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FIREWISE COMMUNITIES/USA

Pilot Project

Emigration Canyon

Salt Lake City, Utah

The Firewise Communities/USA program is designed to provide an effective management approach for preserving wildland living aesthetics. Participating in this educational program gives communities like Emigration Canyon a means to balance sustainable ecological lifestyles with effective wildland fire protection.

The Firewise Communities/USA pilot project seeks input from participating communities and agencies regarding modifications that can be made which will make this recognition program more effective. The Firewise Communities/USA program can be tailored for adoption by any community and/or neighborhood association that is committed to ensuring its citizens maximum wildfire protection. The Firewise Communities/USA plan should be implemented in a collaborative manner, and updated and modified as needed.

This community assessment is intended as a resource that can be used by Au Sable Estates residents in the creation of a wildfire protection plan. It was prepared by a team representing the National Wildfire Coordinating Group and Firewise Communities/USA that included Jack Cohen, Research Scientist for the Intermountain Fire Sciences Laboratory, USDA-Forest Service and Judith Leraas Cook of the National Firewise Communities/USA program.

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EMIGRATION CANYON COMMUNITY ASSESSMENT

Firewise Communities/USA Pilot Project

Emigration Canyon is located in a wildfire environment. This means that fire occurs there, as a natural phenomenon. Its residents have no choice in the matter. The variables in the wildfire scenario are when the fire will occur, and where. This community assessment addresses the wildfire-related characteristics of Emigration Canyon. It examines the area's exposure to wildfire as it relates to the community's ignition potential. The assessment does not focus on specific homes, but examines the community as a whole.

Included in this assessment are observations made while visiting Emigration Canyon. The assessment addresses the ease with which home ignitions can occur under severe wildfire conditions and how these ignitions might be avoided within the home ignition zones of Canyon residents.

A house burns because of its interrelationship with everything in the home ignition zone---the house and its immediate surroundings. The condition of the home ignition zone is the determining factor regarding its ignition potential during a wildfire, and includes the house and those things surrounding it within 100 to 150 feet. To avoid a home ignition, a homeowner must eliminate the fire's potential relationship with his/her house. This can be accomplished by interrupting the natural path a fire takes. Changing a fire's path by clearing a home ignition zone is an easy-to-accomplish task that can result in avoiding home loss. To accomplish this, flammable items such as dead vegetation must be removed from the area immediately around the structure to prevent flames from contacting it. Also, reducing the volume of live vegetation will affect the intensity of the wildfire as it enters the home ignition zone.

The result of the community assessment is that fuels were highlighted as a concern. The good news is that Emigration Canyon residents can take actions that carry little or no cost and will substantially reduce the quantity of fuels surrounding their houses. Very small investments of time and dollars will reap great rewards in wildfire protection.

DESCRIPTION OF [SIZE AND NATURE OF] THE SEVERE CASE WILDLAND FIRE CHARACTERISTICS THAT COULD THREATEN THE AREA

SITE DESCRIPTION

Emigration Canyon lies in the northeastern portion of Salt Lake County, Utah. Salt Lake City lies to its west. Approximately 4,800 acres of the 12,000 acres in Emigration

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Canyon Township are privately owned. Housing units in the canyon total about 430.

The Canyon has an interesting mix of housing and residents. Neighborhoods on the side hills of the Canyon occur in clustered housing division designs. Emigration Canyon Road is an economically and socially eclectic area. Pine Crest lies at the head of the canyon. Both Emigration Canyon Road and Pine Crest contain a riparian zone.

Vegetation in the Canyon is predominantly gambol oak and sagebrush, with some riparian zones at the canyon bottom. The vegetation and the lay of the community will not sustain a crown fire.

ASSESSMENT PROCESS

The community assessment of Emigration Canyon occurred on May 6-7, 2002. For those two days, the assessment team observed and analyzed the challenges posed by fuel types, housing material and locations, and other considerations that relate to surviving a large-scale wildfire event. The purpose of the assessment was to identify common strengths enjoyed by residents of Emigration Canyon as well as look for conditions that could and/or should be modified to increase the subdivision's level of wildfire readiness. The assessment team visited several residences within the development and conducted on-site investigations as well as studying the area for an overall sense of implementable solutions. Accompanying the assessment team were representatives of the Utah Department of Natural Resources, the USDA Forest Service, the Bureau of Land Management and representatives from the Emigration Canyon Homeowners Association.

A public meeting was held the evening of May 6 during which Jack Cohen of the USDA-Forest Service Fire Sciences Laboratory presented research findings that explained those conditions that cause homes to ignite. Approximately 30 residents and ten to twelve wildfire professionals attended. At this meeting it was decided that the Emigration Firewise Board would be the Homeowners Association plus four individuals who volunteered to participate in that capacity.

IMPORTANT CONSIDERATIONS

The Firewise Communities/USA program seeks to create a sustainable balance that will allow communities to live safely while maintaining environmental harmony in a wildland/urban interface setting. Homeowners already balance their decisions about fire protection measures against their desire for certain flammable components on their properties. It is important for them to understand the implications of the choices they are making. These choices directly relate to the ignitability of their home ignition zones, and thus their homes, during a wildfire.

Thinning of the high-fuel areas is recommended to improve both forest health and

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ecological sustainability. The reduction of the volume of vegetation will have two benefits. Not only will it mitigate the fire hazard, it can be accomplished in a way that will reflect an interest in maintaining a healthy ecosystem during times of extended drought.

