



Republic of Kenya

Water Resources Management Authority

HYDROLOGICAL YEAR BOOK 2011/2012



OCTOBER 2013

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1. Introduction

- Data collection in Kenya started with the arrival of the White people and was at first concentrated along the Kenya Uganda Railway. This was so especially for the rainfall stations. Later on as the “settlers” started to occupy the White highlands they started to monitor the rivers in those areas. Monitoring stations were also started in major rivers where it was envisioned that there would later be major development of the water resources.
- After the attainment of independence the collection of the water resources data was a mandate of the ministry in charge of water and the weather data collection was under the mandate of Kenya Met Department (KMD). The Ministry of water established some weather stations, especially in areas without for assessment of the water resources.
- As demand for water supplies the water resources monitoring was relegated to the back seat as water provision was given the largest share of the budget.
- WRMA was established after the water sector reforms and mandated to do the water resources management that included the monitoring and assessment. In this case it inherited a deteriorated water resources network that had been reduced from about 1000 stations to less than 200. Besides the reduction in numbers, the data had many gaps where it was being monitored or none at all.
- WRMA commenced with the rehabilitation of the network and procurement of the water resources monitoring equipment and tools for data management. This was after the development of the Catchment Management Strategies (CMS) for the six catchments as required by the Water Act 2002. In this regard prioritisation of the monitoring stations was done so as to arrive at an optimal number. In this regard, the equipment included water quality, groundwater and river flow monitoring equipment.

○

The Water Act 2002 requires that WRMA puts in place national monitoring and information systems on water resources. The systems should provide for-

- The collection and management of data and information regarding water resources and their management; and
- Procedures for gathering data and the analysis and dissemination of information on water resources.
- To be able to utilize data efficiently it is crucial that they are stored in a uniform manner, in proper format, which makes it easy to use them with hydrological analysis and modelling software
- Procurement of MIKE BASIN and TAE and migration of existing data into the Temporal Analyst Enterprise, which is described in more details in chapter.
- In order to use the data for management of the water resources, it is a precondition to know what data are presently available

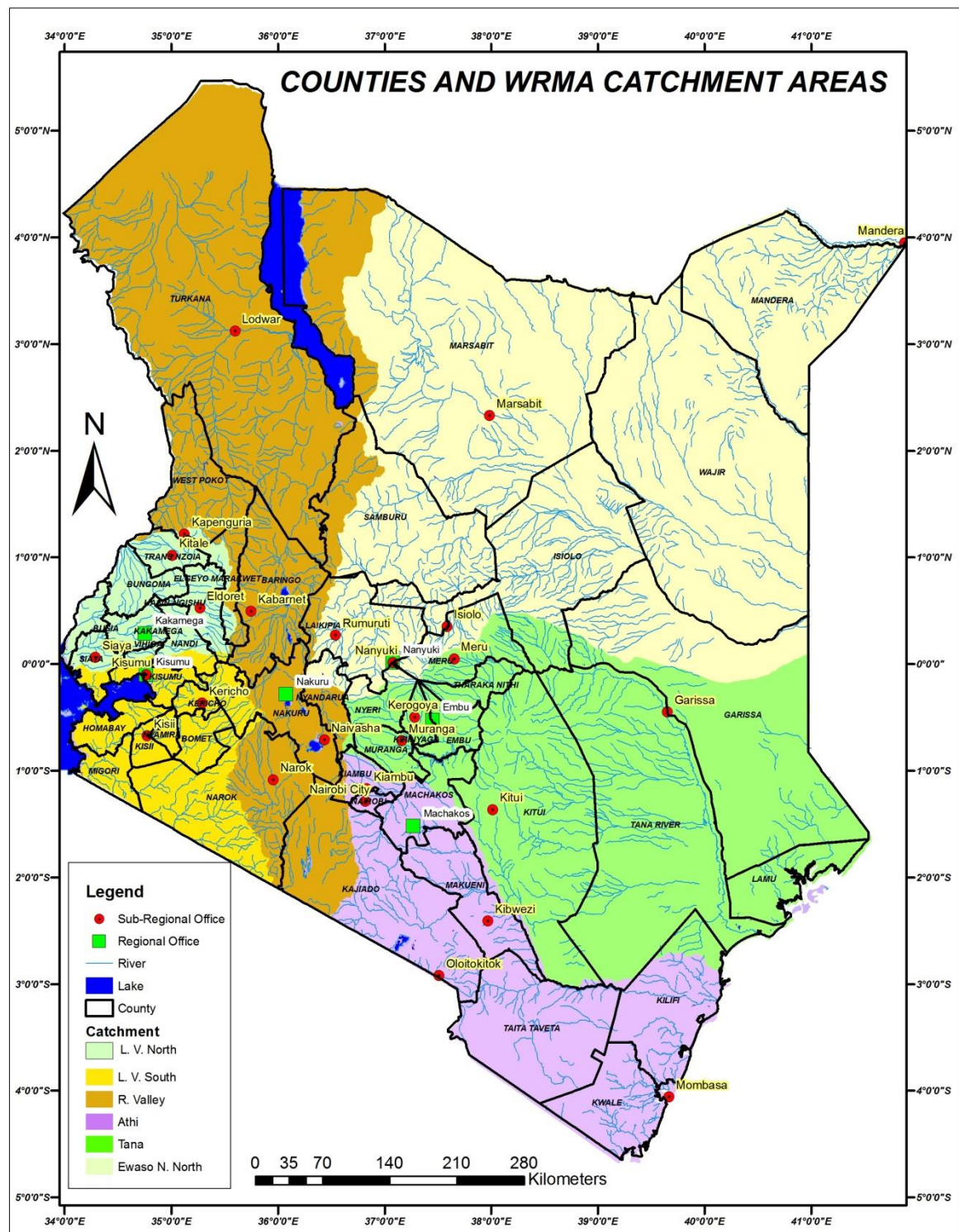


Fig.1.a The above map shows the 6 catchment areas, regional offices, sub-regional offices and the counties

