

Phones : 24381801 (12 lines)
24380511, 24380513
24380014, 24380825



Fax : 020-24381004
Email : waps.mah@nlc.in

Government of India
Ministry of Water Resources
CENTRAL WATER & POWER RESEARCH STATION
Khadakwasla, Pune 411 024

No:130/7/71-CE 2332

Dated : 08.06.2005

JUN 2005

(List Enclosed)

Sub : Field data collection format for Coastal erosion sites.

Sir,

This has a reference to the 7th Meeting of CPDAC held at Surat on 19th Oct. 2004. It was decided to once again re-circulate the format for the collection of data regarding coastal erosion sites in maritime states. Accordingly, please find enclosed herewith the format and guidelines for collection and submission of coastal data to "National Coastal Data Bank" at CWPRS, Pune.

It is requested to collect the coastal data for the erosion sites in your state and send the same to CWPRS for compilation.

Thanking You,

Yours faithfully,

(M. D. Kudale)
Chief Research Officer

Encl : As above

- Copy to : 1) J. Chandrasekhar Iyer, Director, Beach Erosion Directorate,
C&SRO, CWC, Jaladhara, Kasturba Nagar, Kochu-Kadavanthra,
P.O. Kadavanthra, Kochi - 682 020.
- 2) A.K. Valsalan, Director, Coastal Erosion Directorate, 806 (N),
Sewabhawan, R.K. Puram, New Delhi - 110066.

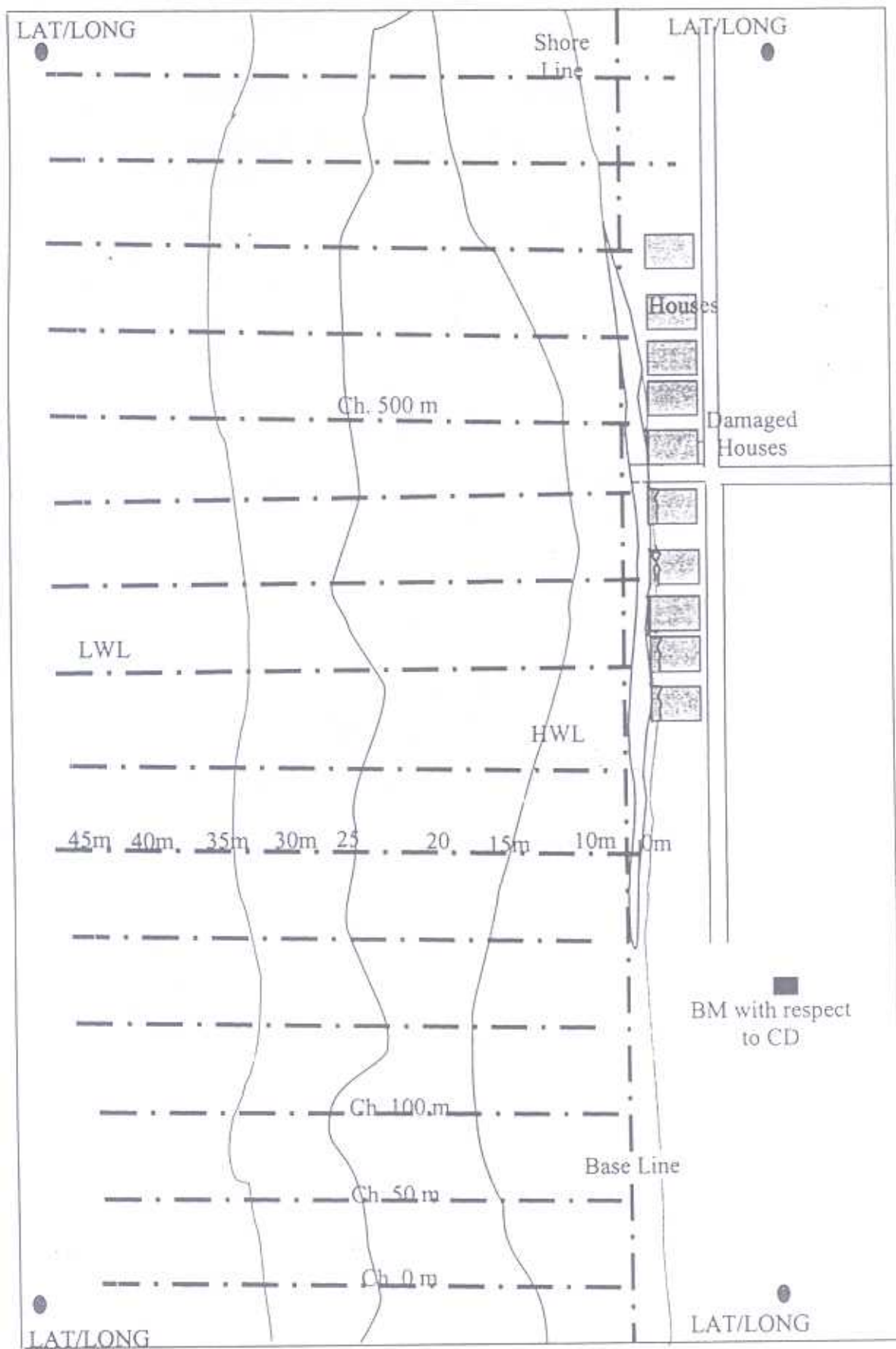
C.B.D. अनुभाग/निदेश
Section/Dte.
दायरी सं. 294
Dy. No.
दिनांक 20/6/2005
Date