Even with home ignition zones potentially providing fire protection, a wildfire in Emigration Canyon will create a significant volume of firebrands, and may look something like a blizzard. To lower the ignition potential of the homes in Emigration Canyon, residents should inspect their roofs and the ground immediately adjacent to their homes for fine fuels, and remove them regularly. Fine fuels include leaves and needles, grasses and other dry vegetation. Man-made items should also be removed from the immediate vicinity of the houses there.

The assessment team observed that where the land was cleared and thinned, wildflowers were reappearing. Native wildflowers and grasses can also be re-seeded in the Canyon and are a potential Firewise addition to many areas.

BARBARA – What is making the pines/conifers die along the road? NOTE: Cottonwoods/maples/oaks will not carry high-intensity fire. In the bottoms area, the vegetation is not a threat.

OBSERVATIONS AND RECOMMENDATIONS

1. Some thinning of the gambol oak would improve fire readiness while preserving aesthetic ambience. Within the gambol oak are fire "skeletons" with fairly dense sprouting where wildfire burned in 1988. These should be removed, as they can cause a problem. Thinning the oak decreases the continuity of the flames. Taller gambol oak is easier to prune into an attractive shape. Shorter oak is in need of thinning to the point that people can walk through it.
2. On the sides of the Canyon, homes generally have sufficient clearance,
3. The sagebrush in the canyon increases fire probability, but not high-intensity fire.
4. Locations exist within the Canyon where residences are highly vulnerable to fire due to the structures themselves, and the flammables surrounding them. Specific homes have building materials debris, pruning leavings, and wooden fences adjoining or stored against them that are very vulnerable to fire.
5. It is recommended that homeowners in all areas establish a no-fire zone within five feet of all sides of their houses. This includes the space beneath porches and decks.
6. The homes that have shake/shingle roofs within Emigration Canyon will very likely not survive a wildfire. Flammable roofs should be replaced with non-flammable

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alternatives.

7. Little things are important. Any items adjacent to a house are considered “attached” to the house by a fire. This includes wood decks, fences and walkways. Metal flashing can be inserted between the house and its “attachment”. It will stop the progress of a fire.

8. Homeowners must work for their trees. While trees growing through and next to decks are acceptable, needles, leaves and other dead materials must be continually removed from the decks and walkways.

9. Homeowners should strive to maintain 30’ of clearance around their residences. The area five feet on all sides of the structure should be fire free. That means that it should be free of anything that is flammable.

10. Should a wildfire threaten, take deck furniture inside the house. If door mats are made of flammable materials such as hemp, take them inside as well.

11. Because of the increased productivity of vegetation in riparian zones along Emigration Canyon Road and within Pine Crest, it requires more maintenance. Multi-stemmed vegetation ignites and burns slowly and consistently. It can ignite adjoining vegetation. A birch ‘clump’ is an example of high-maintenance riparian vegetation.

12. Downed vegetation needs to be cleared from the riparian areas. The native dogwood, birch, chokecherry, cottonwood and ceonothus should be encouraged there. Also along the creek, encourage the natural aspen that occurs within and among the gambol oak. This could be developed into a larger, fuel-break in the wet draws.

SUCCESSFUL FIREWISE MODIFICATIONS IN EMIGRATION CANYON

When adequately prepared, a house can withstand a wildfire without the intervention of the fire service. Further, a house and its surrounding community can be both Firewise and compatible with the area’s ecosystem. The Firewise Communities/USA program is being designed to enable communities to achieve a high level of protection against WUI fire loss even as a sustainable ecosystem balance is maintained.

A homeowner must focus attention on the home ignition zone, and eliminate the fire’s potential relationship with the house. This can be accomplished by disconnecting the house from high and/or low-intensity fire that could occur around it.

There is more than one way to do apply Firewise principles. The following photographs were taken within Emigration Canyon and are examples of good Firewise practices.

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NEXT STEPS

After reviewing the contents of this assessment and its recommendations, the members of the Emigration Canyon Firewise Committee should determine whether or not they wish to continue with the Firewise Communities/USA pilot project. The Firewise Communities/USA representative will contact Barbara Bentley of the Firewise Committee to learn of their decision.

If the site assessment and recommendations are accepted and the project continues, the Emigration Canyon Firewise Committee should create agreed-upon, area-specific solutions to the Firewise recommendations. A Firewise Communities/USA representative will visit Emigration Canyon during July or August for the purpose of monitoring program progress. Emigration Canyon's plan should be completed by September 10, 2002. Following its submittal to local state or federal officials or Firewise Communities/USA, the committee will meet with Firewise representatives to discuss next steps and to critique the process.

Should Emigration Canyon seek to achieve national Firewise Communities/USA status and recognition, it will integrate the following standards into its plan:

- Sponsor a local Firewise task force, committee, commission or department which maintains the Firewise Community program and status.
- Enlist a wildland/urban interface specialist to complete an assessment and create a plan from which it identifies agreed-upon, achievable local solutions.
- Invest a minimum of \$2.00 annually per capita in its Firewise Communities/USA program. (Work done by municipal employees or volunteers using municipal or other equipment can be included, as can state/federal grants dedicated to that purpose.)
- Observe a Firewise Communities/USA Day each spring that is dedicated to a local Firewise project.
- Submit an annual report to Firewise Communities/USA. This report documents continuing participation in the program and progress made.