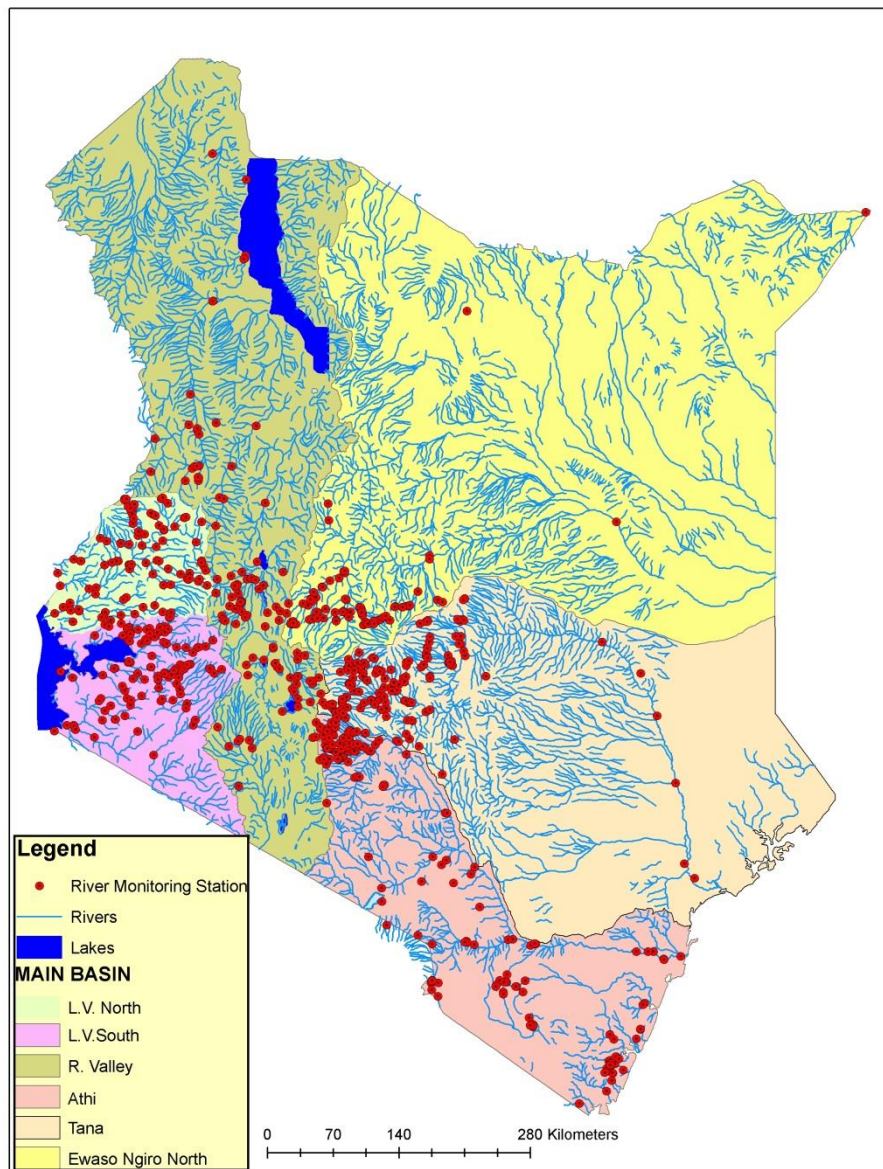


Fig.1.b River Monitoring Stations in Kenya

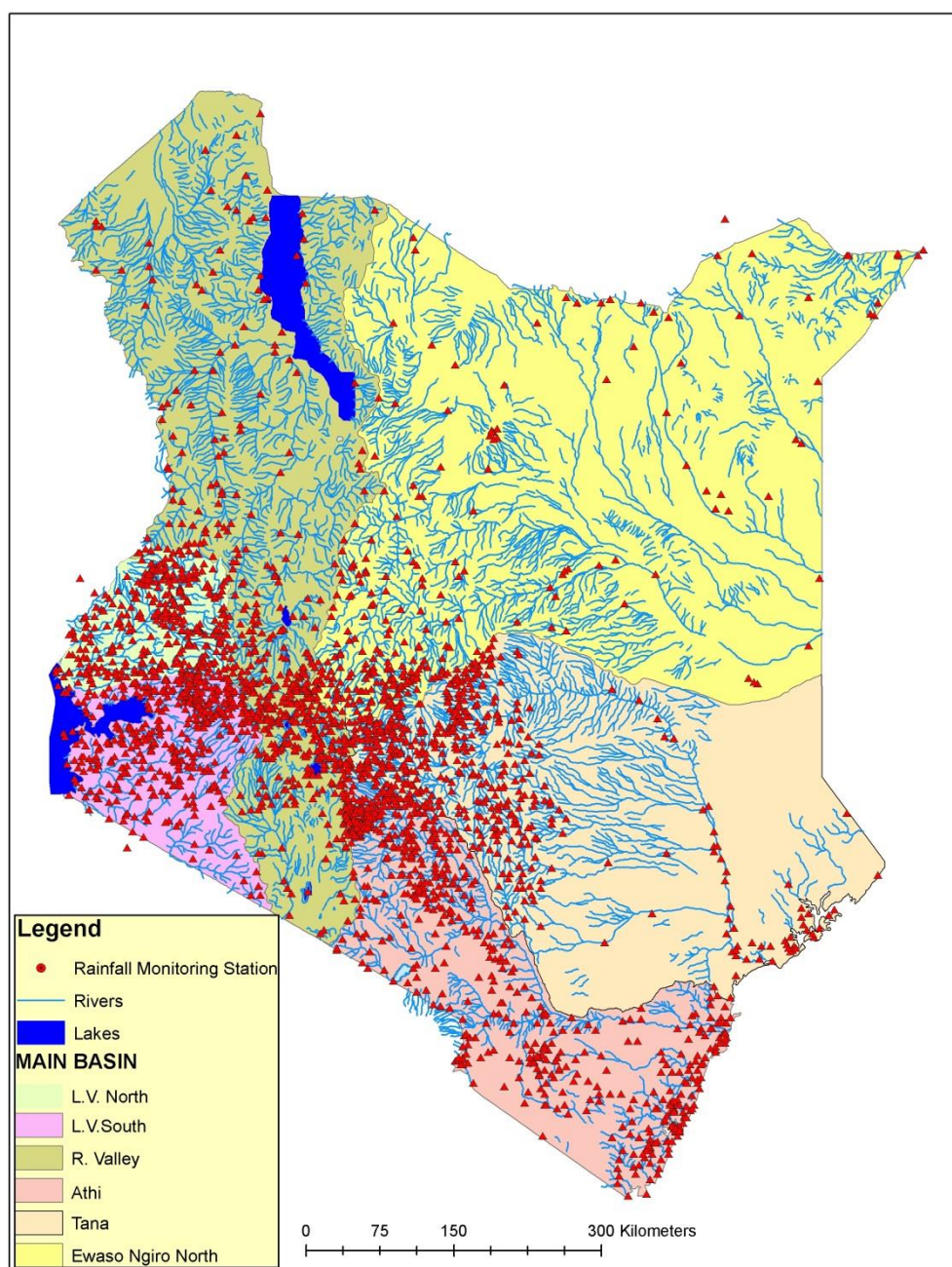


Fig. 1.c Rainfall monitoring stations

1.1 Objective of this report

- Provide an overview of the national availability of hydrometric and hydro-meteorological data
- To make selected plots of some of the key data in order to provide an initial idea of the data and their quality

In order to use the data for management of the water resources, it is a precondition to know which data are available and the quality of these data. It is hoped that the report will provide a good basis for the future collection, checking, processing and application of the data

1.2 Types of data

The available data comes from a number of different sources, including the NAWARD database, from which the majority of the historical data originates. This has been further updated by WRMA. The table below shows the type of data that is available at the various regional data centres (regional offices).

- Water levels
- Measured discharges
- Weather
- Water quality
- Groundwater levels

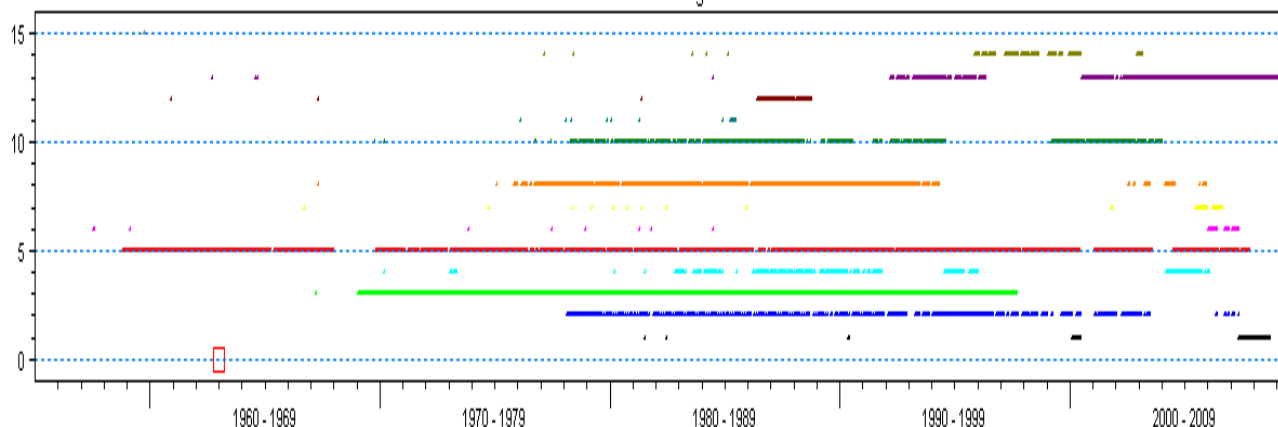
The following is the information from each of the six catchment areas. The information is in the form of data coverage from selected river, rainfall, groundwater and water quality stations.

