



SIERRA NEVADA ALLIANCE

*Keeping light in the range.*

**Sierra Nevada Alliance**  
**Watershed Group Capacity Assessment Report**  
**April 2005**

<b>TABLE OF CONTENTS</b>
--------------------------

I. Executive Summary .....	2
A. The Sierra Watershed Capacity Assessment .....	2
B. Sierra Nevada Watershed Groups Responding .....	2
C. Key Findings .....	3
II. Introduction .....	9
III. Presentation of Data .....	11
A. Characterization of Sierra-based Watershed Groups .....	11
1. Sierra Watershed Group Types .....	11
2. Sierra Watershed Group Makeup .....	13
3. Age .....	14
4. Budgets and Revenue .....	16
a. Operations Budgets .....	16
b. Revenue Sources .....	17
c. Watershed Project Budgets .....	18
5. Staffing .....	19
6. Membership .....	23
7. Volunteers .....	24
8. Outreach and Communications .....	24
B. Strategies and Tools Used by Sierra Watershed Groups .....	26
1. Strategies .....	26
2. Technological Tools .....	27
3. Organizational Development .....	29
4. Media .....	30
C. Assessments and Monitoring .....	31
1. Assessments .....	31
2. Monitoring .....	33
D. Protection and other Activities .....	34
E. Restoration .....	35
F. Education and Outreach Activities .....	38
IV. Sierra Nevada Alliance Services .....	39
V. Conclusions .....	40
VI. Methodology .....	41

## I. EXECUTIVE SUMMARY

### A. THE SIERRA WATERSHED CAPACITY ASSESSMENT

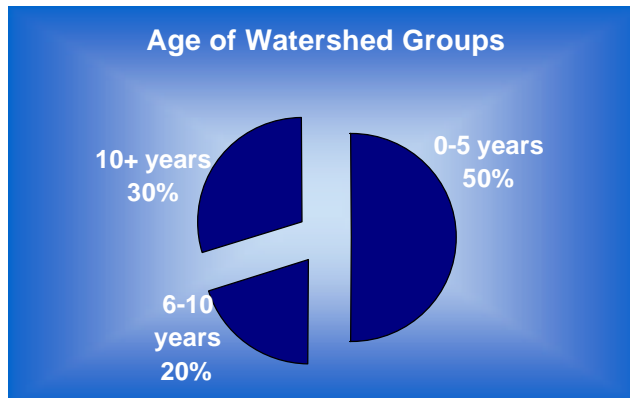
The Sierra Nevada Alliance developed a set of surveys, conducted over six weeks' time in December 2004 and January 2005, to assess the capacity and organizational needs of watershed groups in the Sierra. The surveys were designed to assess groups in three different categories, Alliance members, Sierra land use groups and Sierra watershed organizations. This report focuses on the Sierra Nevada watershed groups.

The Alliance defines watershed groups as those working to protect and restore their rivers, lakes and streams. Thirty-five out of the 55 Sierra watershed groups receiving surveys responded to the Alliance's *Watershed Group Capacity Survey*, for a response rate of 64%.

### B. SIERRA NEVADA WATERSHED GROUPS RESPONDING

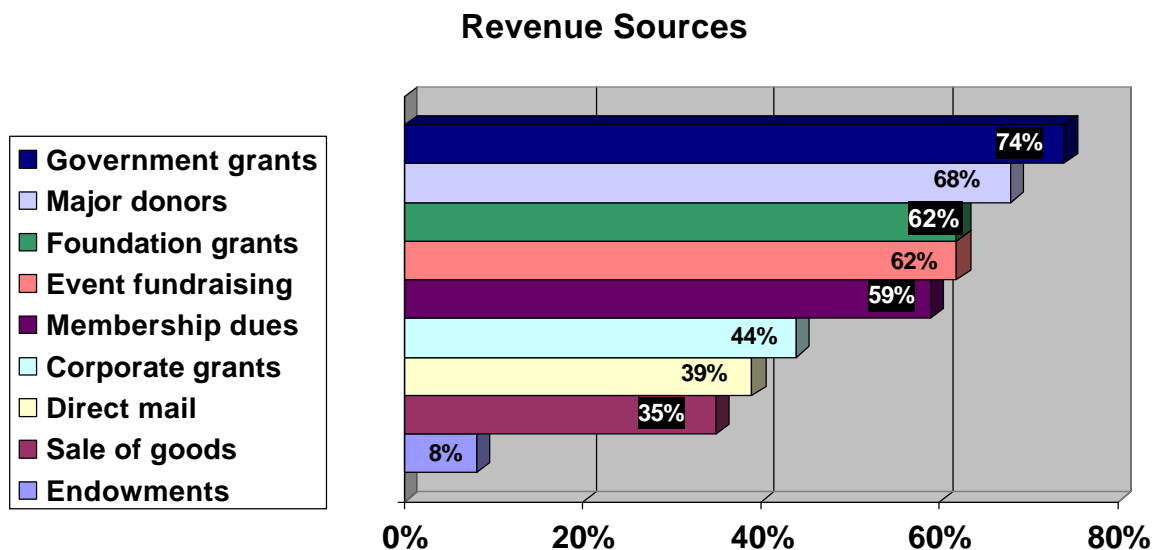
- |  |   |
|--|---|
| 1. Alpine Watershed Group                            | 19. League to Save Lake Tahoe               |
| 2. American River Watershed Group                    | 20. Millerton Area Watershed Coalition      |
| 3. Bear Creek Watershed Group                        | 21. Mono County Watershed Group             |
| 4. Big Chico Creek Watershed Alliance                | 22. Mono Lake Committee                     |
| 5. Butte Creek Watershed Conservancy                 | 23. Mountain Meadows Conservancy            |
| 6. California Save Our Streams Council               | 24. Restore Hetch Hetchy                    |
| 7. Clavey River Ecosystem Project                    | 25. River Ridge                             |
| 8. Dry Creek Conservancy/Dry Creek Watershed Council | 26. So. Fork American River Watershed Group |
| 9. Ebbetts Pass Forest Watch                         | 27. South Yuba River Citizens League        |
| 10. Echo Lakes Environment Fund                      | 28. Tahoe Baikal Institute                  |
| 11. Feather River CRM Group                          | 29. Truckee River Watershed Council         |
| 12. Foothill Conservancy                             | 30. Tuolumne River Trust                    |
| 13. Friends of Butte Creek                           | 31. Upper Merced River Watershed Council    |
| 14. Friends of Deer Creek                            | 32. Upper Mokelumne River Watershed Council |
| 15. Friends of Squaw Creek                           | 33. Wild Places                             |
| 16. Friends of the So. Fork Kings River              | 34. Wolf Creek Community Alliance           |
| 17. Lake Tahoe Environmental Education Coalition     | 35. Yuba Watershed Council                  |
| 18. Lassen Land & Trails Trust                       |   |

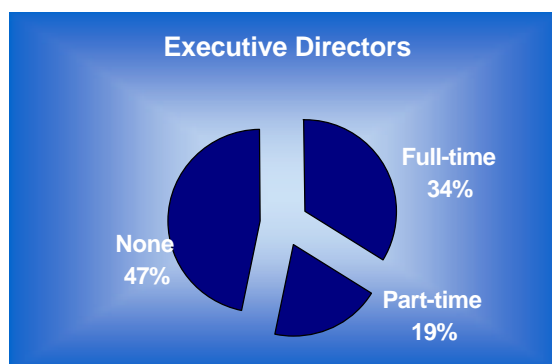
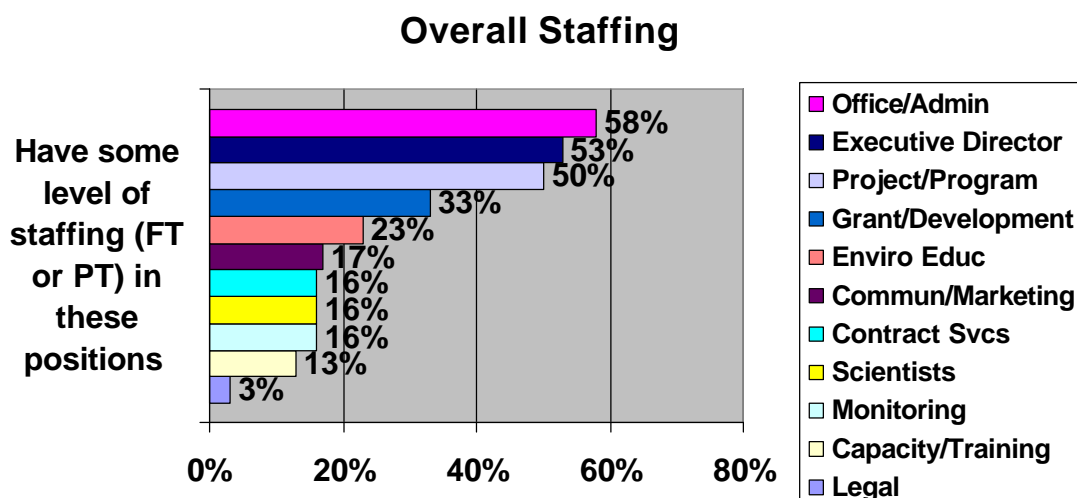
## C. KEY FINDINGS



**1. AGE OF GROUPS:** One half of Sierra-based watershed groups (17 of 34 responding) have formed in the last five years, and more than 2/3 (70%) began within the last 10 years. Less than 1/3 have been in existence for more than 10 years.

**2. FUNDING SOURCES:** While watershed groups in the Sierra rely on a mix of public and private dollars to fund their activities, more than half the groups (11 of 21 responding) receive 50% or more of their revenue from government grants; and of those, most (10 out of the 11) rely on government grants for as much as 80% or more of their annual budgets. Three other groups get 50% or more of their budgets met by major donor contributions. The other sources make up much smaller portions of Sierra watershed groups' budgets. The Sierra Nevada Alliance will focus future networking, information, training, and consultation to help watershed groups both grow their budgets and diversify their funding sources. Relative use of individual funding sources is illustrated below.

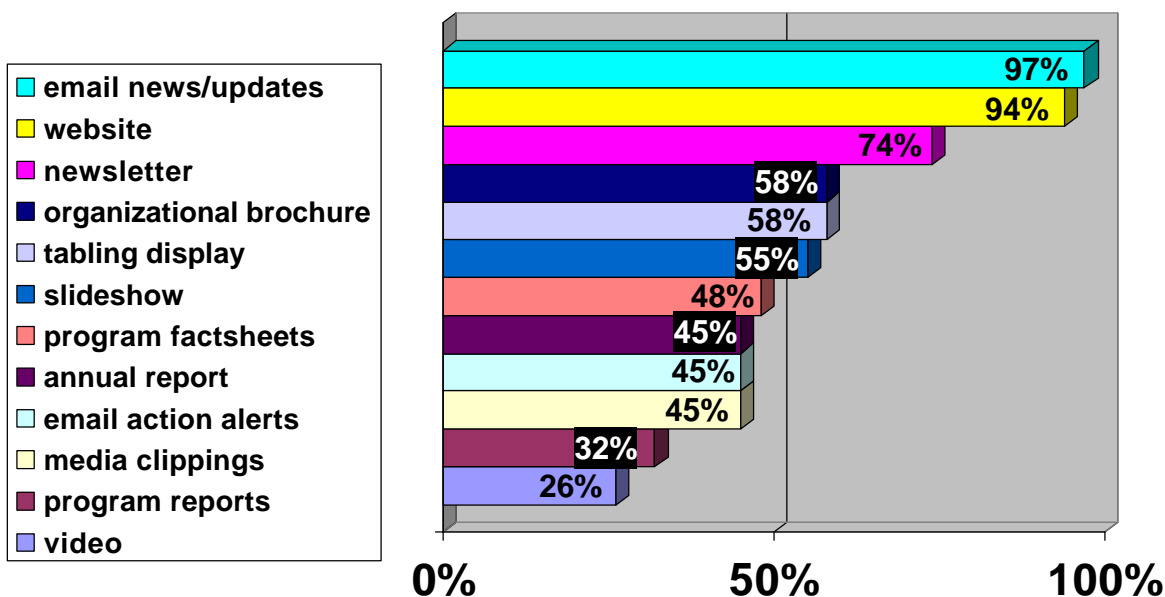




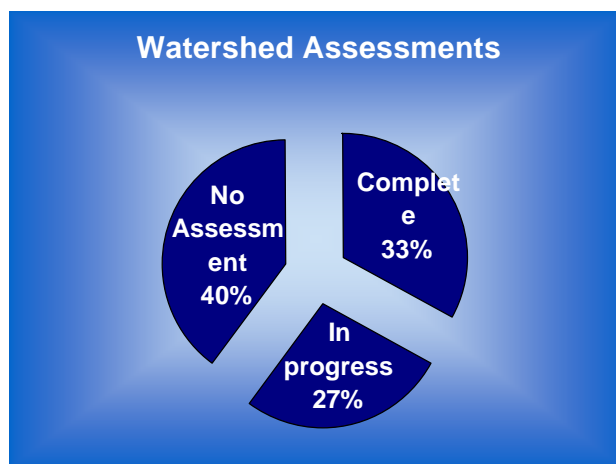
**3. STAFFING:** 47% (15 groups) have no Executive Director at all. 11 groups (slightly more than a third) have a fulltime Executive Director, and 19% (6 groups) have part-time EDs. The Alliance will explore how to help staff-less Sierra watershed groups expand their capacity to support having at least one full-time staff person or a combination of multiple part-time staffers or contractors to help coordinate the group and get more work done.

**4. VOLUNTEERS:** Volunteers play a critical role in stewarding Sierra watersheds. **All Sierra watershed groups make some use of volunteer labor.** Close to half (49% or 17 groups) have between 1 and 25 people who volunteer at least 2 hours a year, and **two-thirds (23 groups) have extensive volunteer programs** with 1-9 volunteers who donate 10 hours or more per month. Since volunteers play such an integral role in all Sierra watershed groups, it makes sense for the Alliance to continue providing workshops on volunteer recruitment, retention and expansion.

