Lessons Learned from the Somes Fire: Potential effects on Resources and the Community

On Monday afternoon July 24, 2006 a lower elevation thunder and lightning storm passed northward through the Orleans Valley. The Somes Fire was the result of a lightning ignition that originated in the northeastern upper slopes of Perch Creek. Initially, other higher priority fires in the area (Crawford) and a lack of fire resource availability allowed the fire to enlarge. Eventually, due to a combination of natural fire spread and backfiring operations the fire expanded to encompass 15,710 acres, and was 95 % contained as of September 14, 2006. The Somes Fire was characterized as low to moderate severity fire consuming surface litter/duff, down wood and snags, with localized areas of torching up into the canopy.

Late spring rains, and a rain event on August 7th resulted in higher soil moistures, higher live-fuel moistures and higher moisture content of dead woody material and litter/duff. These seasonal climate-weather factors along with smoke inversion decreased the potential of intense fire behavior and higher severity fire effects. Areas of higher fire severity resulted from localized factors including increased afternoon temperatures (90's-100's degrees F), reduced relative humidity (less than 20 percent), increased winds (greater than 15 miles per hour), slope aspect position (SE-W-SW), topography (upper draws or below ridges) and condition of vegetation (dense canopy with understory ladder fuels containing dead light and woody fuels). These conditions are referred to as converging factors or "trigger points" of increase fire behavior and danger to suppression operations.

Important resources at risk from the wildland fire and suppression efforts were: watershed quality (included municipal and fish bearing water courses, and northern spotted owl nesting habitat), culturally and historically significant sites, use of gel and/or fire retardant near water courses, integrity of forest habitats after fire suppression activities due to fire line construction and/or back firing operations, wildland-urban interface areas near homes/cabins, domestic water systems, and other structures. Involvement and collaboration between fire incident command (IC) team, other Federal, state, county agencies, local tribes, local organizations and businesses and the community was critically important. As a result of the Somes Fire and how issues or events played out between July 24 to September 15, 2006, here are some of the important lessons learned:

1. Potential suppression-related impacts to watershed quality included back firing operations and fire line construction. Areas 10-20 acres in size in the lower South Fork of Pearch Creek, lower Ikes Creek, lower Somes Creek, and east of the ridge between Monte Creek and the Salmon River. Upper Butler, Somes, Ikes, Whitmore, and to a lesser extent upper Pearch and Duncan Creeks show significant torching, but its has not been determined what proportions of those areas are attributed to suppression-related back firing vs. natural fire spread. Torching predominately was in thicker mid-aged/mature Douglas fir-hardwood patches and plantations. Most other areas were surface fires of low to moderate severity resulting in consumption of litter, down

wood, and lower canopy scorch. Back firing operations primarily consisted of drip-torch ignition and flare-gun style ignition starts from fire lines, and helicopter aerial “ping-pong” ignition along interior ridges, spur ridges, and between areas of “roll-out”, with the objective being to even up the down hill spread of fire fronts. Fire lines were predominately hand lines, with fewer areas of dozer line along ridges and spur ridges connecting to existing roads or trails.

2. Culturally and historically significant sites were generally protected as a result of resources advisors working with fire suppression personnel or tribal and community consultants. Issues did arise over the falling of a few tribally significant pines and hardwoods on ridges along or near fire lines, potential fire line construction and back firing operations near Orleans Mountain, and selected areas in Ikes and Butler drainages. Mitigation measures were developed to retain fire resistant, larger, older conifers and hardwoods.
3. The use of red fire retardant was very minimal, and most of the retardant used was a starch-based gel mixed with water. Use of gel was restricted to upper slopes and was used to dampen back firing operations or reduce extent of torching canopy fires resulting from “roll-out” fire spread.
4. Integrity of forest habitats after fire suppression activities due to fire line construction and/or back firing operations will likely have short term negative effects due to localized surface erosion and tree mortality. Longer-term beneficial restorative effects on habitat quality are expected due to a majority of the fires having been low to moderate severity. Forest understory habitat quality was improved for most species by reduced shrub and young tree cover, and reduction in woody and litter/duff fuel beds. The creation of charcoal and ash is beneficial for nutrient cycling. The shrub, forb and grass resprouting will increase forage quality and rejuvenate plant growth resulting in increased fruit and seed production. Rehabilitation of hand and dozer constructed fire lines will include: water barring, erosion control practices, slash chipping and potentially seeding of sterile grasses to provide short term surface cover.
5. Protection of wildland-urban interface (WUI) areas near homes/cabins, domestic water systems, and other structures was generally successful. Initial (July 28- Aug. 6) coordination between IC team and fire suppression personnel with local organizations (MKWC/OSB FSC), community consultants and Perch Creek residences enhanced efficiency with the improvement of roads access routes, home/structure fire-proofing, and emergency-evacuation situation planning. As the fire spread north-northeast, coordination with Somes Bar area residents up to Butler Flat improved. Domestic water systems developed from springs had pre-fire protection measures in place, with only a few being damaged by fire or suppression operations.

6. Involvement and collaboration between fire incident command team, other Federal, state, county agencies, local tribes, local organizations and businesses and the community was fair to good. Consultation with Karuk Tribe involved them in all aspects of fire suppression efforts. The use of tribal heritage resource advisors was unprecedented. Inter-agency, Federal-State-County-City generally was efficient to support fire operations. Local organizations, such as MKWC and the OSB FSC were consulted, and fire information officers worked closely with them and community consultants. Consultation of local community members and residents varied with different IC team staff. Public meetings provided opportunities for community questions or concerns to be addressed. Some local business associated with food and equipment services benefited from the Somes Fire event, while others in the recreation/tourism were negatively impacted because of smoke, helicopter/fire suppression activities, and river access closures.

* This information in this article is the based on the experiences and perspectives of Frank Lake serving as a USFS agency representative resource advisor on the Somes Fire, and are not necessarily the views or positions of the USFS, Karuk Tribe or other parties.