

Chapter 6 - Socioeconomic Monitoring Tools and Methods

The following chapter sections provide detailed descriptions of interview and survey methods and shorter descriptions of direct observation and the use of focus groups. Each section includes a list of people or organizations that can provide additional help. The final sections identify secondary data sources and provide tips on using data collected by others.

A table cross-referencing indicators, measures, data sources, and sampling methods is provided in Appendix II.

Surveys and interviews

Surveys are way to systematically find information from a particular group of people- particularly information that those people know better than anyone else. Interviews are a specific survey mechanism that tend to require more time from the individuals responding to questions. Because all surveys take the time of the people who respond (whether writing on paper, on the Internet, over the phone, or face-to-face), it is important to limit these methods to information that cannot be gathered in other ways.

For both interviews and surveys, the basic method involves:

1. developing a question or set of questions that will measure change in an indicator,
2. selecting a group of people to question/survey, and
3. asking those people to answer the same question or set of questions at different times during the life of the project.

The rights of the people who participate in surveys and interviews

The individuals responding to questions need to know ahead of time when the information will be requested, why it is requested, and how it will be used. In a monitoring study, they need to know they will be asked questions to get baseline data about the current situation, and that they will be asked similar questions regularly over time to see if change has taken place. If a survey is to be used with a particular group (such as crew leaders, high school students, forest workers, families of forest workers, mill operators, etc.), all the questions should be asked at the same time.

It is critical that monitoring teams protect the confidentiality of the people from whom they gather information. When asking for information, one has to clearly explain:

- Who is involved in the multiparty monitoring;
- What the information will be used for;
- Why the particular information requested is important;
- The individual's right not to answer; and
- How the information provided will be handled to assure confidentiality (for example: no name written down, questionnaire kept in a locked filing cabinet and who has the key, how the data will be aggregated so that they cannot be identified by their characteristics).

Choosing a sample population

Sampling provides a way to draw conclusions on larger groups of a community, forest, or other unit of analysis through the careful analysis of a subgroup that may include individuals, households, or a few acres of trees in a watershed that you believe represent the whole

population. The advantages of sampling are reduced costs and greater speed of measurement made possible by collected data on a subset and not the entire community or forest. Some considerations monitoring teams need to keep in mind include:

- the appropriate size of a sample,
- the defined population from which one will draw the sample from, and
- how one select a sample.

The appropriate size of a sample depends on the size of the community, the forest or other unit of analysis from which one wishes to collect data. As a rule of thumb, the larger the size, the more monitoring teams can trust how representative the data is of the entire population. Generally, teams will want to select enough individuals, households, or trees that will represent the range of ideas, values, or other characteristics they feel are important. For instance, sampling 20 percent of households in a community of 100 households may be an appropriate number. However, there is no set-in-stone number.

The population from which one draws a sample is also important. Inquiry responses will only reflect the opinions of the people who answer the questions, so make sure the *sample* (the people answering questions) is similar to the overall population the team wants to measure. In other words, if one wants to know what the community as a whole is thinking, don't just ask a portion of the population (e.g., teenagers).

There are two ways to select a sample: randomly or non-randomly. *Non-random sampling* takes advantage of gathering responses from people who are already congregated. For instance, monitoring teams might ask the people attending a workshop to answer specific questions at the start of the workshop and again at the end, to see what they have learned. One could also ask questions at a meeting of the local Rotary Club, or perhaps choose to distribute a questionnaire to tenth-grade science students once per year. If monitoring teams only have a few questions and they only require a “yes” or “no” answer, the team could have people check off a response on a meeting sign-in sheet. If there are several questions to ask or the need for in-depth answers, teams may want to select *key informants* – the people who are most likely to have the information being sought. A good way to identify key informants is to identify a few people the team thinks are knowledgeable on the subject they want answers to and ask each of them, ‘Who else should I be talking to about this?’

The second way to select a sample is by randomly selecting individuals or households to respond to questions. *Randomly* selecting a sample may include choosing every fourth household along a road, without regard to who might live there. Random sampling may also include selecting every fourth household in every neighborhood in the community so that all the different types of people and living conditions are represented. Whatever the approach to randomly selecting a sample, a rule of thumb is to consistently use the same selection criteria (or whatever type of data collection method the team might be using) throughout the duration of the study.