2. Lake Victoria North Catchment Area

2.1.1 Data coverage for river monitoring stations

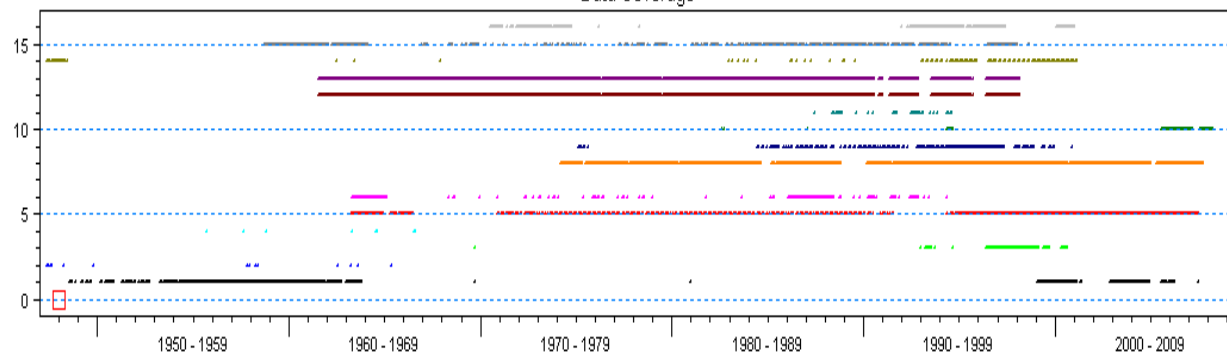
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 TSID 1100000977 - 1BG07 RONGAI DISCHARGE
 TSID 1100000976 - 1CA02 SERGOIT DISCHARGE
 TSID 1100001022 - 1CB01-DISCHARGE-SOSIANI

Data Coverage



TSID 1100000975 - 1CE01 KIPKAREN DISCHARGE
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 TSID 1100000985 - 1FG03 YALA DISCHARGE

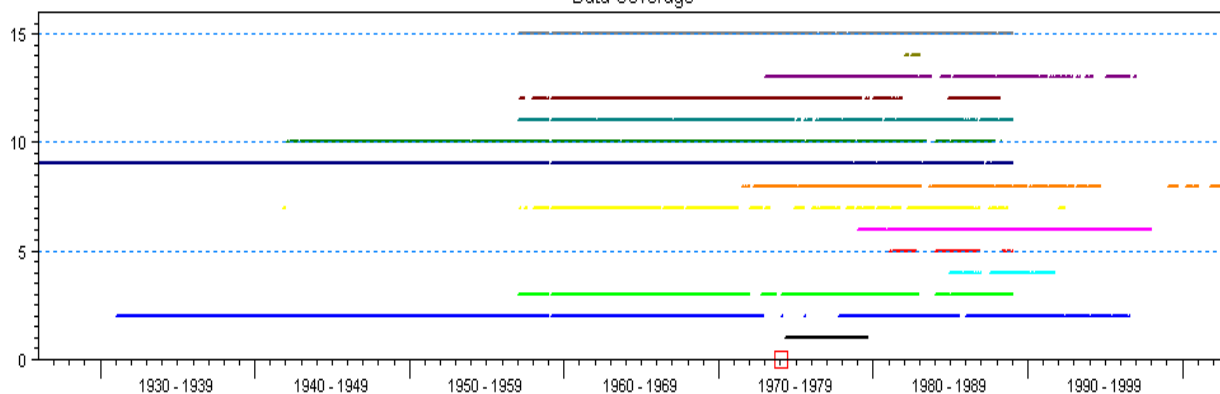
Data Coverage



2.1.2 Data coverage for the rainfall monitoring stations in L. V. South and North Catchment Areas

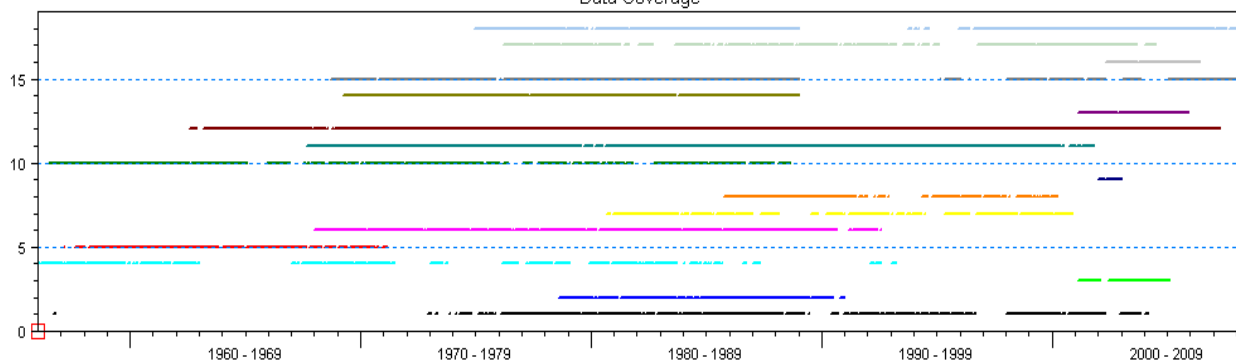
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 TSID 1100000396 - 8834009 ELGON DOWNS MANAGEMENT SERVICE - Rainfall
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Data Coverage



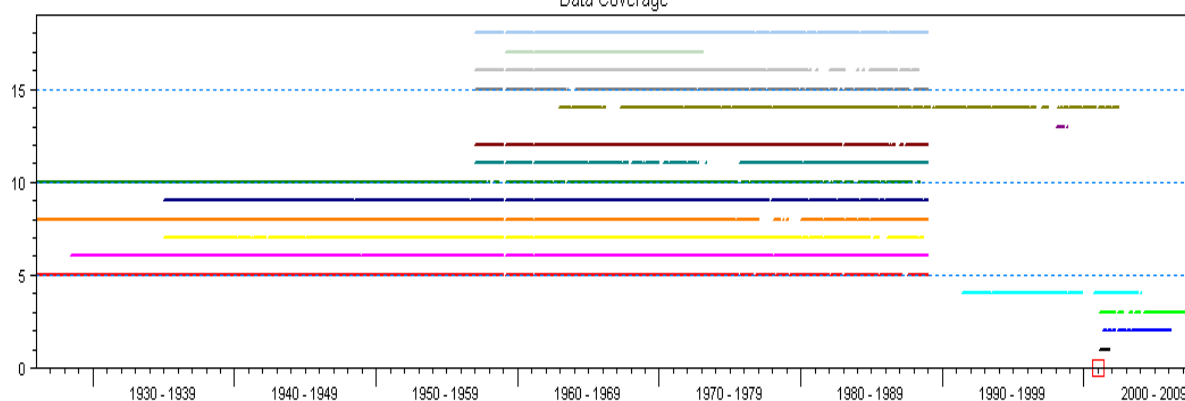
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Data Coverage



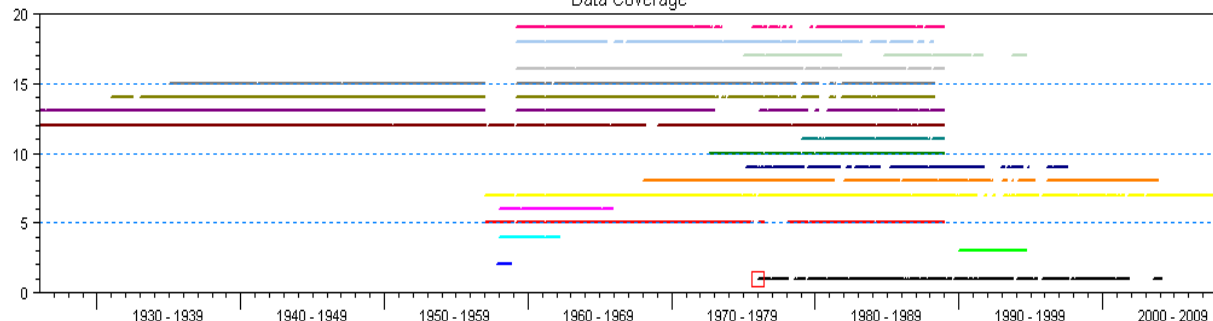
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Data Coverage



