

Flood Barrier Assessment Analysis

In this analysis mobile flood barriers, permanently attended flood barriers as well as the self closing flood barrier (SCFB) have each been assessed in their fail chances and compared in terms of valuation figures along the assessment criteria of the Dutch Water Board.

Closing Operation Assessment Criteria:

- meeting all requirements: 0
- meeting general requirements: 1
- likely remaining within the set of general requirements: 2
- remaining within acceptable risk limits: 3
- in general not meeting requirements: 4

Foreboding Flood Criteria	Mobile Flood Barrier	Attended Flood Barrier	SCFB
Fail chance high water alarm system	1	1	0
Fail chance mobilisation	1	1	0
Fail chance operational attendance	2	1	0
Fail chance from technical intrusion	2	2	1
Leak chance	1	1	1
Traffic measures	3	2	1
Closing time	3	2	0
Number of barrier elements	1	1	1
Operationable moving parts	1	1	0
Vandalism sensibility	2	1	1
Maintenance sensibility	2	1	1
Manual operationability	3	2	1*
Storm operation	3	2	0
Energy consumption	2	1	0
Recovery rate	1	1	1
Operation control	3	2	1
Deployment	1	1	1
Impediment	3	2	1
Totals	35	25	11

*only if desired

Rapid Flood Criteria			
Closing time	4	4	0
Totals	36	27	11

NB. in case of 4 it is not advisable to take such type of flood barrier into consideration

Cost Analysis Flood Barriers

In this analysis Mobile Flood Barriers, permanently attended flood barriers as well as the self closing flood barrier (SCFB) have been assessed on their fail chances and compared in terms of their total annual cost figures, as indicated by the Dutch Water Board.

Cost assessments:

- no operational cost: 0
- relatively low operational cost: 1
- average cost: 2
- relatively high cost: 3
- excessive cost: 4

Criteria	Mobile Flood Barrier	Attended Permanent System	SCFB
Depreciation	1	2	3
Maintenance	3	2	1
Storage	3	0	0
Transportation	2	1	0
Operational cost	3	2	0
Rehearsals operational staff	4	3	1
Management cost	1	1	1
Totals	17	11	6