

Integration of prescribed fire in the vegetation-management on the slopes of the viticultural area (Kaiserstuhl)



Symposium on Fire Management in Cultural and Natural Landscapes, Nature Conservation and Forestry in Temperate-Boreal Eurasia -- Freiburg, Germany, 25-27 January 2008



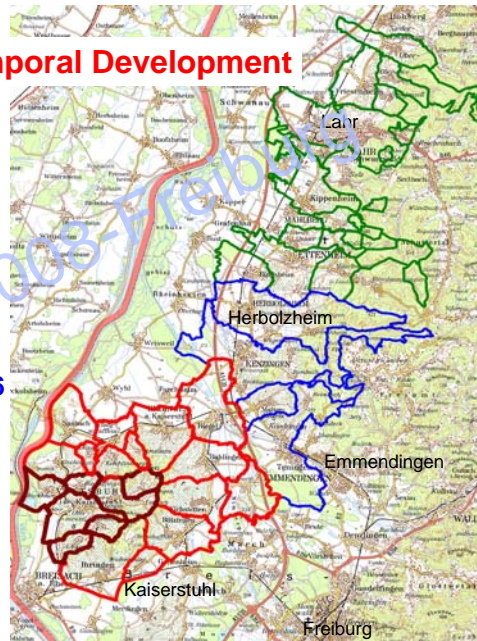
Location and Temporal Development

Step 4: County OG since 2007

Step 3: Vorbergzone EM since 2006

Step 2: Kaiserstuhl 2002 - 2006

Step 1: Vogtsburg 1997 - 2002





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Landscape and Land-use History



Viticulture since the 8th century

Slope building since the beginning of winegrowing

subsistence farming until the end of the 19th century

- Submediterranean climate
- Old vulcano with a „Löss layer“




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Consolidation of the viticultural farm land between 1960 and 1985





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§ Naturschutzgesetz Baden-Württemberg §

§ 29 (neu: § 43) Allgemeiner Schutz der Pflanzen und Tiere


...

(2) Es ist verboten, die Vegetation auf Freizeitanlagen, Feldrainen, ungenutztem Gelände (...) oder auf Freizeitanlagen (...) abzubrennen.


...

(4) Das Verbot des Absatzes 2 gilt nicht

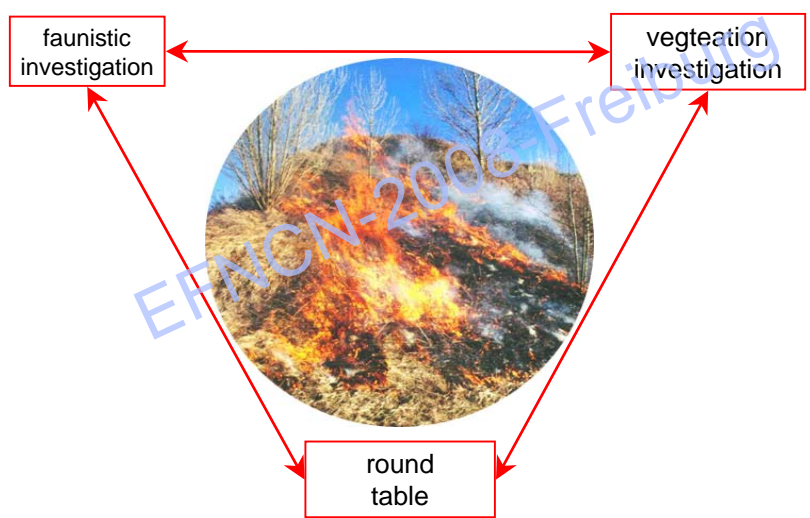
1. für die Pflegearbeiten einschließlich Maßnahmen zur Unkrautbekämpfung, die behördlich angeordnet oder im Einzelfall ausdrücklich zugelassen werden.