## Outreach Tools

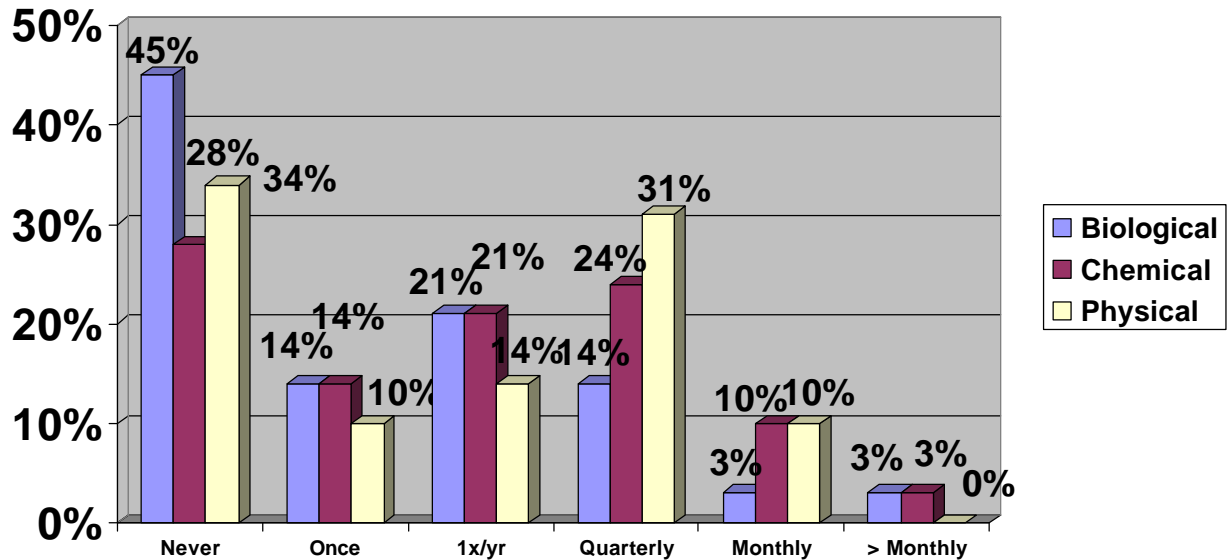


**5. OUTREACH AND COMMUNICATIONS:** Every watershed group has an outreach or mailing list of some sort – even those groups that have no actual members. And **email news/updates** are the **most widely used outreach and communications tool** of Sierra watershed groups, while program fact sheets, annual reports, email action alerts and media clipping are used by less than half. The Alliance will consider hosting workshops or providing templates and how-to manuals with tips for effective newsletters, program fact sheets, web design, use of email alerts and help with other electronic communications.



**6. WATERSHED ASSESSMENTS:** Out of the 30 groups responding, only 10, or 33%, have completed a watershed assessment for their watersheds. Another 8 groups (27%) have watershed assessments currently underway. Twelve groups, or 40%, do not have a watershed assessment completed or in progress. Because assessments are necessary to help identify and prioritize potential work in a watershed, the Alliance works to make sure that all Sierra watersheds have completed assessments.

## Monitoring Frequency



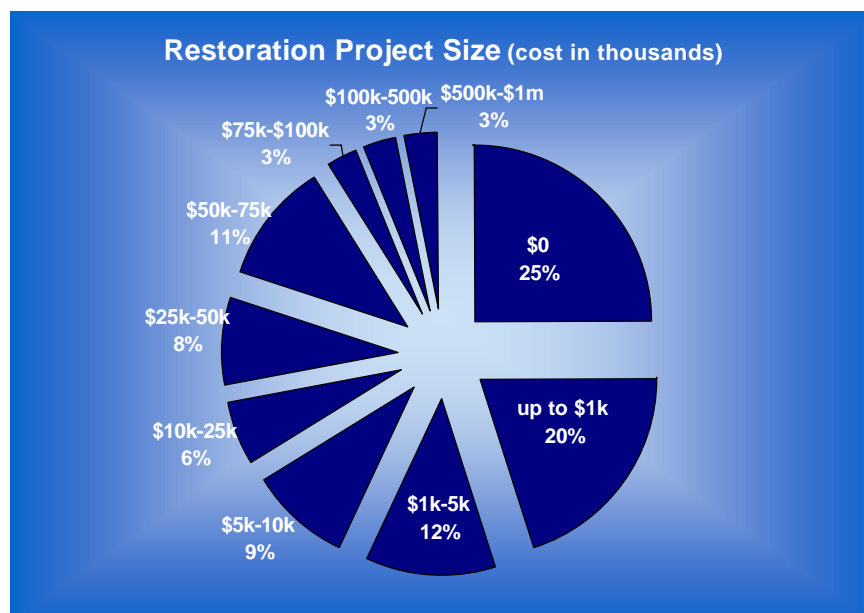
7. **MONITORING:** The top 3 monitoring activities Sierra watershed groups engage in are:

1. chemical constituents (e.g. pH, DO)
2. physical (e.g. stream walk surveys)
3. photo monitoring.

The Alliance is interested in helping groups to expand their capacity to monitor – both in terms of monitoring for more constituents and increasing the frequency of their monitoring activities.

## 8. RESTORATION:

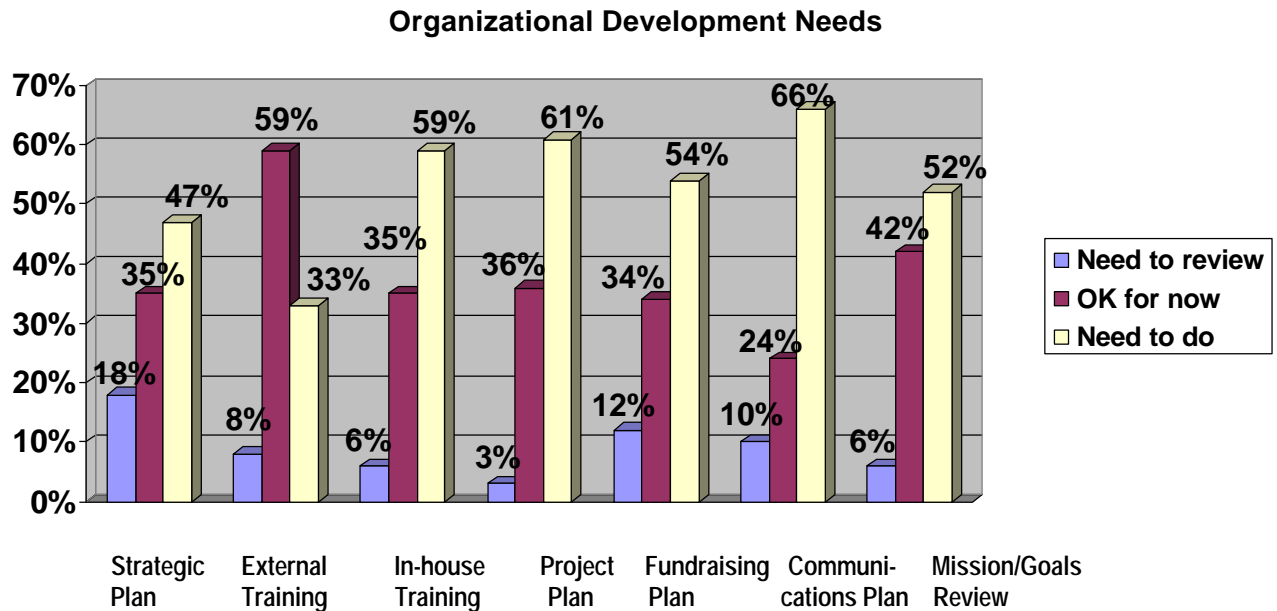
57% of the restoration projects undertaken by Sierra watershed groups have been conducted for \$5,000 or less. The Alliance will explore ways to help groups take the next step to implement larger projects.



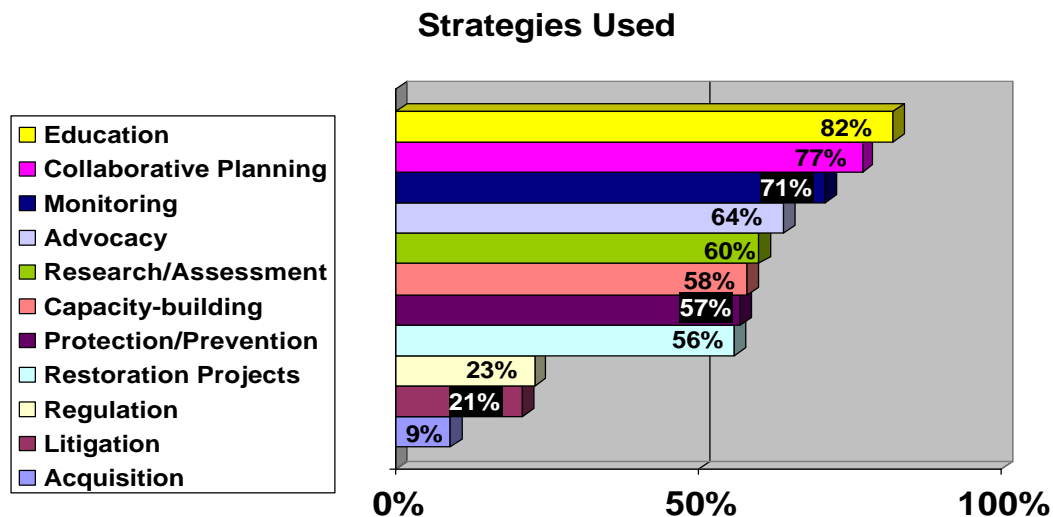
**9. ORGANIZATIONAL DEVELOPMENT:** The top 3 traditional organizational development activities Sierra watershed groups need to do are:

1. Marketing/communications plan
2. Campaign, project and/or conservation plan
3. In-house Board/staff training.

The Alliance will work with groups to do the necessary organizational development and planning to ensure effective and sustainable stewardship of the Sierra's watersheds.



**10. PROTECTION/PREVENTION STRATEGIES:** Only 57% (or 20 groups) use protection or prevention as a key strategy for achieving their stewardship goals. As mentioned before, the Alliance may want to consider providing assistance to watershed groups in conducting assessments as a way of determining protection needs and strategies in the watershed.



At the Sierra Nevada Alliance, we believe that watershed groups are one of the most important elements for the protection and restoration of Sierra rivers, lakes and streams. The ability to protect and restore Sierra watersheds depends on the health and vitality of these watershed groups and networks.

This watershed group capacity assessment report has helped the Alliance generate new ideas about how to better assist and support watershed groups in the Sierra. We plan to take the ideas we have and discuss them with our partners, funders and others. Please read these ideas not as commitments written in stone, but as a starting place for discussion to help us all shape future efforts that will best meet the needs of Sierra watersheds and watershed groups in the years to come.

# # #



## II. INTRODUCTION

The Sierra Nevada Alliance is committed to protecting and restoring Sierra waters and to this end has a watershed program to strengthen watershed group capacity. The following capacity assessment provides indicators regarding the current strength and needs of the watershed network in the Sierra Nevada.

### A. SIERRA NEVADA WATERSHEDS AND WATERSHED GROUPS

The Sierra Nevada is made up of 24 major watersheds that together supply 65% of California's and almost all of northwestern Nevada's developed water supply. Many perceive these waters as sparkling, pure streams and lakes. But the fact of the matter is that 23 out of 24 major watersheds of the Sierra are impaired. Many are polluted with sediment, mercury, and *e-coli*, and others are having a hard time supporting native fish communities.

Watershed groups are a vital tool for protecting and restoring Sierra watersheds. The Alliance defines watershed groups as locally organized, voluntary, non-regulatory groups that work to assess, restore and protect their rivers, lakes and streams. Watershed groups also educate members of their local communities by working collaboratively with a diversity of stakeholders and interests.

Sierra watershed groups can operate in different ways, depending on the make-up of their decision-making boards or committees. There are, however, commonalities between many of the types of groups. Most watershed groups in the Sierra fall into one of the following four categories:

- **Multi-Stakeholder Collaborative Groups**

Multi-Stakeholder Collaborative Groups are watershed groups with diverse stakeholders on the decision making board or steering committee who represent public and private interests. These stakeholders typically include public agencies, local landowners and managers, conservation groups, local business owners, and other community members.

- **Coordinated Resource Management & Planning**

Coordinated Resource Management & Planning (CRMP) is a voluntary, locally led planning process to manage natural resources.

- **Sierra-based Environmental Groups**

Sierra-based environmental groups are groups with community members on their boards of directors or steering committees and whose missions are focused on conservation.

- **Resource Conservation Districts (RCD)**

Resource Conservation Districts are "special districts" of the state of California, set up under California law to be locally governed agencies with their own locally appointed, independent boards of directors.

For the most part, watershed groups are fairly new entities in the Sierra Nevada. Despite the fact that most Sierra-based watershed groups have only formed in the last few years, they have already

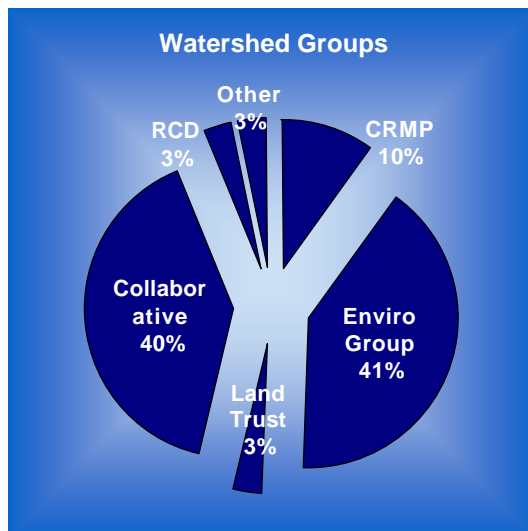
accomplished a tremendous amount. For example, the Truckee River Watershed Council hosts annual Creek Days that attract hundreds of volunteers each year to restore and clean up the Truckee River. The South Yuba River Citizens League has a volunteer monitoring program that monitors more than 30 sites on the Yuba River each month. Results from this citizen monitoring program have helped identify problem spots on the river. The Feather River Coordinated Resource Management Group has completed numerous large-scale restoration projects improving the habitat and water quality of the Feather River. And the Millerton Area Watershed Coalition has completed noxious weed inventories – just to name a few.

