




Bushfire Risk Management Model

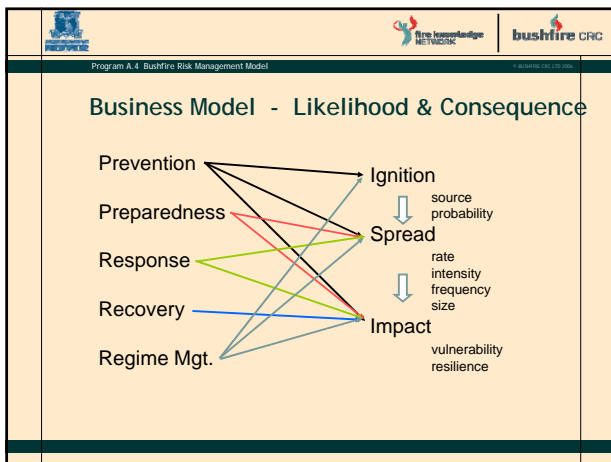
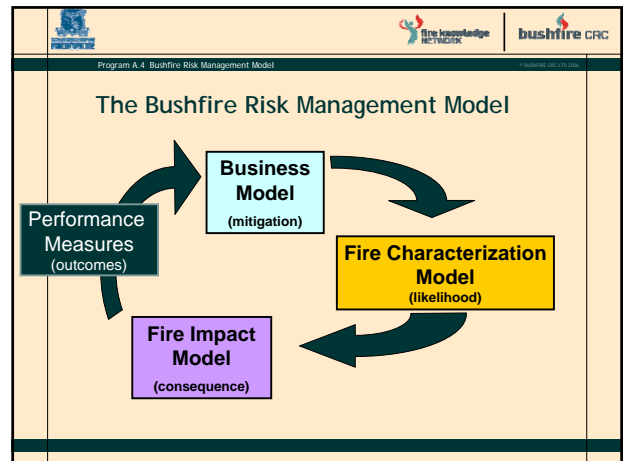
Dr Kevin Tolhurst & Derek Chong
School of Forest and Ecosystem Science, University of Melbourne




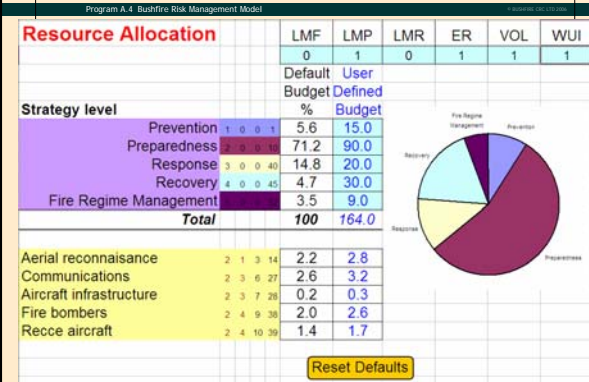


Fire Modelling Workshop
Missoula MT, Edmonton AL, 26 June, 2007





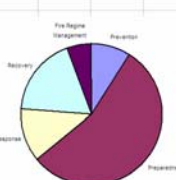


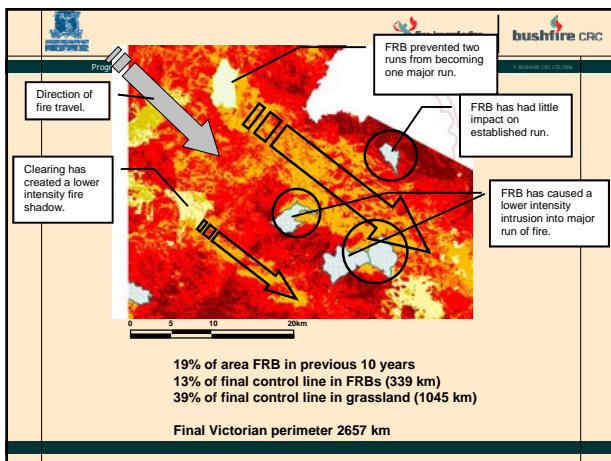


Resource Allocation

	LMF	LMP	LMR	ER	VOL	WUI
	0	1	0	1	1	1
Default	0	1	0	1	1	1
User						
Budget						
%						
Strategy level						
Prevention	1	0	0	1	5.6	15.0
Preparedness	3	0	0	0	71.2	90.0
Response	3	0	0	40	14.8	20.0
Recovery	4	0	0	45	4.7	30.0
Fire Regime Management					3.5	9.0
Total					100	164.0
Aerial reconnaissance	2	1	3	14	2.2	2.8
Communications	2	3	6	27	2.6	3.2
Aircraft infrastructure	2	3	7	28	0.2	0.3
Fire bombers	2	4	9	38	2.0	2.6
Recce aircraft	2	4	10	39	1.4	1.7

