Milan, D., Heritage, G., Tooth, S., and Entwistle, N., 2018, Morphodynamics of bedrockinfluenced dryland rivers during extreme floods: Insights from the Kruger National Park, South Africa: GSA Bulletin, https://doi.org/10.1130/B31839.1.

## **Data Repository**

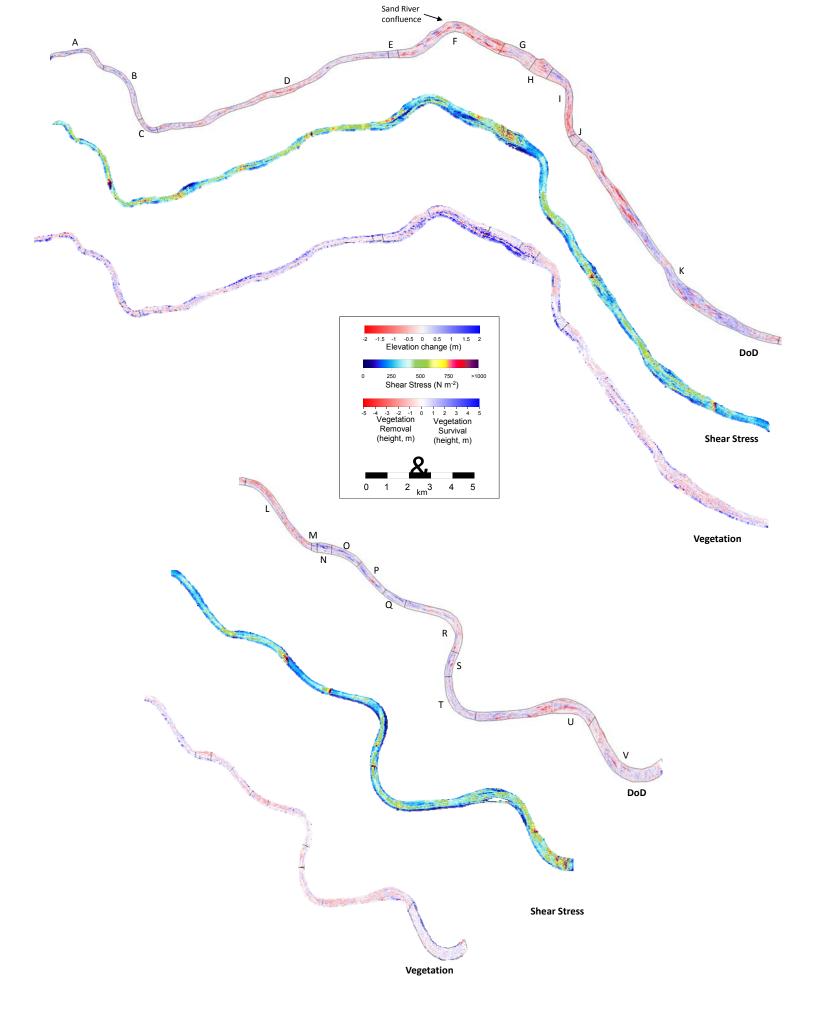
**Table DR1.** Dominant channel types found along the various sub-reaches of the Sabie River study reach based upon the pre-flood (2004) aerial photographs (see Fig. 1D for spatial distribution). The prefix 'mixed' indicates the presence and influence of bedrock in an otherwise alluvial channel type. 'Uncohesive' and 'cohesive' are distinguished according to the relative proportion of silt and clay in the deposit.

**Figure DR1.** DEM of Difference (2012 LiDAR DEM minus the 2004 LiDAR DEM) for the study reach of the middle Sabie River shown alongside the shear stress distribution resulting from the 5000 m<sup>3</sup> s<sup>-1</sup> flow simulation. A DEM of Vegetation Difference (2012 LiDAR vegetation returns minus 2004 LiDAR vegetation returns) is also shown for the full study reach. Blue indicates vegetation survival, and red indicates vegetation removal. The height of vegetation is also indicated, with taller vegetation (~5 m) indicative of later successional mature tree species, and the smaller vegetation indicative of early successional species.

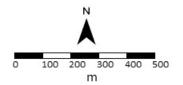
**Figure DR2.** Changes from dominantly mixed braided to dominantly mixed single thread channel types observed in aerial imagery for sub-reaches C, I and P (for location, see Fig. 1D). The coordinates of the bottom left-hand corner of each image are as follows: (A) sub-reach C (24°59'32.40"S, 31° 35'12.80"E); (B) sub-reach I (24°59'33.64"S, 31° 45'53.27"E); (C) sub-reach P (25°07'00.52"S, 31° 54'28.90"E).

## Table A1

Reach	Channel type	Channel type
	abbreviation	
А	MST	Mixed single thread
В	MPR	Mixed pool-rapid
С	MB	Mixed braided
D	MPR	Mixed pool-rapid
Е	BA	Bedrock anastomosed
F	СМА	Cohesive mixed anastomosed
G	BA	Bedrock anastomosed
Н	СМА	Cohesive mixed anastomosed
Ι	MB	Mixed braided
J	BA	Bedrock anastomosed
К	UMA	Uncohesive mixed anastomosed
L	MB	Mixed braided
М	MPR	Mixed pool-rapid
N	MB	Mixed braided
0	MPR	Mixed pool-rapid
Р	MB	Mixed braided
Q	MST	Mixed single thread
R	MPR	Mixed pool-rapid
S	MST	Mixed single thread
Т	MPR	Mixed pool-rapid
U	UMA	Uncohesive mixed anastomosed
V	BA	Bedrock anastomosed

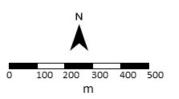




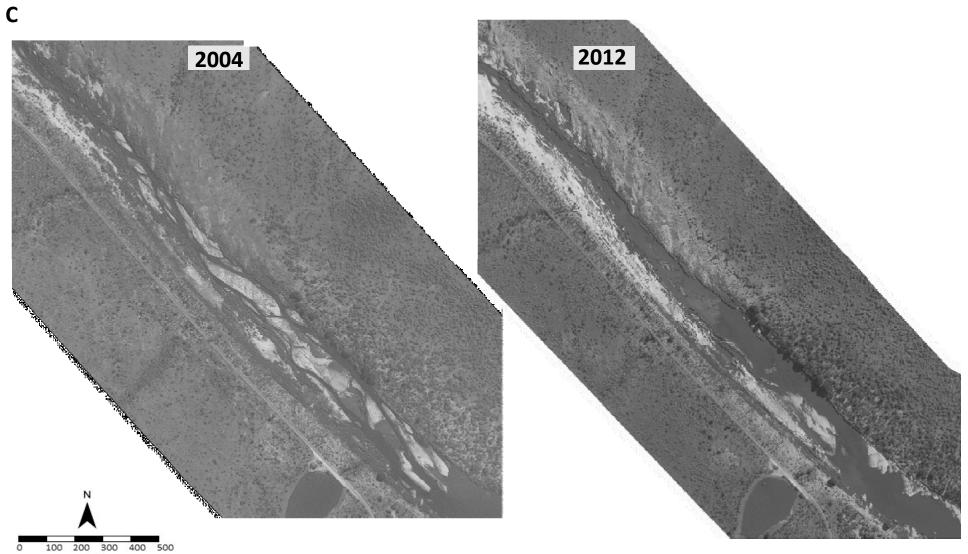








В



m