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6.8.3 Changed Circumstances

Changed circumstances are defined under the Federal “No Surprises” rule as “changes in circumstances affecting a species or geographic area covered by a conservation plan that can reasonably be anticipated by plan developers and the USFWS and that can be planned for.” Changed Circumstances potentially affecting the MSHCP Conservation Area are defined as future events for which it is reasonably foreseeable that such an event may occur during the life of the MSHCP permit, and that such an event may negatively affect the Covered Species and/or their associated habitat within the MSHCP Conservation Area. Changed Circumstances addressed by the MSHCP include the following:

- Short-Interval Return Fire
- Flood
- Drought
- Invasion by Exotic Species

➤ Short-Interval Return Fire

For the purpose of defining Changed Circumstances, short-interval return fire is defined as fire occurring in the same location as a previous fire within the same footprint no more than once in a 5-year period within the MSHCP Conservation Area.

Risk Assessment

As documented in the Safety Element of the Riverside County General Plan (public hearing draft, April 5, 2002), on file with the County of Riverside, much of the MSHCP Plan Area is rated as a potential wildland fire area by the State of California Department of Forestry and Fire Prevention (CDF) and the General Plan Safety Element. Figure S-11 of the General Plan Safety Element rates much of the area identified as desirable for conservation in the MSHCP as high for wildfire susceptibility with certain areas in the Cleveland National Forests rated very high and other areas in the vicinity of the Santa Rosa Plateau and along the Santa Ana River rated moderate. Much of the proposed MSHCP Conservation Area is characterized by hillside terrain with highly flammable native vegetation. Fire potential within the MSHCP Plan Area is typically greatest in the months of August, September and October when dry vegetation co-occurs with hot, dry Santa Ana winds. Fire protection services within areas anticipated to be included within the MSHCP Conservation Area are generally provided by the Riverside County Fire Department.



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Vegetation Communities within the MSHCP Conservation Area are generally adapted to the existing fire regime and will naturally recover from fire. For purposes of assessing Changed Circumstances, repetitive fire that may adversely affect Covered Species is defined as a fire within the MSHCP Conservation Area that occurs within the same burn footprint more than once in a 5-year period. Based on fire history data available from CDF, such occurrences would be infrequent and would not be expected to occur on more than five occasions during the 75-year term of the permit. Excluding National Forest lands, the largest area that could burn is anticipated to be 6,000 acres. This generally represents the largest block of habitat within the MSHCP Conservation Area outside the National Forest and also represents the acreage burned during the 1993 fire at the Southwest Multiple Species Reserve.

Preventive Measures

For specific types of fire that are damaging to biological resources within the MSHCP Conservation Area, the cause of the fire will be reviewed and preventive measures such as the following will be developed:

- Redesign, reconfigure, and/or review fuel breaks
- Work with local fire agencies to improve fire suppression preparedness
- Develop a public education program

Measures incorporated in the Riverside County General Plan Safety Element and in the General Plans and policies of the other Permittees will be implemented to reduce the likelihood of harm from repetitive fire within the MSHCP Conservation Area. These measures include implementation of building codes and performance standards and long-range fire safety planning. Policies in the General Plan call for implementation of measures to address fire safety within the urban/wildlands interface, goals to maintain fire reporting and response times within four minutes and goals to maintain sources and flows of water for emergency fires suppression purposes.

Planned Response to Short-Interval Return Fire

If a short-interval return fire occurs within the MSHCP Conservation Area as defined above, the Regional Conservation Authority Executive Director will notify the Wildlife Agencies of this Changed Circumstance. The Executive Director will assess the damage caused by the short-interval return fire and initiate the following actions:



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- Develop and implement a monitoring program to monitor natural re-growth within the damage area for a period of up to two years;
- If, after two years, it is determined that natural re-growth is not occurring and that such absence of natural re-growth will adversely affect Covered Species, an action plan will be developed and implemented; the action plan will involve efforts to improve habitat conditions; the potential range of actions available to improve habitat conditions is presented in *Section 5.2.1* and *Table 5-1* of this document.
- Implement response measures through the Adaptive Management Plan.

➤ Flood

For the purpose of defining Changed Circumstances, flood is defined as flood events occurring within the MSHCP Conservation Area portions of the Santa Ana River, the San Jacinto River and the Santa Margarita River watersheds, at greater than 50-year and up to and including 100-year levels, as classified by Federal Emergency Management Agency (FEMA).

Risk Assessment

FEMA provides local jurisdictions with mapping that defines the areas that may be affected, or inundated, by flood. A 100-year flood, as defined by FEMA, produces a magnitude of inundation that has a one percent chance of occurring in any given year. The 100-year flood has a 39% chance of occurring in any given 50-year period, and thus is reasonably foreseeable during the life of the permit. However, flooding is a natural event and is not anticipated to cause damage sufficiently severe to prevent natural regeneration within the MSHCP Conservation Area.

Planned Response to Flood

If a 50-or 100-year flood or a dam break occurs within the MSHCP Plan Area that results in inundation within the MSHCP Conservation Area, the Regional Conservation Authority Executive Director will notify the Wildlife Agencies of this Changed Circumstance. The Executive Director will assess the damage caused by the inundation and initiate the following actions:



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- Prepare a damage assessment report;
- Recommend actions to repair the damage if necessary; such recommendations may be limited to natural regeneration.
- Implement response measures through the Adaptive Management Plan.

➤ **Drought**

For the purpose of defining Changed Circumstances, drought is defined as climatic drought up to three years in length, as declared by the California Department of Water Resources.