Reset Defaults







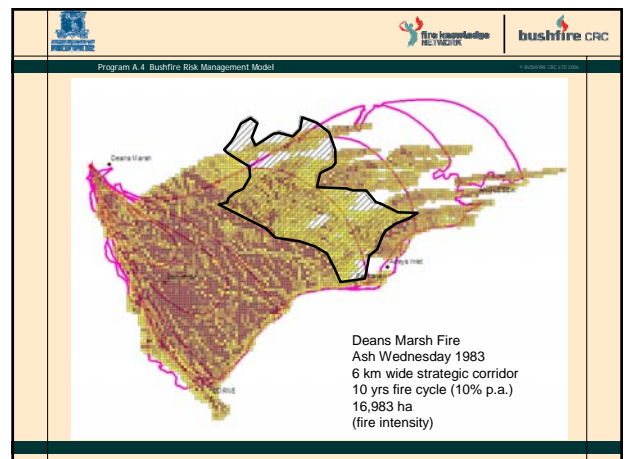
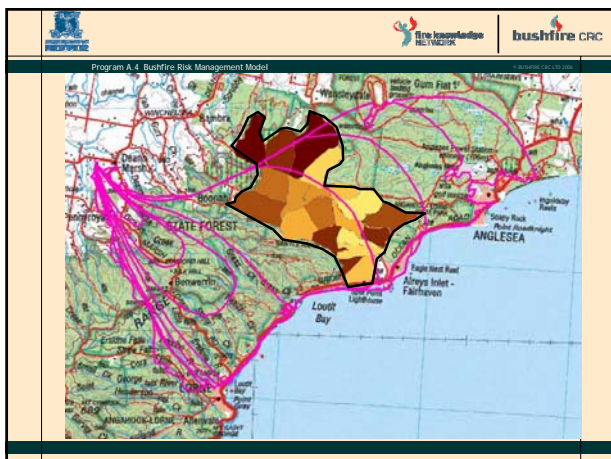
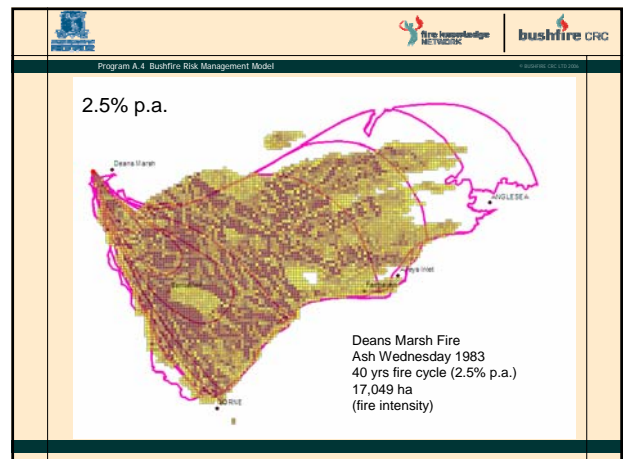
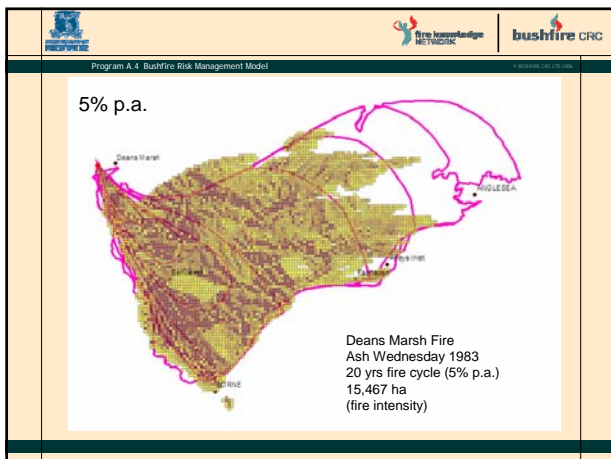
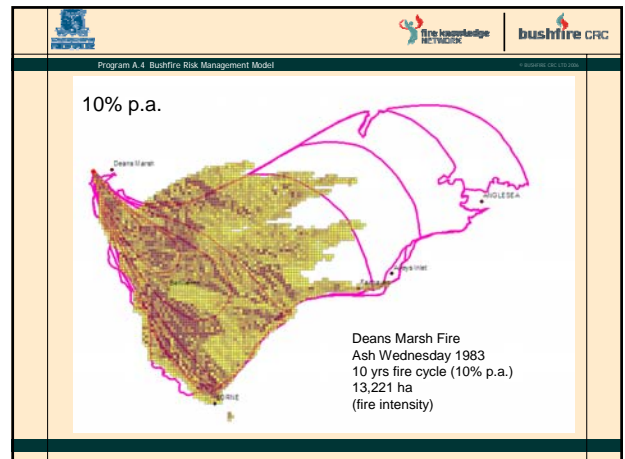
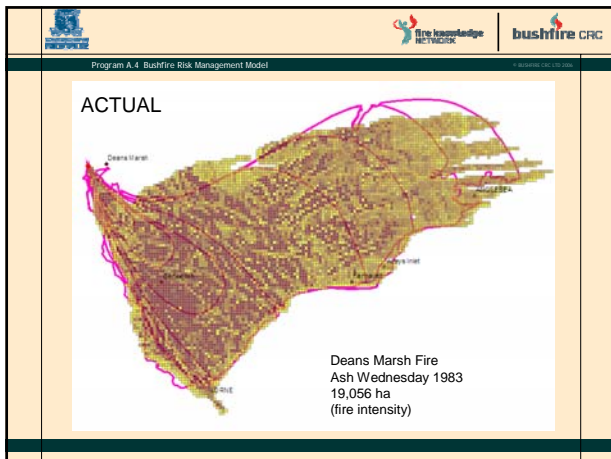


