An overview of the Data for Jooriland[☆]

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Abstract

This article is designed to provide an overview of the data being used to optimise the sampling scheme currently used by the SCA. Current

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Introduction

Water quality sampling is common place and required by law to allow catchment management agentcies to maintain the health of a catchment. It is now well established that Australian streams have the highest levels of nutrient exports during storm events. Due to this relationship, sampling schemes are currently shifting from a monthly sampling basis, to a event-based sampling scheme. The shift has caused a necessary shift in the statistics that are currently used to analyses the data.

The data obtained from the Sydeny Catchment Authority (SCA) has a continuous discharge data set starting early 1960 and ending in 2009. The water quality dataset currently being used was supplied mid 2008. This dataset starts in 1991 and ends in 2008. This dataset is heavily biased with the starting of this dataset, being only collected via routine and flood, samples. This bias leads to the belief that the data in the early part of the data set has missed several key events.

Background

The Sydney Catchment Authority is in charge of the drinking water for the metropolitan area of Sydney. The catchment is a large catchment, that streches from Gouldburn in the South to Bathurst in the North. The catchment is characterized by low lying hills in the south, which is dryer th...

Data Overview

The data collected from the SCA covers a variety of variables. This paper will only cover EC,TP,TN,and NTU variables.

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Statistics	EC	TP	TN	NTU	Discharge
Min	0.02	0.00	0.17	0.54	0.00
Mean	0.29	0.07	0.87	67.43	163.40
Max	0.71	2.28	14.8	1000	2507.99
Median	0.3	0.02	0.60	15.70	42.03
Stdev	0.3	0.15	1.00	140.88	335.10
n	1125	513	523	1314	1375

Simply correlation plots have been created to provide a simple overview between Discharge and each WQ variable.

Current statistics