

Der er sparret 41,4 mio. Kr efter at SIC projektet er overgået til permanent drift d. 8 januar 2008

- Der er ikke sandfodret ved Skodbjerg i finansåret 2008
- Der er ikke sandfodret ved Skodbjerg i finansåret 2009
- Efterfølgende opmålinger udført af Landinspetørfirmaet Geopartner i Ringkøbing viser at der ikke er behov for sandfodring i 2010

## **MODELING OF FLOW THROUGH A VERTICAL PERFORATED PIPE IN THE BEACH, AND THE MORPHODYNAMIC INTERPRETATION: THE PRESSURE EQUALIZATION MODULE SYSTEM.**

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### **Abstract**

It has been suggested that vertical perforated tubes placed below the beach surface will increase the drainage of the beach, and hence increase the deposition of sand on the beach. The system is called the PEM-system, Pressure Equalization System, and the Danish company SIC ([www.shore.dk](http://www.shore.dk)) is doing the marketing. Although it for a coastal engineer seems obvious that such a device can't drain the beach (nearly no driving forces), SIC has succeeded in installing the system in more than 75 locations around the world (according to the company). In Denmark a full scale experiment at the exposed west coast has been performed through 2005-08, and a similar Dutch test is going on right now at Egmond, Holland. In this paper, we model the flow in the beach taking into account the presence of (high-permeable) tubes and demonstrate that the drainage effect is negligible. Further, the morphodynamic behavior of the coast in relation to the Danish field test is described, and it is concluded that all morphological changes can be explained by natural causes.

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Forfatterne skriver i dette paper (afsnit indsat) at de morfologiske ændringer kan forklares med naturlige årsager. Paperet er primært baseret på fabrikerede data.

trend (like the global temperature increase in the atmosphere: you cannot detect it in months or a few years, you need decades of years).

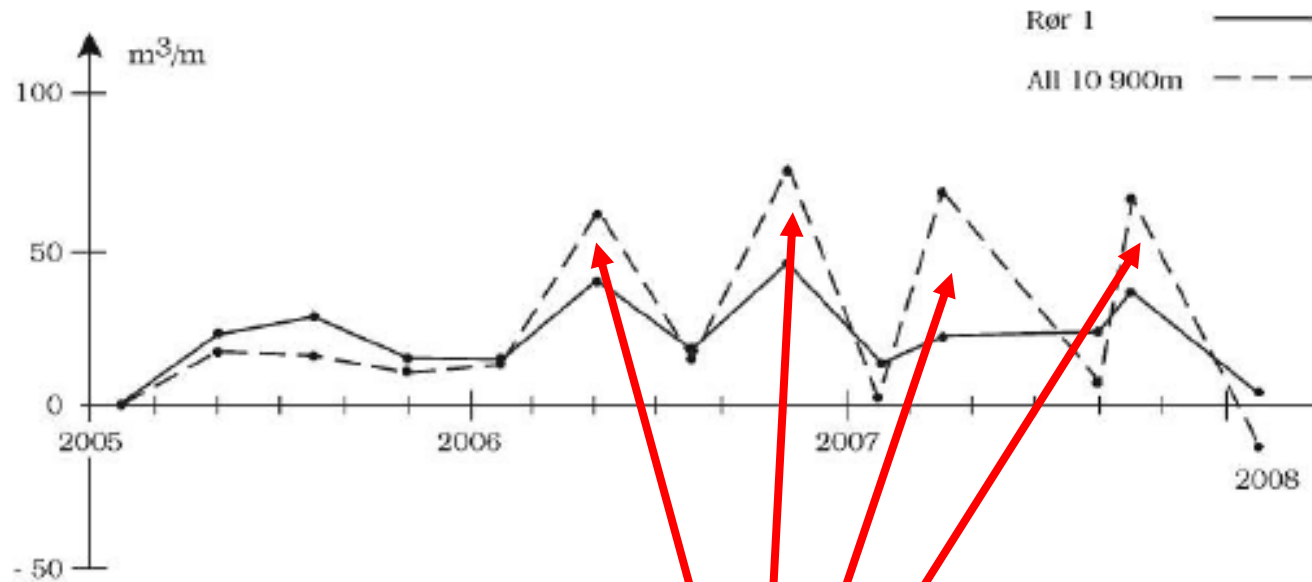


Figure 17: Temporal Variation in beach volume: The beach volume changes so much that the conclusion depends on the cut of the test. Sep 2007: +35 cbm/m in front of rørl, Jan 08: 0 cbm/m. On the total test stretch (dashed line in the figure) you have in average Sep 07: +67 cbm/m and Jan 08: -15 cbm/m. The values are positive because the test began just after the big storm January 8<sup>th</sup> and 9<sup>th</sup> 2005.

