

*Regional Conservation Authority***HABITAT RESERVE FIRE RESPONSE
AND SUPPRESSION POLICY****Staff Contact:****Ken Graff, Director of
Land Acquisition
(951) 955-8805****Background:**

The RCA is responsible for the management of Multi Species Habitat Conservation Plan (MSHCP) habitat and implementation of habitat protection procedures throughout the reserve assembly area covered within the MSHP. Wildfires are one of the leading threats to habitat and fire response plans provided to emergency responders in advance can be very helpful. While fire often creates a danger to life and property, it is a natural event in habitat areas that may in some cases be beneficial. No policy or procedure can be drafted to cover every situation that may face emergency responders but the Habitat Reserve Fire Response and Suppression Policy is intended to assist Fire Incident Commanders (IC's) with basic guidelines allowing them to gain containment of wildfires with a minimum of damage to sensitive habitat. The policy is not intended to interfere with the IC's responsibility to protect private property, health and the safety of lives but will be the guideline for staff to develop more detailed Fire Response Plans in collaboration with other reserve managers and Cal Fire and City Fire Departments that will provide detailed response information in each of the nine (9) Habitat Management Units within the MSHCP. These detailed response plans will, for example, show gate locations, roads, sensitive habitat areas and other information useful to emergency responders, as well as reserve managers in dealing with wild land fire.

Staff Recommendation:

That the Executive Committee:

- 1) Recommend that the RCA Board of Directors receive and file the Habitat Reserve Fire Response and Suppression Policy; and
- 2) Authorize staff to agendize this matter for the May 11, 2009 Meeting of the RCA Board of Directors.

Attachment:

Habitat Reserve Fire Response and Suppression Policy

AGENDA ITEM NO. 10

ATTACHMENT 1 Habitat Reserve Fire Response and Suppression Policy

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WESTERN RIVERSIDE COUNTY REGIONAL CONSERVATION AUTHORITY

HABITAT RESERVE FIRE RESPONSE
and
SUPPRESSION POLICY

PURPOSE: The purpose of this policy is to provide Incident Commanders of the Riverside County Fire Department, City fire departments in Western Riverside County and California Department of Forestry and Fire Protection (CAL FIRE), with suggested fire suppression methods for wildfires occurring on Multi Species Habitat Conservation Plan (MSCHP) habitat reserve lands.

DOCTRINE OF OVERRIDING CONSIDERATION: Throughout this policy it is implicitly understood that overriding consideration is given to the protection of life and property. Should the need arise to urgently protect these resources the prescriptions provided herein are to serve as suggestions only. Whereas it is hoped that the suggestions here are followed, the Incident Commander (IC) has ultimate authority during such emergencies to use whatever techniques are needed to insure protection of life and public safety.

GENERAL MANAGEMENT APPROACH: Detailed Fire Response Plans for MSHCP properties will be written to conform to the guidelines presented herein. The plan area consists of nine (9) separate Habitat Management Units (HMU's) and within twenty four (24) months of each Habitat Management Plan's adoption fire response maps will be created designating Fire Management Units (FMU) to assist Fire IC's directing fire fighting activities to indicate designated sensitive areas and no chemical drop zones.

GENERAL HABITAT GUIDELINES: Generally, there are five (5) major habitat types to be found within the MSHCP Plan Area. For the purpose of this planning effort sub-sets of habitat types can be included within these five main categories which represent the vast majority of habitat found.

- 1) Non-Native Annual Grasslands (NNG):** This habitat is often found in flatter areas or areas with a high fire frequency (other habitats are 'type-converted' to grassland if frequently burned). These grasses grow from seeds shed from the previous generation, will dry-up and die after setting seed when weather turns hot. Within this habitat are a wide variety of

weedy species such as mustard and telegraph weed. Several MSCHP target species are associated with this habitat including the grasshopper sparrow, northern harrier, burrowing owl, long-tailed weasel, and the Stephens' kangaroo rat.

Fires in these areas tend to burn "relatively cool" but spread rapidly especially when wind driven. Flame heights may range from about four feet to as high as 20 feet. In areas that have not burned for a long time grasses can form thick layers of 'thatch' which can dramatically increase the fire's intensity, height, and smoke. NNG is often an understory community within the sage scrub community and as a result can spread fire rapidly through more sensitive habitat shrub areas.