### III. PRESENTATION OF DATA

#### A. CHARACTERIZATION OF SIERRA-BASED WATERSHED GROUPS

##### 1. SIERRA WATERSHED GROUP TYPES

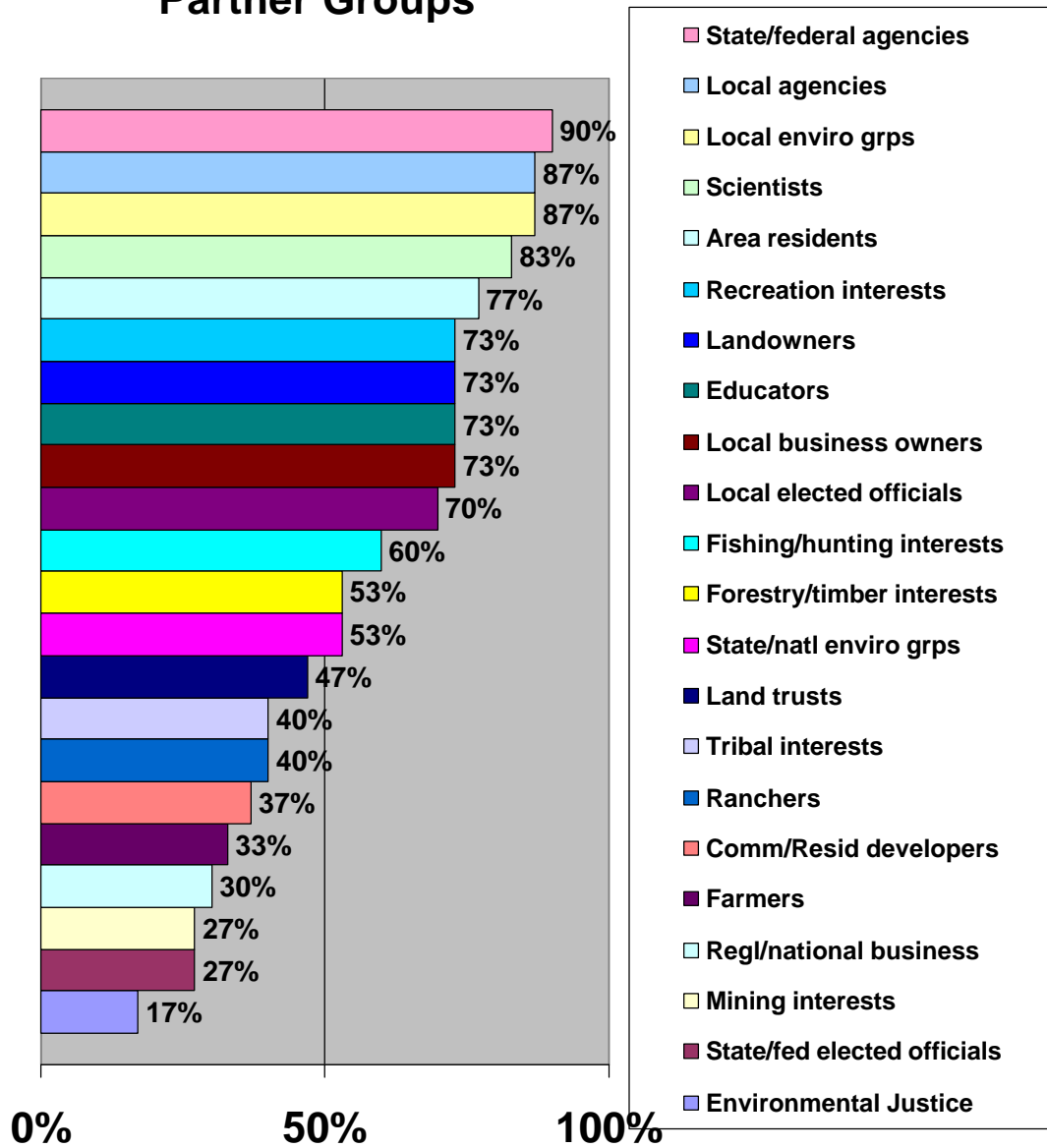
**Most Sierra watershed groups (24 groups or 80%) self-identify as “environmental” or “collaborative” groups. Regardless of category, Sierra watershed groups partner most often with agencies (state, federal, local), local environmental groups, scientists, and area residents to achieve their goals.**



Of the 30 groups responding to the watershed portion of the survey, one was a Resource Conservation District, one was a land trust, three (or 10%) were Coordinated Resource Management Planning (CRMP) groups, 12 (40%) were multi-stakeholder collaboratives, and 12 (40%) were environmental organizations.

The groups responding to this survey work with a wide range of partners to achieve their watershed conservation and restoration goals. Partners, in descending order (based on the percentage of groups that identified each as a partner), are illustrated in the following *Partner Groups* bar graph.

## Partner Groups



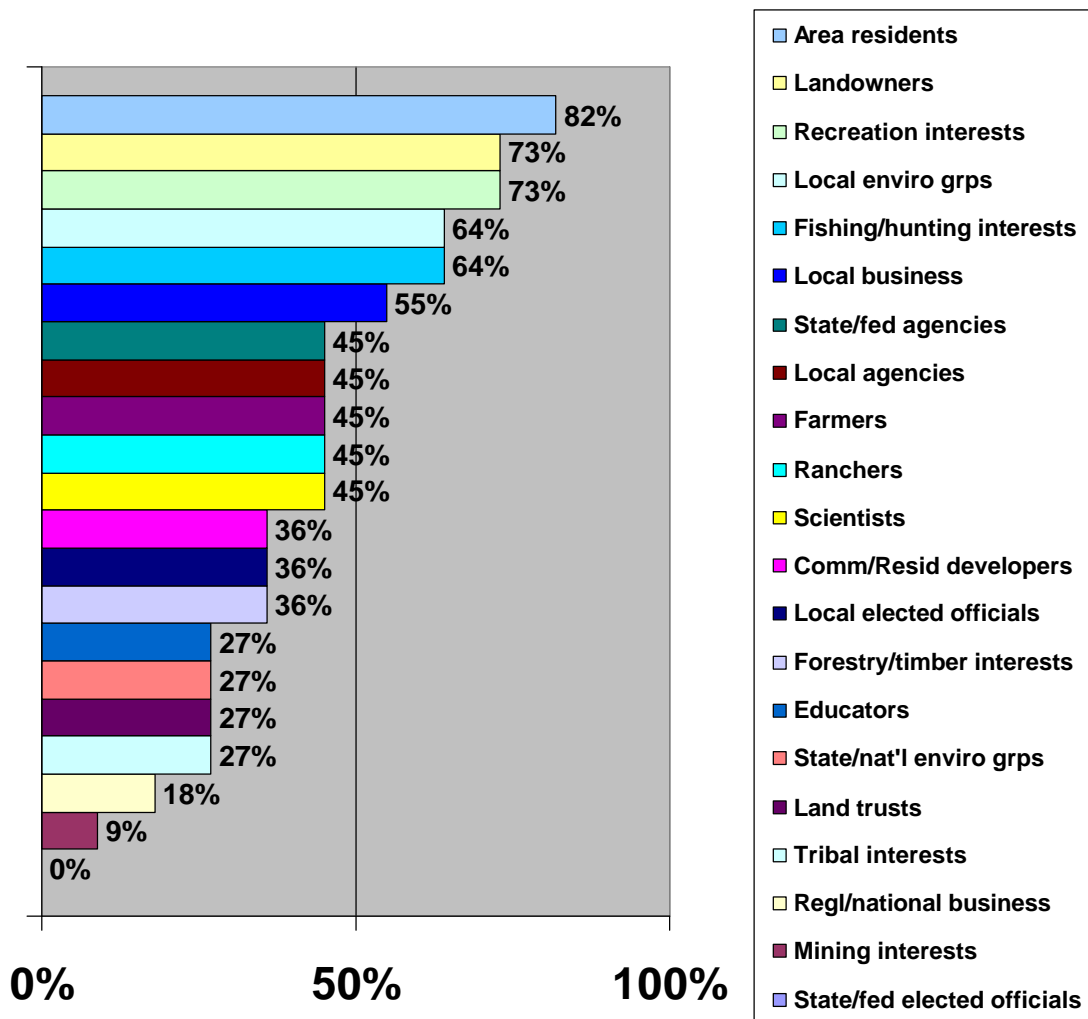
## 2. SIERRA WATERSHED GROUP MAKEUP

Sierra watershed group boards of directors typically emphasize more local representation, such as landowners, area residents, local business owners, etc.

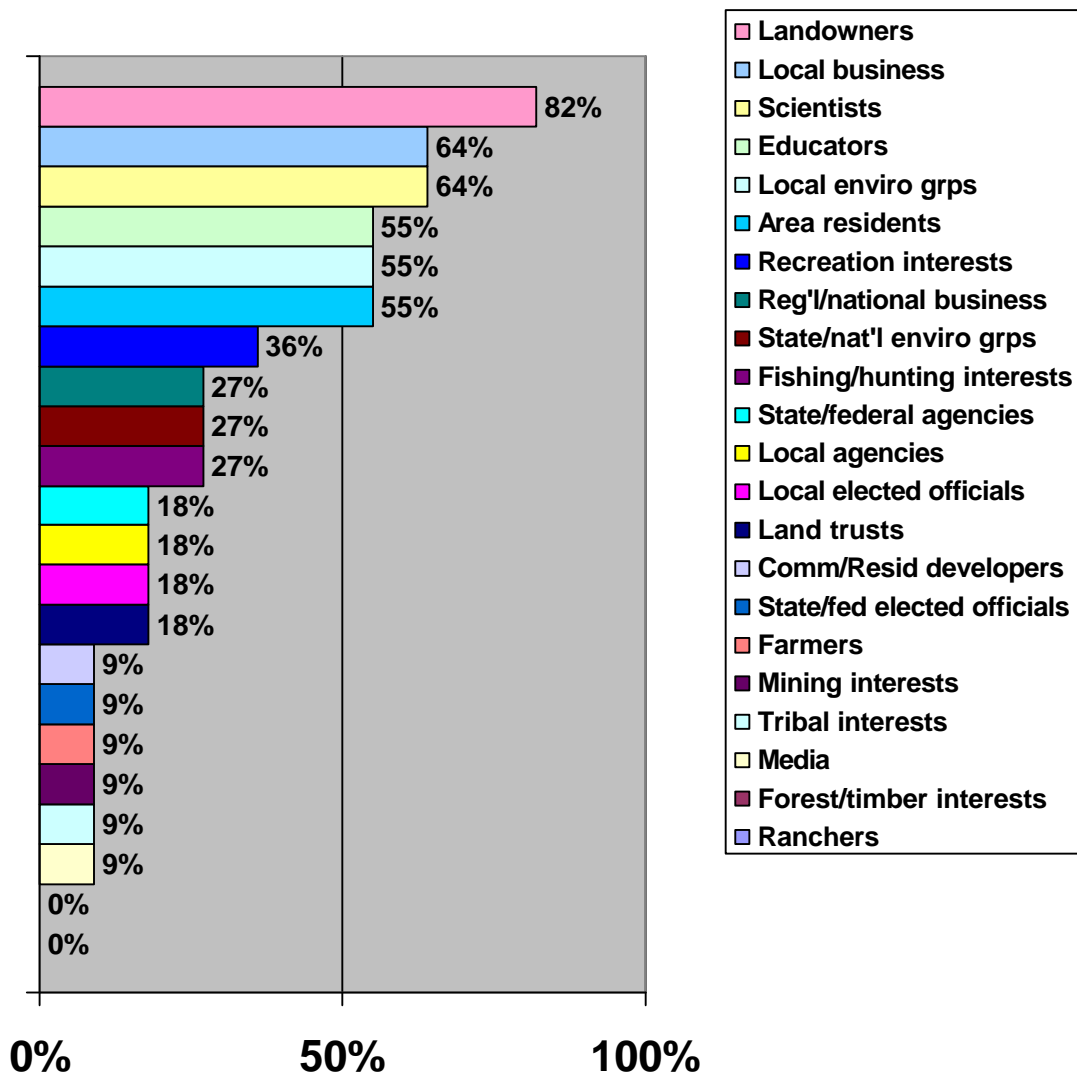
Using roughly the same list, the survey asked watershed groups in the Sierra to identify those interests actually represented on their Boards of Directors or other internal policy/decision-making bodies. The results were a little different. Boards of Directors tended to put more emphasis on local representation (e.g. landowners, area residents, local environmental groups, local business, etc.) and less emphasis on agency representatives and particular user groups, such as ranchers, forestry/timber interests, etc.

Board make-up also differed between self-identified environmental groups and those that self-identified as collaborative groups, as shown in the following two *Board* bar charts.

### Collaborative Groups - Boards



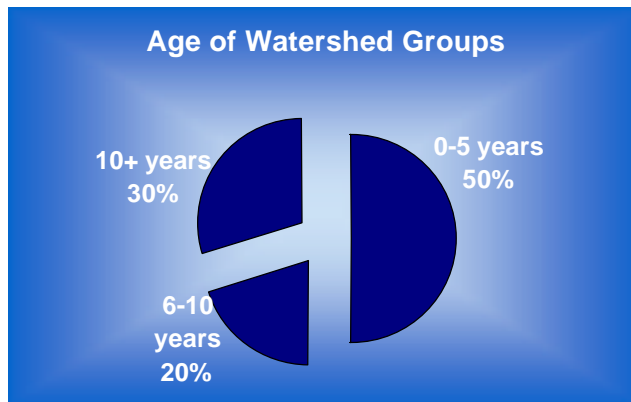
## Environmental Groups - Boards



### 3. AGE (Q2)

One half of Sierra watershed groups (17 of 34 responding) have formed in the last five years, and more than 2/3 (70%) began within the last 10 years.

When asked how long they'd been in operation, exactly half of the groups responding (17 of 34) said they'd formed in the last five years – since 1999. A total of 24 groups, or 70%, formed within the past 10 years. Only 6 groups (18%) have been active for 20 years or more.



The high number of Sierra watershed groups forming in the last five or 10 years tracks with the timing of state agency and public and private funding interest in watershed issues, which began in California in the late 1990s according to a *History of State-Local Watershed Partnership Efforts* compiled by Sari Sommarstrom (2004, unpublished, 1 page).

The Sierra Nevada Alliance has been working to protect and restore lands,

water, wildlife and communities in the Sierra region since 1993. The Alliance was ahead of the curve with its focus on watershed work starting in 1993. It wasn't until 1997 that then-Governor Pete Wilson of California signed an Executive Order encouraging and supporting community-based watershed efforts in the state's coastal regions to address salmon issues. That same year the State Water Resources Control Board launched the California Watershed Management Initiative (WMI), designed to integrate various regulatory programs and promote cooperative, collaborative efforts within watersheds to protect water resources and ensure their proper allocation and use for the benefit of all. Then in 1998, the Calfed Bay-Delta Watershed Program completed its implementation plan, which, thanks in part to the efforts of the Sierra Nevada Alliance, included principles for local watershed participation. And finally in 1999 and 2000 the California Watershed Management Forum, the California Biodiversity Council Watershed Work Group and the California Watershed Network began holding meetings to gather information on and energize the growing number of watershed groups around the state.

This initial period of interest in watershed management was followed by a period of intense study at the state level, through the Joint Task Force on Watershed Management, which ultimately released a report to the Legislature on *Addressing the Need to Protect California's Watersheds: Working with Local Partnerships*. The study period coincided with additional funding for watershed work through Propositions 40 and 50. Following the propositions, California Assemblywoman Fran Pavley introduced legislation (AB 2534) calling for a Memorandum of Understanding (MOU) or formalized working agreement among state agencies in an attempt to coordinate watershed work in the state. This effort resulted in the creation of a short-lived California Watershed Council, which unfortunately has since dissolved due to changes in administrative priorities between the Gray Davis and Arnold Schwarzenegger administrations.