Sl. No	STATE / UT	NODAL OFFICER
1	ANDHRA PRADESH	Deputy Chief Engineer O/o Chief Engineer, Major Irrigation.& Flood Control, Erum Manzil, Hyderabad 500004 A.P.
2	GOA	Superintending Engineer Circle I, Irrigation Department, Panaji, 403 001, GOA
3	GUJARAT	Superintending Engineer Central Design Org.(Hydro),Block No.9,II Floor,Sector 10,Dr. Jevraj Mehta Bhawan, GANDHINAGAR, 382 010 Gujarat
4	KARNATAKA	Superintending Engineer Minor Irrigation Circle, Kuvempu Nagar, Ganga Rasta, 3rd Cross, Mysore, 570 023 Karnataka
5	KERALA	Director (F&AR) Kerala Engineering Research Institute Peechi, Trissur Dist., Kerala
6	MAHARASHTRA	Coastal Engineer Maharashtra Maritime Board , Administrative. Building, 3 rd floor, Near Chetna College, Bandra (E), Mumbai – 400051 Maharashtra
7	TAMIL NADU	Superintending Engineer Institute of Hydraulics .& Hydrology, Poondi –602023, Tamil Nadu
8	ORISSA	Chief Engr.& Basin Manager Lower Mahanadi Basin, O/o Engineer-in-Chief, Water Resources, Bhubaneshwar-751001 Orissa
9	WEST BENGAL	Chief Engineer-II Irrigation & Waterways Department, Jalsampad Bhawan, 700091 West Bengal
10	PONDICHERRY	Superintending Engineer Circle II PWD, Union Territory of Pondicherry, 605 001
11	ANDAMAN & NICOBAR	Chief Engineer A.P. W. D, Port Blair, 744 101
12	LAKSHADWEEP	Superintending Engineer Lakshadweep PWD, Kavaratti, Lakshadweep 682 555

Guide lines for Coastal data collection & submission to "National Coastal Data Bank" at CWPRS, Pune

Shore line Survey :

- *The survey should cover the length of at least 500 m on both the sides of eroded area.*
- *Cross chainage profile should be taken at an interval of 50 m along the base line.*
- *Cross chainage levels should be at 5m interval extending up to Low water line on sea side and up to habitation line or shore line i.e. the profile must extend at least 10 m beyond the highest elevation reached during highest high water on shoreward side.*
- *All levels are to be with respect to Chart Datum.*
- *The survey should be conducted before monsoon and after monsoon seasons.*
- *At least 4 geographical reference points are essential with respect to Latitude and Longitude.*
- *The levels (cross sections) are to be plotted at each cross chainage to the scale of 1:200 (on both X & Y axis).*
- *Contour map of the site is to be plotted in the scale of 1 : 1000 (with 0.5 / 1 m contour interval as well as to be marked with and Low water line & High water line.*
- *Any important features, monuments, coastal features, vegetations etc. need to be marked on the plan.*
- *Soil sample should be taken at least 50cm below the existing beach level for pre-monsoon and post-monsoon and Grain size analysis curve indicating D_{15} , D_{50} & D_{85} is to be plotted.*
- *Tide levels (with respect to Chart datum) like Highest High water level, Lowest Low water level, wave directions, maximum wave height, Wave period etc. are to be noted.*
- *Index plan & location plan of site need to cover all important features.*
- *The above data need to be supplied in print form and in soft copy (Floppy / CD) also.*
- *Photographs / videographs of the erosion site before and after monsoon seasons covering severity of erosion ,breaking of waves, other important features of the site need to be taken and submit photo in JPEG / BMP format & video in MPEG format*
- *Field data may be collected continuously over a period of 5 years or more.*



Typical Contour Pla..

