

DEVON AREA INTERNAL REPORT

PORTILLY OUTFALL - CAMEL ESTUARY BATHYMETRIC SURVEY

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PORTHILLY OUTFALL - CAMEL ESTUARY BATHYMETRIC SURVEY

1. INTRODUCTION

South West Water Services Ltd (SWWSL) have applied to build an outfall at Porthilly Point, in the Camel estuary. The National Rivers Authority (NRA), South West Region has refused consent to SWWSL because of the instability of the "Rock Channel" in the estuary. The NRA have collected Bathymetric data in 1993 and 1994 and given this data to HR Wallingford Ltd to appraise the stability of the "Rock Channel", with particular attention being paid to the site of the proposed outfall at Porthilly Point.

2. TERMS OF REFERENCE

2. OBJECTIVES

A request was received from Regional Tidal Waters to update the position and thus the stability of the Rock Channel in the Camel estuary.

2.3 PROJECT TEAM

D.Marshall (Project Leader)
W.Loxton (Project Manager)
N. Hicks. (Project Technician)

ENVIRONMENT AGENCY
SOUTH WEST REGION
LIBRARY

3. METHOD

1. The survey involved a number of transits being taken across the estuary in a boat while recording depth using a Raytheon echosounder and position with Ashtech differential GPS. Both sets of data being logged together by the LM Technical services "small boat data logging system".

4. RESULTS

4.1 HISTORIC RESULTS

The channels in the estuary are known to move, in 1934 the ebb dominant low water channel in the estuary switched from the Padstow side of the estuary to its present course through the Rock Channel.

The mobility of the channel is illustrated well by recent Bathymetric surveys carried out by ourselves and reported on by HR Wallingford. These surveys show changes in bed levels of up to 4m and a shift of nearly 200m to the west. The surveys also confirm that the channels and estuary bed continue to change with the gradual return to the main ebb dominant channel on the Padstow side.



4.2 INVESTIGATION RESULTS

The survey was carried out on 14/03/96 but due to strong winds on the day, a limited number of transits were recorded, to enable an estimate on the "shift" in the channel to be made.

5. DISCUSSION

All the data collected is being analysed by Regional Tidal Waters.

7. RECOMMENDATIONS

Further bathymetric surveys in the summer and winter of 1996 are planned. **ACTION:** Devon Area Investigations and Regional Tidal Waters.