Generally speaking, fire is a good way to control these exotic grasses and weeds. Appropriately whenever possible fires in this habitat should be allowed to burn to the boundary of the next Fire Management Unit or possibly to the next auxiliary road or trail. This may be more difficult assess should the FMU also contain sage scrub or other higher value habitats. Vegetation Management Plans (VMP – discussed below) will be formulated for this habitat.

- 2) **Coastal Sage Scrub (CSS):** This shrubby habitat is usually found on hills and mountains although it occasionally spreads into flatter areas. CSS is composed of drought-resistant shrubs such as sagebrush, black sage, white sage, buckwheat, and brittlebush. The shrubs are often widely-spaced, and an understory vegetation of NNG and other small forbs is common. Much of the native CSS in Southern California has been destroyed, estimates run as high as 92% extirpated. As a result many animal species associated with CSS are in turn considered sensitive, some are endangered. The MSHCP target species include Quino checkerspot butterfly, coastal California gnatcatcher, red diamond rattlesnake, coast horned lizard, bobcat, and the San Diego pocket mouse.

CSS is a fire-adapted community. Historically, it has been hypothesized that lightning or human-caused (i.e., Native American) fires would burn CSS in a mosaic fashion forming patches of burned and unburned habitat. Burned areas could quickly re-seed from adjacent unburned areas. However, in more recent times, overprotection of CSS has resulted in thicker shrub density, and fires tend to burn hotter and to a greater extent than in the past. This is further exacerbated by the influx of NNG as understory vegetation, allowing rapid fire spread. As a result, seed dispersal from remaining shrub land does not reach many areas, and they have been "type converted" to wind-dispersed NNG. The end result is a loss of CSS extent and diversity.

Unless driven by winds fires in CSS burn hot but only moderately fast. Fires are often carried by the undergrowth of dry NNG or by embers carried from burning shrubs to adjacent shrubs. Depending upon the density of the shrubs and fuel moisture fire height can vary from about 10 feet to well over 30 feet. The slopes often associated with this habitat make fire fighting very difficult and frequently very dangerous.

Fire should be prevented in CSS whenever possible. It generally takes about eight years for CSS to recover enough following a fire to support many of the wildlife species found in mature stands. Because of the slopes often involved heavy equipment such as bulldozers, if able to be used at all, may produce lasting erosion effects and further provide substrate for NNGs to invade these areas. Restoration activities following such disturbances may be required to prevent NNG spread. CSS should not be the subject of prescribed fire.

- 3) **Chaparral:** Chaparral is a thick shrub habitat. It sometimes obtains heights of 10 feet or more and can be completely impenetrable. Occurring in a variety of situations including dry slopes, flats and shaded canyons, it usually is found at slightly higher elevations than CSS. Common shrubs of the chaparral include monkeyflower, black sage, lemonade berry, chamise and toyon. Often CSS elements are interspersed within these shrubs as well especially at lower elevations. Some of the MSHCP target species found in chaparral include the Bell's sage sparrow, Southern California rufous-crowed sparrow, bobcat, coyote and brush rabbit.

Although chaparral is adapted to fire, wildland fires in chaparral are very dangerous. Because of thick shrub fires can move quickly especially when driven by wind and will burn extremely hot. Fire heights can reach upwards of 90 feet or more. These fires have shown they often can create their own wind patterns (i.e., thermal low pressure) making fire fighting activities more difficult and dangerous. Since vegetation return time following a wildfire can range up to 100 years for chaparral it is highly desirable to prevent fires in these areas. Pre-fire management should include the creation of edge buffers to prevent spread of fire into these areas. Prescribed fire should not be use in chaparral areas.

Proper habitat management for chaparral may include thinning of shrubs to lessen the intensity of fires should they occur and reduction of NNGs which can promote rapid spread. The establishment of safe areas and firebreaks is also planning tool.

- 4) **Woodlands:** Although there are some important exception sites woodland habitat is generally not found extensively in the plan area. Most often, woodlands are associated with canyon bottoms and creeks and often consist of oak woodlands. A few areas, particularly in the Gavial

HMU, support California juniper woodland. Woodlands, especially the upland types, are often interspersed within a matrix of NNG and are relatively fire resistant. Some species associated with woodlands included the white-tailed kite, golden eagle, and loggerhead shrike.

Depending on the density of the trees, prescribed fire in some of these areas may be possible and beneficial.