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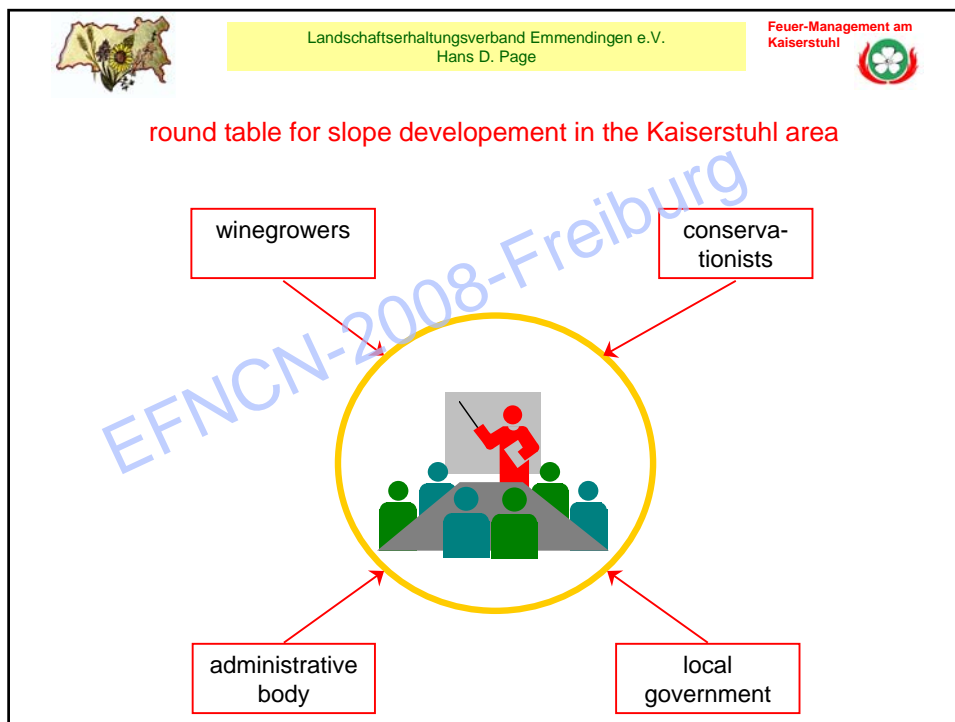
Pilot project: first fire-ecology and fire-management study from 1997-2001



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graph TD
    FI[faunistic investigation] <--> VI[vegetation investigation]
    FI --> RT[round table]
    VI --> RT
    
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The diagram features a central circular image of a fire. Three red boxes are arranged around it: 'faunistic investigation' at the top left, 'vegetation investigation' at the top right, and 'round table' at the bottom. Red arrows connect 'faunistic investigation' and 'vegetation investigation' with a double-headed arrow. Red arrows also point from both 'faunistic investigation' and 'vegetation investigation' down to 'round table'.



The 'Management Concept' section features a central map of a landscape with various management zones outlined in red and blue. Surrounding the map are five photographs illustrating different management techniques: 'mulching' (a yellow excavator working on a slope), 'clearance' (a person cutting trees), 'mowing' (a person mowing a field), 'grazing' (a goat in a field), and 'fire' (a person using a torch to start a controlled fire). The collage is set against a white background with a large blue watermark 'EFNCN-2008-Freiburg'.

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Management Concept


mulching

clearance


mowing

grazing

fire



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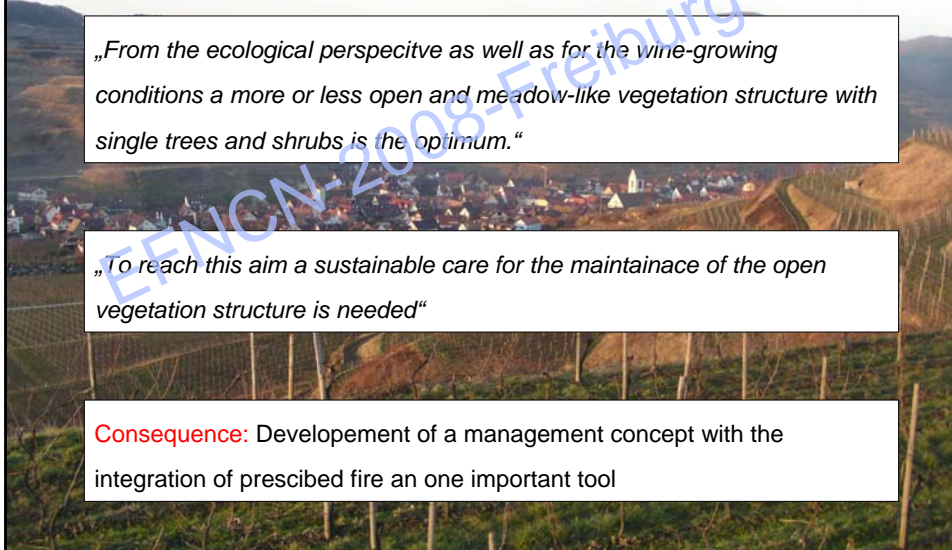
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Model for the future development of the slopes vegetation cover

