

Conservation Recipes

for the

21st Century



Blending old and new ingredients to improve the delivery of conservation products and services on changing demographic and physical landscapes.

An NACD Special Report



Conservation Recipes for the 21st Century

MEETING THE MANY NEEDS OF CLIENTS

A National Association of Conservation Districts White Paper

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Introduction

This report identifies challenges and opportunities associated with efforts to reach conservation clients today and in the future, including those clients who are underserved or require special outreach. The Natural Resources Conservation Service and partners such as America's conservation districts are challenged in the 21st century to serve a broader array of customers and provide more complex information than ever before. Changing land use and demographics in rural America and trends in agriculture and forestry that result in a more diverse client base have created heightened demands for conservation products and services. Urban and urbanizing populations also increasingly seek services. These and other changes challenge traditional recipes for serving customers. Rapid evolution of technology has helped NRCS provide new products and services and broaden its ability to educate clients, but technology can also become master of field staff's time. These concerns were reflected in input from focus group discussions hosted by the National Association of Conservation Districts, in-depth interviews with conservation experts at the national, state and local levels and a review of relevant research materials. Two common themes emerge in this study:

- Recent Farm Bills have provided robust increases in spending for conservation, but have caused NRCS and to some degree its partners to become program-driven and tied to the rules and requirements of those programs. Programmatic conservation funding appropriations are at all-time highs, but funding for conservation technical assistance alone or without a tie to financial assistance does not match need.
- This changed culture has hindered basic conservation planning and implementation on the land and has reduced time staff is able to spend with clients.

The findings of this study shed light on new opportunities to enhance delivery of products and services. They also serve as a reminder that tried and true recipes developed over the years, especially those that emphasize the importance of direct interpersonal contact with clients, remain indispensable. The resulting recommendations focus on helping conservation professionals employ new tools effectively and, where appropriate, continue or return to what they do best. In both cases, the goal is the same: helping landowners and other clients plan and implement conservation practices in accordance with established standards. Recommendations focus on wise use of use of technology, including the sharing of technology with agency partners in the public and private sectors, streamlining and aligning of programs, making better use of traditional and new forms of communication and improving interaction with clients, including the underserved.

We are not attempting to address the myriad of ongoing activities to upgrade and or improve the various conservation practices and the standards or specifications for them. We understand that the agency uses a continuous improvement model to accomplish this and reflect that work in the national

state and local technical guides. However the subject of the new and improved practices and approaches, often mentioned as the “next generation of practices” does deserve attention and we hope to do that in subsequent work. Issues such a soil health and water quality measurement will no doubt be tied in with the future work on soil and water conservation.

Challenges and Opportunities: An Overview

Nothing stays the same, nor should it be expected to. That is certainly true for America’s conservation partnership. NRCS and its conservation district partners were born of the Dust Bowl and Great Depression. The partnership has grown to include many other private as well as local, state and federal governmental entities and has made great strides in addressing some of the key natural resources challenges that impact America’s ability to maintain productive farms and forests while protecting land and water resources.

Early efforts focused on stemming soil erosion and improving productivity of the country’s agricultural lands. Today, the partners employ multifaceted efforts to achieve balance between natural ecosystems and agricultural and forest lands.

As the conservation partnership has sought to address these needs, the products and services offered to clients have changed. Recent Farm Bills have greatly expanded funding for some conservation programs. This has allowed NRCS and its partners to provide financial assistance to more clients in more program areas. At the same time, the ability to deliver basic conservation planning, consultation and implementation of conservation plans in non-programmatic areas has been hindered. Funding for technical assistance is tied to program delivery, while funding for conservation technical assistance without financial assistance has declined. Trends noted in the study’s introduction have served to expand the need for assistance in urban, forestry, small-tract and other settings. Conservation partners such as America’s conservation districts are often well suited to help serve the expanded list of potential clients, but their capacity and ability to meet demand varies from state to state and is marked by uneven state and local funding. NRCS officials at the state and local level interviewed for this study voiced concern about declines in state funding for partners. Technological advances offer the potential for better outreach and more efficient delivery of products and services, but agencies such as NRCS are challenged to find ways to apply it and keep pace with rapid changes in how technology is applied in the private sector. Further exploration of these themes follows. We begin with a brief analysis of input from NACD focus groups convened to explore how NRCS and its partners can best provide products and services to a changing client base. That is followed by a closer look at national trends that have impacted and expanded the conservation partnership’s client base.