For monitoring, it is important to sample repeatedly – at least once per year – and to make sure that the responses received each time are comparable to those gathered previously. In order to make sure teams are gathering comparable data, both the questions asked and the sample (subgroup of the entire population being monitored) needs to be the same each time. This means the survey needs to be done with the same group of people (e.g., students, forest workers, etc), but not necessarily the exact same individuals in that group.

Developing questions

When developing survey questions, think about the data that will be most useful to the restoration project. Only ask questions about information needed, and keep the list of questions fairly short (generally no more than 10 questions).

Behavioral change is sometimes considered the best indicator of a change in attitudes. Therefore, monitoring teams may choose to ask people how they have applied what they learned, or how they have changed their behavior, or whether they have encouraged other people to change their behavior as a result of what they have learned.

It is important that everyone interpret the questions the same way. It is a good idea to “pilot” the set of questions by running it by a couple of people who are not in the sample population to see how well they understand what is being asked.

Questions may be either *closed-ended*, meaning that respondents are offered answer choices and asked to select one (e.g., ‘very likely, likely, neutral, unlikely, or not at all’), or *open-ended*, in which case respondents are asked to provide their own answers.

Closed-ended questions are faster and easier for the respondents to answer, and are preferred for self-administered questionnaires and telephone interviews. If the concept teams are asking about is fairly clear-cut (e.g., How long have you lived in this community?), closed-ended questions work well. But in cases where the respondent may have complex thoughts on a subject or the monitoring team does not know the possible range of opinions, closed-ended questions may miss important data.

Open-ended questions work best when an interviewer is asking the questions and recording answers, because the interviewer can ask respondents additional probing questions to clarify a response or get additional information. In general, open-ended questions often begin with words like ‘why’, ‘what’, or ‘how’. Open-ended questions are often said to produce “rich data,” because respondents may provide important information beyond what is being asked. Asking open-ended questions requires more skill, however, because interviewers must be careful not to bias respondents.

Asking the questions

Questions can generally be asked in person, over the telephone or through a secondary medium such as written questionnaires or internet surveys. To make sure results are comparable, always use the same method as the first time the question was asked. For example, do not ask questions orally one year and in a written questionnaire the next.

The following lists describe different interviewing and questionnaire methods.

In-person and by telephone

Interviews and questionnaires may be administered in-person or by telephone, with the interviewer reading the questionnaire to the respondent and recording responses. In-person interviews and questionnaires generally receive the highest response rate, and are a useful format when the interviewer wants to ask open-ended questions.

Asking questions by telephone allows the interviewer to reach a relatively larger number of people at relatively low cost. However, telephone interviews and questionnaires do not allow the use of visual aids and are less appropriate for personal or sensitive questions.

Advantages of in-person and telephone questioning

- Relatively high response rate (compared to self-administered questionnaire);
- Does not require respondent to possess good reading and writing skills;
- Opportunity to ask open-ended questions;
- Ability to exercise quality control measures at interviewer's discretion.

Disadvantages

- Interviewer's presence may influence respondent to provide what s/he perceives to be socially acceptable responses;
- Requires respondent to think quickly (compared to self-administered);
- Generally uses close-ended questions;
- Difficult to generate a rich data set;
- Generally does not generate rich and detailed information.

Self-administered questionnaires

Written questionnaires may also be administered by mail, on-site, or via the Internet with the respondent reading the questions and writing down individual responses. In both cases, respondents are provided with the questions and written instructions for completing the questionnaire. Respondents return mailed questionnaires by mail, email, or direct Internet submission. On-site questionnaires are made readily available in highly visible locations (e.g., library, Post Office, trailhead, visitor center). Respondents are invited to complete the questionnaire and deposit in a secure, on-site receptacle (although they may choose to complete the survey at a later time and mail it to the investigator).

Advantages of self-administered questionnaires

- Visual aids (e.g., maps, photographs) can be readily incorporated;
- Interviewer is less likely to bias respondents' responses;
- Potential to generate a great deal of data;
- Data are generally quantitative, providing opportunity for statistical analysis;
- Results may be generalized to a larger population;
- Allows respondents ample time to consider their responses;
- Provides respondents with a sense of privacy and confidentiality;
- Relatively low cost.