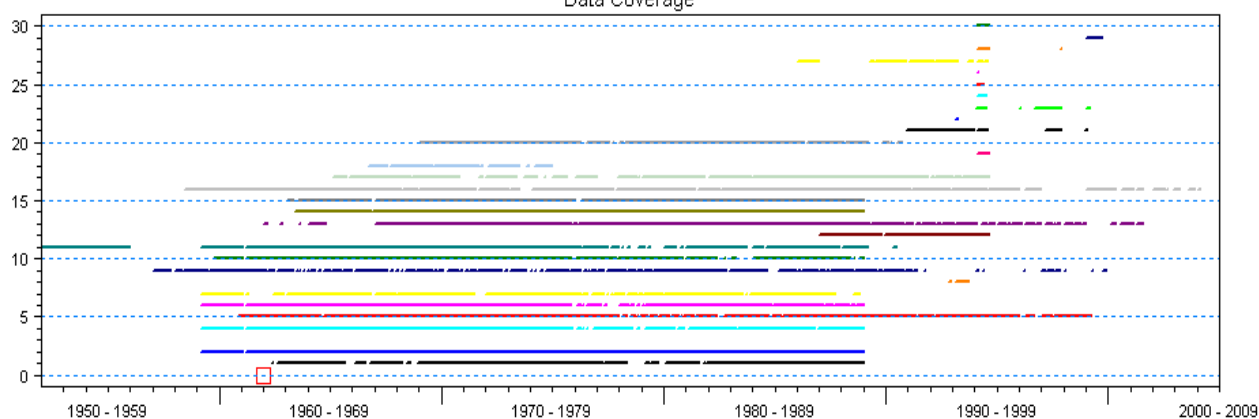
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Data Coverage



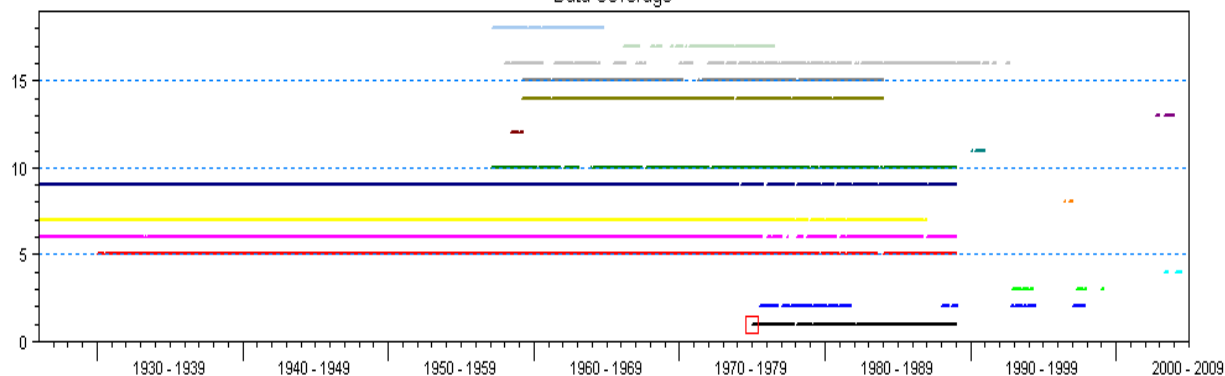
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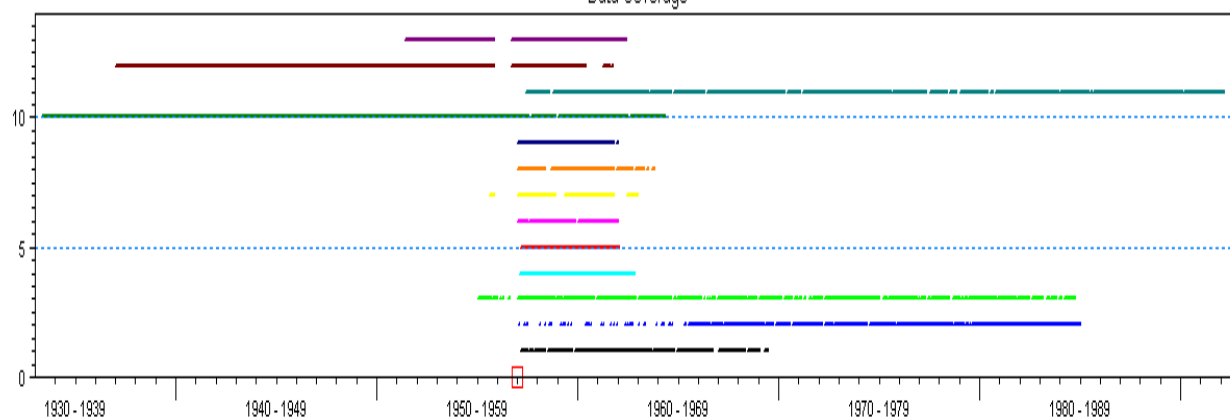
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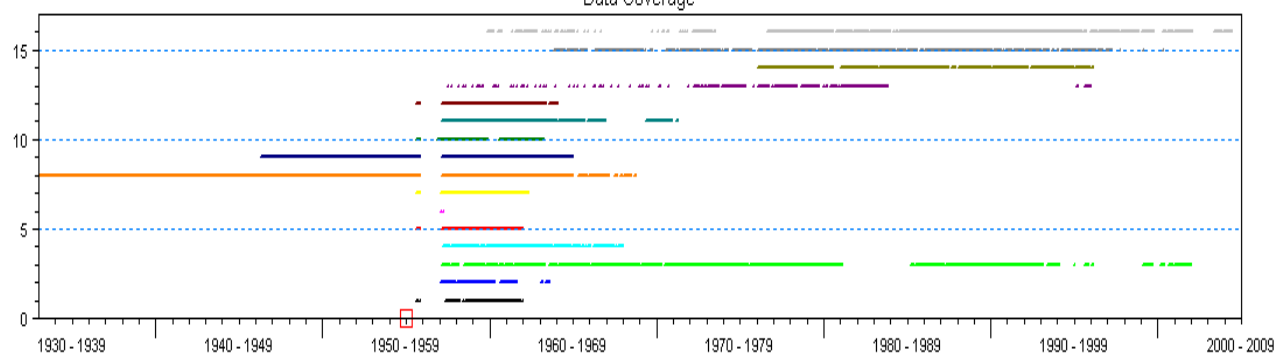
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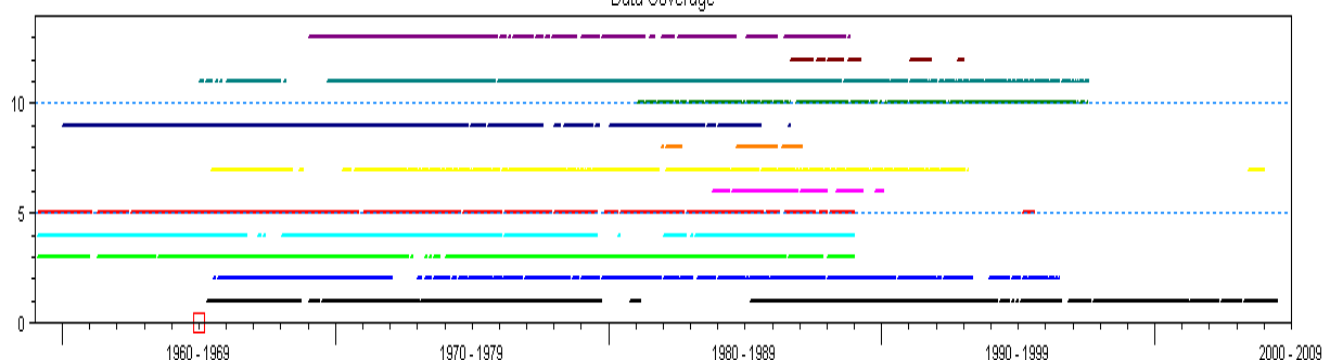
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Data Coverage