Focus Group Findings

NACD contracted with the nonprofit group RESOLVE in 2005 to conduct seven focus groups around the country to gather information from NRCS’ diverse customers and partners regarding the future environment in which NRCS will conduct its mission. Focus group participants were also asked for input

and advice on the best services and products for NRCS to provide to meet the needs of its customers and fulfill its conservation mission, given the changing environment. Focus groups represented a wide range of landowners, producers and partners. Here we share common themes that emerged from the meetings.¹

Future Environment

Changes in Land Use Patterns: All focus groups discussed significant changes in land use resulting from a variety of factors, leading to an increasing number of landowners and contributing to a decline in agricultural land and local ownership. For example, all groups discussed impacts of urban encroachment on traditional working lands and resulting pressures, including economic, cultural and natural resource challenges. Examples cited include rising land values and taxes, complaints about agricultural practices, land fragmentation, erosion, altered water patterns and flows, and wildlife isolation. These and other pressures affect the abilities of conservation agencies and organizations reaching out to a wider range of stakeholder groups as they identify and address natural resource and related challenges.

The Public Disconnect: Focus groups expressed concern that the public lacks understanding of agriculture, which is increasingly viewed as being unfriendly to the environment and natural resources. Groups also believed the public lacks understanding of the broad public benefits – such as improvements to water and air quality, increased wildlife populations, flood control and other services – of conservation practices on working lands. Participants feared this lack of understanding could lead to increased regulation and mandatory requirements for producers.

Water Quality and Quantity: Water quality and quantity were mentioned by all groups as increasingly challenging issues. More people using water for a diverse range of needs exacerbates these issues, as do different production practices.

Fewer Farmers: Focus groups discussed the lack of young people selecting agriculture as a career.

NRCS Services

Tools for Issue Analysis: Almost all of the focus groups talked about the need for tools to address challenging conservation issues. Groups viewed NRCS as being able to provide this service by developing tools and working collaboratively with landowners. Most participants believe NRCS will have the technical capabilities to develop the variety of tools necessary to meet future needs. Less certain was whether NRCS can effectively deploy the tools. Concerns include whether national requirements are flexible and adaptable at the local level; whether NRCS has adequate resources and personnel to meet the demand for services; and whether the agency is employing staff with the right collaborative and interpersonal skills to constructively work with landowners.

¹ A full copy of the report on focus group findings can be obtained from NACD by contacting Rich Duesterhaus at Rich-Duesterhaus@nacdnet.org.

Foster Partnerships: Focus groups discussed the value of partnerships and the role NRCS can play in establishing partnerships with landowners and groups to efficiently accomplish conservation outcomes. Groups stressed the importance of good interpersonal skills for NRCS staff. They said NRCS staff must be seen as cooperative and collaborative with landowners, not dictating to them. (Interestingly, some agency partners interviewed for this study expressed some of the same concerns: viewing their partnership with NRCS as one-way, top-down and not collaborative enough.) The ability to apply technical knowledge to the local situation was seen as important. Overall, NRCS was seen as being in a good position to foster partnerships among the increasingly diverse interests that impact conservation and natural resources.

Education: Many groups talked about the need for more educational efforts, with NRCS playing a bigger role in this area. Some groups stressed reaching out to different clientele as land use patterns change. Others emphasized the need to educate policymakers. Almost all groups talked about the need to educate young people to familiarize them with agricultural production and conservation practices. Some groups also stressed the need for educational materials for the general public to increase understanding and awareness of agricultural practices and the broad conservation benefits achieved by some producers.

NRCS Products

Many of the focus groups found it difficult to distinguish between services and products because many participants view NRCS' working relationship with landowners as their service *and* product. However, some groups did state a need for more printed materials explaining programs in greater detail (e.g., general descriptions, why programs are useful, eligibility requirements and other information), and distributed more broadly to traditional clients and potential new clients.

The Upshot

Clients and partners participating in focus groups were clear in saying they need on-site personal interaction from NRCS field staff to develop and implement conservation plans. They recognize that changing land use and demographic trends make the task more difficult. They believe NRCS has the ability to accomplish this by developing tools and working collaboratively with landowners, but they question the agency's ability to deploy the tools. While they recognized the importance of technology in accomplishing the job, they expressed a need for traditional assistance – be it interpersonal assistance on site or printed materials that explain conservation options, solutions, and recommendations in detail.

Professionals Weigh In

Agency professionals and partners at the local, state and national level interviewed as part of this study made similar points to those generated by focus group participants. Among the 16 professionals interviewed, the need for more interpersonal contacts with clients at the field level was cited eight times. The need to reach underserved clients was cited 11 times. Ten professionals expressed the belief that program-driven duties have changed the model for conservation delivery. Professionals' comments

on these concerns are best represented by this quote: “We are so overwhelmed right now with delivering programs and getting dollars allocated that we aren’t dealing with customers on the land, finding out what they need or want.”² Added another: “We never took the time to look at how the model has changed, and there’s a lot more oversight on the agency than ever before.”

