a fundraising organization. In one scenario, a statewide organization would be created and used by all chapters. In the other scenario, a separate organization would be created for each chapter.
- The advantage of a statewide organization is that it would obviate the need to set up multiple 501(c)3 organizations, with all of its attendant paperwork and legal processes. In addition, the VMN program is closely associated with Virginia Tech, and has the option of using the Virginia Tech Foundation as its fundraising vehicle. An account for the VMN program has already been set up with the Foundation, and is immediately available for use. Its disadvantage is the mingling of funds raised at the state and local levels and then disbursed for state and local uses. There would need to be some form of internal coding for each accounting entry to identify sources and uses.
- The advantage of separate organizations is that it provides local chapters greater control and accounting for local receipts and disbursements. Its disadvantage is that much of the burden for managing these accounts and related systems would fall on the shoulders of local leadership.
- One possible hybrid solution is the creation of individual accounts for each chapter within the Virginia Tech Foundation system. This would provide local control without the added support burden for separate organizations.

Create Advisory Board – The role of the Advisory Board would be to set guidelines and procedures for fundraising, and to help set priorities for fundraising efforts. Board members would be chosen from the VMN membership, with representation from the various regions of the state. It would also be useful to include members with previous fundraising experience. The process for selecting Board members could be as follows:

- Receive nominations from VMN chapters
- Review and selection by the VMN Steering Committee

Develop Procedures – With the aid of the Advisory Board, specific procedures for fundraising activities and financial management of contributions could be created. These processes could be added to the handbook described above. Additional enhancements include training on basic fundraising techniques and the development of blueprints for organizing specific types of fundraising events.

Raise Funds – With the structure in place, the VMN program can begin raising funds. Several types of potential fundraising options were mentioned

- Chapter Fundraising
 - Sales – This involves the sale of goods and services, with the ability to retain part of the proceeds.
 - Related Products – This approach entails selling products directly related to VMN program objectives and activities. Examples included native plant sales, birdhouses, and butterflies. It is important to assess the actual returns on this type of fundraising, given that chapters often must purchase the goods ahead of the sale and cannot guarantee a sell-out. Polling other charitable organizations regarding their use of this technique may provide useful insights.
 - Branded Products – It may be possible to sell products branded with the VMN logo to the general public. This might include T-shirts, tote bags, and so on.
 - General Fundraisers – This method involves selling unrelated products and services, which are often donated by supporters. Examples included silent auctions, raffles, and local products such as wine, honey, and so on.
 - Partnerships – In this case, a local chapter would partner with a business to receive a portion of the proceeds of the sale of a specific product. Examples included partnerships with local craft beer companies to receive a contribution from the sale of a specific product release.
 - Events – This involves organizing regional-scale events, often in partnership with other related organizations. Fundraising occurs either through fees for activities or solicitation during the event. Examples included environmental conferences and regional outdoors fairs.
 - Crowdfunding – Crowdfunding refers to a method for soliciting funds for a specific project through various websites designed for this purpose. People interested in supporting specific activities can review available projects and make a contribution on-line. Indiegogo is a prime example. In this scenario, a local chapter would use a crowdfunding site to publicize a project and gain needed funds. To be successful, chapters must choose the site appropriate to their cause and carefully design project descriptions, marketing, and other components of their proposal in order to reach and appeal to target contributors.
 - Fees – One suggestion is that a membership hierarchy be created, with higher fees as members advance to higher levels.

- Statewide Programs – Participants felt that the creation of statewide fundraising initiatives might be a more effective and efficient method, since it would obviate the need for each chapter to create its own marketing and materials. For example, the state program office could oversee the creation of branded products such as T-shirts and make them available to chapters.
- Grants – A variety of local and state organizations may be potential sources of grant money for local chapters. Participants felt that more effort may be needed to uncover and successfully acquire these funds. Specific needs included:
 - Identifying grant opportunities
 - Training in grant writing
 - Blueprints for applying for specific grants
 - Methods for administering grant funding and managing grant projects
- State Fundraising – At the state program level, the focus would be on statewide initiatives and support for program infrastructure. Specific suggestions include:
 - Chapter Dues Set-Aside – One recommendation is that a portion of chapter dues be forwarded to the state office to provide funding for support resources.
 - Sales – The state program may also be involved in sales, with a particular focus on branded products. This might include license plates and a portion of the proceeds of other products such as t-shirts.
 - Program-Level Contributions – It may be possible to solicit charitable contributions to the state program on the state website and other venues.
 - Grants – The state program has already secured a significant grant for a citizen science initiative, with funding from the National Science Foundation. There may be other possibilities to secure funding at the state and national levels. The Virginia Environmental Endowment has been mentioned as a likely candidate.

Funding Uses – A wide variety of uses for added funds are possible. Below is a brief summary of the funding possibilities most often suggested by participants. Most of these purposes have been described in greater detail elsewhere in this document.

- Local Uses
 - New chapter start-up funds
 - Speaker/trainer fees
 - Funding additional local projects
 - Scholarships for the Junior Master Naturalist program
 - Scholarships for the basic training course
 - Scholarships to attend the statewide conference and other advanced training events
 - Volunteer travel reimbursements
- State Program Uses
 - Additional staff for state office
 - Infrastructure improvements to support growth (e.g., technology enhancements)
 - Funding for development of basic training manual

- Additional state level communications such as newsletters and publications
- Development of additional educational resources such as online training and/or online identification tools

Program Improvement Ratings

When compared to the ratings for the program improvements mentioned in other sections of this document, enhancements for financial processes received very modest support. Not only did they receive fairly neutral priority ratings, but a substantial number of the volunteers felt they were not needed at all. Interestingly, volunteers tended to give a far lower priority to these improvements as compared to other stakeholders. The initiative with the most support is the creation of the financial handbook.

Table 7.1. Average responses of each stakeholder group to the question “please rank each of the following activities as a very low (0) to very high (100) priority for the statewide program.”

Initiative	Average Volunteers	Average, Others	Variance, Vol to Others	Percent Not Needed
Develop a financial manual to provide guidelines for managing chapter finances	59.97	73.97	-14.00	16%
Provide training on grant writing	56.26	68.50	-12.24	19%
Provide training on managing chapter finances	51.46	70.57	-19.11	20%
Provide training on fundraising	42.89	58.55	-15.66	29%

One issue associated with the use of the Virginia Tech Foundation as a fundraising vehicle is the associated administrative fees. As seen in the table below, opinions are mixed as to the appropriateness of these fees. It may be necessary to assess alternatives.

Table 7.2. Percentage of stakeholders that selected the listed responses for the following question: “The state program has started an account with the Virginia Tech Foundation that allows the program to accept tax-deductible donations. The Foundation takes a 7% administrative overhead to manage the account. Would this 7% overhead rate prevent you from donating money to the program?”

Response	Stakeholder			
	Volunteer	Advisor	Sponsor	Partner
No	46%	30%	64%	60%
Yes	14%	30%	9%	20%
I have no opinion	19%	10%	0%	0%
I do not intend to donate money to	20%	30%	27%	20%

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Participants were also asked how additional funds should be used. Funding for local projects was by far the most popular response, followed by speaker fees. This may indicate that participants feel that the existing basic activities of the chapters are underfunded and should be given priority over other uses.

Table 7.3. Percentage of stakeholders that selected the listed responses for the following question: “how would you like to see the state use funds that are brought in through donations? Check all that apply. Please note that a volunteer advisory board will be established to provide continued feedback in this area.”

Response	Stakeholder			
	Volunteer	Advisor	Sponsor	Partner
Mini-grant program to fund local projects	72%	100%	83%	90%
Speaker fees	54%	40%	25%	60%
Scholarships to attend statewide conference and other advanced training events	42%	40%	58%	70%
Scholarships to support local Junior Master Naturalist programs	35%	20%	58%	50%
Scholarships for the basic training course	34%	30%	33%	60%
Equal distribution to all chapters to use at the chapter’s discretion	31%	20%	50%	20%
Additional staff for state office	25%	20%	42%	30%
Volunteer travel reimbursements	12%	10%	17%	30%
Other	6%	10%	0%	0%

As noted earlier, one issue is whether it would be better to use a statewide structure such as the Virginia Tech Foundation to collect and manage funds or to set up separate 501(c)3 organizations for each chapter. As shown in the table below, a narrow majority favor a statewide structure, as long as procedures are in place to separately manage locally raised funds.

Table 7.4. Percentage of stakeholders that selected the listed responses for the following question: “To facilitate fundraising at the chapter level, which of the following would you like the state to provide? Check all that apply.”