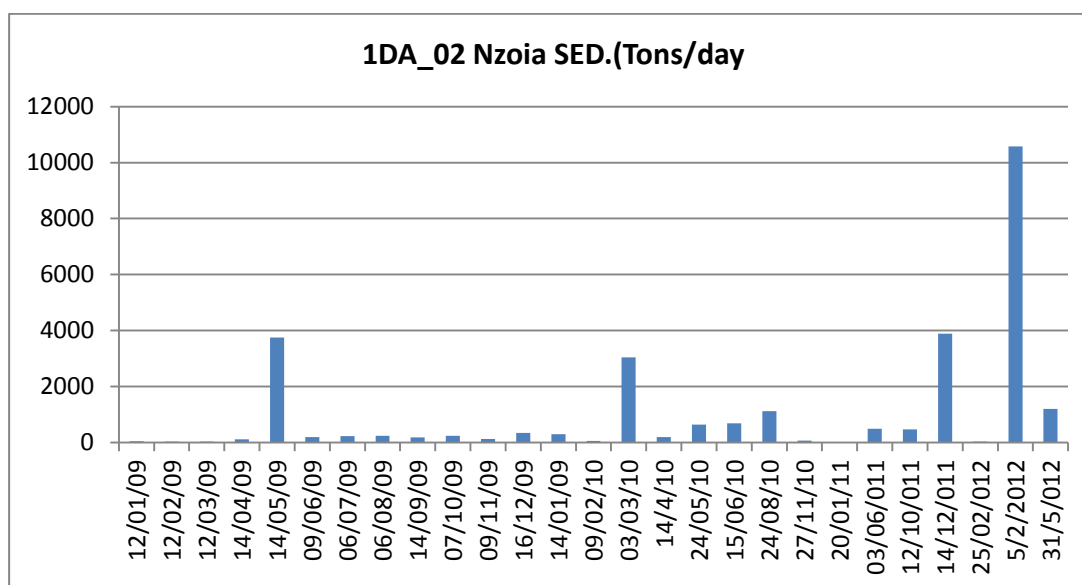
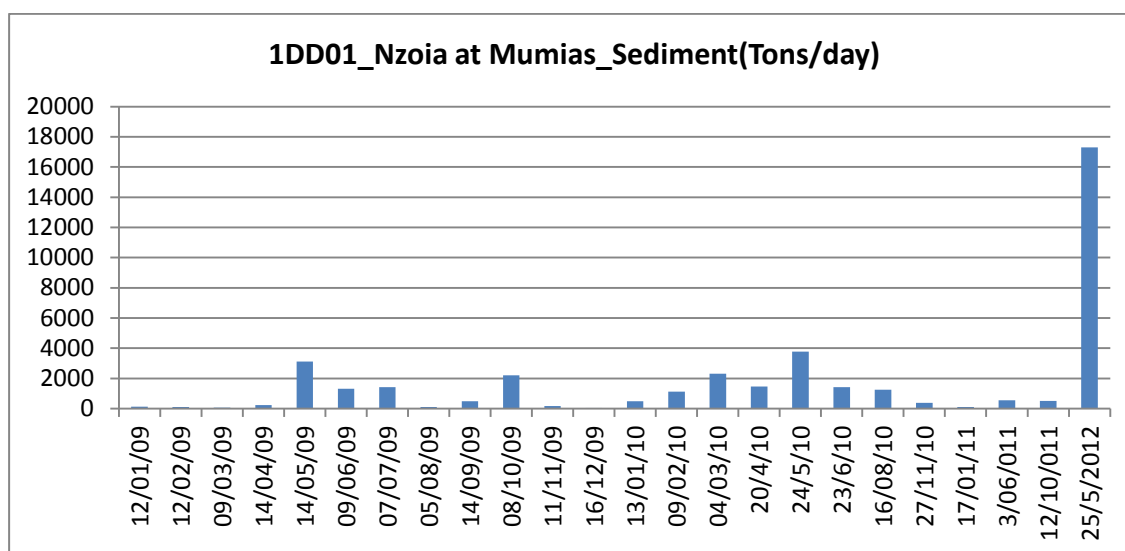


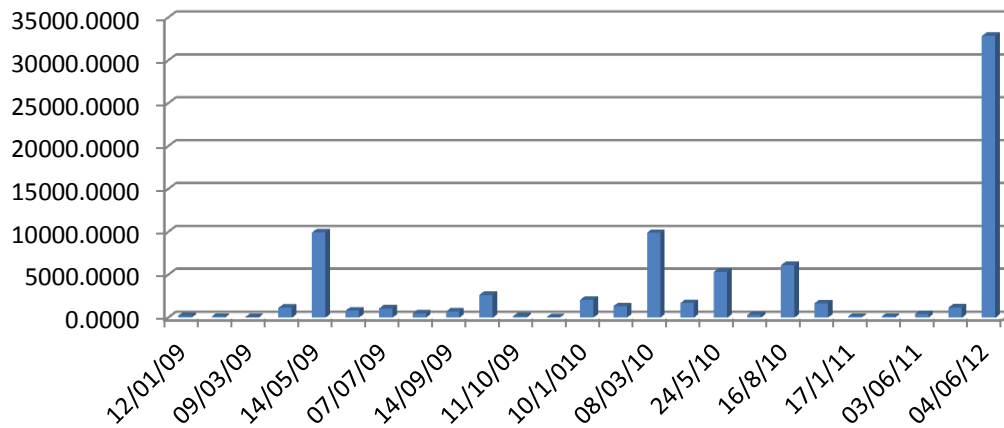
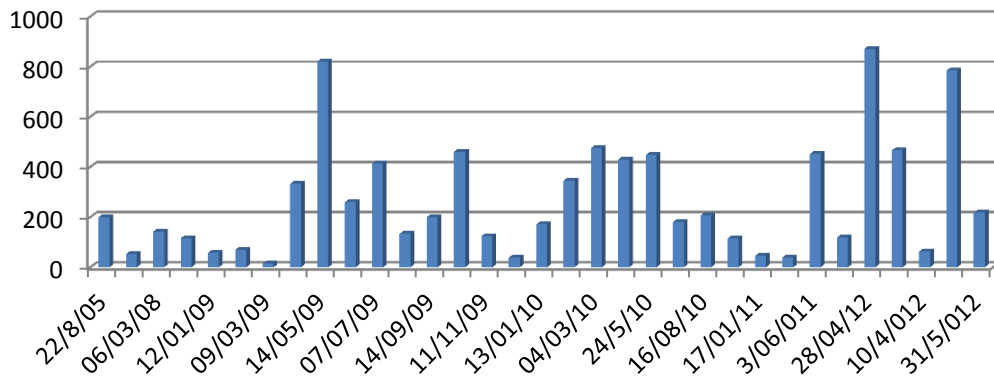
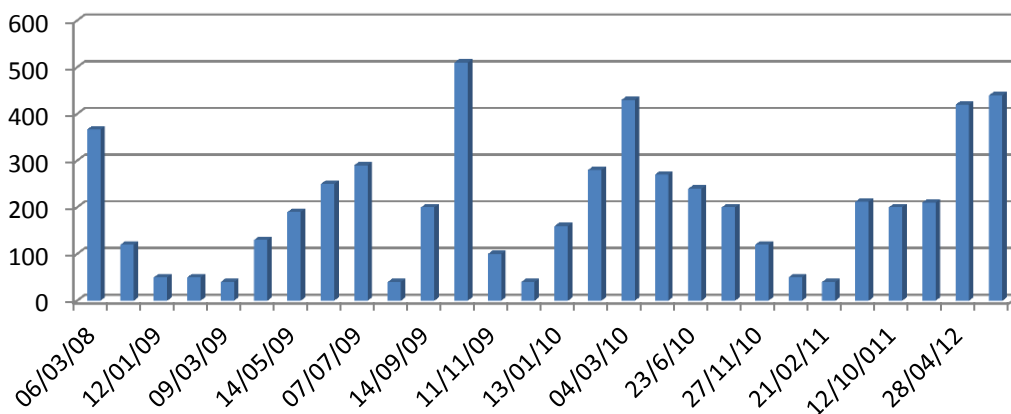
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Data Coverage