A rededication to training, enhanced communications efforts and reliance on partnering efforts to help reach and serve clients were cited among important ingredients for improvement. Training opportunities for field staff and partners have lagged in recent years, several professionals said. The need to focus on training, specifically on interpersonal skills for new staff, was cited seven times in interviews. One professional noted that the agency is facing large numbers of retirements in the next decade, adding that now is the time to transfer knowledge from veteran staff to newcomers, perhaps through a mentoring program. Designing training to meet the needs and budget restrictions of private-sector partners was also cited.

Virtually every person interviewed said the role of partners in delivering conservation will continue to grow. One professional put it this way: “I can tell people with a straight face that we’re working at about 120 percent capacity, so there isn’t any way for me to juggle people or resources outside of making something a priority. I think it is going to fall on local communities to get things done. There may be assistance through conservation districts, maybe communities and county government. I don’t have an easy answer.”

The need to reach a more diverse client base was cited 13 times, and comments included this one: “The expectations of the public for NRCS to deliver and soil and water conservation districts to guide and oversee conservation is a lot more complex than it has been at any other time in our history.”

Continuing NRCS’ mission of working on location-based, landscape and watershed scales was cited several times as a means of achieving measurable conservation gains and identifying and serving a broader range of clients.

A combination of new technology and communications and marketing efforts were seen as essential to future success. New technology such as hand-held personal digital assistance devices (PDAs) and mobile computing were seen as boons for field staff. The agency’s Geographic Information Systems capability was seen as valuable in development and implementation of conservation plans, but also for social uses, such as helping to more precisely identify the needs of underserved clients. The partners need to do a better job of telling their story through enhanced communications and marketing strategies, several professionals said.

²A summary of collected interview input can be obtained by contacting NACD communications specialist Bill Berry at billnick@charter.net.

Based on input from focus groups and conservation professionals, we now take a more detailed look at the changing client base.

Changing Client Base

The traditional client base has changed and will continue to be transformed by a variety of factors. The 2007 [U.S. Department of Agriculture Census of Agriculture](#) and other sources of information validate issues raised by focus groups. The Census of Agriculture reports a 4 percent increase in the number of U.S. farms compared to the 2002 census. The number of both large and small farms grew, but middle-sized farm numbers declined. The biggest increase was in small farms that “tend to have more diversified production, fewer acres, lower sales and younger operators who also work off-farm,” USDA reported. In the past five years, U.S. farm operators have become more demographically diverse, as well. The 2007 Census counted nearly 30 percent more women as principal farm operators. The count of Hispanic operators grew by 10 percent, and the counts of American Indian, Asian and Black farm operators increased as well. Organic, value-added, and specialty production are all on the rise, the census reported. By most measures, these groups would be classified as underserved.

Focus groups and professionals both cited the impacts of land use changes on traditionally rural landscapes and resulting changes in the client base. This is borne out by statistics from a number of sources, including [NRCS’ Natural Resources Inventory](#) and the USDA Economic Research Service report, [Major Uses of Land in the United States](#).

ERS estimated that urban land area quadrupled from 15 million acres in 1945 to 60 million in 2002. Census figures show that the U.S. population approximately doubled in the same period. Rural residential land increased by 38 million acres from 1980 to 2002. The gain was especially pronounced in a five-year period, 1997-2002, when 21 million acres of rural residential land were added. The combined growth in urban and rural residential acres has led to well-documented impacts on traditional working lands and those who tend them. Several were cited in the focus group summary earlier. The challenge for NRCS and its partners was voiced by one conservation professional, who said: “Any landscape you pick now, everything is tangled up. There are all kinds of demands and pressures on the landscape. How can we continue to be relevant as conservation resource agency in the face of increasing urbanization? We need to work more at the landscape level.”

NACD’s 2008 report, [“Our Land, Our Water, Case Studies in Local Successes,”](#) highlighted the potential of working at the location-based, watershed and landscape scale. The 25 case studies demonstrated how working at this scale helps stakeholders understand their own impacts on watersheds and landscapes and their roles in resource conservation. The report identified more than 400 diverse partners for the success stories, ranging from citizen groups and environmental organizations to local, state and federal agencies and private businesses.

Chief White summarized the need for work at this scale recently, noting: “We know the responsibility for healthy watersheds doesn’t end at the fencerow. It is shared across landscapes, including where rural and urban communities meet.”³

Absentee Landowners

Absentee landowners comprise a large group of underserved clients. Approximately 42 percent of agricultural land in America is owned by absentee landowners,⁴ yet the conservation partnership has no effective means of communicating with this large group. Recent research findings conclude that “conservation or concern for the environment is the largest influence on (absentee) landowners when making decisions about the land.”⁵

Private Forest Landowners

NRCS and conservation districts are increasingly sought out for conservation planning and implementation on forested lands across the country. Forestry practices are eligible for technical assistance and cost sharing under the Environmental Quality Incentives Program, and other programs have forestry components.