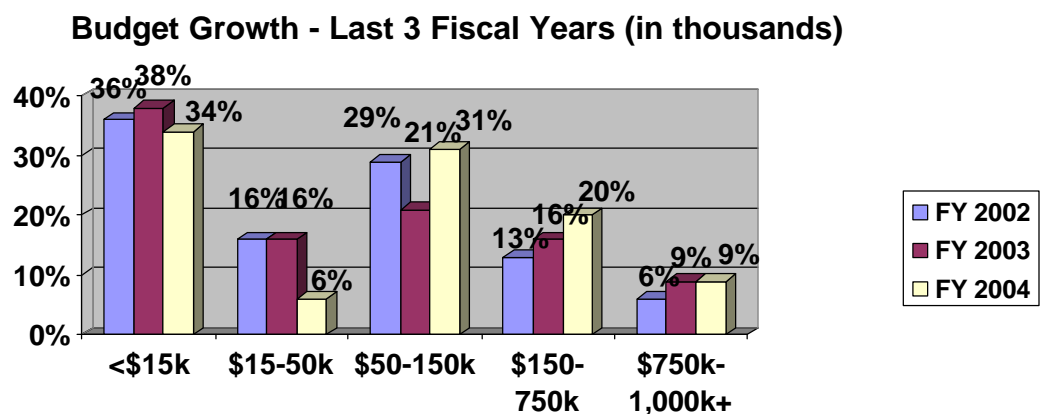
Altogether, the period from roughly 1995 to the early 2000s saw a remarkable increase in the number and effectiveness of community-based watershed groups in California, including the Sierra region, as reflected in the survey results outlined here.

#### 4. BUDGETS AND REVENUE

##### a.) Operations Budgets (Q5,6,7)

In general, Sierra watershed group operational budgets have grown larger over the past three fiscal years. However, more than 1/3 of Sierra watershed groups (11 groups or 34%) still operate on budgets of *less than \$15,000* per year.

The good news is, Sierra-based watershed groups are generally increasing their operational budgets over time.



The percentage of groups with small budgets of less than \$15,000 has decreased from 36% (11 of 31 groups) three years ago and 38% (12 of 32 groups) two years ago to 34% (11 of 32 groups reporting) last fiscal year. Similarly, the percentage of groups with budgets of \$15,000 to \$50,000 also decreased from 16% (5 of 32 groups) in both 2002 and 2003 to only 6% (2 of 32 groups) this last fiscal year.

On the other hand, the percentage of groups with larger budgets is generally increasing. For example, the percentage of Sierra watershed groups with budgets of \$50,000 to \$150,000 increased from a low of 21% (7 groups) in fiscal year 2003 to a high of 31% (10 groups) last fiscal year. And the percentage of groups with budgets in the \$150,000 to \$750,000 range has steadily increased from 13% (4 of 31 groups) in 2002 to 16% (5 of 32 groups) in 2003 and 20% (6 of 32 groups) in 2004. Groups with very large budgets of over \$750,000 also increased from 6% (2 of 31 groups) three years ago to 9% (3 of 32 groups) last year and the year before.

**Unfortunately, more than 1/3 of Sierra watershed groups (17 groups or 34%) still operate on less than \$15,000 a year**, meaning they have fewer resources – such as paid staff, outreach capability, equipment, etc. – to accomplish their strategic goals.



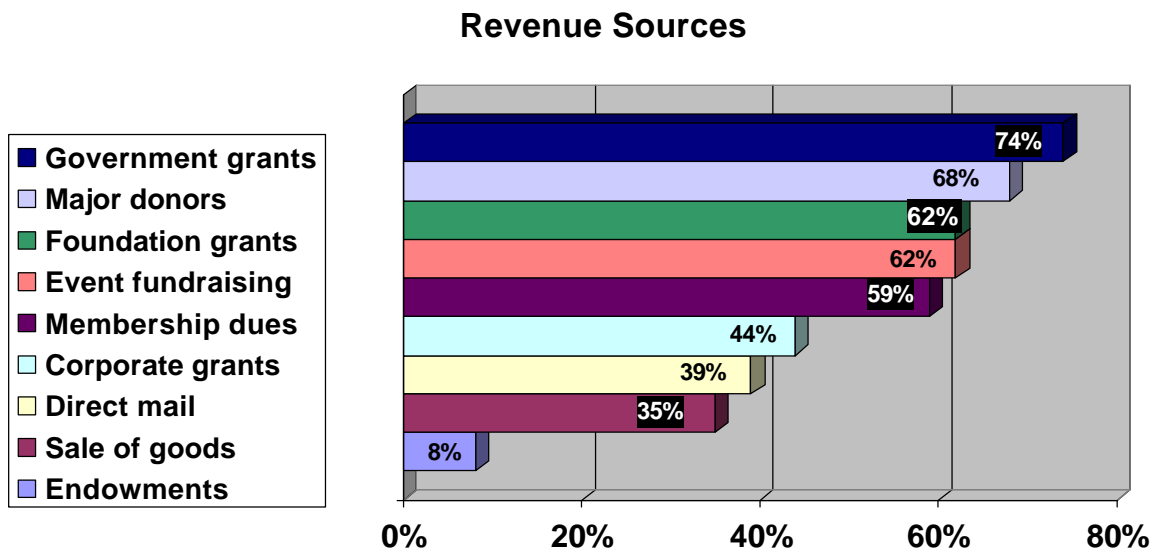
## b.) Revenue Sources (Q8, 9)

Watershed groups in the Sierra rely on a mix of public and private dollars to fund their activities, with **government grants and major donors providing the bulk of their funding.**

Sierra watershed groups use a variety of revenue sources to generate their budgets each year. The survey asked respondents to indicate approximately how much of their annual budgets came from each of 9 different sources, including corporate grants, endowment income, event fundraising, foundation grants, government grants, major donors, membership dues, other direct mail, and sale of goods. Of these revenue sources, government grants (74%) and major donors (68%) top the list, based on the percentage of respondents who have each as a funding source for at least part of their budgets.

These top funding sources are followed by foundation grants (62%), event fundraising (62%), membership dues (59%) and corporate grants (44%).

In terms of the remaining revenue sources, direct mail, sale of goods and endowment income are the least used, with 39%, 35% and 8% respectively.

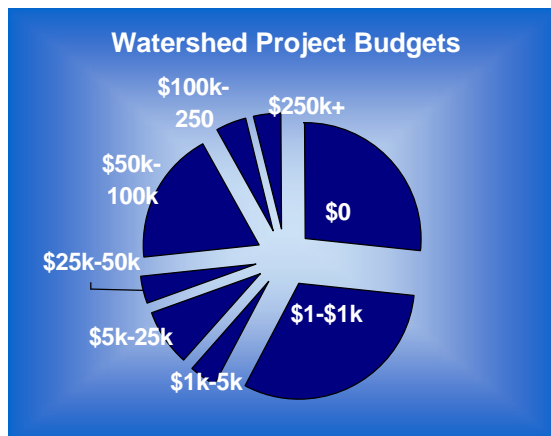


The Alliance also looked at the relative proportions of the different funding sources in groups' budgets. For example, more than half the groups (11 of 21 responding) receive 50% or more of their revenue from government grants; and of those, most (10 out of the 11) rely on government grants for as much as *80% or more* of their annual budgets. Three other groups get 50% or more of their budgets met by major donor contributions. The other sources make up much smaller portions of Sierra watershed groups' budgets – typically in the 1-10%, 10-20% or 20-30% ranges.

It was also interesting to note the difference in budget makeup between watershed groups identifying themselves as *collaborative* versus *environmental*. For example, **of the 10 Sierra watershed groups that identified themselves as *collaborative*, more than half (6 groups) had 80% or more of their annual budgets coming exclusively from government grants.** For so-called *environmental* groups that number was lower. Only 3 of 11 *environmental* groups responding (27%) used government grants for 80% or more of their annual budgets. In general, the environmental groups were more diversified in terms of the number of sources of revenue making up their budget. Collaborative groups tended to rely more heavily on just one or two sources of income – typically government grants and major donors.

### c.) Watershed Project Budgets

**Most Sierra watershed groups (15 groups or 58%) have project budgets of between \$0 and \$1,000 (separate from operations or administrative budgets).**



Out of the 26 groups responding, 15 groups or 58%, have watershed project budgets of \$1,000 or less. Of those, just under half (7 groups) have no specific project budget.

One group, or 4%, has a project budget of between \$1,000 and \$5,000. Two groups, or 8%, have project budgets of \$5,000 - \$15,000. One group's project budget is between \$25,000 and \$50,000; another five groups have project budgets in the \$50,000 to \$100,000 range. One more group's budget is between \$100,000 and \$250,000 and one more is over \$500,000.

The Sierra Nevada Alliance will focus future networking, information, training, and consultation to help watershed groups both grow their budgets and diversify their funding sources. Our networking can be structured to help facilitate exchange between financially prospering watershed groups in the Sierra Nevada and those that are just emerging. The newly emerging groups could greatly benefit from the seasoned financial knowledge of the successful watershed groups. The Alliance could facilitate this information exchange through email discussions, regional meetings, and referrals.

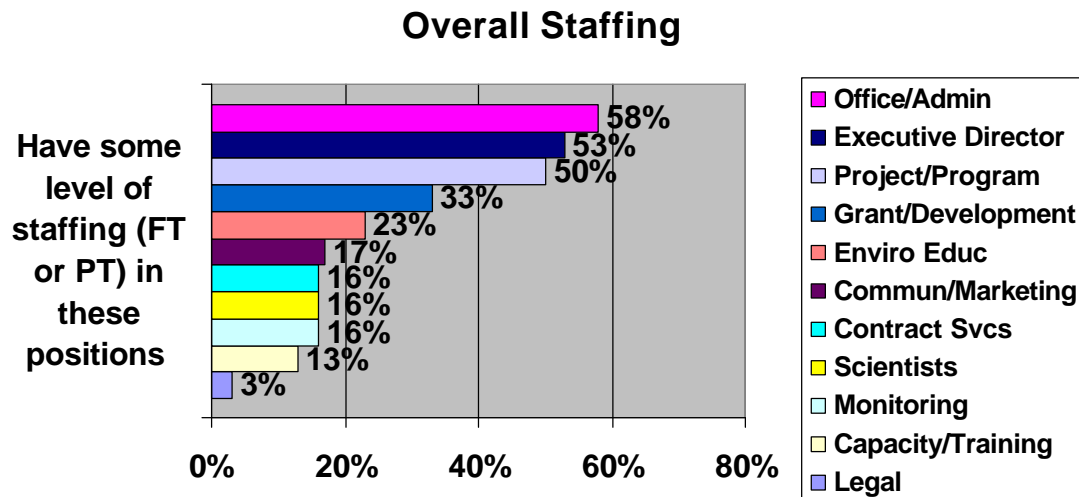
The Alliance can also help diversify the funding bases of Sierra watershed groups by hosting workshops and information sessions on how to conduct individual donor outreach programs, event fundraising, private foundation grant writing, and major donor development. For groups that already have individual donor, major donor and/or event programs in place, the Alliance can offer more detailed information to augment existing programs through additional workshops, guidebooks, and other trainings on how to strengthen these fundraising tactics.

Given the important role that government grants play for Sierra Nevada watershed groups, the Sierra Nevada Alliance also needs to advocate for continued and increased dollars for watershed assessment, protection and restoration projects from government programs. While diversification of funding will be important, it is unlikely that Sierra watershed groups will be able to grow these private-dollar sources in the next five years to completely replace government grants.

## 5. STAFFING (Q10)

**Slightly more than a third of the watershed groups in the Sierra (11) have a fulltime Executive Director, and 19% (6 groups) have part-time EDs. 47% (15 groups) have no Executive Director at all.**

The survey asked respondents to identify how many full-time or part-time staffers they had in various positions, including Executive Director, Office/Administration, Project/Program staff, Grantwriter and/or Development staff, Capacity building/training staff, Communications and/or Marketing staff, Contract services, Environmental Education, Legal, Monitoring and Scientists. Overall responses are shown first, followed by statistics within each specific job category.

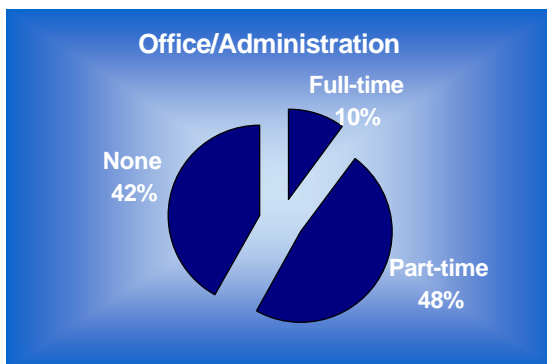
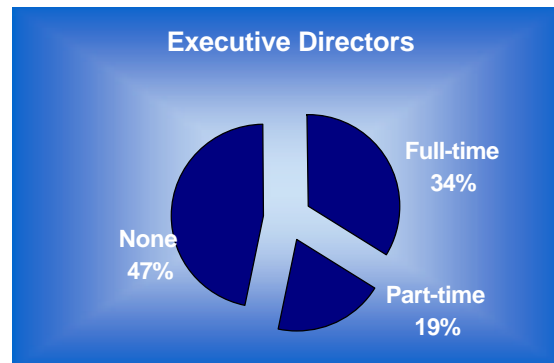


- Overall, more Sierra watershed groups have office/administrative staff, Executive Directors, and/or project/program staff than any other positions.
- Well over half (19 groups or 58%) have office/administrative staff; 53% (17 groups) have a part-time or full-time Executive Director; and half (15 groups) have at least part-time project or program staff.
- Grantwriting/development activities come next, with 33% of respondents (10 groups) saying they use part-time or full-time development staff.
- Fewer than a third (between 1 and 7 groups per category) of the Sierra watershed groups reporting have any level of staffing in the other seven staffing categories of Environmental

Education, Communications/Marketing, Contract Services, Science, Monitoring, Capacity/Training, or Legal.

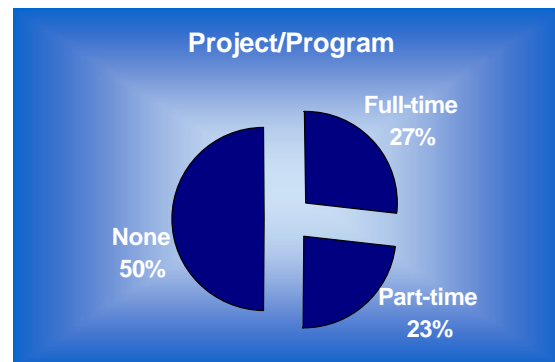
- Legal is the least-utilized position – with only one group indicating it makes any use of this staff position.

