

NEVADA COUNTY WILD FIRE PREPAREDNESS

REASON FOR INVESTIGATION

According to the 1997 Nevada County Operational Area Emergency Action Plan, "Nevada County, with its varying topography, mix of urban and rural areas, rapidly growing permanent population, transient and recreational population are all subject to a wide variety of negative impacts from natural and technological hazards." The Plan states that the number one natural hazard is wild land fire. The Grand Jury, as an advocate for the public, is interested in what is being done in Nevada County for wild land fire preparedness.

BACKGROUND

In September of 1988, the 49er Fire consumed 33,500 acres and destroyed or damaged 148 dwellings and 356 other structures in Nevada County. This year the media have reported monster fires in Arizona and Colorado. There is a growing realization that the rapid increase in population in the urban/wild land interface, along with a build-up of so called "ladder" vegetation fuels, pose a dire threat to communities such as those in Nevada County.

The National Forest Service (NFS), California Department of Forestry and Fire Protection (CDF), the Fire Safe Council of Nevada County (FSC), the various independent fire districts, city fire departments, and the Nevada County government, all play an important cooperative role in dealing with wild fires within Nevada County. For instance, CDF has been providing a pilot fire hazard reduction program, largely funded by a Federal Emergency Management Agency (FEMA) grant, in selected areas north and east of Nevada City. As an inducement to homeowners to cut and stack excess brush that endangers the safety of their homes and use of driveways, this program provides a free chipping service. In addition, with the consent of affected property owners, shaded fuel breaks (selective removal of hazardous vegetation) are planned along designated roads that may serve as emergency evacuation routes.

PROCEDURE FOLLOWED

Management and staff of Nevada County government, the FSC, CDF, and Nevada County Consolidated Fire District (NCCFD) were interviewed. Documents relating to applicable laws, and ongoing and proposed fire preparedness programs, were reviewed.

FINDINGS

1. Public Safety funding became available in Fiscal Year (FY) 1994/95 under Proposition 172. Initially, the Nevada County Board of Supervisors chose to allocate 10 percent of these funds to the 11 independent fire districts within the County. This was reduced to 7.75 percent for FY 1995/96 as is the case for the FY 2002/03 \$388,571 allocation.

2. In FY 2001/02, NCCFD elected to use 12.3 percent (\$19,150) of their portion of the unrestricted Proposition 172 allocation for their public education and fuel reduction program.
3. The NCCFD began a “Fuel Management and Hazard Reduction Program” in 1997 which now deals with both developed and undeveloped parcels within a residentially zoned target area.
 - a) Developed parcels are inspected to ensure compliance with Section 4291 of the State Public Resources Code. Such inspections serve to remind property owners of the requirement to maintain “defensible space” around structures.
 - b) Undeveloped parcels are inspected to ensure that they do not constitute a hazard to their neighbors. If a parcel is judged hazardous, an abatement order may be issued and the property owner is notified accordingly. If the owner fails to correct the problem, NCCFD may hire a contractor to remove the hazard and may attach a lien on the property to recover the costs.
4. NCCFD personnel have met with local homeowner organizations to help formulate evacuation plans to be used in the event of a major wild fire.
5. In 1998 and 1999, the Nevada County Board of Supervisors considered proposals to adopt a countywide vegetation ordinance similar to the NCCFD program. These proposals were not adopted.
6. In October 2001, Nevada County received the first of five annual allotments (approximately \$149,000) of Title III Forest Reserve funds from the US Forest Service. These funds may be utilized for fire prevention and county planning. Approximately \$18,000 of the yearly amount is committed to an education program administered by the Nevada County Superintendent of Schools.
7. For the fiscal year 2002/03, about \$63,000 of the remaining \$131,000 was allocated to the FSC in accordance with Board of Supervisors Resolution 02-371. Approximately \$45,000 of the first year’s Forest Reserve allotment remains unallocated. This, when added to the second yearly allotment, leaves about \$176,000 to be allocated in this fiscal year or carried over to subsequent years.
8. The FSC of Nevada County is a non-profit organization dependent upon grants, donations, and community volunteers. It employs two full-time staff.
 - a) The FSC provides educational materials and presentations relative to fire safety. It also operates a chipping program to encourage the establishment of defensible

space, and provides brush-clearing assistance for low-income seniors who are unable to create and maintain their own defensible space.