The number of nonindustrial private landowners (NIPF) has grown steadily across the country in recent decades, to about 10 million today.⁶ A parallel trend is the decline in acres owned. Ninety percent of NIPF owners hold fewer than 100 acres per owner. Many in this group are new to the list of clients for NRCS and the conservation partnership.

These and other trends in land use and landownership challenge NRCS and its partners as they seek to accomplish their mission. The range of clients to be served and their different characteristics is enough to make a conservation professional run the other way. But that is not an option. Fortunately, technology can help. So, too, can new and old forms of communication. What works and what doesn’t? We explore that next.

Something Old, Something New for Staff, Clients

³ NACD’s “The Resource,” Fall 2009, p 13.

⁴ USDA ERS Agricultural Economics and Landownership Survey

⁵ “Engaging absentee landowners in conservation practice decisions: A descriptive study of an understudied group,” Peggy Petrzalka, Tom Buman and Jamie Ridgely, *Journal of Soil and Water Conservation*, May/June 2009

⁶ “Nonindustrial Private Forest Landowners, Building the Case for Sustainable Forest Management,” Michael P. Washburn, Stephen B. Jones, and Larry A. Nielsen, 2008, for the Sustainable Forests Partnership

Pick any gathering of conservation professionals, and it soon becomes obvious that technology is a ubiquitous part of their lives. Blackberries and other hand-held devices are everywhere, and spare moments find professionals sending and receiving emails and text messages and fielding phone calls. But they are as likely to be involved in more traditional ways of communicating, from conducting or participating in field tours to penning columns in their community newspapers. Here, we explore trends that produce challenges and opportunities in the areas of technology and communication.

Tools in the Field

In the field, professionals increasingly rely on tools such as the electronic Field Office Technical Guide, mobile computing, GIS capability, the on-line Customer Service Toolkit and other technological advances to do their jobs.

Some old-school practitioners downplay the importance of technology, but studies show that clients are increasingly more comfortable with and rely more upon technology, too.

As noted elsewhere in this report, focus groups and conservation professionals agree that interpersonal relationships between conservation professionals and clients are essential. The key, then, is how to employ technology in a manner that enhances opportunities for interpersonal contacts and streamlines delivery of conservation products and services.

NRCS has employed a number of efforts to enhance use of technology to serve both staff and clients. For an example, the Customer Service Toolkit used by field staff puts meaningful information at the fingertips of employees working from a laptop in the field to help clients with conservation planning. Efforts to develop a “plug-in” module for use by public and private-sector partners are under way.

In an appropriate move to address the needs of clients in urban settings, NRCS has revised its electronic Field Office Technical Guide. As Chief White noted, while resource concerns sometimes differ in urban and rural settings, many conservation practices “that make agricultural operations more sustainable can be applied effectively in neighborhoods and town centers, too.”⁷ Acting on a recommendation from NACD, the agency recently cataloged these practices and standards in the guide to promote broader applicability and encourage wider use.

The catch for a large national governmental agency is to determine the best path for acquiring or developing and then effectively deploying technology. The private sector often moves much more rapidly in this area, but that is not necessarily negative when considering how quickly the new technology landscape changes and yesterday’s innovations fall by the wayside. If the goal is offering a

⁷ NACD’s “The Resource,” Fall 2009, p 13.

set of new technology tools to better serve professionals and clients and enhance opportunities for interpersonal contact, then it becomes easier to filter what works from what doesn't.

Email, 'The Old, New Application'

Want to reach a client with electronic technology? Use email or related tools. New social media applications like Twitter and Facebook are growing rapidly and receive a lot of attention, but email is still tops, and by far.

[The Pew Internet and American Life Project](#) and other sources document this fact. Pew's most recent statistics show that 60 percent of Americans use email daily. The study calls email "arguably the Internet's all-time killer app." JupiterResearch estimates that citizens spend more than 80 percent of online time using email. A survey by eMarketer found that email is used by almost 53 percent of Americans to share information about a new product or service with others, second only to face-to-face communications and ahead of telephone calls. Bottom line: Email is the preferred digital channel for all purposes in every age group with the exception of young teenagers, who prefer text messaging.