Response	Stakeholder			
	Volunteer	Advisor	Sponsor	Partner
Provide ability to accept and separate donations for local chapters utilizing statewide 501(c)3 status	51%	40%	64%	70%
Assistance to chapters to start a local 501(c)3	43%	30%	55%	50%
The state program does not need to provide assistance in this area	25%	50%	18%	20%
Manage donation and grant accounts for each chapter	18%	0%	18%	50%
Other	6%	0%	0%	0%

Central Issues

The core issue is balancing the need for sound financial management against the resource limitations at the local level. If accounting procedures become overly complex and time-consuming, it may become more difficult to find volunteers who are capable and willing to perform these duties. Where possible, the financial handbook should provide simple procedures for meeting critical requirements.

The other core issue involves mixing and mingling funds raised at the local and state levels and then disbursed for specific local or state uses. We will need flexible organizational and accounting structures to permit the flow of funds for multiple sources and uses, with the ability to transfer funds at the chapter and state levels.

Focus Area 8: Annual Reporting

Background

As originally designed, the annual reporting process was focused primarily on the needs of the state sponsoring agencies. Since each of these agencies contributes funding and other support to the program, the annual report offered them a way to assess their return on that investment. The main gauge was the number of hours volunteers contributed directly to each agency’s activities and projects. Using an hourly dollar value for these efforts, one could translate volunteer work into an equivalent monetary contribution to each agency. From its inception in 2006 to 2013, the Master Naturalist program has contributed significant volunteer time in the areas of education and outreach (109,339 hours), citizen science (103,132 hours), stewardship (90,788 hours), and chapter administration (108,264 hours; Table 1). In total, program volunteers have contributed 415,165 hours of service—with a value of \$9,118,384 million—to the Commonwealth of Virginia (based on the monetary value of volunteer time from the Virginia Employment Commission).

In addition to these statistics, data is collected regarding activities for specific projects. This includes demographic data regarding populations served, as well as project data such as trail miles improved, acres of habitat restored, and so on. This information provides additional details regarding program impacts. Reports also mention other VMN projects that contributed indirectly to each agency’s overall mission and objectives.

Table 8-1. Number of volunteer hours and percentage of total hours contributed within each service area from 2006 to 2013.

Year	Environmental Education	Citizen Science	Stewardship	Administration
2006	173 (7%)	64 (3%)	144 (6%)	1961 (84%)
2007	3530 (21%)	2333 (14%)	1587 (9%)	9253 (55%)
2008	7116 (23%)	6155 (20%)	5254 (17%)	12064 (39%)
2009	13503 (30%)	9819 (22%)	9726 (22%)	11815 (26%)
2010	18067 (30%)	13438 (22%)	12971 (22%)	15715 (26%)
2011	21428 (29%)	18578 (25%)	16071 (22%)	18549 (25%)
2012	20941 (25%)	23480 (28%)	21658 (25%)	18894 (22%)
2013	24581 (24%)	29265 (29%)	23377 (23%)	20013 (23%)

The primary source for annual reporting is data entered into the VMS system at the local chapter level. Members assign their volunteer hours to specific projects and events using project codes set up in their chapter’s separate instance for the VMS system. Using separate systems, project managers also enter demographic and project data as described above. This information is then consolidated at the state level to produce the report.

While information about program activities and impacts has obvious significance for program sponsors, it is also of great importance to all of the other stakeholders in the program, and plays a key role in the recruitment, retention, and partnering processes. In recognition of these broader needs, steps have been taken to expand the scope of the reporting process and begin to add information and outlooks important to these

other stakeholders. Program participants are very supportive of these initiatives, and have made suggestions about how to further improve this process. These will be discussed below.

Program Improvements

Assessing Reporting Needs

Reevaluate the Annual Reporting Process – Some participants felt it was important to reevaluate the annual reporting process to ensure that the information needs of all stakeholders are satisfied. This evaluation would be very similar to the process described for creating an overall communications plan. See the Communications section for more details. The basic steps are as follows:

- Define Initial Best Practices – It may be possible to contact VMN programs in other states regarding their reporting methods. This will help give us a head start on revising our methods.
- Define Stakeholders – Define the various groups with an interest in program reports. This would include partners, members, the general public, local governments, and other groups.
- Define Stakeholder Information Needs – This may require surveys or interviews with representative groups of stakeholders. For example, one might ask chapter leadership what information is needed in the recruitment process.
- Assess Data Availability – Determine whether additional data will need to be collected, and design data collection methods. Ensure that data collection methods are as efficient as possible by eliminating redundant data entry, discontinuing the collection of unneeded data, and making maximum use of already available data.
- Define Reports – Define report content, formats, and delivery vehicles for each key stakeholder need. Where possible, attempt to satisfy common needs with a single report in different formats.
- Redesign Reporting Methods – Determine how reports will be created and delivered.

Part of this exercise is to reassess existing reporting procedures. As we shall see in subsequent sections, many members felt that the current process has inefficiencies and data deficiencies.

Content Areas

Stakeholders will help define information needs for the reporting process. However, members emphasized a few key content areas, as described below.

Impacts – The primary focus of the annual report is on program impacts. Many members felt that a dry recitation of volunteer hours by project category does not convey a true sense of program accomplishments. There are several ways that impact data could be supplemented:

- Projects – Information about specific projects helps demonstrate the tangible benefits and impacts of VMN volunteering work at all levels in the organization and for all stakeholders. The key factor is to select project examples that will appeal to the target audience, creating success stories that encourage further engagement

with the program. For example, a project success story for a specific agency might encourage other staff members in that agency to replicate the project in their locality or region. The publication of these accounts also helps to increase members' pride in their organization and provides a way to recognize specific members.

- Testimonials – Testimonials from program partners and beneficiaries help establish program credibility. They improve the program's reputation through outside affirmation of the value of the services offered.
- Member Testimonials – A similar effect can be achieved through member testimonials regarding the benefits they have received from being in the program.
- Accomplishments – Whether discussing projects or other activities, it is important to describe the actual outcomes of the work. By pointing to positive improvements in local environmental conditions and/or contributions to specific conservation goals, we can demonstrate that our work is making a difference. Again, it is important to tailor this information to the interests of the target audience. For example, the VDGIF might be interested in VMN contributions to the Wildlife Mapping program at the state level.
- Tourism Impacts – Some chapter events bring in visitors from other areas, adding tourism dollars to local economies. A few members felt it would be useful to estimate these impacts to demonstrate local benefits.

Activities – Members already record their volunteer hours for training, field trips, and volunteer work. If we could standardize these categories statewide, it may be possible to get a clearer picture of what each chapter is doing and compare activities across chapters. By adding additional categories, we can track activities at a finer grain. For example, it has been suggested that it would be useful to collect information about invasive plant removal. These categories could be tied to state priorities.

Member Information – Information about the status, activities, and interests of individual members would provide a clearer picture of membership characteristics and involvement at the chapter and state levels.

Process Improvements

Communicating Uses and Importance of Reporting Data – Some members may not be completely cognizant of the role annual reporting data plays in funding decisions for the program. As a consequence, they may not consistently enter their volunteering time in VMS, resulting in under-reporting of impacts. By communicating the importance of the state's return on investment as a key measure of program effectiveness and continuance, members may be encouraged to be more thorough in recording their activities in VMS. Providing reports that show the impacts for each chapter may help by relating the annual reporting process to specific chapter activities. Similar concerns about travel times, demographic data, and other annual reporting factors will also need to be addressed.

Allow Reporting At Both The State And Chapter Levels – Chapter leaders are not able to review information for other chapters or the state as a whole, thereby limiting their

view of program activities. It is also difficult to consolidate information from the different chapters, due to differences in coding specific entries. Specific improvements include:

- Standardize Project and Activity Coding – Each chapter sets up its own codes for project types, such as ST for stewardship. In order to compare data across chapters, these codes must be standardized at the state level.
- Provide Flexible Reporting – In order to support data comparisons across chapters and at the state level, information must be consolidated into a state-level view. It is uncertain how this can be accomplished within VMS, and this subject must be further evaluated. Once the data is consolidated, tools for ad hoc reporting must be provided. This might include the ability to filter and organize data by geography, project types, and so on. A few members thought it would also be useful if reports could be created aligning program impacts and activities to local jurisdictions, as a mean so of communicating with local governments and other local groups.