- b) The FSC has provided large grinders at central locations where brush can be chipped more economically than with standard chippers. These chips are then hauled and sold to cogeneration facilities outside of the County to partially offset the cost of the chipping.
9. Nevada County's Office of Emergency Services has helped coordinate shelter locations for evacuation situations. It has not identified safe major evacuation routes.
 10. Despite the potential horrific impact of a major fire, similar to the Hayman Fire which consumed 138,000 acres south of Denver, Colorado this past summer, Nevada County has not estimated the direct fiscal threat to the County from reduced property and sales tax collections, as well as a demand for increased services, following such a fire.

CONCLUSIONS

1. The Grand Jury commends the Board of Supervisors for having continuously allocated a part of Proposition 172 Public Safety funds to the independent fire districts, and for their continued support of the FSC through the Forest Reserve funds.
2. The Grand Jury commends the NCCFD for utilizing a portion of their allotted Proposition 172 funds for implementing their Fuel Management and Hazard Reduction Program. It is noted that the scope of this program is limited by funding.
3. A successful fire preparedness program requires community wide support. It is best carried out in a flexible manner at local levels to accommodate local needs such as ecological and aesthetic concerns. A combination of both carrot (i.e., chipping programs) and stick (enforcing existing law) is required.
4. Wild land fires pose a major threat to the lives and property of Nevada County residents. Wild fires can never be entirely avoided but the damage can be significantly lessened by proper planning. Additional amounts spent on fire preparedness activities will reduce direct economic impact on the County following a major fire.

RECOMMENDATIONS

The Board of Supervisors should:

1. Estimate the cost to the County of a major wild fire and evaluate these potential costs with the adequacy of current funding for wild fire preparedness.

2. Increase the allocation to the fire districts to at least the original 10 percent of the Proposition 172 Public Safety funds, but tie the increase to programs similar to NCCFD's Fuel Management and Hazard Reduction Program;
3. Apply unallocated Forest Reserve funds to fire prevention and planning activities;
4. Investigate the use of advanced technology, such as centrally located small cogeneration plants, which may reduce the cost of chipping programs;
5. Coordinate evacuation planning with the local fire districts;

REQUIRED RESPONSES

The Board of Supervisors – May 5, 2003

by Tom Stines
COUNTY OF NEVADA

STATE OF CALIFORNIA

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Follow-up Committee

Please handle

HJ 4/24/03

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April 23, 2003

The Honorable Judge Ersel Edwards
Presiding Judge of the Nevada County Courts
Nevada County Court House
Nevada City CA 95959

Subject: Board of Supervisors Responses to the 2002-2003 Nevada County Civil Grand Jury Early Response Report No. 1, dated February 3, 2003 regarding Nevada County Wild Fire Preparedness.

Dear Judge Edwards:

The attached responses by the Board of Supervisors to the 2002-2003 Nevada County Civil Grand Jury Early Response Report No. 1, dated February 3, 2003, are submitted as required by California Penal Code §933.

These responses to the Grand Jury's findings and recommendations were approved by the Board of Supervisors at their regular meeting on April 22, 2003. Responses to findings and recommendations are based on either personal knowledge, examination of official county records, review of the responses by the Fire Safe Council, Nevada County Consolidated Fire District (NCCFD), the Nevada County Assessor, the Nevada County Chief Executive Officer, and the Nevada County Office of Emergency Services (O.E.S.), or testimony from the Board Chair and county staff members.

The Board of Supervisors would like to thank the members of the 2002-2003 Grand Jury for their participation and effort in preparing their Report.

Sincerely,

Sue Horne
Chair of the Board

Attachment

sh:pb

cc: ✓ Foreman, Grand Jury
Assessor
Rick Haffey, County Executive Officer
County Counsel
Gene Armstead, OES
Fire Safe Council
CDF
NCCFD

**NEVADA COUNTY BOARD OF SUPERVISORS RESPONSES TO
2002/2003 CIVIL GRAND JURY EARLY RELEASE REPORT NO. 1
DATED FEBRUARY 3, 2003
RE: NEVADA COUNTY WILD FIRE PREPAREDNESS**

Responses to findings and recommendations are based on either personal knowledge, examination of official county records, review of the responses by the Fire Safe Council of Nevada County, Nevada County Consolidated Fire District (NCCFD), Nevada County Assessor, Nevada County Executive Officer, Nevada County Office of Emergency Services (OES), or testimony from the board chairman and county staff members.