Do these statistics apply to the conservation partnership's clients? Yes. A 2009 survey conducted by [Nicholson Kovac Inc.](#) found, for instance, that large corn and soybean producers are tech savvy. Sixty two percent have sent or received text messages during the past year. They are most likely to use mobile phones to email, access GPS and send text messages. Forty-seven percent spend five or more hours a week online, and 23 percent spend 10 or more hours. Most common uses are email and accessing weather and market reports. Conservation professionals have seen steady growth in adoption of email and other electronic channels by clients, so much so that the effectiveness of communicating on these channels is no longer an issue.

Social media and other new technology certainly offer new opportunities, but technology that intersects with email or similar applications will likely achieve the best results.

One question for conservation professionals is how well they offer and promote their products and services by email. New technology tools like blogs, videos and social media were cited for their potential by several professionals interviewed for this study. In each case, the numbers indicate that promoting these tools via email is effective. Several governmental agencies, including the Environmental Protection Agency, and even NACD allow citizens to sign up for emails and related services on agency web sites.

Email is by no means the only effective tool for communicating, especially when studies show that more than 30 percent of large farm operations still have no Internet connection. But among electronic applications, it rules.

New Social Media, New Potential

There is no doubt that social media offers new opportunities to reach clients, especially those in urban or urbanizing areas, where acceptance of social media services is higher.

Many new ingredients are available today in the communications stew. They include podcasting, video, blogs and social networks. Webinars and related on-line, group-learning opportunities continue to gain in popularity. They have the potential to provide lower-cost training and educational opportunities for field staff, partners and clients.

Communication plays a vital role in the conservation movement. As one author noted, "This is primarily because conservation usually requires change, and change requires communication."⁸

Again, the key question for agencies seeking to minimize costs yet keep pace with technological change is: Which applications best serve field staff and clients and enhance opportunities for interpersonal contact?

To the extent that social media encourages interaction, it offers opportunities to reach clients, field staff and partners in new ways and offer interactive opportunities.

New opportunities include:

- Podcasting, which can be presented on computers or mobile devices such as iPods. Users can subscribe through RSS (Rich Site Summary) feeds that deliver content from a Web site to a device at another location.
- Digital video, in which opportunities proliferate today. Video is finding increasing use in the conservation community and related fields. USDA is making use of its YouTube channel www.youtube.com/usda to incorporate video into communications efforts.
- Blogs, which provide two-way communications opportunities via the Internet. Blogging cannot replace face-to-face communication, but the interactive character of blogs does add another communications ingredient to the mix, and blogs erase some of the limitations of time and distance.
- Web sites, which like email, are so common they are almost taken for granted. They offer great opportunities for information sharing of new social media and more traditional text-based materials. Information sharing with partners offers opportunities to target and vastly expand audiences in cost-effective and time-sensitive ways.

⁸ "Changing the engines of change: Natural resource conservation in the era of social media," Mark Anderson-Wilk, Journal of Soil and Water Conservation July/August 2009. Anderson-Wilk provides an informative overview of the history of agricultural conservation communication and the opportunities provided by social media.

These and other new ingredients help enhance communications opportunities, and they will grow in importance as youthful early adapters increase their numbers in the mix of clients, field staff and partners.

Doing It the Old Way Still Works

Despite the proliferation of new media options, many clients continue to rely on tried-and-true “old technology” and old-fashioned face-to-face interaction to stay informed. The power of these traditional vehicles to share vital information cannot be overstated.

A 2008 media-use survey conducted for the National Association of Farm Broadcasters showed that traditional sources still serve as major ingredients in conservation communication. Readership in farm publications remains strong, but younger producers (49 and under) spend less time reading farm publications, according to the survey. Radio and television continue to be the leading media channels for daily agribusiness information, and young operators are especially drawn to them.

Another 2008 survey, conducted for the National Newspaper Association, notes that 86 percent of adults read a local community newspaper each week, and more than 75 percent of that group read most or all of the newspaper.

In addition, America’s 3,000 conservation districts and other partners sponsor thousands of field tours annually, distribute newsletters and other communications vehicles by the tens of thousands, regularly convene public forums, sponsor booths at fairs and other gatherings and provide numerous other ways to interact and communicate with clients.

A Little Goes a Long Way

Any review of technology and communications opportunities fails if it does not point out the multiple options available for sharing a single message across numerous platforms. It is easier today than ever to reach broad audiences, thanks to the technology and communications options available to the agency generating information; the growth of partners’ capacity to communicate through their web sites, newsletters and other vehicles; the growth of new media; and the persistence of traditional vehicles often begging for content.

Taking advantage of these opportunities requires dedication of time and talent, but if the goal is to generate conservation change, communication is vital to the effort.

Recommendations: Ingredients for Success

We have reviewed input from NACD focus groups of clients and conservation providers and interviews with agency staff, public and private partners and other conservation stakeholders. We have also reviewed relevant reports, studies, surveys and other background information. The sum of this work is hardly the most comprehensive collection of information and materials, but it does prepare us for a set of recommendations aimed at addressing challenges and opportunities identified in this study.

