

#### IV. OTHER RESOURCE ASSESSMENT METHODS

This subsection is new and is an expansion of the former "Erosion Prediction" subsection of the FOTG to include other prediction, assessment and evaluation tools and methods that aren't specific to the soil resource. This includes tools and methods to evaluate water quality, air quality, plant and animal resources, and the human component of the planning process.

The contents presented below are just the beginning of expanding this subsection of the FOTG to provide information on the use of different assessment and evaluation tools and methods.

##### A. Economics Tools

###### 1. Rate of Return Generator (RORGEN)

###### Introduction

***"Risk from wildfire to life, property, natural resources, and firefighter safety is increasing"***  
(California Fire Plan, March 1996, p.4).

The California State Economist has developed a tool which helps landowners understand the value of fuel load reduction on their residential properties. The tool is named RORGEN, Rate Of Return GENERator. It is an Excel spreadsheet. RORGEN treats the cost of fuel load reduction practices as an investment and estimates the rate of return this investment earns.

###### The Support for RORGEN:

RORGEN has been presented to fuel load reduction professionals from NRCS, local fire departments, California Department of Forestry and Fire Protection, local and statewide Fire Safe Councils, and Watershed Associations. Professionals are enthusiastic about this program because it takes less than 10 minutes to use, and it allows homeowners to supply ***their own*** numbers thereby:

- visualizing ***their own*** losses before a wildfire occurs,
- visualizing the extent of ***their own*** fire protection gap, and
- visualizing fuel load reduction as an investment which reduces ***their*** existing wildfire risks.

The California Department of Forestry is using RORGEN in its training program in order to help firefighters become more empathetic of the cost side of fuel load reduction and more able to communicate the benefits in words that homeowners use. The Office of Emergency Services is considering RORGEN as a source of benefit data for its evaluation of fire management methods.

Homeowners have been interviewed with RORGEN at home & garden shows, spring festivals, a Fire Safe Fair, and a County Fair. Homeowners thought the set of questions was useful in reminding them or in making them aware of the fire protection gap they currently have on *their own* properties. Supplying the numbers themselves, homeowners are more able to visualize the possibilities.

#### The Actions Needed to Actually Use RORGEN in the Field:

RORGEN is appropriate for residential parcels large enough to be defensible regardless of the fuel load of adjacent properties. For example, in two communities the minimal parcel size is 2 acres. If your parcel sizes are large enough to be defensible by themselves, then RORGEN is appropriate and requires five steps:

- (1) Create Fire Assumptions. Work with local fire professionals to create fire assumptions which portray the effect of fuel load reduction on the survivability of a house during a wildfire. This would take about one NRCS field staff day.
- (2) Create Cost Assumptions. Work with local experts to estimate the per acre costs of fuel load reduction practices. This would take about one NRCS field staff day.
- (3) Check the Types of Benefits. Add new fuel load reduction benefits which are important to the local community. For example, some communities have unusually expensive permitting costs for rebuilding after a fire. Such a community might include the permit savings as a benefit of the home surviving. This could take about one NRCS field staff day.
- (4) Test the modified RORGEN with local fire fighters and other professionals who understand fuel load reduction in that local community. The objectives are to check RORGEN's competence and to build professional support within the community for using RORGEN. This would take about one field staff day.
- (5) Assemble a volunteer group to learn RORGEN and to interview homeowners. This could take about 3 field office staff days.

Conclusion: RORGEN is an NRCS product field staff can bring to conservation partners in a joint effort to live wisely with wildfires in California. CDF expects increasing fire damages in the future. RORGEN can help reduce those damages.

RORGEN is available from the NRCS California State Economist, Madalene Ransom. Madalene is also available to work with your local pre-fire experts to customize RORGEN to your local community.

#### B. Other Tools and Methods

Other prediction, assessment and evaluation tools and methods that address all the natural resources – i.e. soil, water, air, plant and animal resources - plus the human component, will be added here in future revisions of the FOTG.