I. GRAND JURY INVESTIGATION:

Nevada County Wild Fire Preparedness.

A. RESPONSE TO FINDINGS & RECOMMENDATIONS:

Findings:

- 1. Public Safety funding became available in Fiscal Year (FY) 1994/95 under Proposition 172. Initially, the Nevada County Board of Supervisors chose to allocate 10 percent of these funds to the 11 independent fire districts within the County. This was reduced to 7.75 percent for FY 1995/96 as is the case for the FY 2002/03 \$388,571 allocation.**

Agree

- 2. In FY 2001/02, NCCFD elected to use 12.3 percent (\$19,150) of their portion of the unrestricted Proposition 172 allocation for their public education and fuel reduction program.**

Agree

The NCCFD Annual Report For 2001-02 Proposition 172 Funds reported that \$19,150 of its Proposition 172 allocation of \$155,851 (12.3%) was used for Fire Prevention activities, including public education and fuel reduction.

- 3. The NCCFD began a "Fuel Management and Hazard Reduction Program" in 1997 which now deals with both developed and undeveloped parcels within a residentially zoned target area.**

Agree

- a. **Developed parcels are inspected to ensure compliance with Section 4291 of the State Public Resources Code. Such inspections serve to remind property owners of the requirement to maintain “defensible space” around structures.**

Agree

Prior to 2002, the NCCFD performed limited parcel inspections, usually in response to specific requests or complaints. Beginning in 2002, the district initiated an inspection program where on-duty engine company personnel perform Section 4291 Defensible Space Inspections in their first-response duty area.

- b. **Undeveloped parcels are inspected to ensure that they do not constitute a hazard to their neighbors. If a parcel is judged hazardous, an abatement order may be issued and the property owner is notified accordingly. If the owner fails to correct the problem, NCCFD may hire a contractor to remove the hazard and may attach a lien on the property to recover the cost.**

Agree

The district initially performed hazard abatement inspections of unimproved property in the Alta Sierra area surrounding the Alta Sierra airport. This area was considered to have the highest potential for a life threatening fire due to steep slopes, highly combustible fuel loads, numerous residential homes, and restricted traffic circulation routes. Since then, the district program has been expanded to include the Banner Mountain area.

The district encourages voluntary compliance with fire safety regulations on all parcels, both improved and unimproved, in designated target areas determined through inspection to be nuisance fire hazards. If voluntary compliance is not achieved by a certain date, the district board of directors conducts a public hearing and declares by Resolution the property to be a Public Nuisance. The district then has the authority to abate the nuisance and charge the property owner the cost of abatement as well as administrative costs. The charge is considered a Special Assessment against the property and a lien is recorded by the County Clerk-Recorder.

4. **NCCFD personnel have met with local homeowner organizations to help formulate evacuation plans to be used in the event of a major wild fire.**

Agree

The district created its first emergency plan for Alta Sierra in 1994. The plan was updated in 2001 and provides a unique combination of sheltering-in-place and evacuation.

The district is presently evaluating options for the Banner Mountain area and has met with other community groups including Wolf Mountain, Lakewood Estates, Byers Lane, Lodestar, Retrac

Road, Greenhorn Road Association, and Wolf Mountain Camp, to raise awareness of the fire threat and suggest the need for written emergency plans.

5. **In 1998 and 1999, the Nevada County Board of Supervisors considered proposals to adopt a countywide vegetation ordinance similar to the NCCFD program. These proposals were not adopted.**

Agree

In June 1998, Supervisor Van Zant requested the Board of Supervisors develop regulations needed to implement a comprehensive fuels management and fire hazard abatement program for Nevada County's urban/wild land interface. The program was to be based on NCCFD's successful program in the Alta Sierra area and include provisions for mandatory abatement of parcels declared to be fire hazard nuisances. In response, the Board directed Supervisors Dardick and Knecht to serve on an ad hoc committee along with County Counsel and appropriate staff to work with the fire professionals, other agencies, and community groups to develop a proposed Ordinance based on the Alta Sierra model and to include parcels between 1.5 and 3 acres.