Eliminate Manual Reporting – There are a few existing reporting tasks that could be better automated. This would not only improve efficiency, but also reduce the errors and data integrity issues typical of manual processes. Specific examples include:

- Collecting Volunteer Hours Data – In the current process, someone within each chapter downloads data regarding volunteer hours and projects for the purposes of annual reporting. Specific projects are then assigned to specific sponsoring agencies to calculate agency-specific impacts, and projects are assigned to specific project types. This information is then forwarded to the state coordinator for consolidation. A number of members suggested that VMS be modified to provide a field to identify sponsoring agency when a project is set up. Assuming the standardization of project codes and the ability to consolidate chapter information within VMS, there would be no need for the manual process.
- Collecting Demographic Data - Members are expected to collect information about the populations served by specific chapter activities. The purpose is to determine services provided to “underserved” populations. In practice, this often involves recording the sex and ethnic background of each participant. For one-time events such as outreach activities at a fair, paper worksheets are typically used. For on-going projects, project managers make estimates based on factors such as community or school composition. For the purposes of annual reporting, this information must be consolidated, usually by keying information into spreadsheets and organizing it into categories. Members felt that automation of both the initial data entry and subsequent data consolidation would be beneficial. For example, the paper worksheet could be replaced by a smartphone app that would upload data to a central site. Similarly, VMS could be modified to allow demographic data to be attached to specific projects.
- Collecting Project Impact Data – The collection of specific project data such as miles of trails improved could be simplified by attaching this information to the project in VMS.
- Member Certification - Each chapter must spend a certain amount of time updating the status of individual members. This includes tasks such as ascertaining member completion of certification requirements, determining active/inactive status, and recognizing achievement of milestones. This is often done using data downloads

and separate spreadsheets. Many members felt it would be a time saver if some of these tasks could be automated within VMS. For example, the logic for determining certification status could be built into a routine within VMS and eligible members marked within their record. Chapter members could then run reports to view member status. This information would also be available for state-level reports.

Reassess Data Needs – The volume and complexity of data entry tasks for annual reporting can be discouraging for some members. This is doubly true when they are uncertain as to what purpose the data serves and how it is used. Accordingly, a number of members felt it is important to reassess annual reporting data requirements to ensure that all data collection efforts are truly needed. In particular, a number of members questioned the accuracy and usefulness of the demographic data described above.

- The example often given is manning a booth at an outdoors event of some type. In these circumstances, ethnic background is ascertained by simply eyeballing each participant, since there is not the time to ask the participant directly, nor would this necessarily be apropos to the situation. This no doubt leads to errors. As booths become crowded, there may not be time to continuously record the information, and the possibility of double counting exists.
- For other types of projects, data may be entered after project completion, using rough estimates. For example, an umbrella project might cover school programs in multiple schools, with multiple VMN volunteers over a period of time. It may be difficult to ascertain under-served populations in these circumstances.
- Given these inaccuracies, some members question whether the information can reliably be used to evaluate the program. At a minimum, there would need to be more complete guidelines for collecting this information and improving its reliability. At the same time, process automation as described above would reduce time commitments and potentially improve accuracy and timeliness.

Program Improvement Ratings

Participants were not polled regarding their rating of improvements aimed specifically at annual reporting. However, it is probably safe to assume that members would be in favor of improvements that simplified data entry procedures and reduced time commitments for reporting processes. We will need to assess which enhancements would have the most effect.

Central Issues

The primary issue is balancing the need for annual reporting data against the time and effort required at the local level to collect and organize that data. By reevaluating reporting requirements, we can affirm reporting needs, while automation of certain reporting processes will reduce time commitments. Both approaches should be considered.

Focus Area 9: Communications

Background

In the Recruitment section, enhancements for marketing to potential members and communicating with the public were described at length. We will summarize a few of these enhancements below. This section will focus instead on internal communications. This involves information sharing and collaboration between all of the participants in the delivery of VMN programs and services, as opposed to potential recruits and the beneficiaries of VMN services.

The primary mechanisms for internal communications are as follows:

- State Website – This is a public site that contains information about the statewide program. It includes descriptions of all the chapters with contact information, program purpose and policies, a document library, blogs, training information and educational resources, and other topics.
- Volunteer Management System – Each chapter has its own instance of the VMS system restricted to only its chapter members. This system performs several functions:
 - Lists chapter volunteering opportunities and provides contact information for each project
 - Allows members to enter their hours for volunteering and training
 - Provides access to a document library organized by topic
 - Provides a member roster, with the optional ability to view member interests
 - Provides mechanisms for emailing to groups of members, organized by interest
 - Delivers an event calendar for chapter activities, organized by type
 - Allows members to edit their profiles
 - Provides links to the websites of sponsoring agencies
 - Allows members to sign up for projects and calendar events
- Chapter Website – Nearly all chapters have their own public websites, targeted primarily to the general public and potential members. These tend to be fairly simple sites with basic information about enrollment, training, contacts, and so on. The state website hosts pages for a few chapters, but most chapters have chosen to set up their own domain and build a customized website. This offers them added flexibility in website design and development tools. They typically have the capability to deliver newsletters, blogs, links to external resources, member enrollment forms, information about upcoming basic training courses, project information, photo galleries, and other information. They seem to have a limited role in delivering added information to members.
- Statewide Email – The program uses Listserv to allow communication between and among chapter leadership and the state program coordinator. These features can also be used for within-chapter communications.
- Statewide Social Media – The state program has both a Facebook and Twitter presence. These sites deliver information for the general public and

members. They tend to focus on event announcements, news and articles, volunteering opportunities, training opportunities, and other short bits of information and links.

- Chapter Social Media – A few chapters have social media presences, delivering information unique to their chapters. They seem to serve as a way to deliver announcements and news both to the public and to members, as well as encouraging interaction among members.

In a recent survey of members, they were asked to rate their satisfaction with the communications vehicles described above. As shown in the table below, average ratings for each mechanism ranged from 4 (satisfied) to near 5 (very satisfied). The lowest ratings were received by chapter-specific mechanisms (websites, email, etc.), although they still seemed to be acceptable to the majority of members.

Table 9.1. Member ratings for communications mechanisms (1=Very Dissatisfied to 5=Very Satisfied)

Communications Mechanism	Average Rating
Primary method of communication among members within your chapter (listserv, Facebook, blog, etc.)	4.03
Your chapter's website	4.07
VMN coordinators listserv	4.59
Volunteer Management System (VMN-VMS)	4.40
Statewide website (www.virginiamasternaturalist.org)	4.30

Because communication is an important component of any program initiative, it is not surprising that many of the program improvements discussed in previous sections mentioned communication enhancements in a supporting role. Shown below is a sample of these enhancements, organized by topic.

Table 9.2. Communication enhancements categorized by program improvement topics.

Section	Improvement
Retention / Recruitment	<ul style="list-style-type: none"> • Improve all aspects of program marketing, including state and chapter websites, social media presences, marketing materials, and outreach activities. • Focus attention on online marketing and outreach tools to attract younger recruits • Create target marketing approaches for specific demographic groups • Improve communication and interaction between existing members as a means of engaging and retaining loyal members
Basic / Advanced Training	<ul style="list-style-type: none"> • Improve accessibility of training materials through the provision of online training programs and reference materials at the state level
Volunteering Opportunities	<ul style="list-style-type: none"> • Build mechanisms for improved communication and collaboration at the regional and state levels • Provide the means for sharing information about volunteering opportunities across chapters and statewide

	<ul style="list-style-type: none"> • Improve the ability to recruit volunteers for specific projects by offering a skills database and a mechanism for project managers to actively recruit individual members
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Closer examination of these program improvements within each separate section will reveal the need for significant changes to existing communications vehicles. At first glance, this would seem to be at odds with the high level of satisfaction members expressed for these mechanisms in the afore-mentioned survey. In all likelihood, most members feel that communications are adequate for the current structure and objectives of the VMN program, but will fall short in supporting substantial expansion of the scope and purpose of the program. For example, most communications tools are focused on interactions between members within each individual chapter. The creation of various forms of collaboration at the regional and state levels will require a better means of connecting participants in different organizations and geographical areas.

Program Improvements

Communications Planning

A number of members felt it was important to assess communications needs in the light of the many program improvements proposed elsewhere in this overall plan. This would provide the opportunity to define priorities and clarify requirements prior to making wholesale changes to communications infrastructure. The communications planning process could follow this outline:

Define Current Communications Framework and Priority Enhancements – This involves establishing the basic framework for defining and assessing communications improvements.