Disadvantages of self-administered questionnaires

- Lower response rates than interviewer-administered;
- Intensive effort required to improve response rate;
- Assumes respondents possess adequate reading and writing skills;
- Generally uses close-ended questions;
- Difficult to obtain rich, detailed data through the use of open-ended questions;
- Inability to verify respondents identity or responses;
- Inability to clarify confusion that respondent may experience.

Structured versus unstructured interviews

For *structured interviews* and most questionnaires, the interviewer uses a detailed script of written questions that have been carefully worded and ordered so that every respondent answers the same

set of questions, in the same order. Questions for structured interviews are generally closed-ended.

Advantages of structured interviews and questionnaires

- Ease of administration allows many questions to be asked;
- Generates a relatively rich data set;
- Data analysis is simple;
- Provides basis for statistical analysis;
- Responses of individual respondents are readily comparable.

Disadvantages of structured interviews and questionnaires

- Construction of schedule/questionnaire is difficult, labor intensive, expensive;
- Closed ended questions provide limited response choices;
- Closed-ended questions generally provide surface level data;
- Clarification of confusing questions is prohibited;
- Probing of unclear responses is prohibited;
- Questions may seem mechanistic and inflexible.

In *semi-structured* or *focused interviews*, only some of the questions are predetermined, and interviews are always done face-to-face. The interviewer works from a series of open-ended, lead-in questions to direct the respondent towards certain issues of interest without directing the respondent towards a pre-determined/desired response.

Advantages of semi-structured interviews

- Flexibility: interviewer may alter sequence in which questions are asked, probe or otherwise seek clarification of responses, and follow-up on unexpected responses;
- Comprehensive: provides breadth of information;
- Intensive: provides depth of information;
- Personable: puts the respondent at ease and may provide access to personal information that would otherwise be unavailable;
- Comparison of responses of individual respondents is often possible.

Disadvantages of semi-structured interviews

- Data collection often requires travel and can be expensive;
- Data analysis is often complicated and time consuming;
- Data may contain irrelevant information.

Unstructured or *informant-directed* interviews, in which the interviewer assumes a conversational tone and urges the respondent to talk freely about issues of interest, are not recommended for monitoring, because it is difficult and often impossible to compare the responses of individual interviews and to replicate the procedure in out years.

Where to get help:

Many colleges and universities have programs with special expertise in survey and questionnaire design. Faculty in sociology and anthropology departments are skilled in this method, as well, and are often willing to offer advice on the wording of questions. State and county Cooperative Extension offices may also have personnel who can help with questionnaire and interview design.

Monitoring teams may also contact the Southwest Community Forestry Research Center for help by contacting:

Tori Derr, Coordinator
Southwest Community Forestry Research Center
P.O. Box 519
Santa Fe, NM, 87504
Telephone: (505) 983-8992, extension 36 or (800)
Email: tori@theforestrust.org

Andranovich, G. and R.E. Howell. 1995. *The Community Survey: A Tool for Participation and Fact-Finding*. Pullman, Washington: Western Regional Extension Publication WREP0132. Available at no cost on the Web at: <http://cru.cahe.wsu.edu/CEPublications/wrep0132/wrep0132.html>. This bulletin may also be ordered for \$1.00 from:

Bulletins Office
Washington State University
Cooper Publications Building, Dept. WB
P.O. Box 645912
Pullman, WA 99164-5912
Voice: 1-800-723-1763
bulletin@coopext.cahe.wsu.edu

Dillman, Don A. 2000. *Mail and Internet Surveys: The Tailored Design Method*. John Wiley & Sons, Inc., New York. Second Edition. (good tips for developing questions).

Direct (or Participant) Observation

Direct observation is a technique for systematically observing and recording changes in land use, people, relationships, group processes, events, and many other objects or activities. *Participant observation* is direct observation by a community member or other project participant or stakeholder. Data may be recorded on a checklist or in detailed written notes.

Direct observation is a useful field technique because it is easy to learn, requires little to no training, and is relatively inexpensive. It is useful for cross-checking, or validating, data gathered by another method.

Care should be taken, however, when interpreting social issues and conditions, particularly if the observer is not from the project area. Interpretation of direct observation data should be validated through another technique, e.g., by interviewing local residents.