In the past eight decades, the conservation partnership that protects America's private lands has achieved significant successes. They include gains in controlling erosion; ongoing adoption of conservation practices by operators, such as no-till, buffers and nutrient management; and the growing recognition in many segments of society that good conservation doesn't come free, but is essential to sustainable land and water use, whether on the farm, in the forest or in community and urban settings. This appreciation for the importance of conservation is reflected in recent Farm Bills, which have included robust conservation titles, but also in the actions of public and private sector entities across the country. Terms like "greening" and "sustainability" have become common in the 21st century lexicon and are marketed as valued commodities.

But real conservation gains occur on the land, achieved through an orderly procession of reasoned steps. Let's view conservation like cooking. A good meal is the result of acquiring the right ingredients, using cookbooks old and new for effective preparation, following established steps and procedures to achieve a pleasing result and, after tasting the meal, a review of what recipes worked and what didn't. Likewise, we cook up good conservation by reaching out to and familiarizing clients with ingredients in the form of conservation products and services. We use planning to prepare a conservation strategy that fits the land. We employ a combination of expertise and ingredients such as technical assistance and cost sharing to achieve goals outlined in the strategy, and we provide follow-up assistance to assure that the strategy is working, modifying it as necessary.

Sounds simple enough, but as good cooks and proverbs have pointed out, "There's many a slip between the cup and the lip." NRCS and its partners at the national, state and local level and clients across the country know and recognize that fact, though perhaps not in those words. We have already noted that two key themes emerge from this study: A tendency toward program-driven conservation and a concomitant reduction in basic conservation planning and implementation in the field, working with clients as partners.

As we have reviewed in this paper, a myriad of other factors serve as catalysts for this changed environment. But virtually all sources agree: There is an ongoing need to update the recipes and ingredients so that the conservation partnership can stem the wearing away of the fundamental and underlying strengths of the historic conservation partnership and to achieve meaningful conservation gains.

Innovative, new technology provides many new ingredients for reaching clients, but the basic goal continues to be the same: helping landowners develop conservation plans and implement them to establish conservation practices, and doing so in a highly interactive manner. To the extent that technology serves that goal and streamlines the process, it should be embraced. But the partners must be ever mindful that their clients continue to need personal interaction as they make decisions.

Strategic use of promising new and reliable old ingredients can help the partnership as it proactively responds to the needs of a changing client base. Returning to the cooking analogy, the following recommendations are intended to help the conservation partnership reorganize its recipe box,

expanding it with some new and exciting additions and revisiting some old standbys that have worked so well in the past.

Revitalizing the Agency's Delivery of its Mission

NRCS and its partners will benefit from several initiatives under way at the agency, aimed at improving the delivery of products and services. A review of these efforts is appropriate.

The Conservation Streamlining Initiative, begun in 2009, seeks to define and implement a new business model that simplifies conservation delivery for employees and clients, streamlines processes to deliver technical and financial assistance in a more efficient and integrated manner, and ensures that NRCS' products and services are science-based and technically sound.

Chief White is currently conducting a workload analysis that examines expectations and the agency's capacity to meet them. The "gap" between expectations and capacity will provide the opportunity to realistically address business as is and develop strategies to either modify expectations or develop new means to meet them.

The Customer Service Toolkit employed by field staff has drawn attention for its ability to put meaningful information at the fingertips of staff working from a laptop in the field to help clients with conservation planning. Efforts to develop a "plug-in" module for use by public and private-sector partners are under way.

These and other initiatives offer promise. Here we offer a few recommendations to further enhance intra-agency efforts to meet its mission.

1. Implement the Customer Service Toolkit Plug-In

- Public and private sector partners are anxious to access client files as they develop and implement conservation plans and programs.
- The plug-in could also allow clients to access their own files.

2. Enhance staff and partner training

As the agency has sought to accommodate growing program demands from recent Farm Bills, training opportunities have declined. Former Chief Lancaster called for increased training opportunities in 2008, and Chief White has said that a well-trained staff is essential to good business. Based on input from this study, steps can include:

- Continue recent efforts to enhance staff training opportunities.
- Focus on training to help new field staff develop interpersonal skills and the basics of landowner interaction needed at the field level.
- Develop a mentoring program that links new field staff and seasoned veterans who have experience with landowner interactions.

- Explore training opportunities and replicable curriculum development with partners such as NACD.
- Where possible, use innovations to reach across the nation, such as podcasts, webinars and other Internet-based training opportunities that provide efficient, cost-effective approaches while achieving training goals. These tools may also provide the opportunity to reach more people and be valued by private-sector technical-service providers and public partners who lack travel time and money.