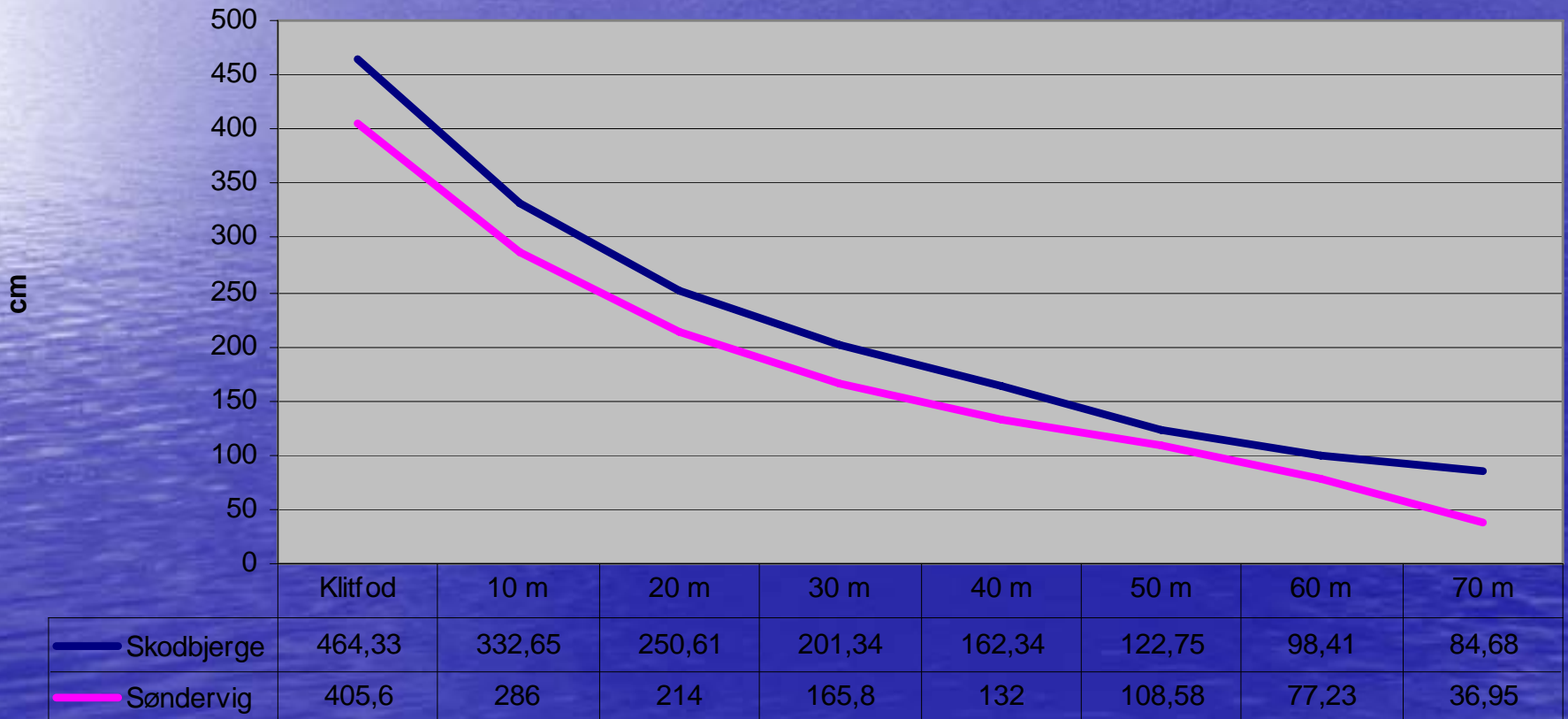
Dato	04.05	07.05	10.05	01.06	04.06	07.06	10.06	01.07	04.07	08.07	09.07	01.08
Måned. år												
Strækning	m <sup>3</sup> /m	m <sup>3</sup> /m	m <sup>3</sup> /m	m <sup>3</sup> /m	m <sup>3</sup> /m	m <sup>3</sup> /m	m <sup>3</sup> /m	m <sup>3</sup> /m	m <sup>3</sup> /m	m <sup>3</sup> /m	m <sup>3</sup> /m	m <sup>3</sup> /m
Ref. I	13,4	2,6	-12,2	-11,5	-6,9	-18,2		-32,5	24,4	-12,8	38,3	-36,3
Rør I	22,3	28,8	17,5	16,7	39,9	18,5	43,2	11,5	21,1	21,3	34,5	0,3
Ref. II	-9,5	-32,2	-42,3	-54,6	-41,3	-64,7		-104,8		-150,3		-163,8
Rør II	45,0	58,3	68,1	93,3	91,7	87,3	99,9	37,5	184,6	27,2	206,7	-25,7
Ref. III	25,2	29,3	38,2	54,4	93,2	81,5	118,2	104,3	188,0	113,0	139,2	114,8
<b>Middel, total</b>	18,5	17,9	11,4	14,2	60,4	16,2	74,1	4,0	68,2	4,9	66,8	-14,5