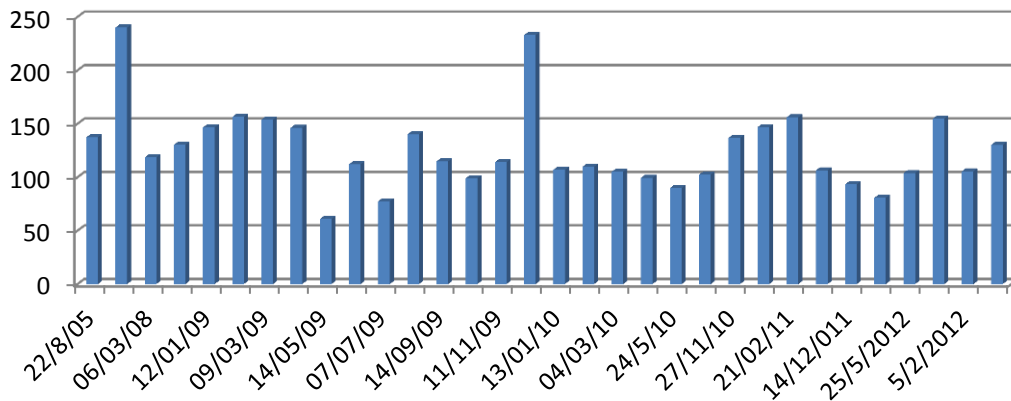


2.1.3 Water Quality Data from River Monitoring Stations in L. V. South Catchment Area

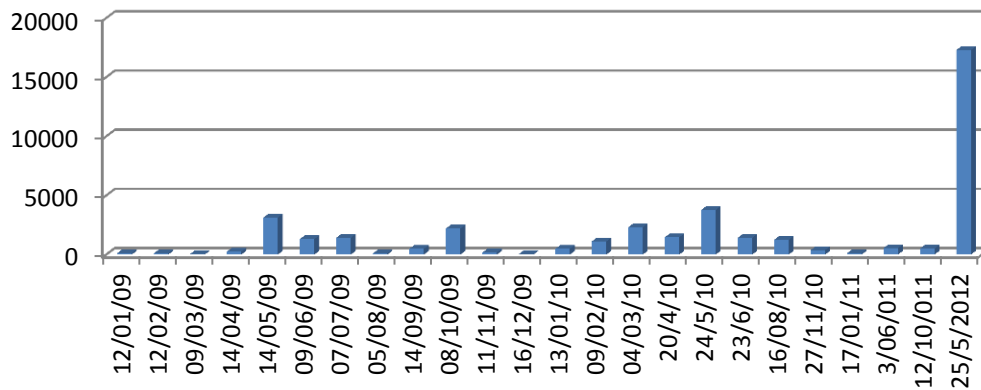


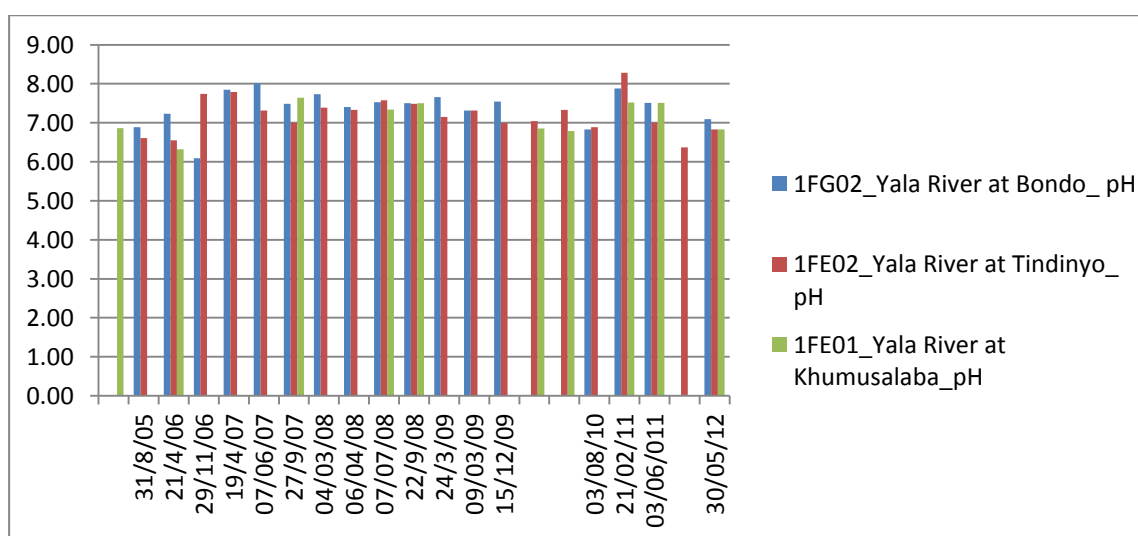
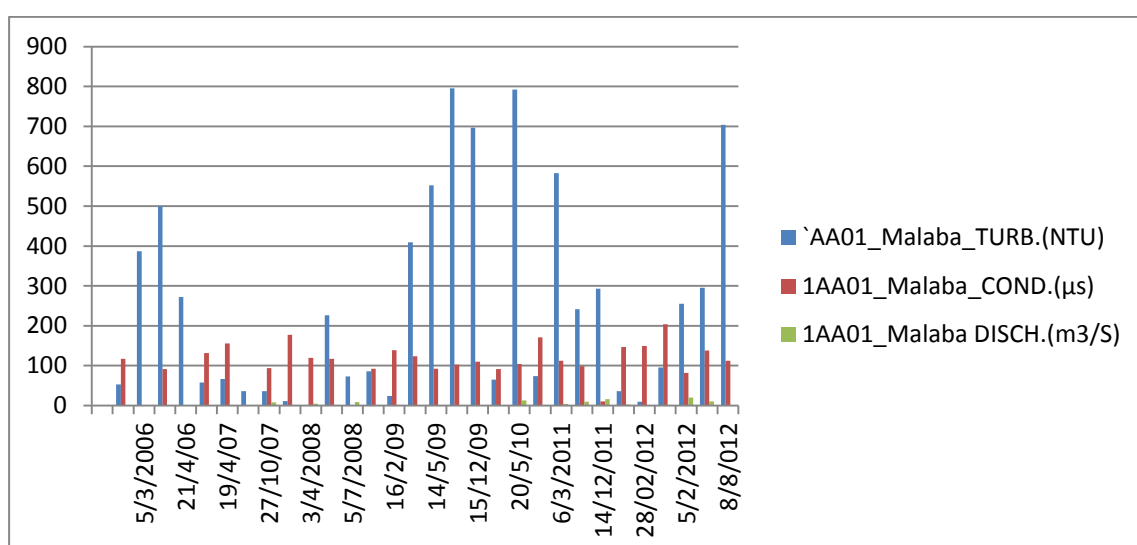
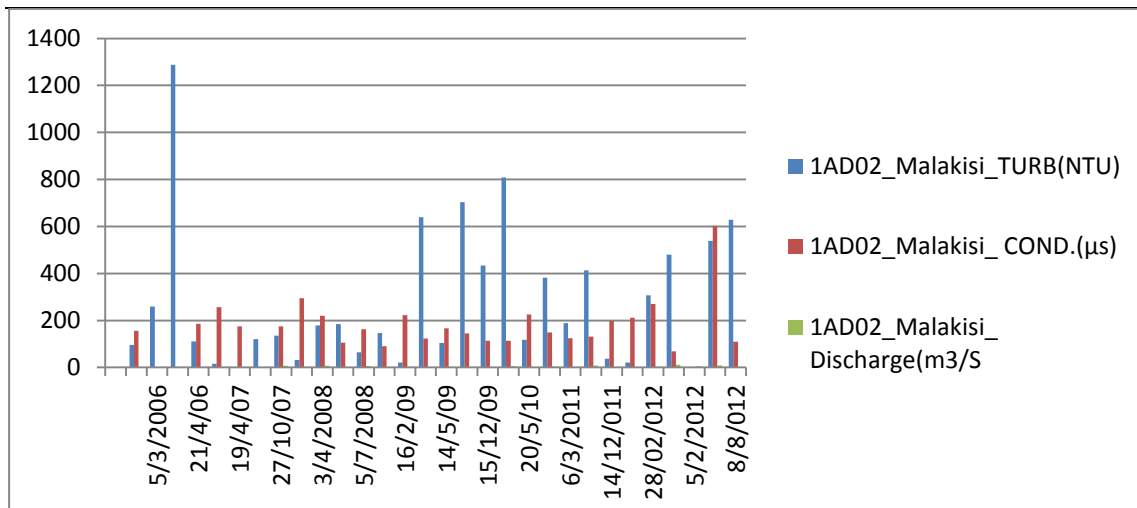
1EF01_Nzoia at Ruambwa SED. TONS/DAY