A draft ordinance was developed by the end of 1988 and was widely distributed for review and comment. Numerous recommended changes to the draft ordinance were suggested but a consensus on how to proceed was not achieved.

This effort continued into 1999 but was ultimately unsuccessful. In October 1999, the Board of Supervisors reviewed the status of the program development. Again, no consensus proposal had yet been developed. Neighborhood groups thought the proposed program either went too far or not far enough. Fire agencies primarily had concerns about how the program was to be funded and the potential impact on their other existing fire protection programs. Board direction at that meeting was to hold a public workshop to discuss issues raised, and develop recommendations for future consideration by the Board of Supervisors. A public workshop was held in January 2000 under the sponsorship of the Federation of Neighborhood Associations of Nevada County but no further action was taken by the Board due to the inability of all interested parties to come to an agreement on how to proceed.

6. **In October 2001, Nevada County received the first of five annual allotments (approximately \$149,000) of Title III Forest Reserve funds from the US Forest Service. These funds may be utilized for fire prevention and county planning. Approximately \$18,000 of the yearly amount is committed to an education program administered by the Nevada County Superintendent of Schools.**

Agree

7. **For the fiscal year 2002/03, about \$63,000 of the remaining \$131,000 was allocated to the FSC in accordance with Board of Supervisors' Resolution 02-371. Approximately \$45,000 of the first year's Forest Reserve allotment remains unallocated. This, when added to the second yearly allotment, leaves about \$176,000 to be allocated in this fiscal year or carried over to subsequent years.**

Partially disagree

At the time of the Grand Jury report (February 3, 2003), approximately \$176,000 was officially unallocated although the County had published a notice of intent to spend the actual balance of \$175,786 on appropriate projects. On February 11, 2003, the Board of Supervisors authorized a spending plan of \$152,458, leaving a current balance of approximately \$23,000 that will be carried over to the next budget year.

On April 8, 2003, the Board of Supervisors approved a proposed spending plan for the FY 03-04 allocation and carryover, with a subcommittee of two Board members recommending priorities for the County's \$18,000 annual commitment to the schools and other fire planning projects. The required 45-day public notice will be given and a final decision on allocations for projects planned after July 1, 2003 will be made during budget hearings on June 2, 2003.

8. **The FSC of Nevada County is a non-profit organization dependent upon grants, donations, and community volunteers. It employs two full-time staff.**

Agree

Nevada County citizens, in partnership with agencies and community organizations, established the Fire Safe Council of Nevada County (FSCNC) in 1998 as a local non-profit community-based fire prevention organization.

The FSCNC currently has two full-time employees and one part time intern, with a variety of assistance from community volunteers and high school senior project students.

- a. **The FSC provides educational materials and presentations relative to fire safety. It also operates a chipping program to encourage the establishment of defensible space, and provides brush-clearing assistance for low-income seniors who are unable to create and maintain their own defensible space.**

Agree

Educational components of the FSCNC include several programs to educate youth in the community on fire safety. An annual fire safety mailer is also sent to all Nevada County property owners, and a fire-wise plant list and other educational materials are produced and regularly distributed.

The FSCNC has also developed a Defensible Space Chipping Program, as an incentive for Nevada County residents to remove fuel from up to 100 feet around their home and along roadways and driveways.

The FSCNC Senior Assistance provides for the creation of up to 100 feet of defensible space around the homes of low-income residents who are over 65 years of age. The program is currently funded through the U.S. Bureau of Land Management (BLM) National Fire Plan.

- b. The FSC has provided large grinders at central locations where brush can be chipped more economically than with standard chippers. These chips are then hauled and sold to cogeneration facilities outside of the county to partially offset the cost of the chipping.**

Agree

The FSCNC conducts Community Drop-Off Programs for yard waste in neighborhoods where it is not cost effective to use chippers. Large volumes of material are collected at a central location and are processed by a large grinder. The grindings are then commercially processed and transported to an electrical generation facility.