- Define Basic Processes – Identify the basic functions and activities of the program, such as Recruiting or Basic Training.
- Identify Stakeholders by Process – Identify which groups participate in each process and what roles they play.
- Define Strategic Objectives and Priorities by Process – Review the many process improvements outlined in this document and set priorities for each process involved. Use these priorities to set the focus for communications enhancements.
 - Communications Needs for Priority Process Improvements – Determine the basic communications needs for priority process improvements.
 - Existing Communications Needs and Priorities – Identify basic shortcomings in the existing communications mechanisms.
- Build Communications Plan – Construct a detailed plan for enhancing communications.
 - Define Stakeholders’ Functional Responsibilities for Priority Process Improvements – Determine the roles of each stakeholder in newly designed process improvements.
 - Channels (To/From) and Content by Process – Determine what information each stakeholder must share with other stakeholders in order to support

- specific process improvements. For example, state agencies may need to share project blueprints with members in order to support statewide volunteering opportunities.
- Frequency – Determine the frequency of specific communications. This will help determine the appropriate communications tool.
 - Media / Technology by Process Content – Determine the appropriate tool for each communication exchange.
 - Requirements – Certain types of communications are better suited to one tool set or another. For example, the delivery method for a new policy document may differ from the tool needed to support continuous communication for teams involved in projects.
 - Stakeholder Preferences – The method used should be influenced by stakeholder preferences. For example, some members may prefer email over social media approaches. We need to assess preferences and offer multiple delivery methods where appropriate.
 - Define Communications Improvements – Clearly define inadequate or missing communication channels and tool sets needed to support process improvements, and outline needed enhancements.
 - Assess Cost/Benefit of Communications Improvements – Compare the potential benefits of each enhancement to the costs in time and/or money required to build it.
 - Set Priorities – Determine which enhancements to pursue immediately.
 - Execute Plan
 - Build Implementation Plan Integrated with Strategic Plan – Tie the communications plan to the implementation plan for the overall strategic plan, identifying dependencies.
 - Adjust Plan Annually – Review and revise regularly as part of an on-going strategic planning process.

Channels and Content

As part of the strategic planning assessments, participants were asked to identify specific channels and content that needed improvement. Not having the opportunity to fully evaluate the impacts of proposed improvements in other processes on communications requirements, they tended to focus on perceived immediate needs. We will need to expand and clarify these needs as part of the communications planning process. In addition, most of these needs were described elsewhere, so we will provide limited details.

- Channel – Chapter Leadership to Members
 - Training opportunities, schedules, educational materials
 - Volunteer opportunity information, matching opportunities to member skills and interests
 - Member and leadership contact information and personal information
 - Chapter leadership activities, including Board meeting minutes
- Channel - Chapter Leadership to Chapter Leadership (across chapters)
 - Best practices for chapter management
- Channel – Chapter Leadership to Members of Other Chapters

- Chapter activities and events, including training, volunteering opportunities, field trips, and so on.
 - Chapter organization and contacts
- Channel – State Coordinator to Chapter Leadership
 - Technology best practices, to include website development, communications tools, social media
 - Citizen science grant opportunities
 - Project approval forms, information about statewide projects
 - Speakers bureau
- Channel – Chapter Leadership to State Coordinator
 - Chapter activities
 - Successes and impacts of local projects
- Channel – State Coordinator to Members
 - Statewide news and articles
 - Program impacts at state and local level
 - Program successes
 - Organizational Chart for VMN program, including Steering Committee
- Channel – State Coordinator to State Agencies
 - Program impacts for each state agency and program successes for specific agencies
 - Methods for engaging VMN volunteers in state programs, volunteer management procedures
- Channel – State Agencies to Members
 - State agency activities, events, schedules
 - State agency contacts at state and local levels
 - State agency mission, role, functions, and organization
 - Volunteering opportunities, including project outlines and instructions
 - State agency priorities and areas needing help
 - Training opportunities
- Channel – Members to Sponsors / Partners
 - Member skills and interests
 - Member contact information for recruiting
- Channel – Chapter Leadership to Sponsors / Partners
 - Chapter leadership contact and personal information
 - Chapter activities and projects
- Channel – Steering Committee to Members
 - Strategies, priorities, policy changes

Media / Technology

Participants also had the opportunity to outline needed improvements to existing communications vehicles. In some cases, this involved assigning new or enhanced content to a specific medium (e.g., a state-wide calendar for all chapter and state agency activities). In other cases, it involved providing additional functional capabilities, such as the ability to subscribe to email feeds based on topic. Again, it will be necessary to flesh out this picture once all priorities and requirements are known.

VMS – As noted earlier, VMS supports many chapter activities. Therefore, it would be logical to attempt to implement certain communications enhancements within that system, where they complement or extend an existing function. As will be discussed later, there may be limitations to that system which would restrict our ability to fully implement some solutions. For now, we will lay out participant enhancements that relate to VMS functional uses.

- Regional and State Volunteering Opportunities – Many members asked for the ability to view and sign up for the projects of other chapters. In addition, state agencies and members would both like the ability to set up statewide projects within the VMS system. It would be necessary to improve the organization and content of project information in order to allow members to more easily sort through their options as opportunities proliferate.
- Chapter and State Events and Activities - In addition to projects, members are interested in the other activities of different chapters and state agencies, especially training and field trips. The proposed solution is the creation of a statewide calendar that shows a schedule of events for the entire program. This should include the ability to filter events based on geography and type. Again, VMS has calendaring capabilities, and we should investigate its capability to support this enhancement.
- Member Skills and Interests
 - As described in the section on Volunteering Opportunities, having a database of member skills and interests would help project managers find and recruit volunteers that fit their project needs. This was particularly relevant for state agency personnel lacking personal knowledge of chapter members. One requirement would be the ability to view member information across chapters in order to support statewide projects.
 - This functionality would take the form of a database application delivered from a central site. Since volunteering opportunities are stored in VMS, having the ability to view both projects and potential volunteers in one place might be beneficial. For example, members could match projects to their own interests and immediately sign up.
- Technical Issues – VMS is built, hosted, managed, and supported by the University of California. In its current incarnation, VMS only allows members to view information relevant to their own chapter. It is uncertain whether the system can be modified to allow global views of projects and calendars, and/or provide a members skills database. This will require discussions with UC, once we have decided whether any these enhancements are worthwhile.

State Website – The state website has a dual purpose. On the hand, it provides marketing and general information to the public. On the other hand, it provides shared documents and files for the membership. We will focus on the latter purpose.

- Specific Content – Many members felt that the state website was the appropriate mechanism for delivering various types of enhanced content with statewide relevance. Here is a quick list of some of the content types mentioned.
 - Contacts and Organizational Charts – A contact database could be developed that contains pertinent information about chapter leadership for the entire state, together with contact information for various state agencies. Users

- could view an organizational chart that leads them through a leadership hierarchy to find a needed contact, and/or search for a specific person.
- Training Materials – As online training and reference materials are created, they could be accessible through a training site. This would include the basic training manual discussed in a previous section.
 - Project Successes – Success stories to demonstrate the positive impact of local projects on conservation goals.
 - Statewide Speakers Bureau
 - Project Information – A project site that provides project blueprints and other descriptive and instructional materials for statewide projects
- Enhancements
 - Members-Only Site – The current site is fully accessible to all members of the public. Some members felt it would be useful to create a members-only site requiring a member login. This would separate the marketing and general information section of the website from a site devoted to internal communication. This would simplify the user interface and reduce clutter for the public user, while allowing the members-only site to focus on member needs. It would also make it easier to discuss sensitive topics or review draft documents that are not appropriate for public release. It is hoped that the existing VMS login IDs could be used for this purpose.
 - Chapter Collaboration – This involves making it easy for chapters to share documents and collaborate on specific projects. While collaborative tools will be discussed later, the first step may be to set up document and file sharing for specific topics and allow members to easily post to these sites. This could include a sub-site devoted to Chapter Management Best Practices.
 - Website Redesign – Many members called for a refresh of the design for the state website, using the latest design tools and methods. Part of the motivation for this enhancement is to impress and engage potential recruits as part of our marketing efforts. However, it is also important to consider the usability and attractiveness of the site for our members. Specific enhancements included:
 - Site Navigation / Organization – Currently, there is a single documents page that contains a list of documents organized by topic. As we add more and more content, it will be necessary to create sub-sites by topic and subtopic, and provide simple methods for members to find what they need.
 - One-Stop Shopping – As the program expands, a variety of additional tools may be offered, such as the Contacts database described above. It is important to provide a single hub for accessing these tools, regardless of the actual application and hosting site for each tool. This can take the form of links to the relevant URL. These tools must also be considered in the redesign of the site and integrated into site navigation and organization.

Chapter Websites – Many of the comments regarding site redesign for the state website also apply to local websites. An added concern for chapter sites is the availability of expertise and resources to redesign the site and keep it up to date.

State Newsletter – A number of members felt that a state newsletter should be issued on perhaps a quarterly basis as a means of sharing information of statewide relevance. This could be delivered online and/or through email. Contributors could include chapter members and state agency personnel.

Blog – More frequent publishing of statewide blog entries (perhaps monthly) may also help connect members and state agencies to each other. Again, guest bloggers could be used for this purpose.