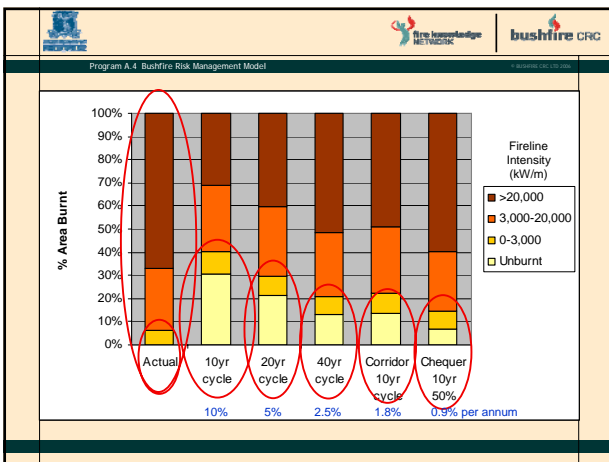
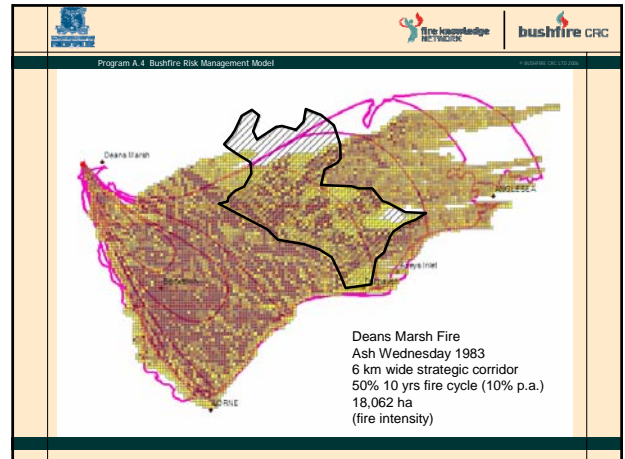
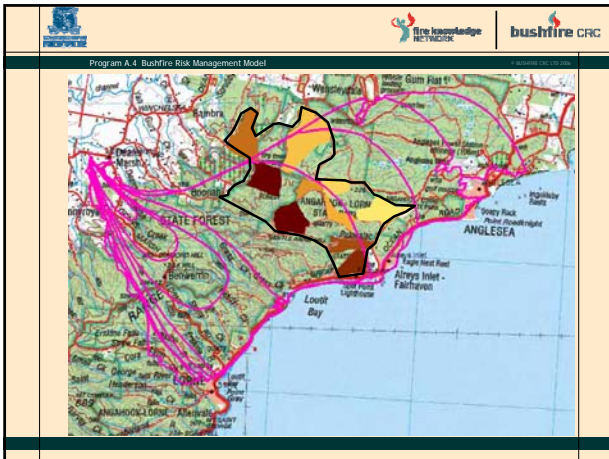
Phoenix (Beta Release)

Version 0.0.0.5
Phoenix - Bushfire Risk Manager

Dushfire CRC
Status: Loading AroLias Assemblies...