Where to get help:

Taylor-Powell, E. and S. Steele. 1996. *Collecting Evaluation Data: Direct Observation*. Madison, Wisconsin: University of Wisconsin Cooperative Extension. G36585. On the Web at: http://www1.uwex.edu/ces/pubs/pdf/G3658_5.PDF. Also available from:

Cooperative Extension Publications
650 West Mifflin St., Room 170
Madison, Wisconsin 53703
608-262-3346

Focus Groups

There is some information that can best be learned through discussions by groups of knowledgeable people (also known as focus groups). Often this data is not available from official sources, very expensive to gather through systematic surveys, or the information asked is something that individuals are hesitant to share about themselves, but are willing to discuss the general situation and its changes.

A focus group is a special kind of organized discussion or series of discussions. In focus groups, a skilled facilitator guides discussion using a few specific questions. These questions focus on different aspects of a topic. Focus group topics might include population, recreational use of the forest by local people, the kinds of ways local people maintain their livelihoods, etc. When focus groups are used for monitoring, it is critical that the same groups discuss the same issues at least once a year.

Focus groups take advantage of group dynamics and allow respondents to discuss key issues included in the monitoring plan. Ideally, focus groups are fairly *homogeneous groups* (groups containing people with similar backgrounds, experience, and values) with five to seven participants. When several focus groups are formed, it needs to be clear whether the information gathered is about a subgroup within the community or the entire community. When the focus group discussion is to be used for monitoring, the group should try to reach consensus over the information discussed so that it can be reported systematically.

The purpose of focus group interviews is to gain a deeper understanding of participants' views and experiences, knowledge, and attitudes about the topic being investigated. While often used in program evaluation, it can be useful in monitoring when the focus is more on the current state of the community at the time of monitoring. Monitoring focus groups should be used for clusters of related questions that might allow for some sort of *triangulation* (confirmation of a result by measuring the same thing different ways) for a particular indicator or goal.

Where to get help:

Butler, L.M., C. Dephels, and R. Howell. 1995. *Focus Groups: A Tool for Understanding Community Perceptions and Experiences*. Pullman, Washington: Western Regional Extension Publication WREP0128. Available at no cost on the Web at: <http://cru.cahe.wsu.edu/CEPublications/wrep0128/wrep0128.html>. This bulletin may also be ordered for \$2.50 from:

Bulletins Office
Washington State University
Cooper Publications Building, Dept. WB
P.O. Box 645912
Pullman, WA 99164-5912

Using data collected by others

In most cases, members of the monitoring team will collect the data needed. When it comes to baseline, community, or even some project-specific information, though, the team may need to get information compiled by another person or agency. Depending on the team membership, these additional resources might include the Census Bureau, community members, Forest Service employees or even for the contractor hired to complete the restoration project. No matter who the

“other” sources of data are, the team will need to know a few things about this supplemental information.

First, the team will have to identify how the data were collected. This will give them an idea of how useful the data set really is and how they might gather similar information during and/or after the project is completed. It may also make sense to find out *why* they collected the data they did. This could help the team understand the relationship between the measures, the data, and the project.

Second, the team will have to make sure it understands what the measures really mean. This point has two parts. Sometimes the “name” of a measure does not exactly tell what it measures. Poverty is a perfect example. The U.S. poverty measure is based on income only; it does not get at housing security, quality of life, and many other things that people associate with poverty.

The other challenge to understanding data collected by others is the “jargon” or particular “lingo” that people use in a given occupation, agency, or field of study. While useful to the people in that occupation, agency, or field, jargon may only confuse other people. If the data set the team collects has jargon in it that the team does not understand, make sure to ask the source of the information to explain its meaning. Also, be warned that certain “acronyms” (e.g. CFRP, NFP) may have different meanings to different people. Again, if the meaning is not clear, ask.

Third, be prepared to have to spend some time formatting data in a way that is useful to the monitoring effort. When someone else collects data, they format it for their own purposes. While their data may be of use to the team, the form in which they store or present their data may not be. This means that the team will have to take extra steps to make them useful. Such steps could include typing data into a computer program, figuring averages or percentages, or deleting extra information that they gave you that the team does not need.

Where to get data or help:

Using federal, state, or other data sources can be confusing and difficult. It takes a lot of time to gather such data. Once the team has received the data, they may still not completely understand the information that has been gathered or determine if it meets all of the teams needs.

A number of university departments, state agencies, businesses, and libraries have become what are known as *State Data Centers*. The purpose of these data centers is to help the general public get access to and understand socioeconomic and demographic data gathered by the federal and state governments. If the team is unfamiliar with or are having trouble interpreting or understanding federal and state data sources, it would be worth the time to contact the appropriate state data center for help. Please be aware that some data centers charge for the work they do, while others are free.