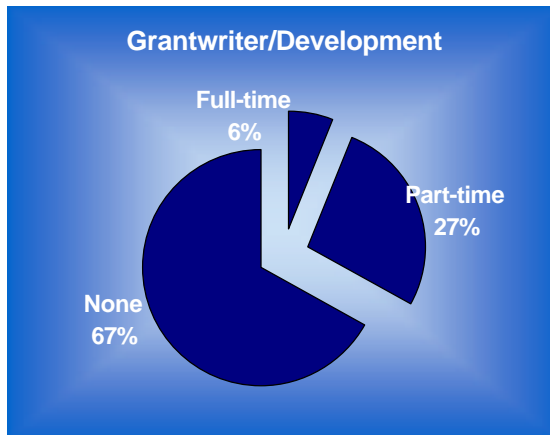
**Executive Director:** 15 groups, or 47%, have no Executive Director at all. 11 groups, or 34% of the 32 groups responding, have a full-time Executive Director. Another 6 groups, or 19%, have a part-time Executive Director, making a total of 17 groups or 53% of Sierra watershed groups with at least a part-time Executive Director.



**Office/Administration:** 14 Sierra watershed groups, or 42% of the 33 responding, have no office or administrative staff. 3 groups, or 10%, have at least one full-time office administrator. Another 16 groups have part-time office staff, making a total of 58% with at least part-time office support.

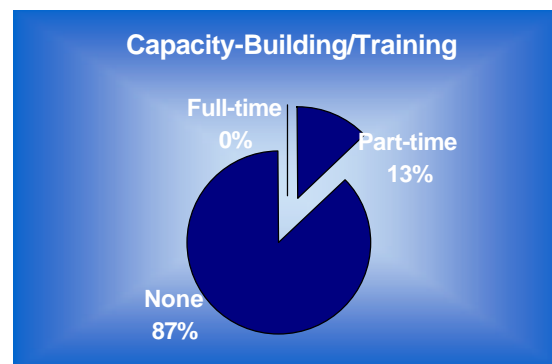
**Project/Program Staff:** 15 groups, or half of those who responded, have no program/project staff. 8 Sierra-based watershed groups, or 27%, have at least one full-time project or program staffer. Another 7 have part-time program or project staff, making a total of 50% with at least part-time project/program staff.





**Grantwriter/Development Staff:** of the 30 Sierra watershed groups responding to this question, 20, or 67%, have no grantwriting or development staff. 2 groups, or 6%, have at least one full-time grantwriter or development staffperson. Another 8 groups, or 27%, have part-time grantwriting or development assistance, making a total of one-third of Sierra watershed groups, with at least part-time grantwriting or development staff.

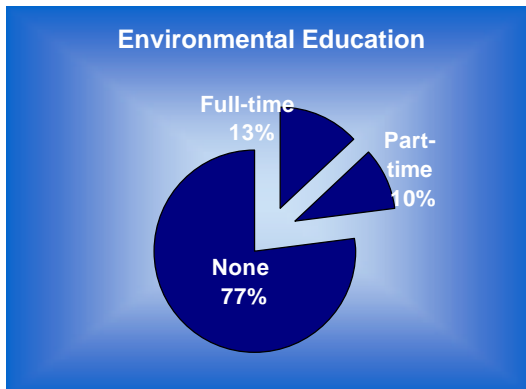
**Capacity-building/Training Staff:** 26 of 30 Sierra watershed groups responding (87%) have no capacity-building or training staff. 4 groups, or 13%, have part-time training or capacity-building staff. None of the groups has full-time capacity-building or training staffers.



**Communications/Marketing Staff:** 24 of 29 Sierra watershed groups responding (83%) have no communications assistance on staff. 2 groups, or 7%, have at least one full-time communications or marketing expert on staff. 3 other groups (10%) have part-time communications or marketing assistance, for a total of 5 groups, or 17%, with at least part-time communications/marketing staff.

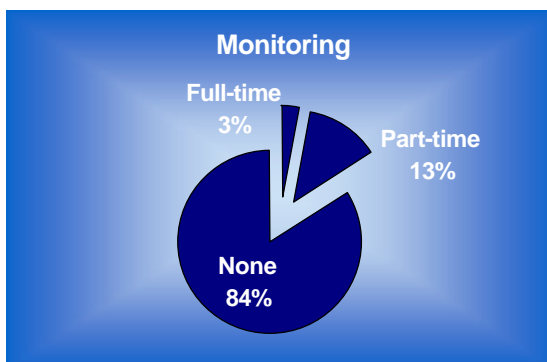
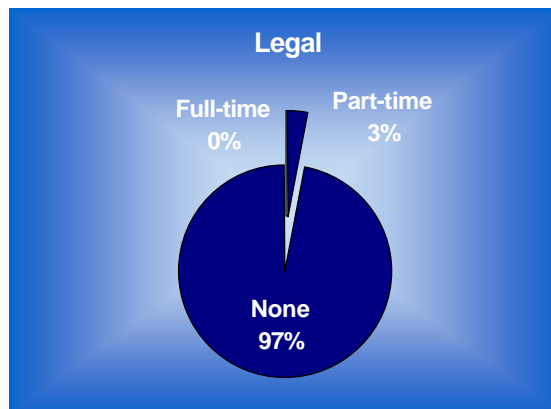
**Contract Services:** 26 Sierra watershed groups, or 84%, do not contract for any services. One watershed group, representing 3% of the 31 responding, has full-time contract services. And another 4 groups, or 13%, use part-time contract services.





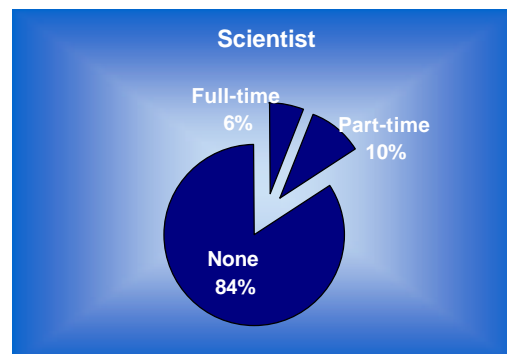
**Environmental Education:** 24 Sierra-based watershed groups, or 77%, have no environmental education staff. 4 of the 31 Sierra watershed groups responding (13%) have at least one full-time environmental education staffer. Another 3 groups, or 10%, have part-time environmental education staff, making a total of 7 groups, or 23%, with at least part-time environmental education support.

**Legal Staff:** 27 groups, or 97% of the 28 responding, have no legal support on staff. None of the Sierra watershed groups has full-time legal staff. One group has part-time legal assistance.



**Monitoring Staff:** 25 Sierra watershed groups have no monitoring staff. One of the 30 groups responding has one full-time monitoring staffperson. Another 4 groups have part-time monitoring staff, making a total of 5 groups, or 16%, with at least part-time monitoring assistance.

**Scientists:** 26 groups, or 84%, have no science support on staff. 2 groups, or 6% of the 31 Sierra watershed groups responding, have at least one full-time scientist on staff. 3 groups, or 10%, have part-time science support, for a total of 5 groups or 16% that have at least part-time scientific support on staff.



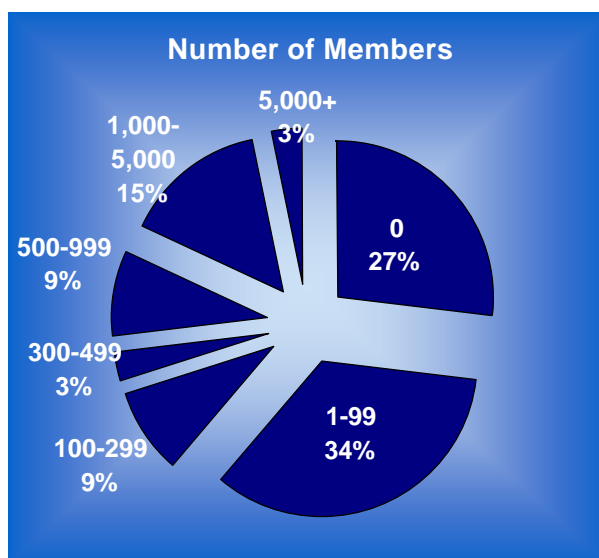
While not every watershed organization needs staff to accomplish its goals – it's amazing how much a group of dedicated volunteers can accomplish! However, most watershed groups that have ambitious goals and objectives or large territories to cover require some level of staffing to attain their goals. The Alliance may want to explore how to help staff-less Sierra watershed groups expand their capacity to support having at least one full-time staff person or a combination of multiple part-time staffers or contractors to help coordinate the group and get more work done.

In addition, there are some positions that may not be a priority for smaller organizations – such as staff attorney or scientist – but that can be useful for specific projects or programs. The Alliance has long been interested in exploring ways to provide such expertise on an “on-call” or pooled-resource basis for conservation groups in the greater Sierra. Survey results point to the potential value of such a program. Another option would be to team up Sierra watershed groups with other conservation organizations that do have these experts on staff and who could “loan” them out for specific watershed projects. The Sierra Nevada Alliance has already been using this model. We've worked with SYRCL's expert water monitoring staff to train other watershed groups in water monitoring and program development. The Alliance will continue to explore possibilities to build such bridges and/or provide such needed services regionally.

Finally, it may be worthwhile for the Alliance to consider adding a new support service to its Community Group Support Program, such as a networking forum where watershed group Executive Directors, development directors and other staffers convene to share information and resources to further develop their craft. Models for such networking forums exist in Sacramento and among place-based groups like the Tahoe Truckee Community Foundation, which convenes arts groups, humanitarian groups and conservation groups in the Tahoe-Truckee area.

## 6. MEMBERSHIP (Q17)

**The majority of Sierra watershed groups (52% or 18 groups) have between 1 and 750 members.**



The majority of watershed groups in the Sierra (18 groups or 52%) have between 1 and 750 members, with the highest percentage (34% or 12 groups) having 1-99 members. 27% of the Sierra watershed groups (10) say they don't have members. Another 18% (6 groups) have between 750 and 5,000 members, and 3%, or one group, has 10,000 members or more.

While these membership figures might seem small at first, many watershed organizations work in small, rural communities with relatively low populations. So these numbers can actually reflect a fairly large proportion of the residents in any given community.

Given that more than 70% of Sierra watershed groups (25 groups) have some sort of membership base, the Alliance should continue to provide workshops and information on how best to cultivate and grow memberships. In addition, the Alliance may want to target the majority of Sierra watershed groups with memberships of under 100 (61% or 22 groups) to help them develop new ways to expand their member/donor bases.

## 7. VOLUNTEERS (Q19, 20)

**All Sierra watershed groups make some use of volunteer labor, and 2/3 (23 groups) have extensive volunteer programs** with 1-9 volunteers who donate 10 hours or more per month.

All Sierra watershed groups responding have at least some work done by volunteers. Close to half (49% or 17 groups) have between 1 and 25 people who volunteer at least 2 hours a year. Two-thirds (67% or 23 groups) have at least one and up to nine volunteers who give 10 hours or more a month; and another 15% (5 groups) benefit from more than 100 hours a month in volunteer activity, with between 10 and 25 people who volunteer at least 10 hours a month.

Since volunteers play an integral role in all Sierra watershed groups, it makes sense for the Alliance to continue providing workshops on volunteer recruitment and retention. In addition, there is ample room for most groups to expand their volunteer participation and support, so it would be appropriate for the Alliance to work on programs that can help expand existing volunteer networks.

## 8. OUTREACH AND COMMUNICATIONS (Q18, 21)

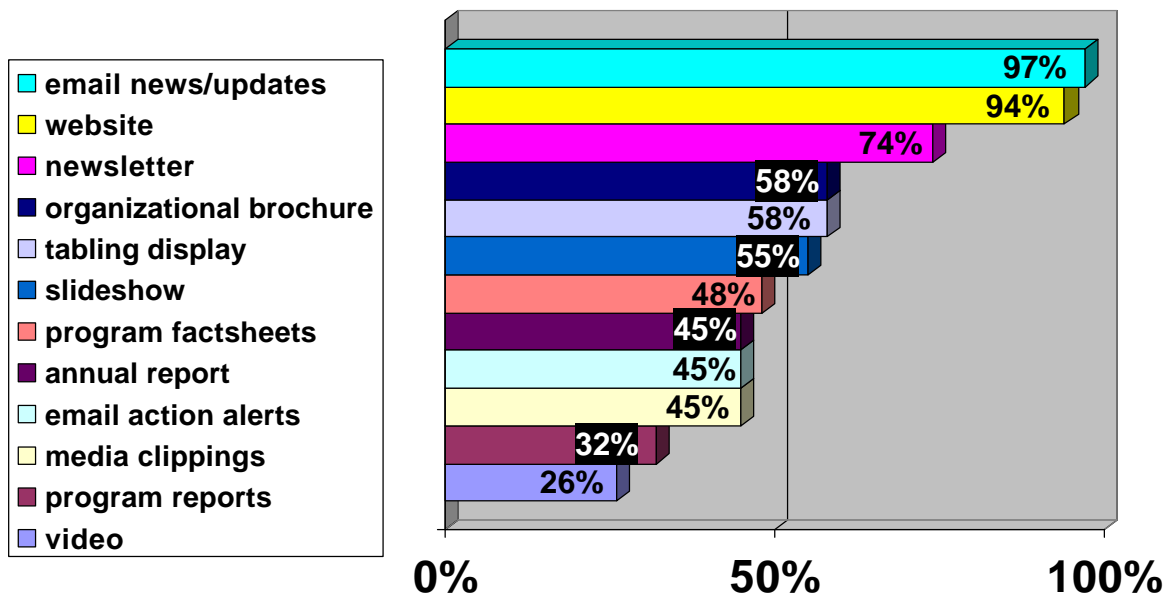
**Every watershed group has an outreach or mailing list of some sort** – even those groups that have no actual members. And **email news/updates are the most widely used outreach and communications tool** of Sierra watershed groups.

When asked about their outreach and communications practices, Sierra watershed groups responded that they have a mailing or outreach list to disseminate information and action alerts to interested parties – even those groups that have no actual members. 45% of the Sierra watershed groups (16 groups) have a list of between 1 and 300 names. Another 20% (7 groups) have a list of between 300 and 1,000 names. Eight watershed groups in the Sierra (23%) have between 1,000 and 5,000 contacts on their lists. And 4 groups, or 12%, have lists with more than 5,000 names.



