

BASINGSTOKE CANAL RISK RATING TABLE

	1*	2*	3*
Bank Section Name	2009 Condition Grade	2009 Consequence of Failure	2009 Risk Rating
West Hart Embankment	D	4	High
Dogmersfield Old Swing Bridge	D	3	High
Ash Embankment West	C	5	High
Chalturns Embankment	D	3	High
Ash Embankment Down Stream	C	4	High
Chatter Alley Embankment	C	4	High
Odiham Common East	C	3	Moderate
Yew Tree Copse	C	3	Moderate
Tundry Pond Embankment	C	3	Moderate
Eastrop House Embankment	C	3	Moderate
Emergency Stop Gates	N/A	N/A	Moderate
Inspection of Culverts	N/A	N/A	Moderate
Swan Cutting Land Slip	?	?	Not As Yet Assessed

4*	5*
2010 Risk Ranking	Likely impact if left with no required action in long term
High - Urgent geotechnical monitoring implemented	Severe
High	Severe
High	Severe
High	Severe
High	Severe
High	Severe
Moderate	Moderate
Moderate	Moderate
Moderate	Moderate
Moderate	Moderate
Moderate	Risk Adjuster
Moderate	Risk Adjuster
Not As Yet Assessed	Severe

* Columns 1,2,3 are taken directly from the survey results provided in the Condition Survey Report from White Young Green. Column 4 is an update upon this information in 2010. Column 5 represents the overall view upon the severity of the risk.

Key

The following tables detail criteria used for allocating grade:

Grade Description (Column 1)

A : Very Good. Construction sound, well maintained slopes and bank protection. No evidence of movement. No burrows. No seepage.

B : Good. Minor deterioration but not structurally significant. Minor localised face slips. No seepage. Minor deterioration of bank protection. Rare small burrows.

C : Fair. Minor deterioration that may develop into structural defects in the long term. Minor inactive face slips. Minor and insignificant seepage. Some irregularity of crest. Old tree movement. Isolated areas of significant deterioration/movement of bank protection. Isolated burrows.

D : Poor. Slips actively affecting face. Drainage systems only partially functional, deformed fence lines/active tree movement, substantial crest subsidence and significant freeboard loss. Bank protection ineffective. Active leakage at a number of points, canal water standing at toe. Extensive burrowing by large animals.

E : Bad Unstable and in incipient state of collapse. Major active slips affecting face and crest, tension cracks in crest, obvious toe bulging, high risk of overtopping due to severely subsided crest, drainage systems non-functional, bank protection completely failed over large lengths, major leakage carrying fines, reduced toe support/crest loading causing movement.

Grade Description (Column 2)

5 Breach and flooding of densely populated urban area. Large section waterway so water would escape rapidly and not be slowed by hydraulic gradients or narrows.

4 Breach of asset in a village or urban area. Houses or A-roads some distance from canal but in direct flow path. Groups of >4 houses/>1 commercial operation would be disrupted.

3 Breach of an embankment on a large cross section waterway in a rural area or breach on a smaller canal nearer to B-road or railway. Significant loss of high value crop.

2 Breach of an embankment in a rural area with minor roads or footpaths affected. Loss of crop. Houses and roads at some distance and not in potential flow path.

1 Breach of embankment crossing over a large river. Water lost directly to river – no fields flooded, no properties, roads or major services affected.

Column 3 shows relative risk ratings that have been derived from the combination of the condition grade and consequence of failure which can be used to prioritise remediation.

Relative risk ranking

For this project, the risk rankings are defined as follows:

Very low risk – these slopes have no defects at present and therefore no stability issues.

Low risk - slopes are stable at present, movement is unlikely but should be inspected regularly according to cycles explained within ‘Inspections’.

Moderate risk – slope stability is likely to decrease without further intervention, further investigation and minor remedial works may be necessary. Increased inspection interval and monitoring required.

High risk – these slopes potentially require further investigation and/or remedial/stabilisation measures. Towpath areas may require shutting for work purposes.

Very high risk – embankments require immediate emergency action, likely emergency draining of canal, detailed investigation and major stabilisation. Towpath areas may require shutting for work purposes.

Relative Risk Ranking		Condition Grade				
		A	B	C	D	E
Consequence of Failure (5 being the worst)	1	Very Low	Very Low	Low	Moderate	Moderate
	2	Very Low	Low	Moderate	Moderate	High
	3	Low	Low	Moderate	High	High
	4	Low	Moderate	High	High	Very High
	5	Low	Moderate	High	Very High	Very High

Column 5

Severe = High risk of collapse and flooding

Moderate = Reasonably High Risk of bank collapsing and flooding