- 5) **Riparian Areas:** Riparian areas are associated with water and waterways. This habitat is most often represented by fingers of trees following creeks and canyons into the hills and canyons. Some places exist where major riparian corridors can be found e.g., portions of the Temescal Creek and San Jacinto River. Common plants found in these areas include various species of willows, sycamore, cottonwood, Indian tree tobacco, stinging nettle, and mule fat. MSHCP target animals found in riparian areas include the arroyo toad, western spadefoot toad, coast range newt, various herons, Cooper's hawk, western yellow-billed cuckoo, southwestern willow flycatcher, various warblers, and the yellow-breasted chat.

Bulldozers should not be used within these habitats, *per se*, but could be used to cut protection lines around them if the surrounding habitat permits. Chemical suppression or prevention agents should not be used in riparian areas.

SUGGESTED TECHNIQUES:

- 1) **The Control of Fire:** Attempts should be made to control the spread of fire at the boundaries of the FMUs. Within FMUs fires burning in NNG should be allowed to burn to these boundaries at the discretion of the Fire IC if safe. In shrub areas attempts should be made to control fire along auxiliary roads and trails if possible. Fire should be stopped or directed around shrub, woodland, and riparian habitats when ever possible.
- 2) **Aerial Attack and Use of Fire Chemical Suppressants:**
The use of chemicals should be avoided within 150 feet of riparian areas.

Fixed wing aircraft and helicopters are often used to drop fire retardant in advance of fires to direct, slow, or stop the fire spread. It is a policy not to direct or drop fire retardant chemicals in or over streams and water ways. Water drops may be made in any location without lasting effects or changes to the soils structure of the habitat being protected.

- 3) **Bulldozers:** Bulldozers produce the heaviest impacts to habitat but when used judiciously can protect more valuable described habitats while keeping fire contained within the FMU. Bulldozer use along the boundary of shrub or riparian habitats or just inside of NNG habitats to prevent the spread of fire into CSS, woodland, and riparian areas can be assessed by the Fire IC to consider 'damage vs. benefit' as the situation warrants. Bulldozer use may also be necessary for the safety of hand crews and other equipment during fire fighting activities, their use may be necessary for the protection of life and property. Except for these circumstances the use of bulldozers should be discouraged in all habitats.

Should bulldozers be used, restoration of the impact(s) should be started at the earliest possible and appropriate time and every effort should be made to prevent the spread of NNG into the area(s) of impact(s).

- 4) **Other Techniques:** All other techniques, including but not limited to, hand crews, engine crews and water lines are acceptable in all habitats. Whenever possible, engines should try to stay on established auxiliary roads and trails. As with all such activities, impacts to habitats from these activities should be restored as soon as possible and NNG invasion should be actively discouraged.

**TABLE 1:
COMMUNICATIONS / CONTACTS:**

In the event of wildland fire approaching or already on MSHCP lands, it is requested Cal Fire contact the Regional Conservation Authority and/or the Riverside County Regional Parks / Natural Resources Management Division. Contacts are:

AGENCY	NAME / (COUNTY CALL SIGN)*	OFFICE	CELL
REGIONAL CONSERVATION AUTHORITY (RCA)	KEN GRAFF	(951) 955-8805	
COUNTY PARKS (NATURAL RESOURCES MANAGEMENT)	RON BAXTER (NRM1)	(951) 637-6984	(951) 906-320
	RUBEN RODRIGUEZ (NRM4)	(951) 637-6981	(951) 906-9326
	DUSTIN McLAIN (NRM2)	(951) 509-8614	(951) 712-3738

*Parks' Natural Resources Management personnel vehicles can be reached during working hours by Riverside County Sheriff's Dispatch in emergencies. Call signs are provided above. Call sign for Natural Resources Management Base is "NRMBASE".

Table 2. Summary of Suggested Fire Fighting Techniques by Habitat Type

(✓ = OK)

HABITAT	PRESCRIBED FIRE	BACK-FIRES	HAND LINES	WATER LINES	ENGINE CREWS	AERIAL (WATER)	AERIAL (CHEMICAL)*
NON-NATIVE GRASSLAND	✓	✓	✓	✓	✓	✓	✓
CHAPARRAL			✓	✓	✓	✓	✓
SAGE SCRUB			✓	✓	✓	✓	✓
WOODLANDS	Potentially	Potentially	✓	✓	✓	✓	
RIPARIAN			✓	✓	✓	✓	

* No Foam Suppressants

Note: Bulldozer use should be discouraged, if used the impacts should be evaluated following fire containment for restoration of habitat where appropriate.