1DD01_Nzoia at Mumias_Turbidity(NTU)

1DD01_Nzoia at Mumias_Total Suspended solids (mg/l)


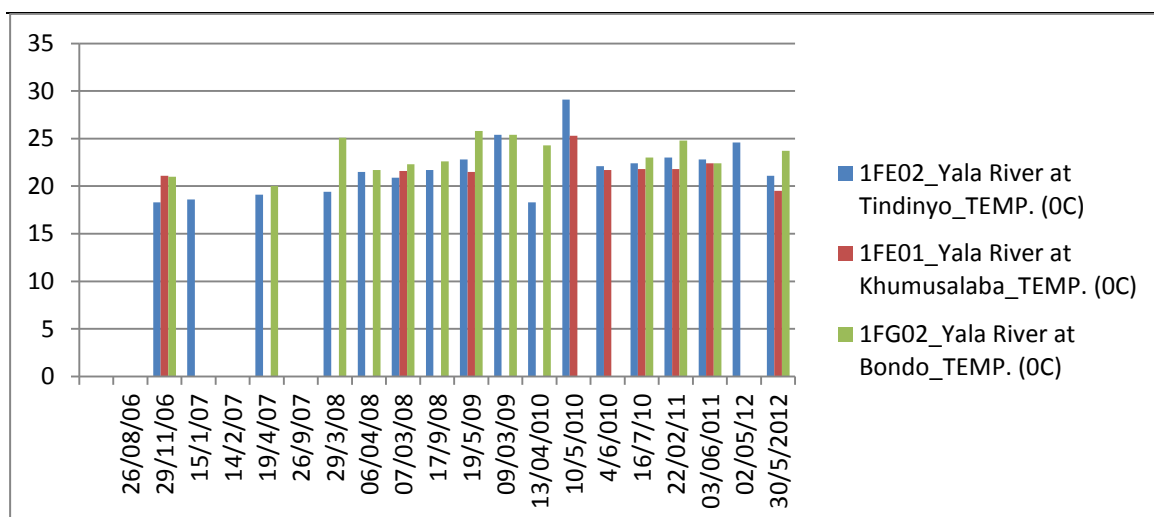
1DD01_Nzoia at Mumias_ Electrical Conductivity.(μs)

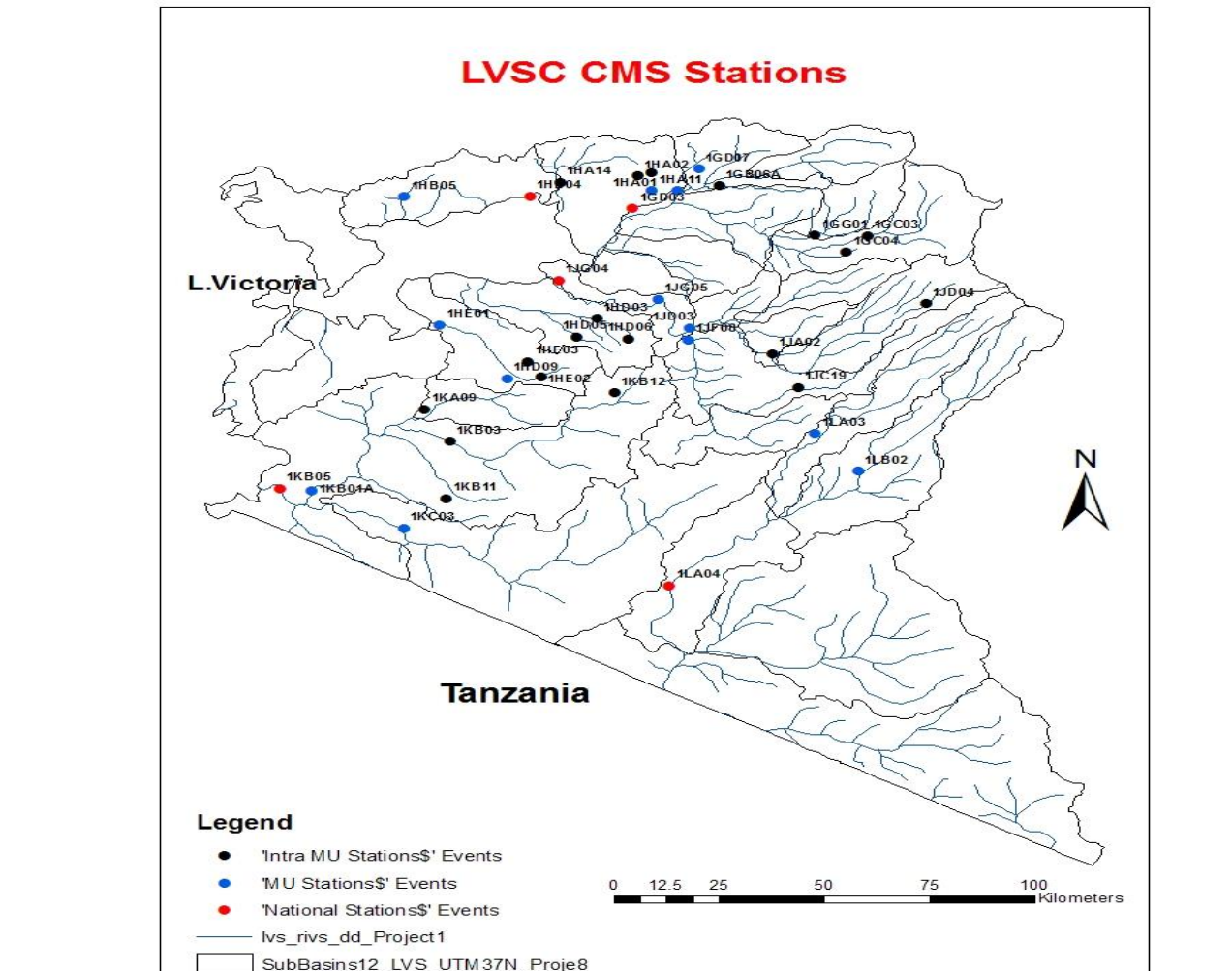


1DD01_Nzoia at Mumias_Sediment(Tons/day)