CHECK LIST FOR SUBMISSION OF COASTAL FIELD DATA

1.	Previous project report by any other Institution available (if so attach)	Yes/No
2.	Brief Note attached	Yes/No
3.	Index plan attached	Yes/No
4.	Location plan attached	Yes/No
5.	Tidal data enclosed	Yes/No
6.	Current data enclosed	Yes/No
7.	Wave data enclosed	Yes/No
8.	Base line of site is fixed with at least two or three permanent references and marked on plan	Yes/No
9.	Whether levels are w.r.t. Chart Datum	Yes/No
10.	Four Geographical reference points (Lat/Long) marked on plan	Yes/No
11.	Cross-section of beach profiles at 50 m interval along base line with 5m interval along cross chainage upto LWL taken and plotted	Yes/No
12.	Contour plan in 1:1000 scale	Yes/No
13.	Cross sections for each cross chainage plotted on 1:200 scale (X, Y, direction)	Yes/No
14.	Grain size analysis curve is enclosed	Yes/No
15.	Information on proposal for coastal protection	Strengthening of existing bund / New proposal
16.	Information about construction equipment of cranes etc. enclosed	Yes/No
17.	Information regarding stone availability, type of armour preferred enclosed	Yes/No
18.	Any other information enclosed	Yes/No
19.	Any photographs attached in JPEG / BMP format on CD media	Yes/No
20.	Any videography attached in MPEG format on CD media	Yes/No

BRIEF NOTE

(Enclosure along with Field data submitted to National Coastal Data Bank at CWPRS, Pune)

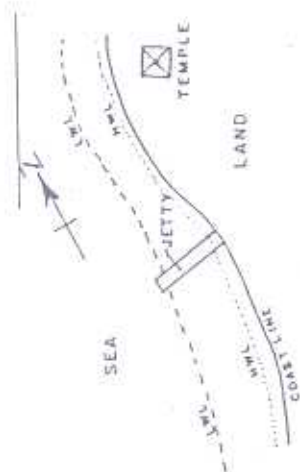
Sl. No.	Description	Information
1	Field data of ----- ----- (village, Taluka, Dist. ,State)	Pre monsoon / post monsoon
2	Responsible agency for site	DIV. _____ Circle _____ Dept. _____
3	Date of collecting data (dd / mm / yyyy)	
4	Tidal data (m)	HTL : _____ LTL : _____ HFL : _____ Storm surge : _____
5	Current Data	Max. currents (m/sec.) : _____ Direction (Degree) : _____
6	Wave Period (sec.)	
7	Wave height (m)	Max. : _____ Direction : _____ Min. : _____ Direction : _____
8	Type of Bed material	_____ D ₈₅ mm D ₅₀ mm D ₁₅ mm
9	Bed Slope (e.g. 1:100 etc.)	
10	Importance of the area	Habitation/ Fishing / tourism / Inland transport or -----
11	Near by any creek, Lagoons, Estuary, River etc. (Please brief any effect on coast)	
12	Any erosion / accretion observed (if so indicate degree of severity and compare with previous data)	Approximate Area affected: _____ Quantity of sand / Levels depressed: _____
13	Any proposal for protection – if so describe in brief	(Strengthening of existing bund / New proposal) Length: _____ Design by: _____ Type of Armour: _____ Project Cost: _____ other: _____
14	Agency of funding	Central/ State/ /NGO/ private
15	Information regarding availability of construction equipment & accessibility to site	
16	Information regarding availability of stones	Type : _____ Density : _____ Max. Wt.(Ton.) : _____
17	Any other relevant information	

Signature : _____
Designation : _____
Division : _____

INFORMATION REGARDING PROTECTIVE STRUCTURES

Protective Structures or Structures Already existing	Levels W.R.T Bench mark in m			Plantation Per year	Wave height / Period	Wave Direction	Cost /m	Remarks
	BED	TOE	CREST					
Breakwater/ Groyne/ Seawall	+0.5	+2.5	+4.5	Nil or 100 m Along the length of beach Planted (Casurina or Mylly trees)	About 1 m wave during Non- monsoon Or 2-3m waves during monsoon or Less than 1m waves during calm weather Wave period – 8 to 10 Sec Type of breaking – Plunging/ Collapsing/ surging	North-East in Nov and December, while South-west in remaining months	Rs. 20,000 Per m	1) Section of Tetrapods or Stones required 2) Toe stones damaged or settled etc. 3) Stones up to 3t are available. Cranes are also available for lifting the stones etc.

INFORMATION ABOUT EROSION SITE WHERE STRUCTURE IS TO BE CONSTRUCTED



LOCATION	EROSION			BEACH SLOPES			IMPORTANT FEATURES	ONSHORE-OFFSHORE OR ALONGSHORE SEDIMENT/SAND MOVEMENT	DETAILS OF EROSION	SIZE OF BEACH MATERIAL D_{15}, D_{50}, D_{85} IN mm	WAVE HEIGHT /PERIOD
	SEVERE	MEDIUM	MINOR	ABOVE H.M.L.	H.M.L. TO L.M.L.	BELOW L.M.L.					
SOUTH OF JETTY	PHOTO TAKEN (RATE OF EROSION > 5m PER YEAR	> 2m and <5m PER YEAR	<2m PER YEAR	1:5	1:15	VERY FLAT (1:200) OR VERY STEEP	SOME TREES AND HOUSES DAMAGED	ONSHORE - OFFSHORE	e.g; 600m LENGTH OF BEACH ERODED DURING LAST MONSOON (1998) OR 5m WIDTH LOST IN MONSOON 1998.		ABOUT 2m TO 2.5m BREAKING, $T_z = 10$ SEC