Email – Email is perhaps the primary method of communication in the current environment. Because many chapters have a wide range of activities, the number of emails has proliferated. Some members complain of information overload, or the inability to pick out items of interest from the torrent of emails. This issue may be exacerbated as we act to increase communication between participants at the regional and state levels. Solutions mentioned include:

- *Email Digests* – Some chapters are already creating weekly or monthly digests of chapter announcements, reminders, project opportunities, and so on. This is typically done manually, using Microsoft Office or some other word processing tool. There are also automated solutions for this process, which allow users to select the frequency of updates and compile email digests for them.
- *Reminders* – Some members mentioned that they do not always receive timely reminders for upcoming events, or these reminders are buried in a larger document or an email collection. It may be possible to set up reminders as part of a statewide calendaring solution, with the ability to select events in which a given member will participate.
- *Subscription Services* – Some applications allow users to choose (or subscribe to) certain email (or RSS) feeds based on topic and/or source. The state program office is already experimenting with Constant Contact. This and similar tools provide a means to filter communications based on member interests.

Meetings – A few members emphasized regular chapter meetings as a key mechanism for keeping members informed and engaged. Face-to-face meetings between VMN leadership and state agency personnel at the regional or state level were thought to be a good way to improve communication and cooperation between these groups.

Telephone – A few folks mentioned dialing applications such as Dial My Contacts as a means to send telephone messages to less tech-savvy members.

Mail – It was also mentioned that regular snail mail may be necessary to communicate with members who seldom or never go on-line.

Forums / Discussion Boards

- Forums provide a means for program participants to discuss specific issues or topics. They are typically set up as a discussion board on a central website, with a list of topics and subtopics. Members and others can select a topic and post their own opinions about that topic. The forum shows the contributions of participants for a given topic as a list of posts that can be reviewed by all.
- Members felt that forums could be organized by both geography and subject. For example, each chapter could have its own forum to encourage interaction between chapter members, but also have access to forums targeted at all regional and/or state program participants. Similarly, forums could be created for key topics such as training or recruiting.
- Forums were deemed to be especially useful for encouraging communication at the regional and state levels. Specific examples of the use of forums included a discussion board for topics related to chapter leadership and a mechanism for all members to discuss current issues.
- A wide variety of web-based tools are available to support forums. Google Groups was specifically mentioned as a potential candidate.

Collaboration Tools

- As discussed elsewhere in this document, a key strategic objective is to improve collaboration between groups at various levels in the organization, both internally and externally. One challenge for this effort is finding the means for teams with geographically dispersed members to effectively work together towards common goals. Collaboration tools attack this challenge by creating online teamwork spaces.
- Collaboration tools use many of the applications and technologies already described above. This might include forums, email, document and file sharing, calendaring, task management, virtual meeting spaces, and other capabilities. What is unique about this approach is its team focus. A specific team site would be set up, and individual participants would be invited to join that site. Multiple sites could be created for specific projects or topics. Examples might include a regional watershed project or a statewide training group. Members and others would join those groups of interest to them. Within each site, all forms of communication would be targeted at the specific site topic.
- As noted earlier, the proliferation of communication channels, content, and media makes it ever more difficult to provide the right information to the right people at the right time. Receivers face information overload, and senders are unsure of the appropriate audience for their content. Collaboration tools use a team focus to match personal interests and promote continuous interaction among contributors. They may be critical to connecting participants at the regional and state levels.

Next Steps

Many members felt that one priority for communications planning should be improving content and distribution of messages regarding program impacts and benefits. This would help bolster program support among all stakeholders. A possible first step in the communications planning process would be to use the planning methodology described above as a test case for improving communications effectiveness.

Program Improvement Ratings

The table below shows the results of a survey regarding communications improvements. A few key points are:

- Topping the list is the provision of state agency contact information, perhaps indicating a general desire to improve collaboration with those agencies.
- Specific methods for improving communications with state agencies, such as establishing liaisons or setting up regional meetings, received modest support. This may reflect uncertainty regarding the best approach.
- Enhanced communication between chapters and the state program office also were fairly well received, including a state newsletter and state working groups.
- Technical support for activities such as marketing and website development were in the lower rank, perhaps demonstrating that some chapters already have the needed expertise.
- The least supported item was the development of a statewide communications plan. This may be indicative of uncertainty regarding the potential outcomes and benefits of that process and the level of effort required.
- Finally, state agencies and other partners tended to be more supportive of most enhancements. This may reflect the fact that members are fairly satisfied with the communications tools available to support current chapter activities, whereas external groups face barriers to participation in those communications channels.

Table 9.3. Average responses of each stakeholder group to the question “please rank each of the following activities as a very low (0) to very high (100) priority for the statewide program.”

Initiative	Average Volunteers	Average, Others	Variance, Vol to Others	Percent Not Needed
Provide a contact list of sponsoring agency staff by region	70	76	-5	12%
Develop a statewide program newsletter	64	79	-15	13%
Establish statewide working groups based on common interests	63	74	-11	19%
Identify key public messages for volunteers to deliver to public	63	79	-16	13%
Appoint liaisons to communicate among sponsoring agencies, partnering organizations, and volunteers	62	72	-10	19%
Organize regional meetings between our sponsoring agencies, partnering organizations, and	61	70	-9	11%

volunteers				
Create a statewide listserv for all volunteers in program that allows for two-way communication	58	66	-8	20%
Create a press kit for use by local chapters	58	68	-10	14%
Provide training on how to create and maintain a local chapter website	57	64	-7	6%
Develop a statewide marketing campaign	57	71	-14	22%
Develop a statewide communication plan that outlines communication services and strategies	57	64	-7	16%

Participants were also asked to rate potential enhancements to the state website. The clear priorities related to providing a central location for statewide event calendars, training and educational materials, and project opportunities. Only moderate interest was expressed in message boards and an online help desk. The creation of a members-only site received little support.

Table 9.4. Percentage of stakeholders that selected the listed responses for the following question: “The statewide program will be revamping its website in the new year. Which of the following features would you like to see on the website. Check all that apply.”

Response	Stakeholder			
	Volunteer	Advisor	Sponsor	Partner
Statewide calendar of events	92%	100%	83%	89%
Searchable list of volunteer opportunities	87%	80%	100%	78%
Searchable library of volunteer resources (e.g., articles, books, websites)	83%	90%	83%	100%
Message boards organized by topic	55%	60%	58%	67%
Online help desk for assistance to volunteers and public for natural resource related questions	53%	50%	50%	67%
Private pages only accessible to program members	27%	40%	25%	11%
Other	8%	10%	0%	0%

Finally, participants were asked their preferences regarding communications channels for state program content. Email was the clear winner, with the state website a distant second. Only a small portion of participants were interested in other vehicles, including social media.

Table 9.5. Percentage of stakeholders that selected the listed responses for the following question: “How would you like to receive communications from the state program? Check all that apply.”

Response	Stakeholder			
	Volunteer	Advisor	Sponsor	Partner
Email	84%	100%	83%	100%
Website	58%	70%	50%	60%
Listserv	27%	40%	33%	60%
Facebook	15%	20%	25%	30%
Blog	6%	10%	8%	10%
I do not want to receive any communications from the state program, only chapter communications	5%	0%	0%	0%
Twitter	3%	0%	0%	20%
Other	3%	0%	0%	0%

Central Issues

Communications strategies must support overall program strategies and objectives. Communications planning is the key first step in establishing the communications requirements for new program initiatives. Given that many participants may be unwilling to participate in a long and involved planning process, it will be important to focus on communications improvements that support participant program priorities.

Increased cooperation at the regional and state levels will probably require significant enhancements to the VMN communications infrastructure, since the latter objective increases the complexity of the communications landscape and creates added distance barriers for personal interaction. If collaboration tools are needed to support this objective, it will be important to carefully weigh the costs and benefits of specific solutions, since these technologies can be expensive to deploy. It is also important to consider the training and support costs for more sophisticated technologies. A critical factor will be designing simple user interfaces that allow all stakeholders to participate fairly easily.

Based on member comments, it is also apparent that at least a few local chapters lack the expertise and/or volunteer resources needed to implement and/or maintain more sophisticated communications tools for their own use. The state office could help by providing technical assistance. This might include standard tools (e.g., website hosting), templates for development, training, and technical support. The types of

support required cannot be determined until communications priorities are established and chapters are polled regarding their needs.

Focus Area 10: Junior Master Naturalists

Background

Under current program guidelines, children under the age of 14 are not allowed to participate in the VMN program. Between the ages of 14 and 17, children may enroll, but must be accompanied at all times by a parent or other adult taking responsibility for them. Given the widespread concern about children's disconnect from nature, a number of VMN chapters have experimented with various activities targeted at the younger age groups. These programs are typically conceived as part of each chapter's education and outreach activities. Having recognized an opportunity to serve and engage an unrepresented portion of the population, many members have an interest in creating a formal program for children sponsored at the state level and implemented locally. This program is often referred to as the Junior Master Naturalist program.