Below are listed the State Data Centers for the Four Corners area. Whenever possible, both a phone number and a web site for each of the centers is listed. Contact people are not listed since they change over time. If the team finds that the links or other contact information is outdated, or if interested in finding a data center for another state, see <http://www.census.gov/sdc/www/>

Arizona

Arizona Department of Economic Security

Phone: (602) 542-5984

Web site: <http://www.de.state.az.us/links/economic/webpage/page2.html>

Center for Business Research at Arizona State University

Phone: (408) 965-3961

Web site: <http://www.cob.asu.edu/seid/cbr/>

College of Business Administration at Northern Arizona University

Phone: (520) 523-7313

Web site: <http://bber.cba.nau.edu/>

Research Library Department of Library, Archives, and Public Records

Phone: (602) 542-3701

Web site: <http://www.dlapr.lib.az.us/>

Economic & Business Research Program at the College of Business & Public Administration,
The University of Arizona

Phone: (520) 621-2155

Web site: <http://ebr.bpa.arizona.edu/>

Colorado

Colorado Demography Section

Phone: (303) 866-4147

Web site: <http://www.dlg.oem2.state.co.us/demog/demog.htm>

Agriculture and Resources Economics at Colorado State University

Phone: (970) 491-5706 Fax (970) 491-2067

Web site: <http://dare.agsci.colostate.edu/>

Documents Department the Libraries Colorado State University

Phone: (303)491-1880

Web site: <http://lib.colostate.edu/acq/govdocs.html>

New Mexico

New Mexico Economic Development Department

Phone: (505) 827-0264

Web site: <http://www.edd.state.nm.us/>

Bureau of Business and Economic Research at University of New Mexico

Phone: (505) 277-6626

Web site: <http://www.unm.edu/~bber>

New Mexico State Library

Phone: (505) 476-9717

Web site: <http://www.stlib.state.nm.us/>

Department of Economics/3CQ at New Mexico State University

Phone: (505) 646-2112

Web site: <http://cbae.nmsu.edu/> (Link to public programs and centers.)

Utah

Office of Planning and Budget

Phone: (801) 537-9013

Phone: (801) 538-1036

Web site: <http://www.governor.state.ut.us/gopb/default.html>

University of Utah Bureau of Economic and Business Research
Phone: (801) 581-3353
Web site: <http://www.business.utah.edu/bebr/>

Department of Community and Economic Development
Phone: (801) 538-8897
Web site: <http://dced.utah.gov/>

If the team decides to gather data on its own, here are some useful web sites for federal data:

American FactFinder

<http://factfinder.census.gov/servlet/BasicFactsServlet>

Contains information from 1990 and 2000 Census, 1997 Economic Census, some other Census reports and information. Information is kept at many “units of analysis” including zip codes, places, counties, etc.

Census Bureau Web Site

<http://www.census.gov>

Contains links to tons of useful (and not so useful!) information about the Census Bureau, its data sets, and its other publications and activities.

County Business Patterns

<http://www.census.gov/epcd/cbp/view/cbpview.html>

Contains links to data from 1993 to 2000. As the name implies, information is mainly for the county, although some zip code data too.

Warning: Coding change makes comparing data over time difficult. Data based on surveys taken every year in early March. Does not cover yearly data and not based on every single business in an area. Lots of data suppression.

Regional Economic Information Service

<http://www.bea.doc.gov/bea/regional/reis/>

Contains a lot of information on the economy, including wages, employment, retirement income, population, etc. Information kept mainly for the county.

Warning: Data based on surveys and estimates created by government statisticians. These estimates use assumptions that do not apply to every area.

State and County Quickfacts

<http://quickfacts.census.gov/qfd/>

Contains summaries of common measures taken from many different government data sets. The summaries compare a county to a state or a state to the nation.

For state data, first go to an individual state’s main web page. Because states structure their governments in different ways, the team will have to search the sites to find the data that fits the needs. Some good places to start include departments, offices, or agencies of education, economic development, community development, planning, labor, natural resources, conservation, taxation, management and budget, and revenue.