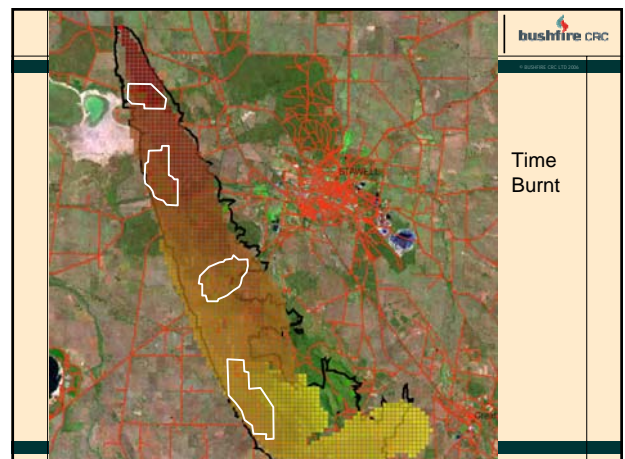
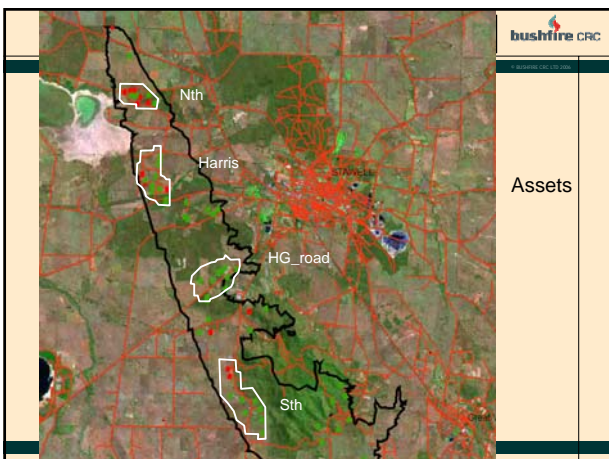


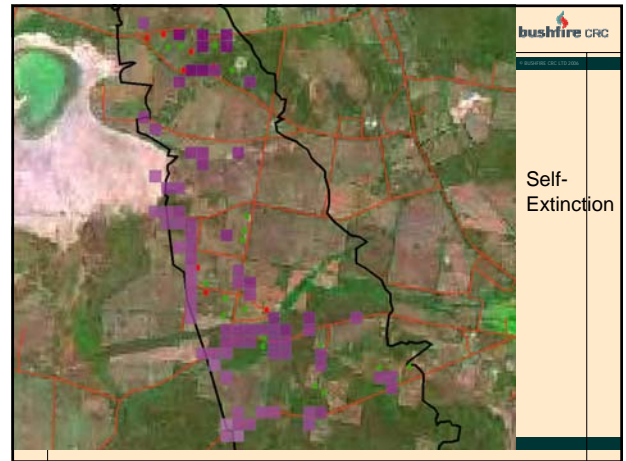
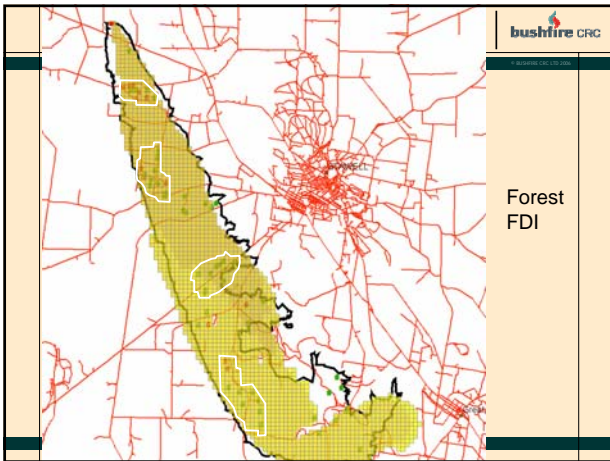
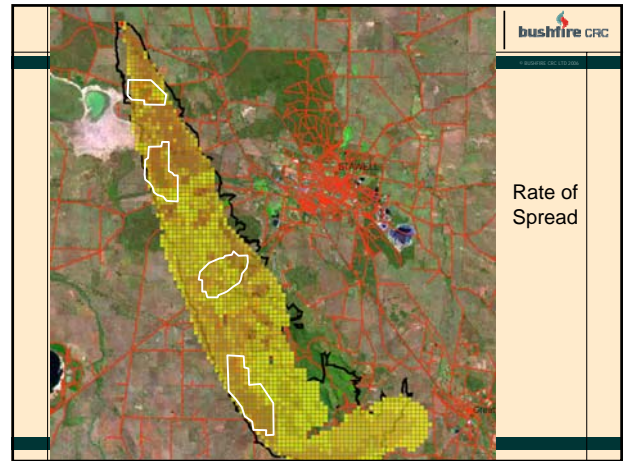
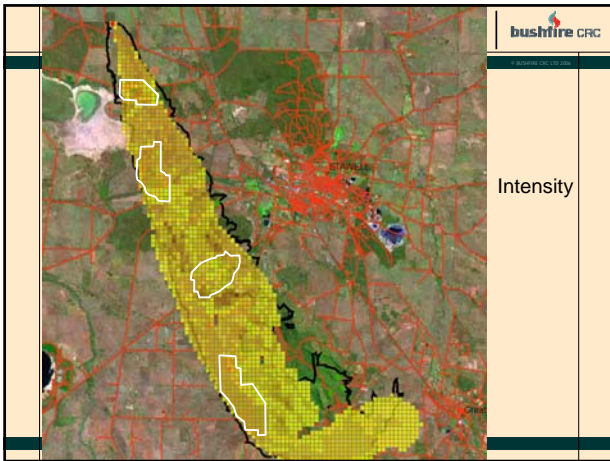





