



Recreation Research Update



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Caring for the Land and Serving People

WUI Homeowners' Opinions about Defensible Space Activities

A new study by Dr. Jim Absher (PSW), Dr. Gerard Kyle and Dr. Gene Theodori (both at Texas A&M) is beginning to provide important information about homeowners in the immediate Wildland-Urban Interface (WUI) area. Partners in this work include the FireSafe Council of San Diego County and Cleveland National Forest staff. After developing an innovative WUI-focused sampling protocol, homeowners living in the San Diego County WUI were sent a questionnaire that asked them about their defensible space (DS) activities, along with relevant socio-demographic, setting and psychological questions. Many of these DS activities are considered useful, if not essential, by fire fighting experts. Yet, as this study demonstrates, they are far from universally done by homeowners. Resistance and noncompliance is likely due to many causes, including social dimensions such as beliefs and attitudes.

From a database of 724 completed questionnaires, a basic DS compliance and WUI resident profile was developed. Results show overwhelming familiarity with wildland fire (e.g., over 97% had seen flames from a wildland fire and fully 79% had been evacuated during a fire event). Yet DS activity compliance ranged from 43-93%, suggesting some important reasons for non-compliance existed. To look at that further, scalar measures of beliefs, trust and shared values were tested in a model with different defensible space effectiveness measures (single item indicators of house and site activities such as cleaning roof surfaces, using non-flammable building materials, pruning vegetation or planting fire resistant species).

Results suggest that trust does affect DS actions and that some value indicators, notably their orientation to nature and sense of freedom, are also important. Moreover, the type of DS action, i.e., whether it is house- or site-focused, makes some difference as well. This study shows that such a textured understanding of these relationships can be used to improve communications and programmatic compliance for homeowner DS activities. Thus, the findings can assist agencies working to educate and better prepare residents for wildfire and to make fire loss reduction programs more effective. *For more information on this*

study or to obtain a copy of these results, please contact Jim Absher at jabsher@fs.fed.us or 951-680-1559.

Day Use on the Angeles National Forest, 2005

It is important to examine use of recreation sites and get visitor points of view about those sites. The following reports results from a day use visitor contact study led by Dr. Debbie Chavez on the San Antonio Canyon and San Gabriel Canyon on the Angeles National Forest (ANF) in summer 2005. The purpose was to provide to managers information based on day use visitor opinions. Day use sites were randomly selected from each canyon for inclusion in the study. Dates of data collection were randomly selected from various weekends throughout the summer months. Data were collected from 509 recreationists.

Most respondents were white or Latino, and most were U.S.-born. Average age of respondents was 37 years, and they reported an average 13 years of education. Most of these day use visitors were recreating with family and friends, were on a visit of more than four hours, were repeat visitors, and planned return visits to the forest. On the day contacted, most respondents were hiking, picnicking, and swimming/wading.

Most respondents heard about the ANF from word-of-mouth sources (typically friends and family). Preferred sources of on-site information included brochures, signs along the road, and bulletin boards. Respondents wanted more information about camping in the area, best times to visit the area to avoid crowds, hiking in the area, and picnic/barbecue areas. Preferred day use site attributes included trash cans, parking areas, water faucets, picnic tables, law enforcement and patrols, and telephones.

Managers of the Angeles High Country and San Gabriel Canyon planning places on the ANF can use the results of this report in several ways. First the demographics suggest a mixed white and Latino clientele, suggesting a need to serve both groups. Communication plans should be developed with a mixed clientele in mind. There are many opportunities to communicate with forest visitors on-site including brochures, signs along the road, and notes on bulletin boards with information on camping in the area, best times to visit the area to avoid crowds, hiking in the

area, and picnic/barbecue areas. Development preferences suggest there were particular facilities and amenities (such as trash cans, parking areas, water faucets, and picnic tables) that visitors desired; and a focus on these would be beneficial to the forest and the visitors. *For more information about this study contact Deborah Chavez at 951-680-1558 or dchavez@fs.fed.us.*

National Predictive Services—Results from the User Needs Assessment

This summary presents findings from research initiated by Dr. Pat Winter and Dr. Heidi Bigler-Cole (of PNW) in 2005 through a request from the National Predictive Services Group (NPSG), a group chartered under the National Fire and Aviation Executive Board (NFAEB) that provides oversight, leadership, and strategic direction to the Predictive Services (PS) program.

Federal and non-federal users and prospective users of PS participated in an online survey. Federal sector respondents (n=1,078) were employed primarily in the Forest Service (FS), NOAA and National Weather Service (NWS), the Bureau of Land Management (BLM), and the National Park Service (NPS). Non-federal sector respondents (n=305) worked mostly in state and county agencies.

A majority of Federal respondents accessed PS information either daily or weekly during fire season. Outside of fire season access was more likely to be weekly or monthly. Non-federal respondents also reported more frequent access during fire season.

The vast majority expressed some to a great deal of trust and confidence in PS information. The respondents who were most familiar with PS, and within some job groups, were most likely to indicate high levels of trust and confidence.

Reliance and taking action based on PS were more likely among those who had trust and confidence in the information, and those most familiar with the products and services.

Primary barriers to not using the products and services included current management practices not requiring the types of information provided, not knowing how to use the products, needing information that is site specific, and not having thought about it.

Trust and confidence showed some to a great deal of importance among the majority of respondents in

both samples. While trust issues were not revealed as significant barriers to use of products and services, specific actions to build trust and confidence might include:

- Increase communication efforts so that people increase their awareness and familiarity with PS products and services.
- Target communication efforts so that messages reflect the needs and interest of the products and services to particular user groups.
- Practice transparency in presentation of data including assumptions behind products, levels of accuracy and reliability, confidence, sources of error, and other salient data-related concerns.
- Report back to current users and prospective users how findings from this survey were applied.

For more information about this study contact Pat Winter at 951-680-1557 or pwinter@fs.fed.us.

Unit Publications

Absher, J. D.; Vaske, J. J. 2007. Modelling public support for wildland fire policy. In Reynolds, K. M., Thomson, A. J., Kohl, M. Shannon, M. A., Ray, D., & Rennolls, K. (Eds.) Sustainable forestry: from monitoring and modelling to knowledge management and policy science. Wallingford, UK: CAB International.

Absher, J.D.; Vaske, J.J. 2006. Predicting wildland fire policy support. In Keith M. Reynolds (General Technical Report PNW-GTR-688. Portland, CA: Pacific Northwest Research Station, Forest Service, U.S. Department of Agriculture; 7 p. (unnumbered on CD)

Vaske, J. J.; Absher, J. D. 2007. Salient value similarity, social trust and attitudes toward wildland fire management strategies. *Human Ecology Review*, 14, 2: 218-226.

Winter, P.L. 2006. Urban proximate wilderness visitors' preferences for fire management. Proceedings of the Third International Fire Ecology and Management Congress; 2006 November 13-17; San Diego, CA. www.emmps.wsu.edu/2006firecongressproceedings/Changes/PatWinter.pdf