Risk Assessment

Drought is a cyclical weather phenomenon that is beyond human control. Drought is not uncommon in Southern California, and it is a phenomenon to which local natural Habitats and species have adapted over time. Drought occurs slowly over a multi-year period, differing from the catastrophic events of fire and flood, which occur rapidly and afford little time for preparing for disaster response. Drought conditions may adversely affect Covered Species if the species and/or Habitats are unable to adapt to the challenging conditions.

Rainfall data assembled by the County of Riverside over the past 120 years indicates a general eight year periodicity in wet and dry conditions with more infrequent occurrences of dry years extending for more than a 1-2 year period. Based on these data, and the fact that drought is an expected occurrence in Southern California, a drought event significantly affecting Covered Species is not anticipated to occur during the life of the permit. Nevertheless, measures will be taken to monitor the effects of drought, as defined above, on Covered Species.

Preventive Measures

No measures are available to prevent climatic drought within the MSHCP Conservation Area. Measures to ameliorate the effects of drought may involve providing artificial water sources for Covered Species adversely affected by drought. The Permittees in their General Plan have incorporated plans to ensure adequate water supplies for residents during drought and such measures may ensure that artificial water sources are available to assist Covered Species during periods of drought.



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Planned Response to Drought

If a climatic drought occurs within the MSHCP Plan Area as defined by this section, the Regional Conservation Authority Executive Director will notify the Wildlife Agencies of this Changed Circumstance. The Executive Director will assess the damage caused by the drought and initiate the following actions:

- Prepare a damage assessment report;
- Recommend actions to ameliorate the effects of the climatic drought on Covered Species; such actions may include provision of temporary artificial water sources for the benefit of Covered Species adversely affected by drought.
- Implement measures through the Adaptive Management Plan.

➤ Invasion by Exotic Species

For the purpose of defining Changed Circumstance, invasion by exotic species is defined as an unanticipated increase in the presence of exotic species within the MSHCP Conservation Area.

Risk Assessment

Invasive and exotic species are currently present within areas identified for inclusion in the MSHCP Conservation Area. As called for in the management plan presented in *Section 5.0* of this document, assessment of the presence of invasive and exotic species will be made at the time lands are conveyed to the MSHCP Conservation Area. Measures are incorporated in the management plan to address effects of the expected presence of invasive species on Covered Species, as discussed in *Section 5.2* of this document. In addition to those measures already incorporated in the management plan, it is possible that an unanticipated increase in the presence of invasive species could result from one or more of the Changed Circumstances described in this section. For example, natural regeneration following flood or fire could be characterized primarily by invasive species that may adversely affect Covered Species.

Preventive Measures

Preventive measures are incorporated in the MSHCP management and monitoring plans presented in *Section 5.0* of this document to address the anticipated effects associated with the existing

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presence of invasive species. Preventive measures for unanticipated effects that may be associated with Changed Circumstances such as fire or flood are discussed in the preventive measures for those Changed Circumstances.

Planned Response to Invasion by Exotic Species

Responses to anticipated invasion by exotic species are incorporated in the management plan presented in *Section 5.2* of this document. If an unanticipated invasion by exotic species occurs as a result of another Changed Circumstance identified in this section, the Regional Conservation Authority Executive Director will notify the Wildlife Agencies of this Changed Circumstance. The Executive Director will assess the damage caused by the unanticipated invasion by exotic species and initiate the following actions:

- prepare a damage assessment report;
- recommend actions to address the threat(s) resulting from the unanticipated invasion by exotic species; such actions may involve efforts to improve habitat conditions; the potential range of actions available to improve habitat conditions is presented in *Section 5.2.1* and *Table 5-1* of this document.
- Implement response through the Adaptive Management Plan.

➤ New Listings of Species Not Covered by the MSHCP

The USFWS may list additional species under FESA as threatened or endangered, delist species that are currently listed, or declare listed species as extinct. In the event of a new listing of one or more species not covered by the MSHCP, the following steps will be taken:

If a species not covered by the MSHCP is listed as threatened or endangered under FESA during the life of the Permits, the USFWS and the Permittee(s) will identify actions that may cause Take, jeopardy or adverse modification of Critical Habitat, and the Permittee(s) will avoid such actions in the implementation of their Covered Activities until approval of an amendment to the MSHCP to address the newly listed species in accordance with the modifications and amendments procedures described in *Section 6.10*. Such avoidance measures will include the following:

- (1) Evaluation of applications for Covered Activities with respect to potential effects on the newly listed species; such evaluations will include assessment of the presence of suitable Habitat for the newly listed species within the areas potentially affected by the proposed

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Covered Activity and surveys for the newly listed species , as appropriate, using accepted protocols; and

- (2) Implementation of measures to avoid impacts to the newly listed species based on the results of the data collected in Item 1 above and the evaluation of those data in the context of the design of the proposed Covered Activity.

➤ Changed Circumstances Not Provided in the MSHCP

Pursuant to the No Surprises Rule at 50 C.F.R. 17.22(b)(5)(ii), the USFWS may not require (1) any conservation or mitigation measures in addition to those provided for under *Section 6.8.3* in response to a Changed Circumstance; or (2) additional conservation or mitigation measures for any Changed Circumstance that is not identified in *Section 6.8.3* without the consent of the Permittees, provided the Permittees are properly implementing the MSHCP Plan.

As recognized in the No Surprises Rule at 50 C.F.R. 17.22(b)(6) and 17.32(b)(6), the USFWS, any Federal, State or local agency, or a private entity may take additional actions at their own expense to protect or conserve a Covered Species within the MSHCP Plan Area.