While such a program may have many potential benefits, the core objective is to take action now to build the next generation of conservationists. Many studies have indicated that the majority of children lack an appreciation for nature and a strong desire to protect it. If, as expected, these attitudes persist into adulthood, there could be dire consequences. Over the longer term, there may be fewer resources to support conservation, and environmental involvement may wither over time.

In attacking this overall goal, a number of supporting objectives were mentioned by members. These included:

Primary Objectives

Introducing Youth to Nature – The first step in developing an appreciation for nature is simply to spend time in the outdoors. The idea is to promote an initial interest in nature through exploration and hands-on activities.

Developing Knowledge and Skills – Through more advanced training and experiential skills development, youth can build their confidence to take on more challenging tasks. This might include mentoring younger members and participating in more complex projects. The objective is to increase their engagement and commitment to conservation efforts.

Engaging Youth in Conservation Efforts – Having developed an appreciation for nature, young persons can then be offered opportunities to help protect it. This could take various forms of stewardship and outreach, and could include formal volunteering programs. The objective is to show members how they can make a difference through effective conservation initiatives and establish a habit of contributing their time and energy to these initiatives.

Recruitment into Adult Programs – It is hoped that Junior Naturalists will be inspired by their experiences to continue their involvement in conservation into adulthood, either as a vocation or avocation. Since young adults often move away from home, this might occur in another locality or even another state. They may also join organizations other than the Master Naturalist program. In any case, developing a long-term commitment to

conservation would fulfill the ultimate goal of building the next generation of conservationists.

Secondary Objectives

Recruiting Parents – Parental involvement in their children’s activities with the VMN program may provide a mechanism to recruit parents as members.

Adding Volunteers – Junior Master Naturalists could also help with existing VMN adult projects, with appropriate supervision.

Improving Fitness – Being active in the outdoors helps improve youth fitness and health.

There are a multitude of options in designing program structures and activities. This section will lay out these options and provide a method for evaluating each alternative.

Program Improvements

Programming Factors

In designing specific programs and activities, there are a number of factors to consider and choices to make. As will be discussed later, these choices will ultimately be made based on community needs and opportunities, as well as chapter interests and capabilities. At the outset, however, it is important to consider all the alternatives.

Activities – There are a variety of activities that can be included in the program. They can be summarized in accordance with the objectives described above. It is envisioned that children would progress through each type of activity described below as they mature and become more committed to conservation efforts.

- *Exposure to Nature* – These activities are designed to acquaint the nature novice with the natural world and begin the process of learning about environmental topics. Often they are targeted at younger children, and are designed to be fun and easy. They might involve simple tasks such as identifying a tree in the schoolyard using a key (and a few hints). They are also usually tied into the science subjects they learn in school.
- *Developing Knowledge and Skills* – As children age and gain experience, training can become more advanced. More topics can be introduced, and children can begin to learn about the interdependencies in ecosystems. Hands-on activities might include citizen science such as water quality monitoring or natural area inventories. Children are encouraged to delve deeply into topics of interest and help mentor younger children as they learn more.
- *Engaging Youth in Conservation Efforts* – Many members felt that volunteering should be an important part of the Junior Naturalist program, in keeping with the main mission of the overall VMN program. Given that most high schools (and some middle schools) require service hours for graduation, this would seem to be a natural fit. At issue is whether and when this would be a requirement for program participation. One suggestion is that modest levels of volunteering (perhaps 20 hours) become a requirement for middle school youth, with additional hours for high

school youth (perhaps 30 hours). This could involve projects designed specifically for younger members and/or participation in existing adult projects. In either case, participants may need added training and supervision.

- Recruitment into Adult Programs – Many members felt that a certification process for the Junior Master Naturalist program would provide a clear path for members to advance into adult programs. There could be different levels of certification for different age groups, with the requirements increasing as participants age through the program. For high school youth, certification would provide an added credential for resumes, college applications, and scholarship applications.

Age Groups – Activities must be designed for the skills and abilities of different age groups, and would follow the progression described above. Some members felt that school divisions provide a useful organizing principle.

- Elementary School – Some suggested that programs start with children as young as 7 years old, deeming it critical to spark an interest at an early age. The focus would be on exposure to nature as described above. It was also emphasized that special skills and training are needed to design activities and teach educational materials to children of this age group.
- Middle School – For this group, the focus would be on developing knowledge and skills, while also introducing involvement in conservation efforts. This would still require a high level of adult supervision and guidance.
- High School – The focus for high school youth would be on preparing for the transition into adult programs. Some members felt that we should concentrate on this age group, since they may be capable of participating in activities designed for adults. For example, they could take the standard basic training course and/or volunteer for existing VMN projects. Ultimately, we could offer a certification process designed for this group without creating a radically different set of programs. However, it would still be best to set up a program separate from the adult VMN program in order to support the social needs and desires of this group and provide added mentoring and supervision.

Scheduling – The scheduling of programs is determined in part by the type of activities involved. Consideration must also be given to scheduling activities around other claims on children's time, including sports, family events, and other extracurricular activities.

Choices include:

- During School Times – In this instance, VMN volunteers would participate in classroom instruction.
- After School – This might include weekday afternoon and/or evening activities of a relatively short duration.
- Weekends – This is often associated with longer duration activities.
- Summer Vacation – Summer vacation offers the opportunity to hold extended programs.

Siting – The location of program activities is strongly tied to purpose and influences the types of activities possible. Members mentioned several basic options for siting choices.

- **In-School Programs** – This approach involves cooperating with schoolteachers at individual schools to help teach science subjects during class time. While it might involve lectures on special subjects (e.g., water quality), it is most often conceived as the “lab” portion of instruction. Students would participate in outdoor activities, often targeted at specific SOL requirements. It can be facilitated by the availability of natural areas near the school. VMN volunteers may help construct or restore these areas. An example is the creation of a butterfly garden.
- **After-School Clubs** – In this program, students would be invited to join a naturalist club at their school. This would most often be sanctioned by the school and meet on school grounds after school hours. The students and a VMN mentor would plan activities and invite speakers. The types of activities would be based on student and community interests and needs, and may vary. Club members could participate in broader VMN chapter activities planned for multiple localities and benefit from the training and mentoring offered by other VMN members.
- **Community Centers** – Rather than being tied to school grounds, these programs cover a larger community and are offered at a central site. It could include a whole range of program activities, including volunteering. Nature centers, recreation centers, 4H centers, and parks are frequently mentioned alternatives.
- **Nature Camps** – These sites frequently have facilities for overnight camping, and can support weekend and summer camps of an extended duration. They can also be used for day camps.

Demographic Groups – Programs need to be designed with the needs and interests of the target demographic groups. For example, children in rural areas may be fairly familiar with the natural world, whereas inner city kids may have had little exposure to it. Similarly, home-schooled children may have different needs than children in the public schools.

Special Events – In addition to on-going activities for program members, many members felt it was important to support special events targeted at youth and families, regardless of affiliation. Specific activities included:

- Earth Day Activities
- Family Campfire Gatherings
- Envirothon – National High-school competition aimed at testing teams’ knowledge and problem-solving skills in environmental topics.

Partners – In many cases, partners will play a critical role in service delivery. The choice of partners will obviously be dictated by the type of activity involved. The role of partnerships in program design will be discussed in greater detail later. For now, we will outline those partners deemed worthy of consideration by members.

- **Existing Environmental and Outdoor Organizations**
 - 4-H Clubs – This group was frequently mentioned, as its programs seem to match our objectives and it already has a wide range of youth programs in place.
 - Churches sometimes have summer camps that focus on outdoor activities

- Other groups mentioned include Future Farmers of America, The Nature Conservancy, various watershed groups, the Girl Scouts, and the Boy Scouts.
- Schools – Local schools at all grade levels are an obvious choice for programs aimed at children, especially when tied to educational goals.
- Nature Centers – Many existing nature centers already offer programming for children, as well as sites for on-going outdoor activities and conservation projects.
- Local Government – Local Parks and Recreation departments often have nature programs for children. Localities may also have groups devoted to environmental issues, such as clean water commissions or tree stewards.
- State Agencies
 - The Virginia Office of Environmental Education offers extensive resources for children’s outdoor and conservation activities, and also serves as a central clearinghouse for environmental education materials. This agency already has partnerships with numerous youth-focused organizations, and can help VMN chapters find and connect with these organizations.
 - Other agencies mentioned were state parks, Soil and Water Conservation Districts, and forestry centers.
- Special Needs – Children with special needs receive added help in enjoying the outdoors. Specific programs mentioned included Head Start and Achievable Dreams.