3. Enable Staff with New Technologies

Sorting through the ever-growing catalog of new technology innovations can be a daunting task for both public- and private-sector entities. In the sorting process, enhancing efficiency and improving interaction with clients should be key goals in determining how to apply new technologies. Some possibilities for NRCS and its partners:

- Hand-held personal digital assistance assistants (PDAs) that serve a variety of functions may be valuable for field staff. Newer PDAs, or hand-held computers, can be used as [mobile phones \(smartphones\)](#), [web browsers](#), or [portable media players](#). Many PDAs can access the [Internet](#), [intranets](#) or [extranets](#) via [Wi-Fi](#), or [Wireless Wide-Area Networks](#). Serving clients in the field can be enhanced by accessing agency web-based tools, program information and other basic information.
- NRCS should continue to develop mobile computing strategies and models. Providing a mobile office with laptop computer, printer and scanner can provide field staff the ability to print out information for clients during conservation planning, including the agency geospatial map service and similar tools that can be handed off to clients. For example, irrigation monitoring tools will be of growing importance in efforts to promote wise use of water.
- At least one state has found success with a mobile “tech team” of specialized experts that helps landowners implement engineering practices and has reduced client backlogs. The team is outfitted with GPS devices, GIS technology and four-by-four vehicles. These kinds of teams are also an option in applying a “strike team” approach with temporary or shorter term assignments.

4. Enhance Efforts to Reach Clients with New Communications Technologies

New technologies offer opportunities to reach a growing and diverse client base, but the goal should be to rely on those technologies that best match the audience and ultimately enhance opportunities for interaction. Some opportunities:

- Enhance email communications capabilities. As we have noted, surveys show that email is the most popular Internet tool for a majority of agricultural clients. Agricultural clients also show a fairly high level of adoption of text messaging. One easy step to enhance the delivery of relatively simple technologies like these would be to provide for email and RSS feed signups on

the NRCS web site, so that clients can receive messages from the agency conveniently. It is not hard to imagine a soybean farmer learning about a program signup while checking a Blackberry from the cab of a combine.

- Explore social networking opportunities and search for appropriate uses. Podcasting, video, blogs and social networks will provide growing communications opportunities. Many professional and scientific society publishers, including the Soil and Water Conservation Society (<http://swcsnetwork.ning.com>) are using social network technologies to enhance the networking capabilities and benefits of their members. Other niche social networks are sprouting up for nearly every target group (farmers, for example, can choose between a variety of networks, such as Farmers for the Future and Farm On.)⁹
- Review the use of on-line applications such as Widgets for possible applications. Widgets are online applications built by one Web site that can be displayed onto another Web site. Some government agencies have effectively used these applications to provide important messages to clients and partners. In certain cases, such as Centers for Disease Control flu updates, user levels are high.
- The USDA's YouTube channel, www.youtube.com/usda, may provide NRCS with new opportunities to market products and services. The channel provides video and audio feeds and allows for comments from viewers.
- Update the NRCS Photo Gallery. NRCS was well ahead of most other federal agencies with its innovative Photo Gallery, established in the 1990s. It provided easy downloading of hundreds of images highlighting conservation products and services around the country. The images served as excellent illustrative and educational tools and were used by partners, media and other groups, with the agency receiving credit for the images. Many conservation innovations have been employed since then, and updating the Photo Gallery would be a valuable service. The evolution of digital video offers new opportunities for sharing images that illustrate practices and educate multiple audiences.

5. Continue to rely on 'Old' Communications Technologies

Despite the rapid proliferation of new communications technologies, studies show that conservation clients still rely on "old" communication technologies as primary means of receiving information.

Following are recommendations based on findings in this area:

- Use farm media to educate clients and potential clients. Farm publications and farm radio are still the primary sources of information for many producers. With broad readership across the country and regular deadlines to meet with small staffs, farm magazines and other publications frequently accept and use prepared material. Readership surveys of these publications show high levels of readership for articles and op/ed pieces about conservation. This free and respected form of communication continues to offer opportunities for spreading the word

⁹ "Changing the engines of change: Natural resource conservation in the era of social media," Mark Anderson-Wilk, Journal of Soil and Water Conservation July/August 2009

about NRCS products and services, success stories about conservation leaders and information on new technologies and research findings. Farm broadcasters are frequently willing to tell the conservation story or allow agency voices to tell the story with interviews or pre-packaged feeds.

