

Auxiliary Material for

Importance of backwater effects to the occurrence of a chute cutoff
(submitted to Journal of Geophysical Research – Earth Surface)

Morphodynamic regime change in a restored lowland stream
(submitted to Earth Surface Dynamics)

J.P.C. Eekhout

(Hydrology and Quantitative Water Management Group, Wageningen University, The Netherlands)

A.J.F. Hoitink

(Hydrology and Quantitative Water Management Group, Wageningen University, The Netherlands)

Introduction

This data set contains morphological, hydrological and sediment data from the study described in further detail in the two papers. The morphological and water level data obtained with the RTK-GPS equipment are given in the tables “morphological data.xlsx” and “water level data.xlsx”, with the numbered tabs corresponding to the 13 morphological surveys (1-13). The water level data are obtained to construct the longitudinal water level profile at the moment of the morphological survey. The hydrological data obtained at the measurement weir and water level gauges is given in table “hydrological data.xlsx”, with tab “discharge” corresponding to the discharge time series and “WL1” corresponding to the water level time series for the water level gauge, respectively. The sediment data obtained with a sediment core sampler. Grain size distributions were obtained with a laser particle sizer and subdivided into 57 classes. The sediment data are shown in table “sediment data.xlsx”, with tab “channel bed” corresponding to the samples taken from the channel bed during the first morphological survey (12-10-2013) and the tab “cutoff channel” corresponding to the samples taken from the cutoff channel during the eighth morphological survey (23-10-2012).

1. morphological data.xlsx Morphological data obtained with the RTK-GPS equipment.

1.1 Column “X”, meters, x-coordinates.

1.2 Column “Y”, meters, y-coordinates.

1.3 Column “Z”, meters above mean sea level, bed elevation.

1.4 Column “DATE”, dd-mm-yyyy , date of measurement.

2. waterlevel data.xlsx Water level data obtained with the RTK-GPS equipment.

2.1 Column “X”, meters, x-coordinates.

2.2 Column “Y”, meters, y-coordinates.

2.3 Column “Z”, meters above mean sea level, water level.

2.4 Column “DATE”, dd-mm-yyyy , date of measurement.

3. hydrological data.xlsx Hydrological data.

3.1 Column “DATE”, dd-mm-yyyy, date of measurement.

3.2 Column “TIME”, hour, time of measurement.

3.3a Column “DISCHARGE”, cubic meter per second, discharge.

3.3b Column "WATER LEVEL", meters above mean sea level, water level.

3.4 Column "X-COORDINATE", meters, x-coordinate of the location of the discharge station and water level gauges.

3.5 Column "Y-COORDINATE", meters, y-coordinate of the location of the discharge station and water level gauges.

4. sediment data.xlsx Sediment data.

4.1 Column "CODE", -, code corresponding to sediment sample.

4.2 Column "X-COORDINATE", meters, x-coordinate of the sample location.

4.3 Column "Y-COORDINATE", meters, y-coordinate of the sample location.

4.4 Column "DATE", dd-mm-yyyy, date of measurement.

4.5 Column E-BJ, percentage, percentage of the total weight of sediment sample per class, each class is presented in micrometres and phi-scale.