As to how they use their outreach lists, Sierra watershed groups are definitely plugged into the electronic age, with 97% (30 of 31 groups responding) using the Internet to communicate with members and other interested parties. Use of email to send news or updates is followed closely by use of an organizational website (94% or 29 groups). Printed newsletters (74% or 23 groups), organizational brochures (58% or 18 groups) and tabling displays at events (58% or 18 groups) are also popular tools of choice. Slightly more than half the groups (17 groups or 55%) use slideshows, and just less than half (14 groups or 45%, ) use program fact sheets, annual reports, email action alerts and media clippings as outreach tools. Sierra watershed groups, in general, don't make as much use of videos or program reports.

## Outreach Tools



This information points to the possibility of the Alliance hosting workshops or providing templates and how-to manuals with tips for effective newsletters, program fact sheets, web design, use of email alerts and help with other electronic communications. Since so many groups have a website, the Alliance may also want to provide information or workshops on how to use the Internet for fundraising.

## B. STRATEGIES AND TOOLS USED BY SIERRA WATERSHED GROUPS

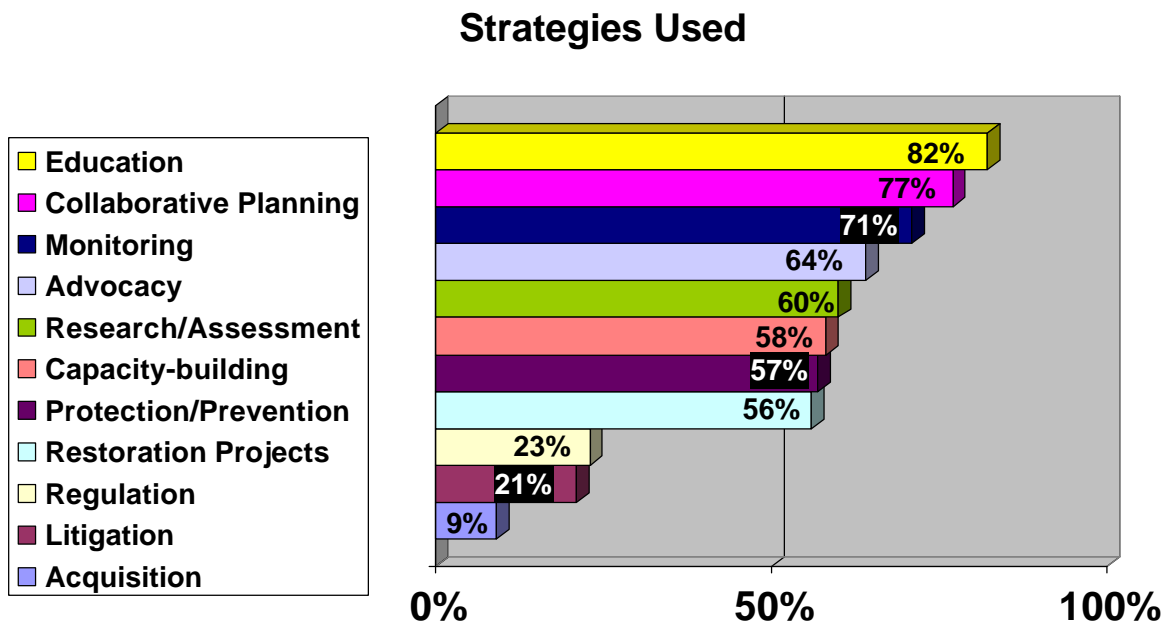
### 1. STRATEGIES (Q3,4)

**Most important Strategies** used by Sierra watershed groups to achieve their goals:

1. Education
2. Collaborative Planning
3. Monitoring
4. Advocacy

The survey asked Sierra watershed groups to indicate the relative importance of 11 different tools or strategies that might be used to achieve their organizational goals, by ranking each tool on a scale of [1] *Not very important* to [5] *Very important*.

The top four tools or strategies, based on the percentage of respondents who categorized each tool as a [5] *Very Important* or [4] *Important*, include: Education (82% or 28 groups), Collaborative Planning (77% or 27 groups), Monitoring (71% or 25 groups) and Advocacy (64% or 22 groups).



**Only slightly more than half (56% or 19 groups) use restoration as a strategy; and, interestingly, only 57% (or 20 groups) use protection or prevention as a key strategy.**

Tools that are not favored as much by Sierra watershed groups include acquisition (only 9% or 3 groups listed this as a 4 or 5), litigation (21% or 7 groups) and regulation (23% or 8 groups). **Only slightly more than half (56% or 19 groups) use restoration as a strategy; and, interestingly, only 57% (or 20 groups) use protection or prevention as a key strategy.**

Since only 20 groups or 57% responded that they use protection or prevention strategies to improve watershed health, the Alliance may want to consider providing assistance to watershed groups in the Sierra in conducting assessments. Watershed assessments can be the key to figuring out what needs to be protected in a watershed. Assessment work can also help guide future management strategy choices.

Once more Sierra watershed groups have completed assessments, the Alliance can work with them to identify and prioritize viable protection and prevention strategies. The Alliance would then be able to hold workshops and field training sessions on how to best implement the chosen strategies.

## 2. TECHNOLOGICAL TOOLS (Q14)

**Top technological needs of Sierra Nevada watershed groups:**

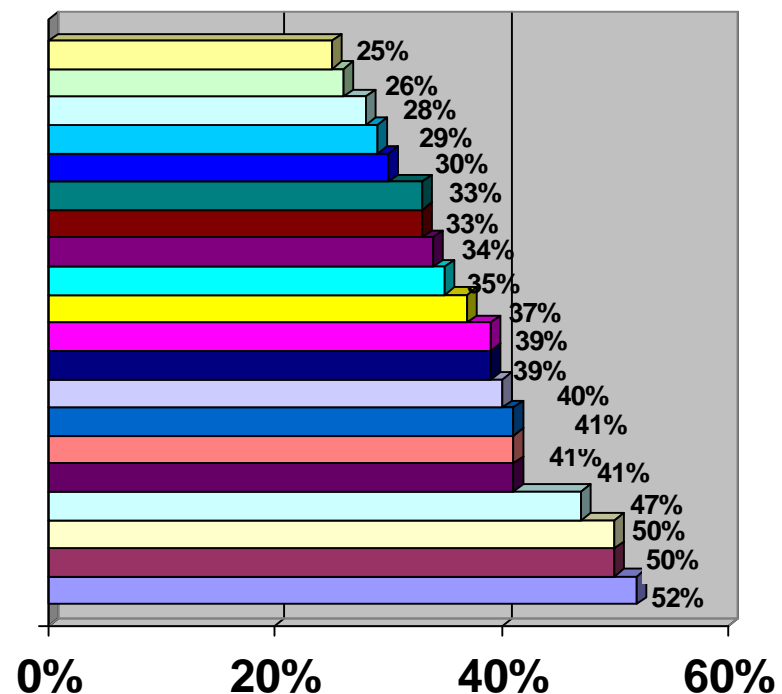
1. copier
2. computer backup
3. GPS units
4. computer/computer upgrade

The survey also asked respondents to consider 21 different technological tools and identify which ones they had sufficient access to and which ones they needed or wanted to update. For the technological tools they needed or wanted to update, the survey asked respondents to rank each one in terms of how important it was to their organizations' work on a scale of [1] *Not Very Important* to [5] *Very Important*. Based on the percentage of respondents that chose a particular tool as a [5] *Very Important* or a [4] *Important*, the top tools needed by Sierra watershed groups:

1. copier (14 of 27 groups, or 52%)
2. computer backup (15 of 30 groups, or 50%)
3. GPS units (14 of 28 groups, or 50%)
4. computer/computer upgrade (13 of 28 groups, or 47%).



## Technology Needs



Tools that were deemed not as important or that groups felt they had adequate access to include: computer-based modeling software, internet/email, black and white printer, fax broadcast software, and scanner.

Other tools mentioned by respondents that were not on the survey list included: LCD digital projector and/or overhead projector, mapping plotter, PowerPoint software, handheld personal digital assistants (PDAs, e.g. Palm, Blackberry, etc.), accounting software, 4WD vehicles, motorcycles, waders for in-stream monitoring, large format printers, large projection screen, portable public address systems, laptops, video editing software, web editing software, and then various scientific tools such as a lab chem. analyzer, mercury analyzer, projecting microscope, and other laboratory tools.

Since a third of Sierra watershed groups (10 groups) operate on budgets of \$15,000 or less and only about half (53% or 17 groups) have a full-time or part-time executive director, it is likely that many groups operate out of the homes of part-time staff or board members. Groups with no office, fulltime staff or common space may find it difficult to own and/or make use of individual technological tools. This could point toward establishing a loaner program of shared tools that could be made available to individual Sierra watershed groups for rent or to borrow on an as-needed basis.

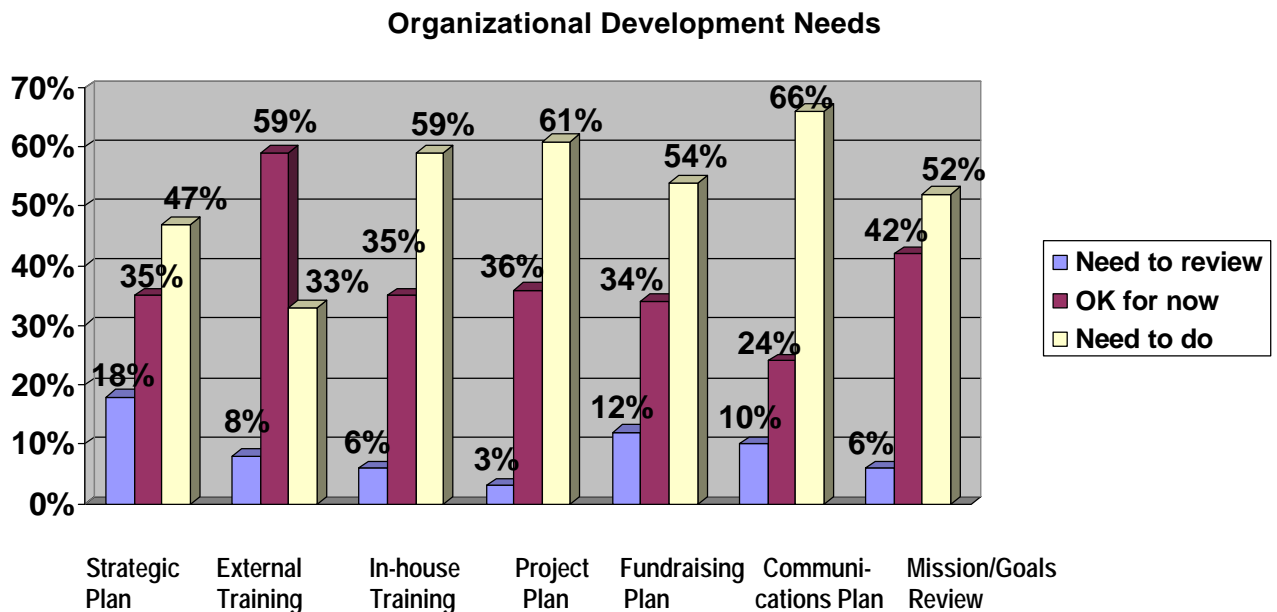
### 3. ORGANIZATIONAL DEVELOPMENT (Q16)

**Top 3 traditional organizational development activities** Sierra watershed groups need to do:

1. **Marketing/communications plan**
2. **Campaign, project and/or conservation plan**
3. **In-house Board/staff training**

For this question, respondents were asked to identify which organizational development activities their organizations had undertaken in the past year, 2 years, 3 years, 4 years, had never undertaken, or had in progress. Activities included: adoption or revision of a strategic plan, board/staff training (external), board/staff training (in-house), campaign/project/conservation plans, fundraising plans, marketing or communication plans, and review of mission/goals/programs.

Organizations that had a given activity in progress or that had never completed a particular activity were deemed *Need to Do*. Those that had completed a particular activity in the past year or two years were deemed *OK for Now*. And those who had completed a particular activity three or more years ago were deemed *In Need of Review/Re-do*.



The largest proportion of Sierra watershed groups could benefit from completing a marketing or communications plan (22 of 33 groups responding, or 66%), followed by campaign/project and/or conservation plans (19 of 31 groups responding, or 61%), in-house Board/staff training (19 or 32 groups responding, or 59%), fundraising plan (19 of 35 respondents, or 54%), mission/goals review (18 of 35 groups responding, or 52%), strategic plan (16 of 34 respondents, or 47%) and external Board/staff training (11 of 34 groups responding, or 33%).

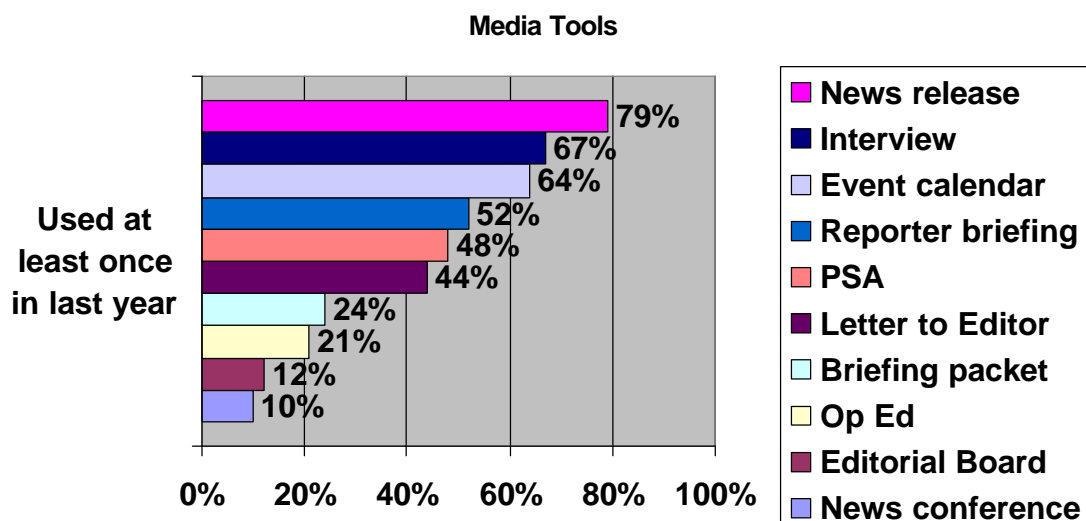
The Alliance will explore opportunities to assist Sierra watershed groups in strengthening their internal operations, including possibly providing staff support to facilitate various planning efforts (strategic, campaign, marketing, communications) and/or raising funds to hire consultants who can work one-on-one with members groups to provide these services on a short-term, more intensive basis. Although most groups put the emphasis on getting work done on the ground, planning is a necessary step for truly effective work.