- 9. Nevada County's Office of Emergency Services has helped coordinate shelter locations for evacuation situations. It has not identified safe major evacuation routes.**

Partially disagree

The American Red Cross has primary responsibility for the coordination and operation of emergency shelters in Nevada County. The Nevada County Office of Emergency Services helps coordinate this effort through the Emergency Operations Center when activated, and works with the American Red Cross on shelter planning issues as they arise outside of emergency operations activities.

The Nevada County Office of Emergency Services has previously worked with, and advised, neighborhood groups and fire protection agencies on evacuation route issues when requested. The Office of Emergency Services will also be addressing evacuation routes and other emergency services in the planned update to the Nevada County Emergency Action Plan, presently scheduled for completion in 2004.

- 10. Despite the potential horrific impact of a major fire, similar to the Hayman Fire which consumed 138,000 acres south of Denver, Colorado this past summer, Nevada County has not estimated the direct fiscal threat to the county from reduced property and sales tax collections, as well as a demand for increased services, following such a fire.**

Partially disagree

After receipt of the Grand Jury report, the Nevada County Assessor provided information regarding the potential impact of a catastrophic wild land fire similar to acreage and structures burned in the 1988 49er Fire on property tax values in Nevada County.

A five-year projection for land values to return and reconstruction of structures yields a five-year estimate of loss to the General Fund as follows:

Year 1 - \$75,00

Year 2 - 50,000

Year 3 - 40,000

Year 4 - 25,000

Year 5 - 12,500

Total - \$202,500

This estimate must be considered with the understanding that the impact of another catastrophic wild land fire on property values cannot be accurately predicted without reasonable scenario assumptions as to when, where, how large, and how intense that fire might be.

No similar projection has been done to estimate the loss of Sales and Use Tax resulting from a catastrophic wild land fire and it cannot be done without making certain assumptions for which we have no model. It is unclear what the impact such a fire would have on the distribution of this type of revenue by the County.

The demand for county services from those directly impacted by such a fire would most likely increase. Due to the uncertain nature and timing of such an event however, no estimate has been made of the financial impact of an increased demand for county services following a catastrophic wild land fire.

Recommendations:

The Board of Supervisors should:

- 1. Estimate the cost to the county of a major wild fire and evaluate these potential costs with the adequacy of current funding for wild fire preparedness.**

The recommendation will not be implemented because the expense is not warranted or reasonable.

It is acknowledged that the cost to the County of a catastrophic wild land fire could be great and that wild fire preparedness is important. It is unclear however, how spending part of the limited funds available for wildfire preparedness to prepare an estimate of the costs of a major wild fire would help address this issue.

Due to the many variables associated with estimating the cost of a catastrophic wild land fire, it is not feasible, nor economical, for the County to divert scarce county staff resources away from other more pressing needs to prepare an study of limited accuracy and practical use. Any cost estimate would necessarily have to address the fire location, the extent of the damage – both to structures and natural resources, and the intensity and duration of fire suppression activities. Costs will also vary by agency and many indirect costs would be extremely difficult to identify and quantify.

The County itself provides no fire protection services. Such services are provided in Nevada County by state and federal agencies and independent fire protection districts. Any assessment of the adequacy of current funding for wild fire preparedness in relation to the availability of funding needed to provide the necessary level of fire protection services is also more appropriately the responsibility of the Nevada County fire protection districts and state and federal agencies that provide fire protection on lands within their areas of responsibility. The amount of funding spent by each agency for this purpose is based on their professional assessment of the fire threat in their area and the extent of their funding capabilities, including property tax distribution, special taxes and assessments, mitigation fees, and state and federal appropriations.

The County provides supplemental funding for fire protection services through distribution of a portion of Proposition 172 funds to each fire protection district for their discretionary use. The amount of funding provided to the districts may vary each year and must compete with other covered needs and priorities receiving these funds. Due to their variable nature and uncertain sustainability, they are only intended to supplement fire protection services primarily funded from non-county sources. Distribution of Forest Reserve Funds by the County to fire protection agencies for eligible fire safety projects are likewise, not intended for the provision of primary services, are competitive in nature, and of uncertain appropriation on an ongoing basis.