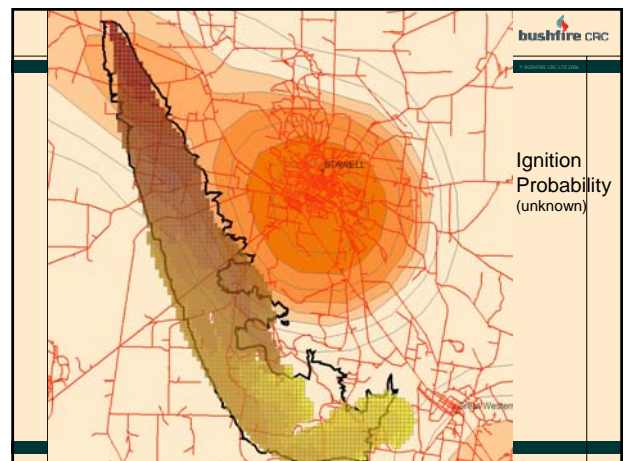
Program A.4 Bushfire Risk Management Model



	Actual	10yr cycle	20yr cycle	40yr cycle	Corridor 10yr cycle (~56yr cycle)	Chequer 10yr cycle (~111yr cycle)
Gross Area 39,000 ha area						
Size (ha)	19,056	13,221	15,467	17,049	16,983	18,062
%Area FRB p.a.	0.0	10	5	2.5	1.8	0.9
Area FRB p.a. (ha/yr)	0	3900	1950	975	715	357
% Size Reduction	0.0	30.6	18.8	10.5	10.9	5.2
Patches % within burnt	9.7	13.5	11.9	10.4	11.4	10.4
Unburnt or Patchy	9.7	44.1	30.8	21.0	22.3	15.6
%Reduction/FRBha	0.0	0.0079	0.0097	0.0108	0.0152	0.0146







Program A.4 Bushfire Risk Management Model								
	Houses	Lost	%Lost	Time_Burnt	ROS	Intensity	FDI	Area
Nth	10	6	60	0.96	3,720	7,395	52	263
Harris	13	3	23	2.19	5,105	11,527	52	1,100
HG_road	10	0	0	3.94	3,577	9,724	45	2,442
Sth	9	2	22	6.45	4,122	9,998	36	4,638



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	<div> <div>Program A.4 Bushfire Risk Management Model</div> <div>© 2014 Bushfire CRC</div> </div>
	<div> <h3>Bushfire Risk Management Model</h3> <ol style="list-style-type: none"> Mitigation - Business Model <ol style="list-style-type: none"> Ignition (Prevention) Spread (Preparedness, Response) Impact (Recovery) Fire Characterization - Phoenix <ol style="list-style-type: none"> Ignition (Origin) Spread (Path) Impact (Nature - intensity, frequency, rate, extent) Impact <ol style="list-style-type: none"> Vulnerability (damage, loss) Resilience (rate, extent) Quantum (number) Flow-on effect (disruption) </div>

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	<div> <div>Program A.4 Bushfire Risk Management Model</div> <div>© 2014 Bushfire CRC</div> </div>
	<div> <h3>Risk Mgt Modelling and Performance Measures</h3> <ol style="list-style-type: none"> Improve performance by exploring various management scenarios. Identify critical areas of events affecting fire management performance. Compare performance under changed climatic conditions. Compare performance in more complex interface environment. </div>

