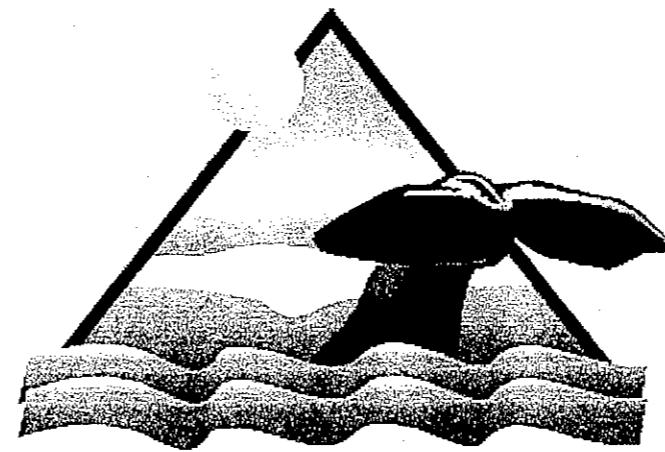


Proposed  
**Kaikoura District Plan:**  
**PLANNING MAPS**



**KAIKOURA  
DISTRICT COUNCIL**

~~February 2004~~  
NOVEMBER 2005

# PART 4 - FLOOD HAZARD MAPS

Maps F24 to F29: Kowhai River Flood Risk

Maps F30 to F33: Mt Fyffe Tributaries and Hapuku River Flood Risk

## KEY




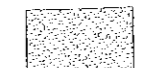
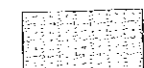


AREA	DESCRIPTION
<b>Highest Risk</b> 1	Exposed (bare) gravel and shingle of present stream or river course, being the area of riverbed first to flood.
1a	Adjacent surfaces (including residue of riverbed) unaffected by average flows but rated as "most at risk" on a rising flood. Includes riverbed currently planted over for flood control or screened by other protective works.
<b>Moderate Risk</b> 2	"Overbank" surfaces next most prone to flood discharges. Includes areas of fan being actively extended seaward by incremental additions of flood sediment.
2a	Flood risk is less, but this sub-category also includes substantial areas of former riverbed in the Hapuku now defended by ageing flood control works.
P	Significant areas at risk of flood ponding from river breakout or heavy rain.
<b>Lowest Risk</b> 3 & 3a	Areas of fan or riverbed at lower risk, either positioned adjacent to Category 2 or protected by substantial control works which may include extensive tree cover.

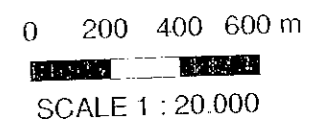
**Cautionary Note:** Analysis of flood risk is subject to considerable uncertainty in the Kaikoura District, because the District's rivers and streams lack the numerical flow data on which predictive flood modelling and flood hazard distribution can be based. Accordingly, the following maps are drawn as a subjective geomorphic interpretation of the flood hazard, based on detailed field mapping and local knowledge. Map users should be aware that line boundaries drawn between flood risk areas are no more than an approximation of a flood hazard. Accordingly, some discretion must be used when interpreting the flood hazard maps. In adopting and interpreting the following maps, the Kaikoura District Council will exercise a precautionary discretion.

*Application of maps:* Note that there are two sets of flood hazard maps (F24 to F29, Kowhai river, and F30 to F33, Mt Fyffe Tributaries and Hapuku River). Where two maps cover the same area, the map with the highest level of flood risk will apply. Refer to section 8 (Natural hazards) for a fuller explanation and to page 68 of the plan for the flood hazard rules.

# KAHUTARA & KOWHAI RIVER FLOOD HAZARD AREAS

## LEGEND

-  (1) Highest Risk
-  (1a) Highest Risk
-  (2) Moderate Risk
-  (2a) Moderate Risk
-  (P) Moderate Risk
-  (3) Low Risk
-  (3a) Low Risk



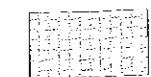
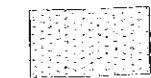

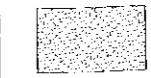
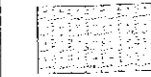
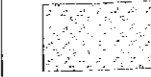
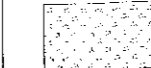
# MAP F24

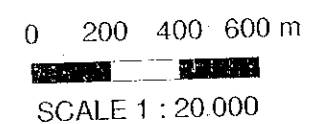
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# KOWHAI RIVER FLOOD HAZARD AREAS



## LEGEND

-  (1) Highest Risk
-  (1a) Highest Risk
-  (2) Moderate Risk
-  (2a) Moderate Risk
-  (P) Moderate Risk
-  (3) Low Risk
-  (3a) Low Risk


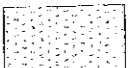
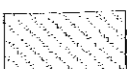
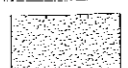
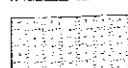