Curriculum

The curriculum for training must be targeted at different age groups, and may need to be specific to grade level. There are several key components to the process of developing the curriculum.

Defining Curriculum Needs – We must decide what topics are important to teach children. This could be a stripped down version of the VMN basic training course. Some members felt it was also important to include the use of technology such as smartphones or GPS devices as a way of sparking the interest of technology-savvy children.

Identifying Sources and Collecting Materials – Fortunately, there are numerous sources of environmental training materials for youth of all ages. We will need to evaluate these source materials and select those appropriate to program objectives and activities.

Specific sources include:

- Virginia Standards of Learning – The state of Virginia requires all schools to teach certain science subjects and tests students at different grade levels on those subjects. Tying our training to SOL requirements will help ensure the cooperation of schools in our programs.
- Virginia Office of Environmental Education – As noted above, this agency provides a wide array of environmental education materials for children, as well as links to other sources. It also has workbooks for activities tied to the SOLs and training for environmental educators.
- Meaningful Watershed Educational Experience – This is a state program that combines instruction and hands-on experience to teach about the ecology of the

Chesapeake Bay and its watershed. It can serve as a model for constructing other programs and a source of educational materials.

- VMN Training – It is possible that the training materials used for the adult VMN program could be adapted for use with the Junior Naturalist programs, particularly for older children.

Creating Resource Kits – Once curriculum needs are defined, some members felt it would be beneficial to create a standard set of educational materials and workbooks at the state level. This would obviate the need for each chapter to create its own training program, thereby saving time and effort. Similar to the discussion in the earlier section on the basic training program for adults, there would need to be some flexibility built into the curriculum in order for chapters to adjust training programs to reflect local needs and interests.

Models

Many members felt it will be important to look to other successful programs as models for specific activities in the Junior Naturalist program. Numerous examples in various categories were offered. Here is a quick summary of the most frequently mentioned examples:

Volunteering Programs – The Youth Conservation Corps is a state program focused on engaging youth in improving state parks. It combines both residential and non-residential components.

School Programs – Existing VMN chapters have already established school programs and can offer lessons learned.

Nature Centers – There are nature centers operating in some chapter service areas and a number have been pointed to as good models for youth programs.

School Clubs – Naturalist clubs have been established at a number of elementary schools.

Naturalist programs – Both the 4-H and Junior Master Gardeners programs were mentioned as successful models.

Program Planning and Evaluation

Establishing a Junior Naturalist program represents a major endeavor for the overall VMN program. Many members felt it was important to carefully evaluate our options and plan out the implementation. This process might include the following steps:

- Needs Assessment – This involves determining the needs that will be addressed in the program and the services required to satisfy them.
 - Define Goals and Objectives – This document offered an initial set of program goals and objectives, based on member input. There may still be competing views on the ultimate aims of the Junior Naturalist program. We will need to achieve consensus on goals and objectives prior to designing the program.

- Define Potential Programs and Activities – Determine which programs and activities are best suited to program goals.
- Assess Existing Programs – As noted earlier, many organizations provide youth programs. For each community, we will need to assess these existing programs and determine whether they may be fulfilling all or part of the need.
- Define Service Gaps and Set Priorities – Based on the previous analysis, we can determine what program needs are unfulfilled or in need of enhancement. We should focus on those needs. This may vary by chapter.
- Define Program Structures and Activities – Design priority programs and services.
 - Review Successful Models – As noted earlier, we can learn from the successes of other programs. This might include a review of Junior Naturalist programs in other states.
 - Assess Needs / Benefits of Partnerships – Determine whether partnerships are needed for each service and select these partners. Structuring relationships with partners will be discussed in greater detail in the next section.
 - Define Curriculum and Activities – Centered around priority services and supported by the state program and educational partners.
- Define Costs and Resource Requirements – Determine the actual costs and level of effort for each program. A number of cost categories were mentioned by members:
 - Transportation – Some programs may require participants to be bused to activity sites.
 - Marketing
 - Training – For VMN service providers.
 - Volunteer Effort – Level and types of volunteer resources needed.
 - Liability Costs – Programs aimed at children may have higher liability risks, incurring additional insurance costs.
 - Administration – Time and effort to set up and administer the program
 - Fee Offsets – It may be possible to offset some costs through program fees for members.
- Finalize Program Priorities – Based on a cost/benefit analysis, one can decide which programs to pursue.
- Assess Need for State Support – Based on the programs selected, one can determine what level and types of assistance may be required from the state program office. Some members felt this program may need its own state coordinator.

Structuring Partnerships

Stand-Alone Versus Partner Programs - As discussed earlier, there can be overlap between the intended programs and services of the Junior Naturalist program and those of existing organizations within each community. Some members question the need for a stand-alone program, preferring instead to partner with these existing organizations. The limiting factors that favor partnership are as follows:

- Risk Management – Youth programs carry added liability risks for the mistreatment of vulnerable members. At a minimum, background checks would be required.

There may also be added insurance costs. A number of members pointed to these risks as a reason to partner with other organizations.

- Capacity – Some members doubted whether their chapter had the capacity to design and implement extensive youth programs. Partnering is a way to pool resources.
- Competition with Other Organizations – Establishing our own program would often place us in direct competition with like organizations in the area. Some would question whether there would be sufficient interest in these redundant services. There is also the concern that we may damage existing relationships with partner organizations by competing with them for participants.
- Added Responsibilities for Managing Parents – Youth programs face the usual problems of unruly children and uncooperative parents. For example, some members are concerned that parents will use the program as a baby-sitting service. Having a partner be the sponsor for the program would place the burden of managing parents on their shoulders.

Reviewing Options – There are multiple ways to structure relationships with partners. We will need to assess each option for each service based on the limiting factors described above and service costs and benefits.

- Stand-Alone Program – Creating a stand-alone program allows the VMN organization to create integrated services that pursue a unique vision of program objectives and outcomes. For example, the creation of a certification process would only be possible within a stand-alone program. One of the key success factors is distinguishing the Junior Naturalist program from other alternatives and marketing our vision. Partners would still be needed for many services, especially where a hosting site is not already available. The difference would be that the VMN program would control service delivery. We must be sure that our services meet a need and can overcome the limiting factors described above.
- Partnering with Joint Volunteering – In this approach, services would be sponsored by a partner organization. VMN members would actually become volunteers with the sponsoring organization, and it would handle program administration. However, it should be possible for VMN volunteers to suggest and implement added services with the approval of the sponsor. The key is to identify sponsors with similar interests and a willingness to collaborate.
- Partnering As Experimentation – Some members suggested that individual chapters could initially partner with like organizations as a means of furthering exploring our options. This provides the opportunity to learn more about the requirements for youth programs and better assess need. Using what we learned, we can then decide whether a stand-alone organization would better fit our objectives and could overcome the limiting factors.
- Passive Partnering – In this approach, VMN volunteers would have limited direct involvement in partner programs and youth programs in general. Examples given include speakers bureaus for partner organizations and the provision of training materials and workbooks for other service providers. It presupposes that the chapter has concluded that a lack of need and strong limiting factors precludes its active involvement in youth programs.

- Do Nothing – There is always the possibility that chapters may conclude that nothing is to be gained from creating any form of youth program.

Program Improvement Ratings

The survey regarding program improvements dealt with many of the issues and concerns discussed in this section. We will focus on the responses of members.

- Program Need – On average, members were slightly favorable to the creation of a statewide Junior Naturalist program. A similar rating was given to the idea that local chapters could opt out of the program. Together, these responses may indicate divided opinion on the subject, with many participants feeling it may not be appropriate for every chapter. Similarly, the average rating for the role of this program in improving diversity in the existing program was basically neutral.
- Partnering – There was also a divided opinion (60/40) on the question of partnering versus a stand-alone program, with the partnering approach receiving a higher rating. This can be partially explained by the fact that a modest portion of the respondents felt that the program would duplicate existing programs.
- Program Components – The inclusion of volunteering requirements for the program received a fairly high rating, as did the willingness of participants to submit to background checks as required.

Table 10.1. Average responses of each stakeholder group to the question “please rank on a scale of 0 to 100 how strongly you disagree or agree with the following statements.”