Tallene i (Middel total) er opgivet i kubikmeter /meter og kan derfor omregnes til volumen på den samlede strækning på 11 km og det giver nedenstående resultat

jan-05	apr-05	jul-05	okt-05	jan-06	apr-06	jul-06	okt-06	jan-07	apr-07	jul-07	okt-07	jan-08
0	18,5	17,9	11,4	14,2	60,4	16,2	74,1	4	68,2	4,9	66,8	-14,5
0	203500	196900	125400	156200	664400	178200	815100	44000	750200	53900	734800	0

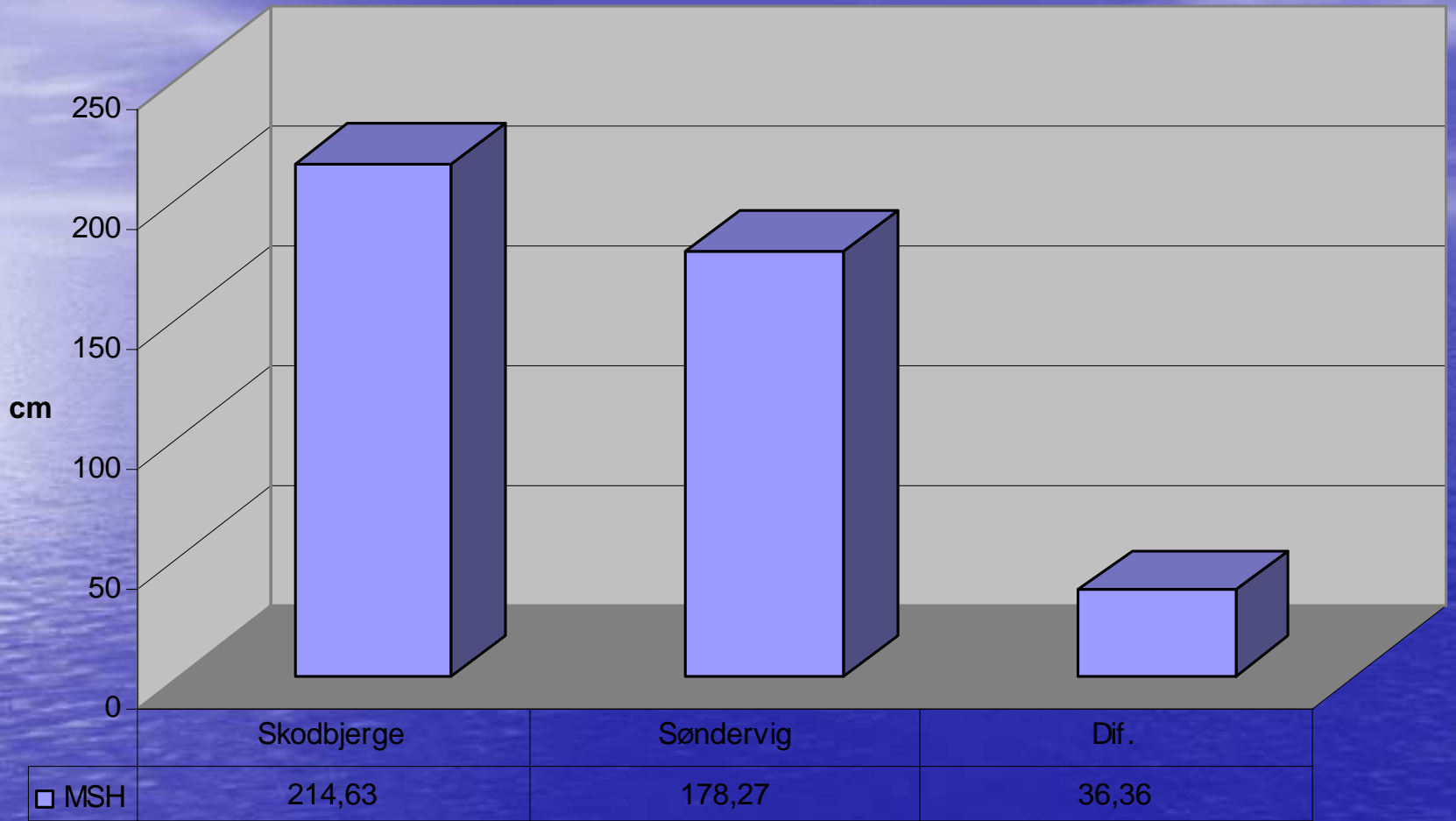
-  
1  
5  
9  
5  
0  
0

### Skodbjerge sammenlignet med Søndervig



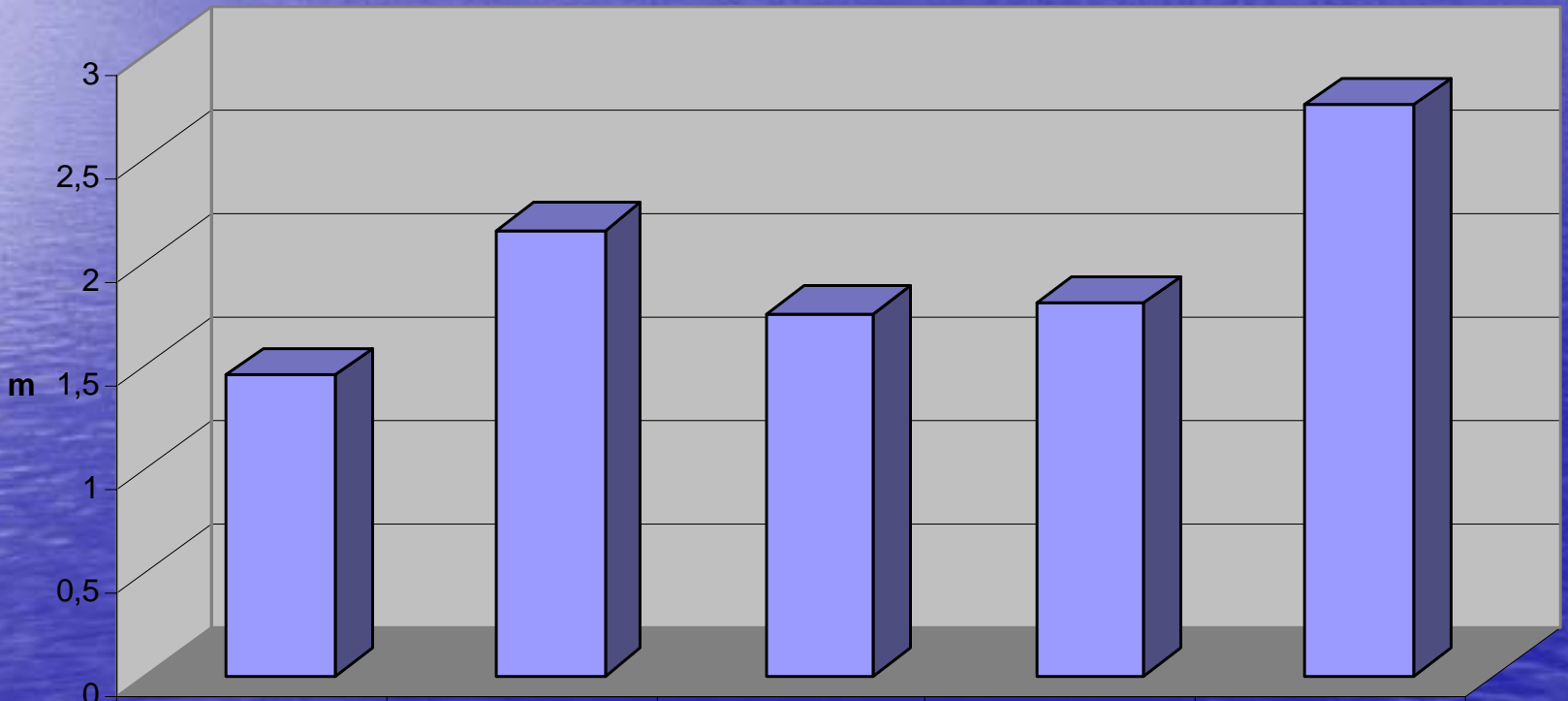
— Skodbjerge — Søndervig

# Middelstrandhøjde i 70 meters bredde



□ MSH

### Middelstrandhøjde i 70 meters bredde



□ middelstrandhøjde

Ref 1

Rør 1

Ref 2

Rør 2

Ref 3

1,45

2,15

1,75

1,8

2,76

□ middelstrandhøjde



