#### 4. Media (Q22, 23, 24, 25, 26)

**Top media tools** used by Sierra watershed groups:

1. news release
2. interviews with reporters
3. events calendar

Of 10 different media tools listed, the one used most by Sierra-based watershed groups is the news release, with 26 of 33 groups responding (79%) using news releases at least once in the past year. The next most popular media tools – based on the percentage of groups that used the tool in the last year – were interviews with media representatives (22 groups or 67%), event calendars (18 groups or 64%) and reporter background briefings (17 groups or 52%). Only about half (16 groups or 48%) of the groups used public service announcements (PSAs) and only 44%, or 14 groups used letters to the editor. Less than one quarter of the groups made use of media briefing packets (24% or 8 groups), opinion editorials (21% 7 groups), editorial board meetings (4 groups or 12%) or news conferences (3 groups or 10%) in the past year.



Using the media tools outlined above, Sierra watershed groups were most successful at getting newspaper articles published (28 of 34 groups, or 82%, got at least one article published in the past year) and radio spots (17 groups or 50%). 14 groups, or 41%, got letters to the editor published, 30% (10 groups) got a mention in a television story, and 26% (9 groups) in editorials.

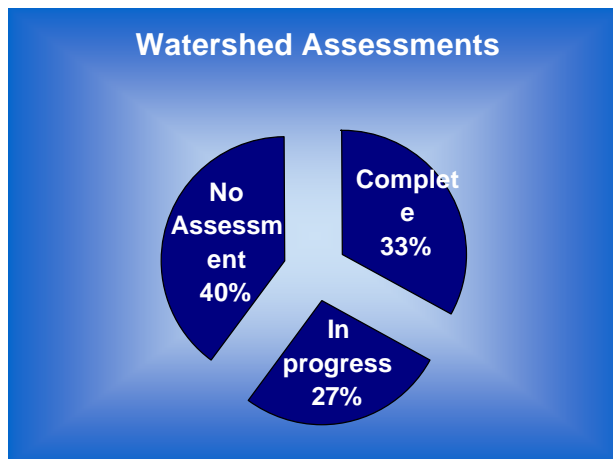
In terms of media lists, 69% or 24 of 35 respondents have a local media list, 31% or 11 groups have a statewide list, and only 11% or 4 groups have a national list. Since many of the smaller, rural communities represented by Sierra watershed groups have little or no organized media, groups may need help thinking "outside the box" to identify ways to get their messages out that don't rely on local media outlets.

The Sierra Nevada Alliance will continue working with Sierra watershed groups on communications and media strategies that employ a wide range of tools to ensure that the most important messages reach the most important audiences. This could happen through workshops, working one-on-one with Sierra watershed groups, and/or conducting more region-wide outreach on behalf of watershed groups. In addition, the Alliance could organize a Sierra media tour and set up meetings or briefings in Los Angeles, Sacramento and the Bay Area to highlight watershed needs and efforts in the Sierra.

## C. ASSESSMENTS & MONITORING

### 1. ASSESSMENTS

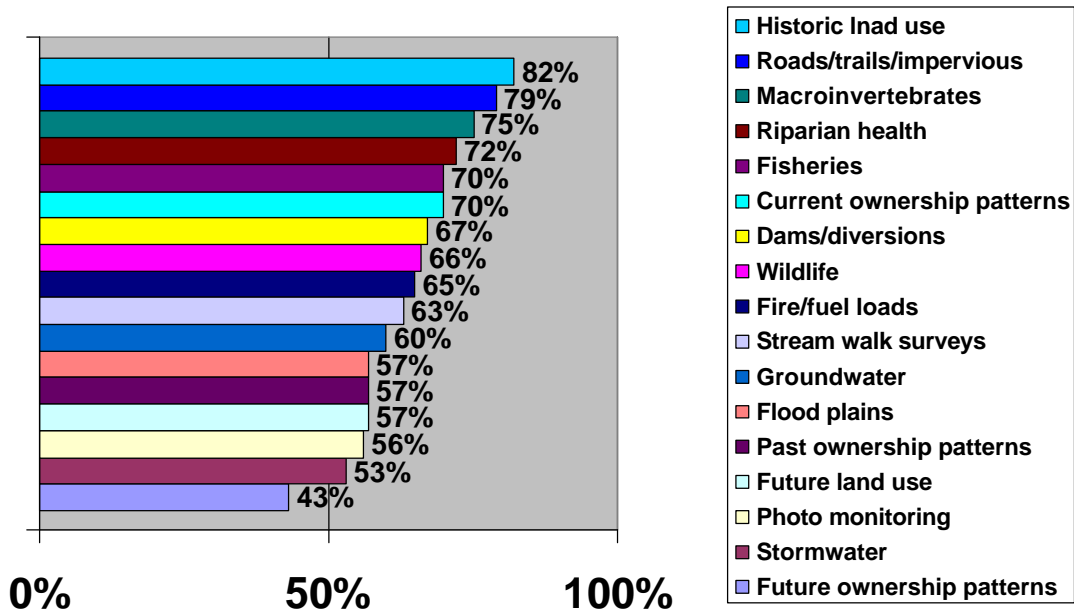
**Only one-third of Sierra Nevada watershed groups (10 groups) have completed a watershed assessment for their watershed.**



Out of the 30 groups responding, 10, or 33%, have completed a watershed assessment for their watersheds. Another 8 groups (27%) have watershed assessments currently underway. Twelve groups, or 40%, do not have a watershed assessment completed or in progress.

The top 5 elements in watershed assessments conducted or underway by survey respondents are: current land use (87%), hydrogeofluvial processes (86%), water quality (84%), vegetation (84%), and water quantity/flow (83%). All are shown in descending order in the following chart.

## Assessment Elements



Other important assessment elements highlighted by respondents (that were not explicitly listed in the survey choices) include: soils/erosion/sediment, noxious weeds, road/stream crossings, recreation, environmental education, existing management plans, algae distribution, and implementation plans.

As was mentioned previously in the *Strategies* section above, the Alliance should play an integral role in making sure that all Sierra watersheds have assessments completed for their watersheds.

Assessments help identify priority areas of concern and can establish what needs to be done to protect a watershed's important values. Good assessments also provide a list of project and/or implementation plans. The Alliance should consider partnering with authors of the *California Watershed Assessment Manual* (CWAM) to host in-depth workshops on the importance of assessments and how to conduct them. The Alliance should also look into partnering with some of the newly emerging groups to assist them in conducting existing conditions reports for their watersheds – the first step in most assessment processes.

Currently the Alliance is working on a metrics report that will provide a detailed analysis of the current state of watershed health in the Sierra. The report will highlight where data gaps exist while also providing a broad scan of existing information. This report could be a good starting point for those groups who have not done any assessment to date.



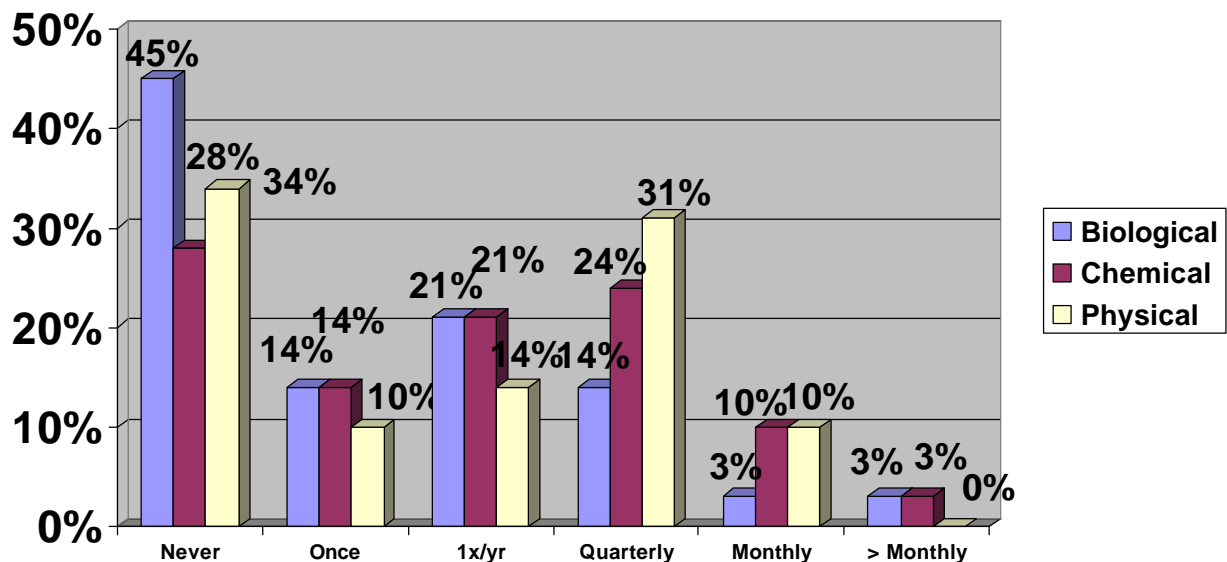
## 2. MONITORING

**Top 3 monitoring activities** Sierra watershed groups engage in:

1. chemical constituents (e.g. pH, DO)
2. physical (e.g. stream walk surveys)
3. photo monitoring

The survey also asked respondents to identify what kinds of monitoring activities they engaged in, such as biological, chemical, fish, habitat, wildlife, photo, physical, and with what relative frequency. Based on the percentage of groups that have engaged in a given monitoring activity at least once, the top monitoring activities are chemical constituent monitoring (21 groups or 72%), physical monitoring (19 groups or 66%), and photo monitoring (18 groups or 62%).

### Monitoring Frequency



The survey demonstrated that the majority of watershed groups in the Sierra have the capacity to conduct monitoring. The Alliance should help some of these groups who only conduct a "snapshot" or one-day monitoring event to develop a more in-depth quarterly or monthly monitoring program.

The Sierra Nevada Alliance should expand its current program to help start new volunteer quality monitoring programs that look at chemical and physical characteristics, at a minimum. The Alliance could help additional groups develop Quality Assurance Project Plans and Work Plans, as

well. The Alliance could also host trainings, guide coordinators and provide equipment for new monitoring programs, as well as creating a manual for Monitoring Coordinators to accompany their training and helping coordinators better understand the steps involved in running a successful program.

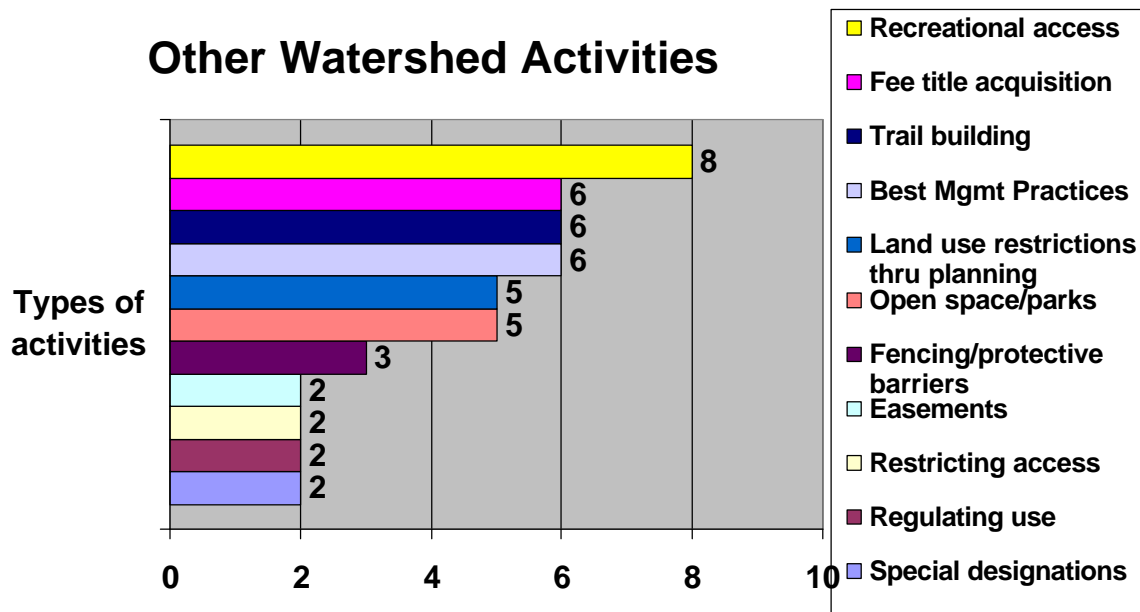
The Sierra Nevada Alliance has already partnered with the South Yuba River Citizens League to start monitoring programs with six Sierra watershed groups. Ideally these six groups will be able to expand their existing programs through follow up trainings and re-certification, additional equipment and resources to increase the constituents for which they monitor. Existing programs may need help in raising funds for lab costs to monitor *fecal coliform* or other types of bacteria that need more measuring expertise than volunteer labs or monitors can provide.

## D. PROTECTION AND OTHER ACTIVITIES

**Providing recreational access is the top activity watershed groups engage in outside of education and restoration.**

Finally, the survey asked groups to identify what other watershed activities they engaged in (besides education, monitoring and restoration), such as: acquiring easements or fee title on land, building trails, demonstrating "Best Management Practices," establishing open space, greenways or parks, fencing or other barriers to minimize impacts, land use restrictions through the planning process (e.g. General Plan designations, zoning, etc.), restricting access, providing/improving recreational access, regulating uses, or special designations (e.g. Wild & Scenic Rivers, wilderness areas, roadless areas, etc.).

Based on the number of groups that say they have engaged in a given activity, the top additional watershed activities are: providing or improving recreational access (8 groups), acquiring fee title on land (6 groups), trail building (6 groups), and demonstrating "Best Management Practices" (6 groups).



As was mentioned previously, the Alliance should investigate the potential for assisting Sierra watershed groups in the assessment process so that they can better identify additional activities they may want to conduct to protect water quality and other valuable assets in their watersheds.

In addition, the Alliance can explore hosting future workshops on the top ranked additional activities, including providing/improving recreational access, acquiring fee title on land, building trails and demonstrating "Best Management Practices." If these are projects identified by watershed assessments as high priorities, the Alliance can assist in the knowledge transfer by providing watershed groups with the necessary tools and expertise to implement such projects.

