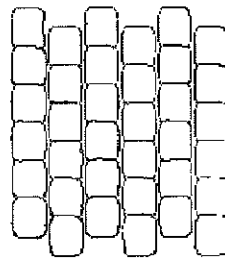
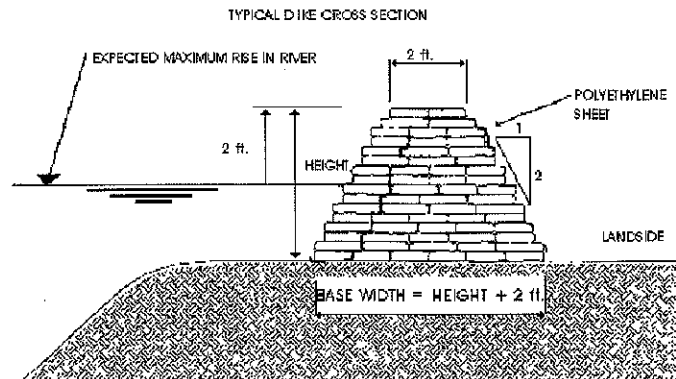


HANDOUT 1 - Sandbag calculator



PLAN OF LAYER

HEIGHT	BASE WIDTH
1.0	3.0
2.0	4.0
3.0	5.0
4.0	6.0

ALL DIMENSIONS IN FEET



METHOD OF LAPPING SANDBAGS

Height of dike	Number of Sandbags Required for the following Lengths of dike (Lengths in Feet)													
	50	100	150	200	250	300	350	400	450	500	550	600	650	700
0.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0.5	210	430	640	850	1070	1280	1500	1710	1920	2140	2350	2560	2780	2990
1.0	470	950	1420	1900	2370	2850	3320	3800	4270	4750	5220	5700	6170	6650
1.5	780	1570	2350	3130	3920	4700	5480	6270	7050	7830	8620	9400	10190	10970
2.0	1100	2300	3400	4600	5700	6800	8000	9100	10300	11400	12500	13700	14800	16000
2.5	1500	3100	4600	6200	7700	9300	10800	12300	13900	15400	17000	18500	20100	21600
3.0	2000	4000	6000	8000	10000	12000	14000	16000	17900	19900	21900	23900	25900	27900
3.5	2500	5000	7500	10000	12500	15000	17500	19900	22400	24900	27400	29900	32400	34900
4.0	3000	6100	9100	12200	15200	18200	21300	24300	27400	30400	33400	36500	39500	42500
4.5	3600	7300	10900	14500	18200	21800	25400	29100	32700	36300	40000	43600	47200	50900
5.0	4300	8500	12800	17100	21400	25600	29900	34200	38500	42700	47000	51300	55600	59800
5.5	5000	9900	14900	19800	24800	29800	34700	39700	44700	49600	54600	59500	64500	69500
6.0	5700	11400	17100	22800	28500	34200	39900	45600	51300	57000	62700	68400	74100	79800

HOW TO CONSTRUCT A SANDBAG EMERGENCY LEVEE

HOW TO FILL SANDBAGS

Fill sandbags 1/2 to 2/3 full, tie at top so bag will lay flat when put in place. (Overfilled bags leave gaps in levee allowing water to seep through.)

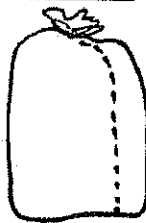
RIGHT



1/2 Full

Weight
35-40 lbs.

WRONG



Full

Weight
70-75 lbs.

WRONG

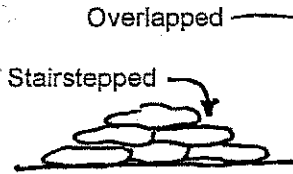


Tied too
low
1/2 Full

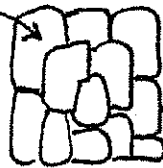
PLACING SANDBAGS

Sandbags should be placed flat on ground, overlapped, tamped into place, and stairstepped.

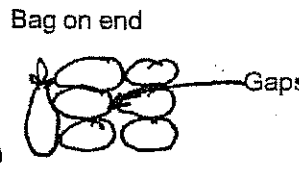
RIGHT
ELEVATION



PLAN



WRONG
ELEVATION



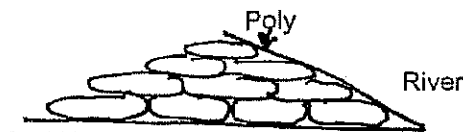
PLAN



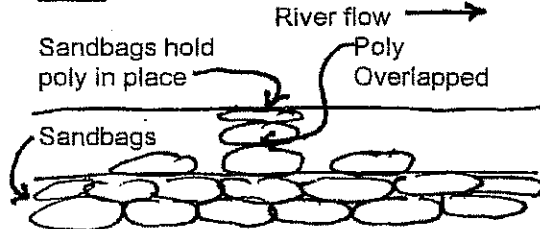
POLYETHYLENE

Polyethylene (poly) comes in rolls 20 ft. wide and 100 ft. long. It's used to wrap sandbag levees to prevent seepage. Poly should be placed on downstream portion of levee first, then worked upstream with a two to three-foot overlap. Poly is held in place with sandbags.

ELEVATION



PLAN



Estimated number of sandbags per
linear foot of wall.

Height in Feet	Bags Required
1	5
2	10
3	21
4	36
5	55

Five feet is the practical limit of sandbag levee. If a higher levee is needed, alternate means of construction should be considered. Note: Preferred levee limit is three feet high.