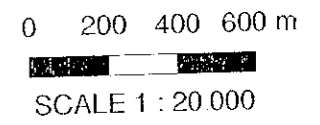
# MAP F25

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# KOWHAI RIVER FLOOD HAZARD AREAS

## LEGEND

-  (1) Highest Risk
-  (1a) Highest Risk
-  (2) Moderate Risk
-  (2a) Moderate Risk
-  (P) Moderate Risk
-  (3) Low Risk
-  (3a) Low Risk

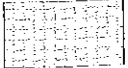
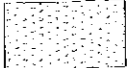
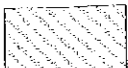
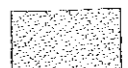

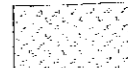



# MAP F26

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# KOWHAI RIVER FLOOD HAZARD AREAS

## LEGEND

-  (1) Highest Risk
-  (1a) Highest Risk
-  (2) Moderate Risk
-  (2a) Moderate Risk
-  (P) Moderate Risk
-  (3) Low Risk
-  (3a) Low Risk



0 200 400 600 m



SCALE 1 : 20 000



KAIKOURA  
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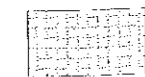
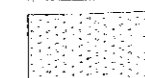
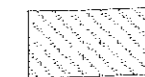


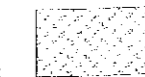
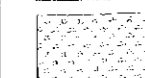
# MAP F27




# KOWHAI RIVER FLOOD HAZARD AREAS



## LEGEND

-  (1) Highest Risk
-  (1a) Highest Risk
-  (2) Moderate Risk
-  (2a) Moderate Risk
-  (P) Moderate Risk
-  (3a) Low Risk
-  (3a) Low Risk



0 200 400 600 m  
  
 SCALE 1 : 20,000




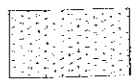
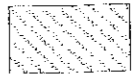
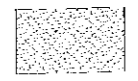
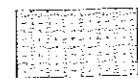


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# MAP F28

# MT FYFFE/HAPUKU FLOOD HAZARD AREAS



## LEGEND

-  (1) Highest Risk
-  (1a) Highest Risk
-  (2) Moderate Risk
-  (2a) Moderate Risk
-  (P) Moderate Risk
-  (3) Low Risk
-  (3a) Low Risk



0 200 400 600 m



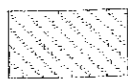
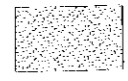

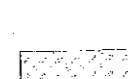
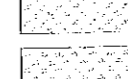
SCALE 1 : 20.000

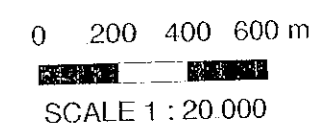


# MAP F29

# MT FYFFE/HAPUKU FLOOD HAZARD AREAS

## LEGEND

-  (1) Highest Risk
-  (1a) Highest Risk
-  (2) Moderate Risk
-  (2a) Moderate Risk
-  (P) Moderate Risk
-  (3) Low Risk
-  (3a) Low Risk




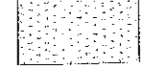
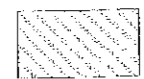


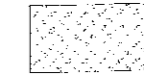
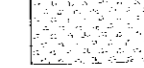
# MAP F30

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# MT FYFFE/HAPUKU FLOOD HAZARD AREAS



## LEGEND

-  (1) Highest Risk
-  (1a) Highest Risk
-  (2) Moderate Risk
-  (2a) Moderate Risk
-  (P) Moderate Risk
-  (3) Low Risk
-  (3a) Low Risk



0 200 400 600 m  
SCALE 1 : 20 000



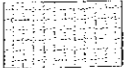
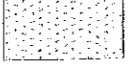
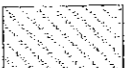
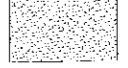

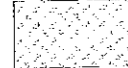
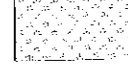
# MAP F31

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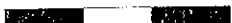
# MT FYFFE/HAPUKU FLOOD HAZARD AREAS



## LEGEND

-  (1) Highest Risk
-  (1a) Highest Risk
-  (2) Moderate Risk
-  (2a) Moderate Risk
-  (P) Moderate Risk
-  (3) Low Risk
-  (3a) Low Risk



0 200 400 600 m  
  
 SCALE 1 : 20.000



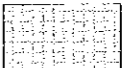
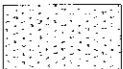
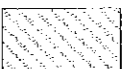



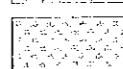
# MAP F32

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# MT FYFFE/HAPUKU FLOOD HAZARD AREAS

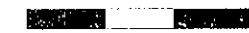


## LEGEND

-  (1) Highest Risk
-  (1a) Highest Risk
-  (2) Moderate Risk
-  (2a) Moderate Risk
-  (P) Moderate Risk
-  (3) Low Risk
-  (3a) Low Risk



0 200 400 600 m



SCALE 1 : 20.000



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# MAP F33