## E. RESTORATION

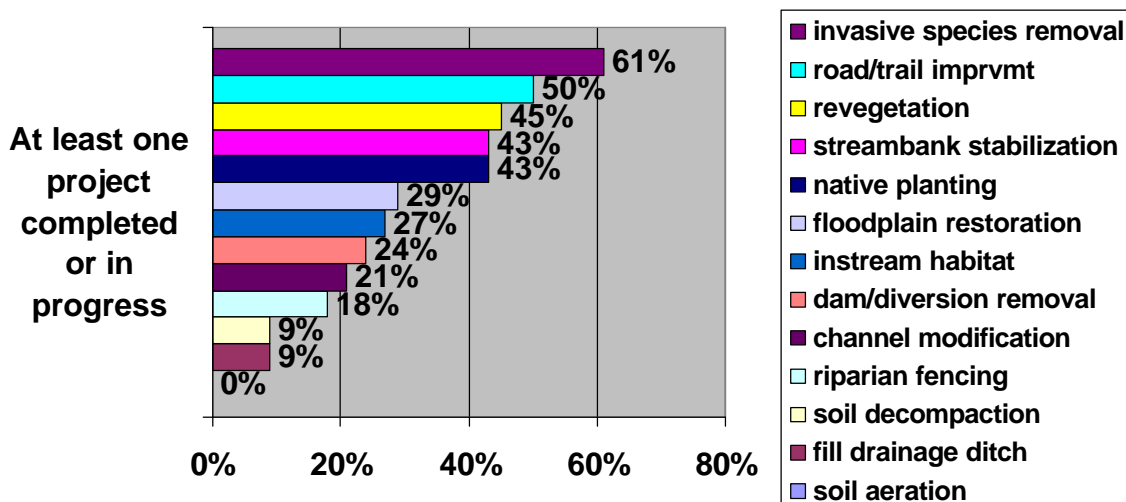
**The most popular types of restoration projects are:**

- 1. invasive species removal**
- 2. road/trail improvements**
- 3. revegetation.**

Watershed groups in the Sierra have identified and completed a number of restoration projects, helping to improve watershed health and function in the region. The survey asked respondents to identify how many projects they'd completed or had in progress in 13 different categories, including: channel modification, decompaction of soils, fencing along riparian areas, filling or blocking drainage ditches, floodplain restoration, in-stream habitat improvements, reestablishing native plant communities, removal of invasive species, removal or breaching of dams, diversions or dikes, revegetation, road/trail improvements or decommissioning, soil aeration, and streambank stabilization.

The most popular types of projects (based on the percentage of groups reporting they've completed or have at least one such project underway), include: invasive species removal (14 groups or 61%), road/trail improvements or decommissioning (12 groups or 50%) and revegetation (10 groups or 45%). Streambank stabilization and reestablishing native plant communities are also popular, each listed by 43% or 9 of the Sierra watershed groups as projects they have completed or have underway.

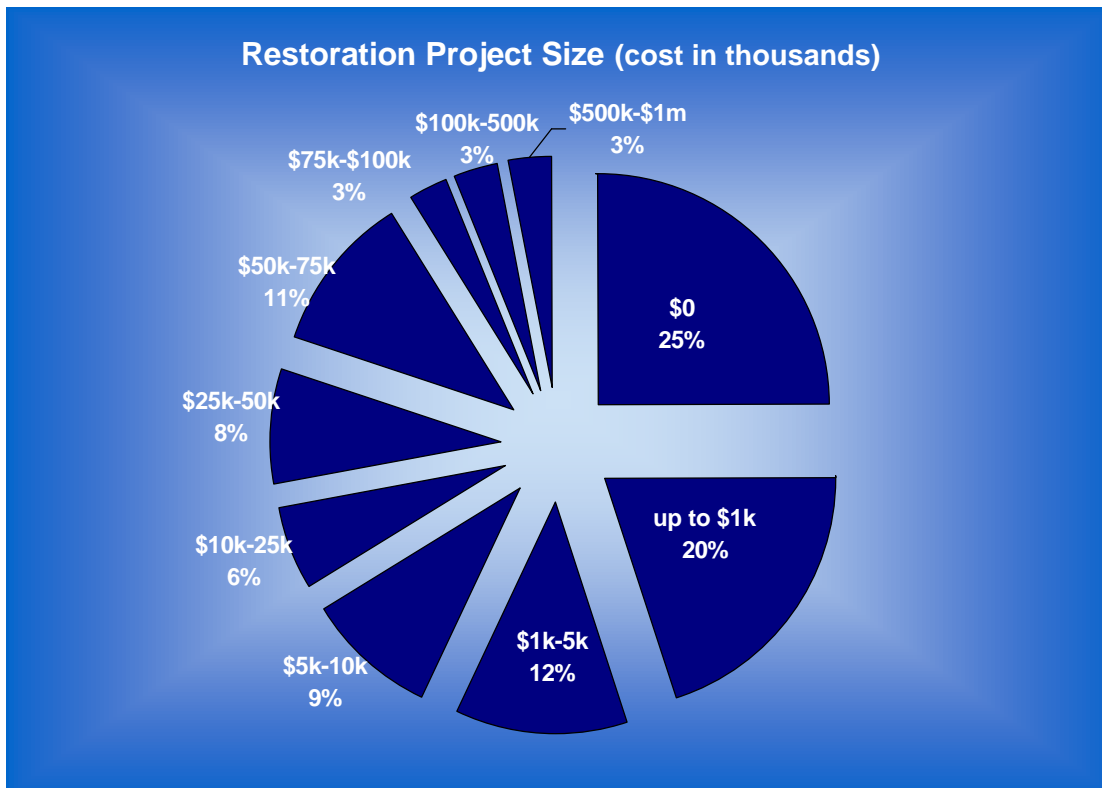
## Restoration Project Types



Thirteen groups, or 45% of those responding, do not have a restoration project list completed or in progress.

Out of 29 groups responding, 10, or 34%, have a list of additional restoration and/or protection projects (sometimes referred to as a "project portfolio") that they wish to pursue. Another 6 groups (21%) have such a list currently underway. **Thirteen groups, or 45%, do not have a restoration project list completed or in progress.**

The size of completed restoration projects varies fairly dramatically, as indicated by the percentage of projects completed in different cost categories ranging from no cost (\$0) to over \$1 million. The pie chart below illustrates an approximate percentage of projects in each major cost category.



The fact that 13 Sierra watershed groups do not have an existing restoration project list may be indicative of the fact that only 33% or 10 groups have completed watershed assessments. Again, the Alliance needs to address the issue of helping more Sierra watershed groups assess their lakes, rivers and streams.

However for those groups who have already completed project lists, there are two ways the Alliance can provide assistance. First, the Alliance can build the capacity of those groups who are currently only conducting projects in the \$0-\$5,000 range by helping them identify and conduct larger-scale projects. And more importantly the Alliance can help these groups find funding and expertise to implement the projects.

The Alliance can also better facilitate the knowledge transfer between those Sierra watershed groups that are conducting larger projects in the \$100,000 to multi-million dollar range with the watershed groups that are in the lower ranges or that are not conducting projects at all. We can do this by hosting regional meetings, workshops and email discussions.

The Alliance will begin this process by hosting a watershed restoration workshop and field tour that will teach watershed coordinators in the Sierra about adaptive management and watershed restoration planning. The Feather River CRM will tour participants around some of their larger scale restoration projects. We are also putting together a *Watershed Restoration: How-To Guidebook* for those groups who have not yet begun restoration work.

## F. EDUCATION AND OUTREACH ACTIVITIES

**Top 3 educational activities Sierra Nevada watershed groups engage in:**

- 1. community outreach events**
- 2. educational materials and/or presentations**
- 3. educational events with schools, tied with tabling at other groups' events**

The survey also asked respondents to identify and rank (with 1 being low and 5 being high) what kinds of educational outreach activities they engaged in, such as: community outreach events, educational events with schools, educational materials or presentations, K-12 curriculum, other curriculum, service learning, sponsorship of other groups' events, and tabling or other presence at other groups' events in the community.

Based on the percentage of respondents that identified a particular activity as a *[5] Very Important* or a *[4] Important*, the top five educational activities conducted by Sierra watershed groups include:

1. community outreach events (69%)
2. educational materials/presentations (60%)
3. educational events with schools (46%) tied with tabling or other presence at other groups' events (46%).

There are many watershed education programs available to watershed groups in California and Nevada. The Sierra Nevada Alliance can work through our email newsletter, annual conference and referrals to educate Sierra watershed leaders about these existing programs and opportunities. We can also highlight successful projects by watershed groups in the Sierra to act as models for other groups.

#### IV. SIERRA NEVADA ALLIANCE SERVICES

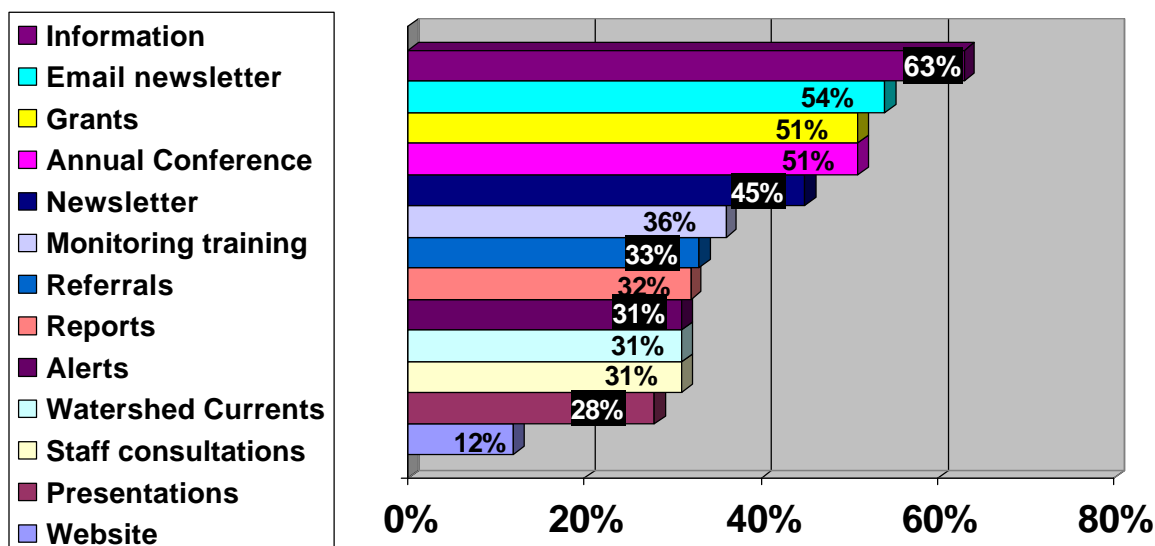
**Most useful services provided by the Alliance to Sierra watershed groups:**

1. **Information**
2. *Sierra Weekly* email newsletter
3. Grants or other financial subcontracts
4. Annual conference

Respondents were asked to identify the relative usefulness of 13 different services provided by the Alliance by ranking each on a scale of [5] *Very useful* to [1] *Not very useful*. Based on the percentage of groups that categorized each service as a [5] or a [4], the top five most useful services included:

1. Information (63%)
2. *Sierra Weekly* email newsletter (54%)
3. Grants or other financial subcontracts (51%)
4. Annual conference (51%).

#### Sierra Nevada Alliance Services



Additional services listed as potentially useful include: local capacity-building, advocacy or lobbying on watershed issues at the state level, Sierra-specific information and educational materials, database of experts for referrals (which the Alliance has, but most are unaware of), development of alternative funding sources besides grants, "how-to" manual on maintaining staffing/personnel, Sierra Nevada Conservancy liaison, scientific support, improved networking, and organizational development assistance.

This information will help the Alliance identify which of its existing services to keep, which ones to advertise more prominently – such as the experts list which does exist but apparently isn't as widely known as other services – and possible new services to add to its existing programs.

## V. CONCLUSIONS

At the Sierra Nevada Alliance, we believe that watershed groups are one of the most important elements for the protection and restoration of Sierra rivers, lakes and streams. The ability to protect and restore Sierra watersheds depends on the health and vitality of these watershed groups and networks.

These groups are on the frontlines protecting all of the Sierra's precious watersheds; and without their commitment, passion and knowledge, this amazing range would be devastated. At the same time, the challenges of the future, such as population growth, climate change, and myriad planning demands, will severely stretch already scarce resources. The Sierra Nevada Alliance intends to strengthen watershed groups so they can better attain their goals and missions and take full advantage of the opportunities ahead.

This watershed group capacity assessment report has helped the Alliance generate new ideas about how to better assist and support watershed groups in the Sierra. We plan to take the ideas we have and discuss them with our partners, funders and others. Please read the following ideas not as commitments written in stone, but as a starting place for discussion to help us all shape future efforts that will best meet the needs of watershed groups and others in the years to come.

Ways the Alliance might be able to help bridge gaps for watershed groups in the Sierra:

### **Funding and Revenue Assistance:**

- Diversify funding bases by hosting workshops, trainings, and providing consultation on how to conduct individual donor outreach programs, event fundraising, private foundation grant writing, and major donor development. Offer model fundraisers
- Explore co-organizing fundraising events that split income among host groups.
- Advocate for continued and increased dollars for watershed assessment, protection and restoration from government programs.

### **Organization Building Assistance:**

- Recruit a pool of experts that can be available to assist watershed groups with specific projects or questions at a reduced cost, e.g. assessments, restoration planning, fundraising, organizational development, scientific, legal, etc.
- Dedicate Alliance staff time, hire consultants or recruit experienced volunteers to help watershed groups lead organizational strategic planning, fundraising, and project planning sessions.
- Conduct media and communication trainings for watershed groups. Share the Alliance's statewide and national media lists to help groups gain media attention outside of their local area.
- Organize Sierra media briefings to highlight success stories of Sierra watershed groups. Conduct the briefings with Sierra watershed group partners and hold them in Los Angeles, Sacramento, and the Bay Area.



### **Watershed Assessment Assistance:**

- Consider partnering with the authors of the California Watershed Assessment Manual (CWAM) to host in-depth workshops in the Sierra on the importance of assessments and how to conduct them.
- Partner with some of the newly emerging watershed groups to assist them in conducting existing conditions reports for their Sierra watersheds.
- Create a metrics report that will provide a detailed analysis on the current state of watershed health of Sierra watersheds. Update this metrics report every 2-4 years.
- Expand the Alliance's current water monitoring training program to watersheds without monitoring. Continue to help start new chemical and physical water quality monitoring programs in watersheds without monitoring.
- Build the capacity of existing volunteer water monitoring programs by layering in biological monitoring.

## **VI. METHODOLOGY**

The survey consultant, Kerri Timmer or **Sierra Connections**, developed a set of three surveys to solicit information from three different categories of groups active in the Sierra:

1. **Sierra watershed groups** – those working to protect and restore their rivers, lakes and streams;
2. **land use/smart growth groups** – those working to improve land use policy in the region; and
3. **Alliance member groups.**

The initial draft survey was presented to the Alliance for review in November 2004. Alliance staff and interested Board members reviewed and provided comments on the draft, which were incorporated into the final versions of each survey. The final surveys were deployed using an Internet-based survey hosting service, called Zoomerang ([www.zoomerang.com](http://www.zoomerang.com)). All individual survey responses are confidential. Zoomerang tabulated aggregate results for each question, and the survey consultant used those aggregate results to put together this report for use by the Sierra Nevada Alliance, survey respondents, potential funders and others.

# # #