The main state web sites for the Four Corners area are:

Arizona: <http://www.az.gov/webapp/portal/>

Colorado: <http://www.colorado.gov/>

New Mexico: <http://www.state.nm.us/>

Utah: <http://www.utah.gov/>

Resources

Two excellent guidebooks for community-based monitoring are:

Flora, C.B., M. Kinsley, V. Luther, M. Wall, S. Odell, S. Ratner, and J. Topolsky. 1999. *Measuring Community Success and Sustainability*. (RRD 180). Ames, IA: North Central Regional Center for Rural Development. This document is available from the NCRCRD (telephone (515) 294-8321) for \$10 and on at no cost on the Web at http://www.ncrcrd.iastate.edu/Community_Success/about.html.

Margolous, R. and N. Salafsky. 1998. *Measures of Success: Designing, Managing, and Monitoring Conservation and Development Projects*. Washington, DC: Island Press. (\$35 from Island Press - at 800-828-1302, service@islandpress.org, or online at www.islandpress.org).

Other publications monitoring teams may find useful:

Moseley, Cassandra and Lisa Wilson. 2002. Community-based Monitoring for Sustainable Natural Resource Management. Ecosystem Workforce Program, University of Oregon, Corvallis, Oregon.

detailed guidance on monitoring rates of employment, by-product utilization, and grant acquisition.

This publication can be found on the Web at <http://ewp.uoregon.edu/guidebook> or at <http://thewatershedcenter.org> at no charge. It can also be purchased for \$25 (inc. shipping and handling) by calling (541)346-0675.

Rasker, Ray, Jerry Johnson, and Vicky York. 1998. *Measuring Change in Rural Communities: A Workbook for Determining Demographic, Economic, and Fiscal Trends*. Sonoran Institute, Tucson, Arizona. Second edition.

detailed instructions on locating data sources, finding the data you need, and calculating trends

available on the Web at <http://www.sonoran.org>
for printed copies, contact the Sonoran Institute:

Sonoran Institute
7650 E. Broadway Blvd.
Tucson, Arizona 85710
Telephone: 520-290-0828

Sonoran Institute
Northwest Office
105 W. Main, Suite D
Bozeman, Montana, 59715
Telephone: 406-587-7331

Individuals

Monitoring teams may also contact any of the following individuals (all authors of this section) for explanations or assistance:

Sam Burns
Office of Community Services
Fort Lewis College
1000 Rim Drive
Durango, CO 81301
970-247-7193
burns_s@fortlewis.edu

Nils Christoffersen
Wallowa Resources
P.O. Box 274
Enterprise, OR 97828
541-426-8053
ndc-wr@oregonvos.net

Dennis Becker
USDA Forest Service
Pacific Northwest Research Station
Joint Fire Science Program
2500 S. Pine Knoll Dr.
Flagstaff, AZ 86001
928.556.2159
drbecker@fs.fed.us

Christina M. Cromley
General Accounting Office
441 G. Street NW
Room 4440A
Washington, DC 20548
(202) 512-8471
cromleyc@gao.gov

Cecilia Danks
School of Natural Resources
University of Vermont
153 S. Prospect St.
Burlington, VT 05401
802-656-0175
Cecilia.danks@uvm.edu

Tori Derr
Community Forestry Research Center
The Forest Trust
P.O. Box 519
Santa Fe, NM 87504
505-983-8992 ext. 36
tori@theforestrust.org

Cornelia Flora
Center for Rural Development
Iowa State University
107 Curtiss Hall
Ames, IA 50011
515-294-1329
cflora@iastate.edu

Quinn Griffin
The Escalante Center
60 W. Main St.
Escalante, UT 84726
435-826-4660
dode@color-country.net

Jan-Willem Jansens
Common Ground
811 St. Michael's Drive, Ste 106
Santa Fe, NM 87505
505-982-9806
jjcgclp@earthlink.net

Lisa Wilson
Watershed Research & Training Center
PO Box 356
Hayfork, CA 96041
530-686-4206
lynnj@hayfork.net
lwilson@hayfork.net

Ann Moote
Ecological Restoration Institute
Northern Arizona University
PO Box 15017
Flagstaff, AZ 86011-5017
ann.moote@nau.edu

George Ramirez
Las Humanas
P.O. Box 320
Torreon, NM 87061
505-847-0736
woodmanzone@aol.com

David Seesholtz
USDA Forest Service
208 Cruz Alta Road
Taos, NM 87571
505-758-6274
dseesholtz@fs.fed.us