- Materials prepared for traditional media sources can also be distributed to partners for use as print, video and audio enhancements to their communications vehicles and serve to vastly expand audiences.
- Provide handouts to clients. Some NACD focus groups emphasized the need for more printed materials explaining programs in detail and said the materials should be distributed broadly to traditional clients and potential new clients.
- Tours, demonstrations and field days also serve as primary means for educating both traditional and non-traditional clients about conservation practices. Partners such as conservation districts, watershed groups, private forest landowners and interest groups frequently hold field days.
- Use group planning sessions to engage and involve broad stakeholder groups in addressing natural resource issues at the location-based, watershed and landscape scale. Partners can be especially effective in publicizing, arranging and helping to host sessions.

6. Reach Out to Underserved Clients, Don't Wait for Them to Come in the Door

The recent Farm Bill provides funding for a new set of potential clients, ranging from organic farmers and orchard tenders to nonindustrial private forest owners and urban farmers. NRCS is also increasingly asked to provide conservation assistance and education to urban and urbanizing populations. In the rural setting, absentee landowners comprise a large group of underserved but potential new clients. In many cases, NRCS and its partners may not be well-known among these groups, and its resources are already thinly stretched. Recognizing those limitations, a few recommendations:

- Apply NRCS expertise in GIS technology in efforts to identify need among underserved populations by identifying resource problems and the preponderance of various populations in those areas. Agency and partner resources can then be directed to serving those communities.
- Identify the outreach needs of underserved groups. How do they receive information? What do they want to know, and what do they need to know? A more detailed study of these needs would be appropriate.
- Rely on partners to spread the word, and provide them with information on NRCS products and services. Conservation districts increasingly serve clients in the urban setting. Groups like the Center for Rural Affairs and Sustainable Agriculture Coalition members have close contacts with small-tract and organic farmers. They can serve as effective connectors to NRCS and its products and services.
- Talk about the agency's successes. In many cases, NRCS expertise and assistance is essential to solving urban resource problems. The Emergency Watershed Protection Program is an example, providing on-the-ground assistance to communities in emergency situations ranging from floods to fires. NRCS frequently plays a crucial role and is the first federal agency on the scene to repair

resource damage and prevent further problems but doesn't get much credit when the cameras roll. The message of the agency's important contributions must be shared with communities that benefit and policy-makers who determine how financial resources are allocated. Use internal and external communications outlets to share success stories, and distribute them widely. Make sure those who benefit from the agency's assistance voice their appreciation.

- Continue to work at location-based, watershed and landscape levels. NACD's 2008 report, "The Land We Tend," shared watershed- and community-scale success stories from across the nation. NRCS had a lead or major contributing role in many of those case studies. Working at this level allows the conservation partners to identify and interact with the wide range of stakeholders present in many landscapes and enhances partnering efforts. NRCS has the technical ability and programs to be a lead player. Working at the watershed and landscape level also enhances the ability to identify and address key resource problems, leading to measurable results.
- Empower conservation districts and other partners to identify absentee landowners of agricultural land, and follow up with direct communication to this group. Offer incentives to leasees of agricultural land who adopt conservation BMPs. The emergence of payments for ecological services may make this more important.
- Look at opportunities to use a reward system such as is used in the new Conservation Stewardship Program, to encourage participation.

7. Marketing, Marketing, Marketing

Finally, we quote one of the experts who provided input for this study: "The three most important words in selling conservation are communication, communication, communication. We need to use every tool we have. The more times people hear a message, the better."

Program-driven conservation has put increased demands on NRCS and its partners, leaving less time for planning and marketing. Financial and staff resources need to be devoted to enhanced marketing efforts. An idea came from one private sector source suggesting that the agency form a marketing team, perhaps choosing from the ranks of its state-level public affairs specialists, who would receive a pay-grade increase and devote half their time to the marketing team. The team would be responsible for developing and distributing marketing materials across the communications spectrum. Obviously, workload needs at the state level would have to be addressed, possibly with part-time assistance.

Concerted efforts to market the agency's products and services can serve to enhance the public's understanding of the crucial role NRCS and its partners serve in addressing the growing list of resource concerns that face our nation.

Conclusion

This study is intended to provide food for thought as NRCS and its conservation partners seek to provide products and services in the 21st century. Because much of the study addresses trends and their impacts on the conservation partners and their clients, some content will quickly become dated as new trends emerge. Still, the basic ingredients for successfully delivering conservation remain the same over time. Those ingredients that enhance interaction between field staff and conservation clients will endure. Recommendations included here are intended to promote such interaction. Well-funded, program-driven conservation has the potential to achieve great gains in efforts to address the nation's pressing conservation challenges. But as this study indicates, there is also a great need to reach out to a broadening set of clients with basic conservation planning and implementation in areas where financial assistance is not available. Improving interaction with all clients is at once the challenge and the opportunity as NRCS and its partners pursue the important work they are asked to do.

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