„From the ecological perspective as well as for the wine-growing conditions a more or less open and meadow-like vegetation structure with single trees and shrubs is the optimum.“

„To reach this aim a sustainable care for the maintainance of the open vegetation structure is needed“

Consequence: Development of a management concept with the integration of prescribed fire an one important tool




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Conditions for re-legalization for the use of fire

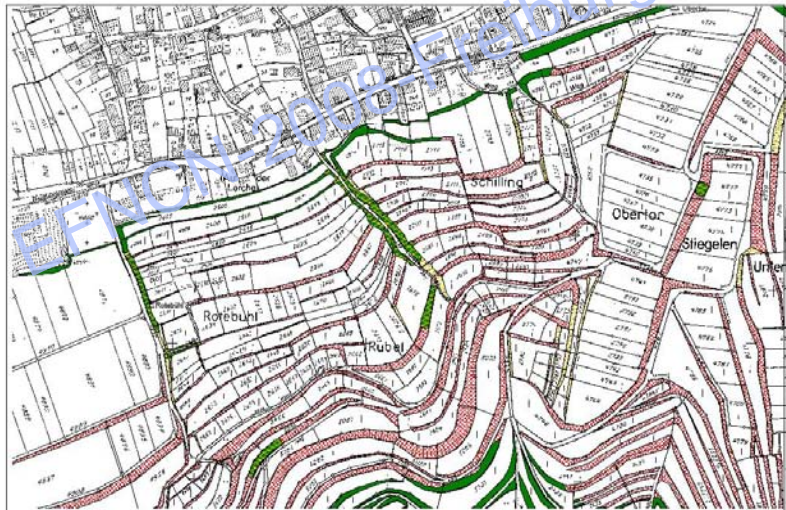
- development of fire-rules
- geographical demarcation for the use of fire
- define responsibilities for the use of fire
- ecological monitoring
- creation of an general management-concept



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Geographical demarcation for the use of fire




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Information and instruction in the use of prescribed fire for the land owners





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The five most important rules for the use of fire on the slopes of the Kaiserstuhl area

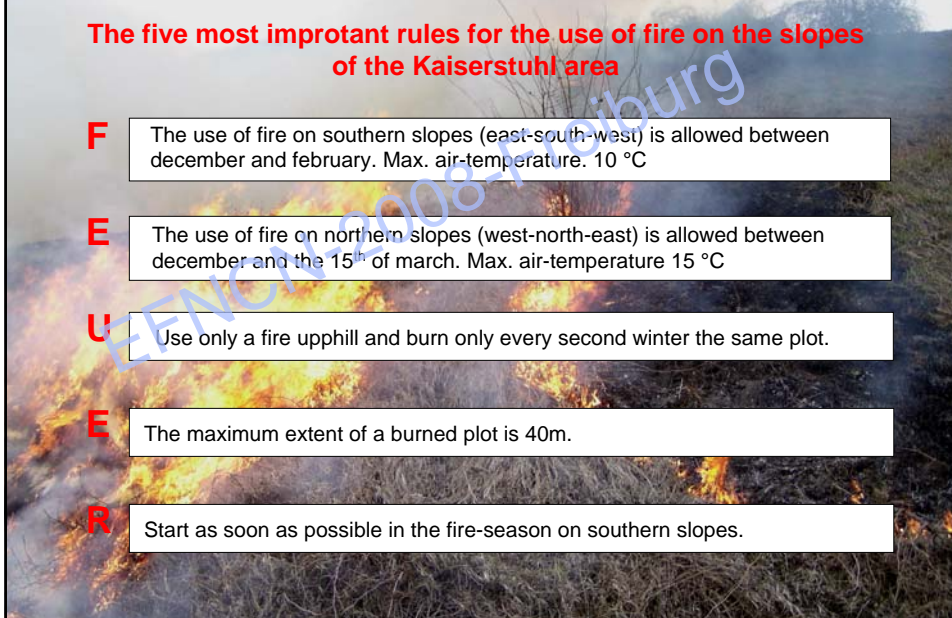
F The use of fire on southern slopes (east-south-west) is allowed between december and february. Max. air-temperature: 10 °C

E The use of fire on northern slopes (west-north-east) is allowed between december and the 15th of march. Max. air-temperature 15 °C

U Use only a fire uphill and burn only every second winter the same plot.

E The maximum extent of a burned plot is 40m.

R Start as soon as possible in the fire-season on southern slopes.



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Burning Techniques