2. Increase the allocation to the fire districts to at least the original 10 percent of the Proposition 172 Public Safety funds, but tie the increase to programs similar to NCCFD's Fuel Management and Hazard Reduction Program.

The recommendation will not be implemented at this time because it is premature to consider until other County fire protection districts adopt programs similar to the NCCFD program. The recommendation will then be considered each year when distribution of Proposition 172 Funds is determined based on competing public safety needs.

The 2002-2003 Proposition 172 fund distribution was based on a formula that initially allocated funds to the fire districts then distributed the remainder to ten County public safety departments or programs, including \$27,922 to Emergency Services for a cooperative seasonal fire inspection program with CDF and \$47,666 for one-half of the cost of the County's fire planner services, shared equally with CDF. Increasing the fire districts' allocation of Proposition 172 funds in times of flat revenue projections will reduce funding and service levels in other County public safety programs, unless the loss could be replaced by other funding sources. In a very difficult budget year, additional General Funds are not an option and potential grant funding is unpredictable.

The Board did increase funding for the seasonal fire inspection program however, through the recent allocation of \$20,829 from Forest Reserve Funds. These funds will be used to increase seasonal fire inspection capabilities under a plan presently being developed.

The Board of Supervisors supports the use of Proposition 172 Funds for fire hazard nuisance abatement programs similar to the one conducted by the Nevada County Consolidated Fire Protection District but will not mandate they be used for this purpose. The Board has consistently appropriated Proposition 172 funds to fire protection agencies and other public safety organizations for their discretionary use. There is no intent to change this policy for the appropriation of these funds for 2003-2004.

3. Apply unallocated Forest Reserve funds to fire prevention and planning activities.

The recommendation will not be implemented.

Allocation of Forest Reserve Funds by the Board of Supervisors is made through a competitive appropriation process in response to requests for funds from organizations, schools, and county departments. The funds are appropriated to successful applicants for projects and activities in six different authorized funding categories related to forest health, protection, and use. If all available funds are not allocated each year, they are carried over into the next competitive funding cycle.

The Board of Supervisors supports the use of these funds for fire prevention and planning activities and has, in fact, previously funded such projects including activities of the Fire Safe Council. Future appropriation of Forest Reserve Funds however, will continue to be made on a competitive basis in consideration of the relative merits of each proposal submitted, and will be

not be directly appropriated strictly for a specific project category such as fire prevention and planning activities.

4. **Investigate the use of advanced technology, such as centrally located small cogeneration plants, which may reduce the cost of chipping programs.**

The Fire Safe Council of Nevada County (FSCNC) has implemented the recommendation.

The FSCNC is one of ten signatories in the Washington Ridge Memorandum of Understanding (MOU), a three-year Bio-Energy Demonstration project to provide renewable energy to the California Youth Authority – California Department of Forestry and Fire Protection cogeneration facility at Washington Ridge. The FSCNC is participating in the MOU as a potential feedstock supplier, delivering wood chips generated from the council's defensible space program to be used as renewable energy fuel in the CYA facility's cogeneration plant.

The Board of Supervisors supports the use of small cogeneration plants to enhance the utility and reduce the cost of chipping programs available to county residents. Future efforts by the Fire Safe Council and others to use small cogeneration plants and other advanced technology systems that may reduce the cost of chipping systems will be encouraged and supported by the Board to the fullest extent that it may be able to do so.

5. **Coordinate evacuation planning with the local fire districts.**

The recommendation has been implemented.

The Nevada County Office of Emergency Services and the County Fire Protection Planner regularly meet with Nevada County fire protection districts to discuss and coordinate emergency access and evacuation routes as part of the Land Use project review and approval process. County staff also has worked with local community groups and homeowners, assisting in the development of local emergency action plans.

The Board of Supervisors supports a cooperative community effort to develop effective emergency action plans. The Board will continue to cooperate with, and assist, fire protection agencies, the Fire Safe Council, community groups and others in seeking ways to enhance fire safety in Nevada County. The Board's ultimate goal is to develop a comprehensive fire safety plan for the county that integrates and coordinates evacuation routes, fire safety planning, and public educational activities into an effective plan that is both useful and efficient.