OBSERVATION FOR TIDE LEVELS

NAME OF STATE:
 NAME OF COASTAL DISTRICT:
 NAME OF PLACE:
 MONTH & YEAR:

LOCAL DATUM:
 CHART DATUM :

DATE/ TIME	0100	0200	1000	1500	2000	High Water		Low water		Daily M.S.L
						Time	level	Time	level	
1										
2										
31										

OBSERVATION FOR CURRENTS

Annexure VI

NAME OF STATE:

DETAILS OF CURRENT METER:

NAME OF COASTAL DISTRICT:

DETAILS OF TRACK :

NAME OF PLACE:

MONTH & YEAR:

SR. NO	DATE	TIME	TIDE LEVEL IN m	DEPTH IN m	FLOAT TRACK OBSERVATIONS						CURRENT OBSERVATIONS	
					PLACE OF RELEASE OF FLOAT	TIME OF OBSR.	DIST. TRAVEL	AV. VEL. IN m/sec	WIND DIRCT	WIND VEL IN m/sec	SPEED IN M/SEC	DIRECTN (DEG. North)
1												
2												
3												

OBSERVATION FOR WAVE HEIGHT

NAME OF STATE:

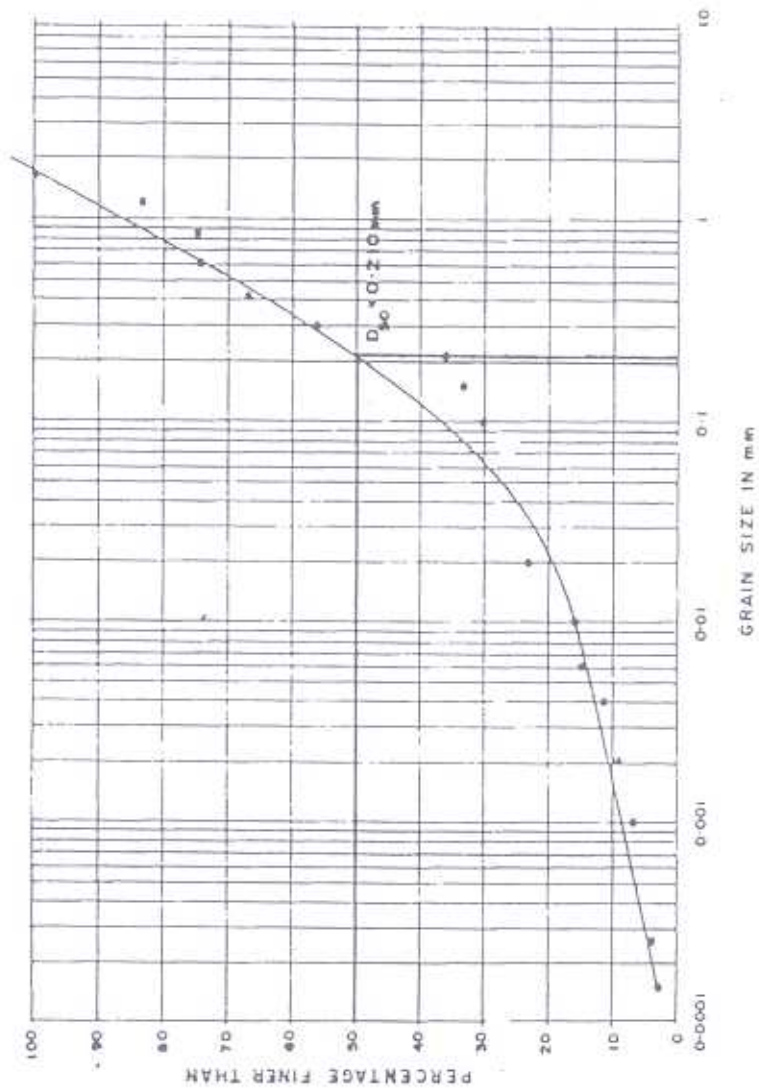
NAME OF COASTAL DISTRICT:

NAME OF PLACE:

MONTH & YEAR:

DATE	TIME	DIRECTION OF WIND (Degrees)	DIRECTION OF WAVE (Degree)	HEIGHT OF WAVE IN m	PERIOD OF WAVE IN Sec	TYPE OF WAVE BREAKING

SIEVE ANALYSIS OF BEACH SAMPLE



W 12/2004