Statement	Stakeholder			
	Volunteer	Advisor	Sponsor	Partner
I would like the state to develop a statewide Junior Master Naturalist program	62.51	71.11	70.58	73.9
A Junior Master Naturalist program should only be adopted by local chapters interested in starting one, not the statewide program	62.69	50.4	61.55	63
A Junior Master Naturalist program is essential to engage diverse audiences in the existing program	47.76	62.33	61.17	58.22
A statewide Junior Master Naturalist program should tie into existing programs with similar missions (e.g., 4H, Scouts, NatureCamp)	60.27	54.63	62.82	71.4

A statewide Junior Master Naturalist program should be independent of existing programs	44.47	46.25	41.45	40.25
A Junior Master Naturalist program would be a duplication of existing programs	35.72	29.2	48.64	46
A statewide Junior Master Naturalist program should require a volunteer service component	76.2	90.89	73.75	86.1
I am willing to take a background check if required by the statewide program	84.02	98.14	92	85.8

Central Issues

Many members have misgivings about tackling a program initiative with the scope and complexity of the Junior Naturalist program. Not only are they concerned about the limiting factors described earlier, but they also worry that it may drain energy from the existing program and detract from the original mission. On the other hand, many members feel that it is imperative to address the issue of youth involvement in conservation, and that the long-term benefits greatly outweigh short-term program issues. We must reconcile these differing views.

One approach would be to provide better information upon which to base our judgments. We could accomplish this through additional experimentation with various program alternatives at the local level. This would help us better assess program requirements and benefits. By choosing chapters with an interest in these programs, we can improve our chances of success. It is vitally important, however, to set out program objectives at the beginning and establish clear measures of program outcomes. This entails defining what information we need to fully evaluate our options and establishing methods for collecting that data. At the same time, we can poll Master Naturalist programs in other states to gather additional information about their experiences with similar programs.

REFERENCES

- Achieve, & Johnson Grossnickle and Associates. (2012). The Millennial Impact Report 2012 (pp. 35).
- American Environics. (2006). Toward a New Ecological Majority: Summary and Overview (pp. 23): American Environics.
- Bonneau, L., Darville, R., Legg, M., Haggerty, M., & Wilkins, R. N. (2009). Changes in Volunteer Knowledge and Attitudes as a Result of Texas Master Naturalist Training. *Human Dimensions of Wildlife*, 14, 157-172.
- Bureau of Labor Statistics. (2014). Volunteering in the United States-2013 USDL-14-0314 [Press release]. Retrieved from <http://www.bls.gov/news.release/pdf/volun.pdf>
- Caroline, N. B., Caroline, N., Nilon, C. H., & Pierce, R. A. (2009). An Evaluation of the Missouri Master Naturalist Program and Implications for Program Expansion. *Journal of Extension [Online]*, 47(3), <http://www.joe.org/joe/2009june/a2005.php>.
- Guiney, M. S. (2009). *Caring for nature: motivations for and outcomes of conservation volunteer work*. University of Minnesota.
- Hubbard, B., & Young, L. (2010). Parks and Legacy Outreach Summary Report: Minnesota Department of Natural Resources.
- Lacy, S., & Riffe, D. (1996). Sampling error and selecting intercoder reliability samples for nominal content categories: Sins of omission and commission in mass communication quantitative research. *Journalism and Mass Communication Quarterly*, 73, 969-973.
- Lombard, M., Snyder-Duch, J., & Bracken, C. C. (2002). Content analysis in mass communication: Assessment and reporting of intercoder reliability. *Human Communication Research*, 28(4), 587-604.
- Navarro, M. (2009). In Environmental Push, Looking to Add Diversity. *The New York Times*. Retrieved from http://www.nytimes.com/2009/03/10/science/earth/10move.html?_r=0
- Ponds, P. D. (1993). *Underrepresentation of minorities in natural professions: an examination of African Americans*. (MA), Oregon State University, Corvallis, OR.
- Taylor, D. E. (2014). The State of Diversity in Environmental Organizations (pp. 187). Washington D.C.: Green 2.0.
- The Nature Conservancy. Connecting America's Youth to Nature: The Nature Conservancy.
- U.S. Census Bureau. (2012). American Community Survey Demographic and Housing Estimates, 2008-2012, 5 YR Estimates. from <http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk>
- U.S. Census Bureau. (2013a). 2013 American Community Survey 1-YR Estimates. 2013, from http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_13_1YR_DP03&prodType=table
- U.S. Census Bureau. (2013b). Virginia Quickfacts. from <http://quickfacts.census.gov/qfd/states/51000.html>

APPENDIX I. STRATEGIC PLANNING METHODOLOGY

The strategic planning process involved three steps: (1) a comprehensive needs assessment to identify program needs; (2) strategic planning workshop sessions to identify approaches for addressing those needs; and (3) online voting to prioritize proposed activities.

Needs Assessment

The needs assessment involved a two-phase exploratory sequential mixed methods research design across four key stakeholder groups: volunteers, chapter advisors, sponsoring agency staff, and partnering organization staff. Qualitative data were collected through focus groups and interviews across all four groups in the first phase of data collection, and appropriate survey instruments were developed for collection of quantitative data in a second phase.

The qualitative phase of the needs assessment included 24 focus groups and 10 interviews conducted by the program coordinator. We randomly selected ten chapters (Alleghany Highlands, Arlington Regional, Blue Ridge Foothills and Lakes, Central Piedmont, Headwaters, Historic Rivers, Holston Rivers, Old Rag, Rockbridge, Southwestern Piedmont) from the total list of 29 to participate in the focus groups. We asked each selected chapter to create two lists dividing its membership into those volunteers who had served on the Board and those who had not, assuming volunteers serving or not serving in chapter leadership roles might have a different volunteer experience. We asked chapter representatives to contact six randomly selected volunteers from each group to participate in the focus group. Volunteers were randomly selected until a total of six were found that could attend on the scheduled date and time. In some cases, two focus groups and/or random selection was not feasible due to chapter size. During the focus group discussions, each group was guided by a series of questions relating to program structure, training, volunteer opportunities, communications, and volunteer experience.

The program coordinator also conducted semi-structured interviews with ten randomly selected chapter advisors. Questions related to his/her role as an advisor, his/her experience serving in that role, and ways the statewide program could better support him/her in that role.

The program coordinator also conducted one focus group with each of the program's six sponsoring agencies (Department of Game and Inland Fisheries, Department of Conservation and Recreation, Department of Forestry, Department of Environmental Quality, Virginia Museum of Natural History, and Virginia Cooperative Extension). Members of the state's steering and executive committees selected participants from each agency based on his/her level of engagement with the program. The program coordinator then compiled a list of staff affiliated with the program's approximately 300 partnering organizations. The coordinator randomly selected and contacted individuals from this list until six were available to participate in a focus group. Focus groups and sponsoring agencies and partnering organizations were guided by questions relating to current engagement with program, experience with volunteers, and how the program has supported the organization.

We recorded all focus group and interview sessions. We transcribed each session but removed participant names from the transcriptions to ensure anonymity. All quantitative data were coded. We determined interrater reliability among two coders using Cronbach's alpha statistic (α). Once an acceptable α was reached ($\alpha=0.69$), a final code was assigned based on the majority of coders with rare disagreements resolved via discussions (Lacy & Riffe, 1996; Lombard, Snyder-Duch, & Bracken, 2002).

Following coding and analysis of qualitative data, we developed a survey instrument for each stakeholder group. We designed survey questions based on responses we received from the qualitative phase of data collection. We received survey responses from 598 volunteers, 16 advisors, 108 sponsoring agency staff, and 55 partnering organization staff.

Strategic Planning Sessions

For the next step of the strategic planning process, we hosted four in-person strategic planning workshops to address ten key areas identified through the needs assessment: (1) recruitment; (2) basic training resources; (3) advanced training opportunities; (4) volunteer opportunities; (5) retention; (6) chapter management best practices; (7) finances and fundraising; (8) annual reporting; (9) improving communications; and (10) Junior Master Naturalists. The sessions were located in Blacksburg, Charlottesville, Williamsburg, and Arlington with 117 attendees.

The program coordinator provided an overview of the needs assessment findings to each attendee by topic area. Each attendee was then asked to select three of the ten topics in which they would like to provide input on future activities to support those needs. Each topic area had a facilitator that recorded feedback provided by the three rotating groups. Each facilitator then merged ideas and reported them to the larger group of attendees for final feedback.

The findings of the needs assessment were also presented online for stakeholders that could not attend the sessions in-person. A survey allowed these individuals to submit input to the process. We added these data to those provided during the in-person sessions.

Online Voting

We compiled activities proposed from these sessions into an online survey that was sent out to program stakeholders so they could "vote" on which of the proposed activities should be given priority within each of the ten need areas. The survey had respondents rank activities from very low (0) to very high (100) priority. We received survey responses from 430 volunteers, 13 advisors, 22 sponsoring agency staff, 13 partnering organization staff, and 25 other stakeholders.