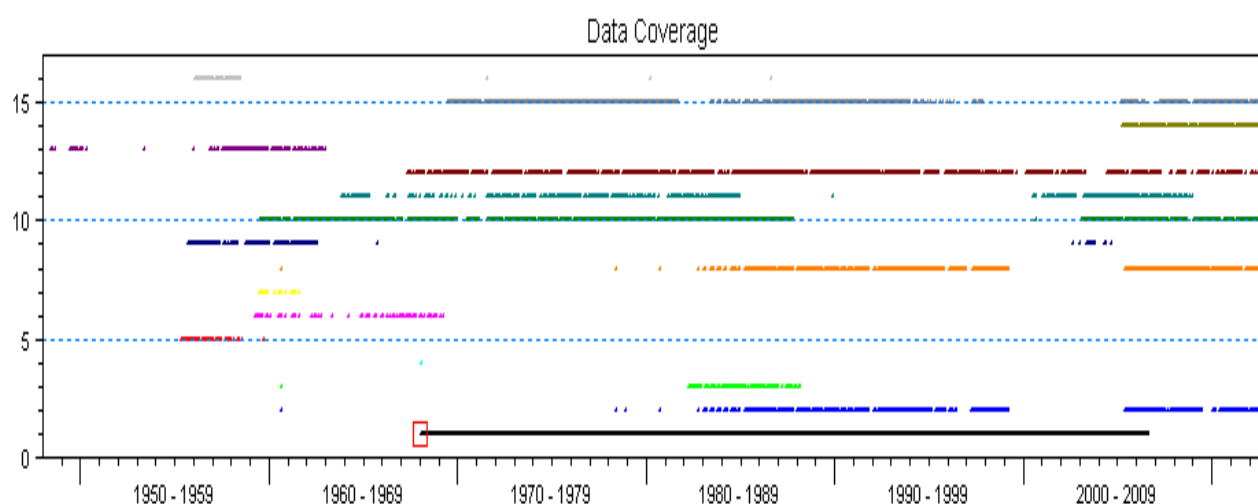






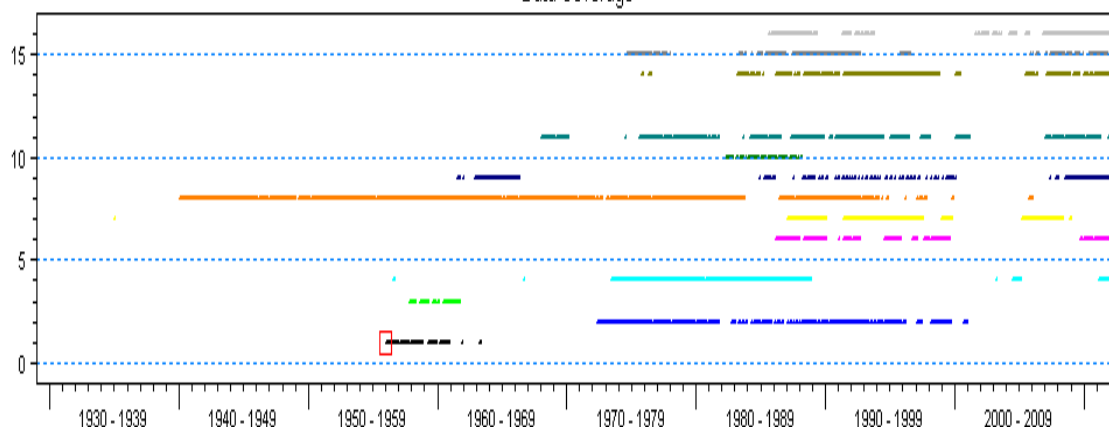
3.1 Data coverage for river monitoring stations

TSID 1200001247 - 1GB03-Ainamutua-Res	—
TSID 1200001314 - 1GB05-AINAMUTUA	—
TSID 1200001215 - 1GB06-Mbogo	—
TSID 1200001213 - 1GB07-Kapchure	—
TSID 1200001221 - 1GB08-Ainamutua	—
TSID 1200001252 - 1GB09-Ainamutua-Res	—
TSID 1200001220 - 1GB10-Kapchure	—
TSID 1200001217 - 1GB11-Ainapisiwa	—
TSID 1200001178 - 1GC03-Nyando	—
TSID 1200001209 - 1GC04-Tugenon	—
TSID 1200001207 - 1GC05-Masaita	—
TSID 1200001208 - 1GC06-Nyando	—
TSID 1200001223 - 1GD01-Nyando	—
TSID 1200001177 - 1GD02-Nyando	—
TSID 1200001179 - 1GD03-NYANDO	—
TSID 1200001222 - 1GD04-Nyando	—



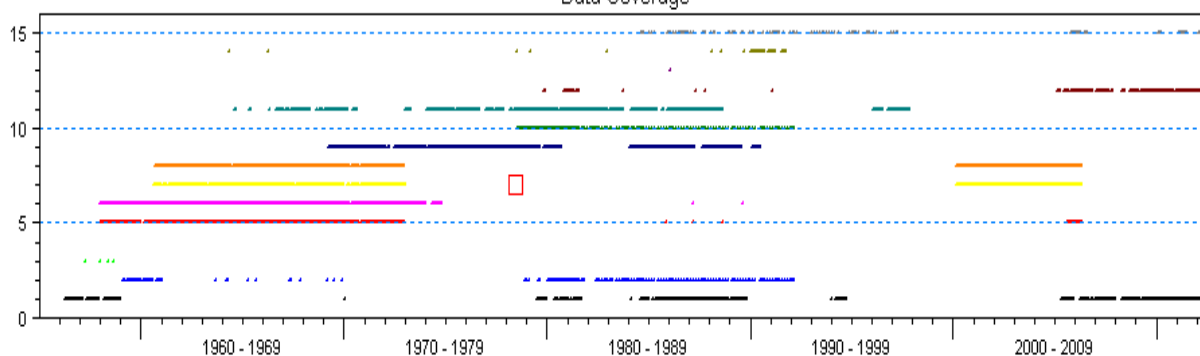
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 TSID 1200001178 - 1G007-NYANDO
 TSID 1200001210 - 1G001-Cherongit
 TSID 1200001212 - 1G001-Namuting
 TSID 1200001211 - 1G002-Namuting
 TSID 1200001180 - 1HA01-GREAT OROBA
 TSID 1200001181 - 1HA02-Little Oroba
 TSID 1200001225 - 1HA04-Kibos
 TSID 1200001182 - 1HA14-AWACH
 TSID 1200001175 - 1HB06-Mbogo
 TSID 1200001281 - 1HD03-Awach Kabondo
 TSID 1200001279 - 1HD04-Awach Kibuo
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 TSID 1200001278 - 1HD06-Eaka Kioge
 TSID 1200001190 - 1HE01-Awach Tende
 TSID 1200001282 - 1HE02

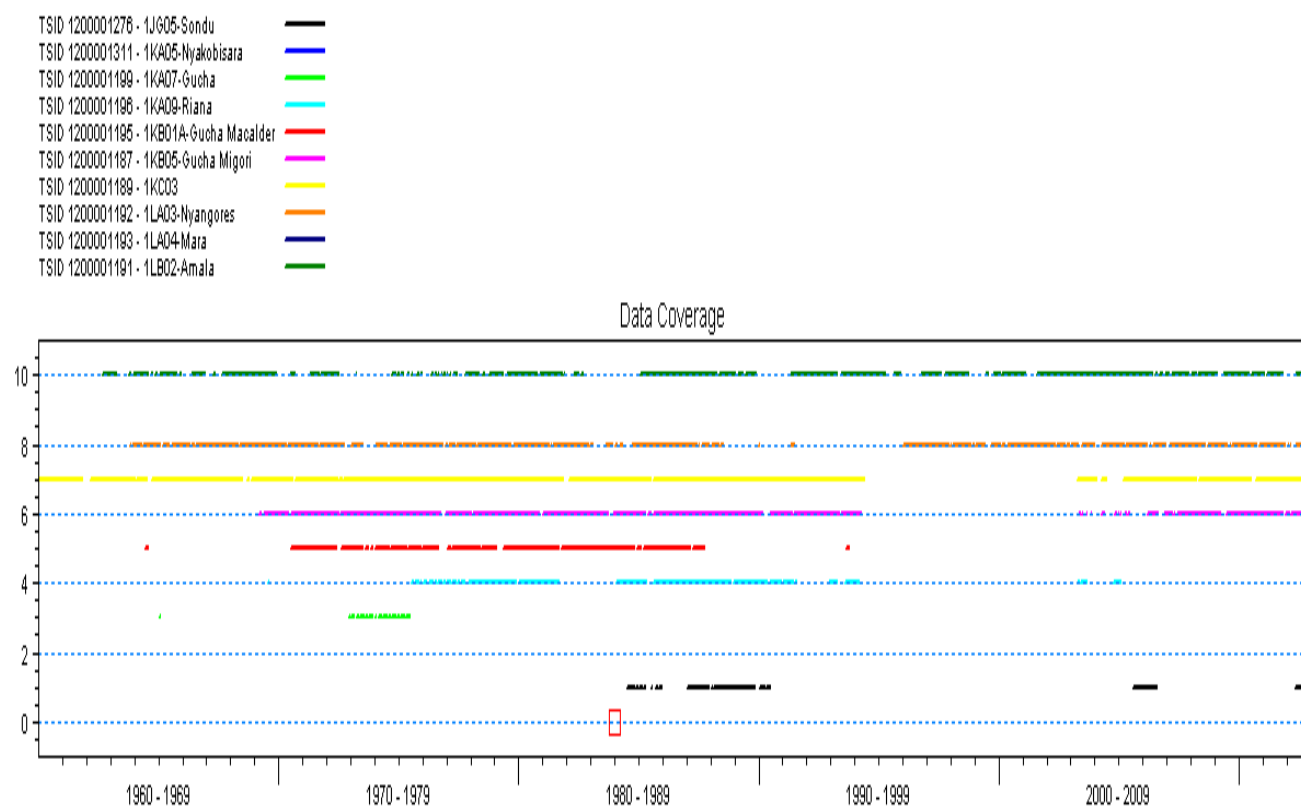
Data Coverage



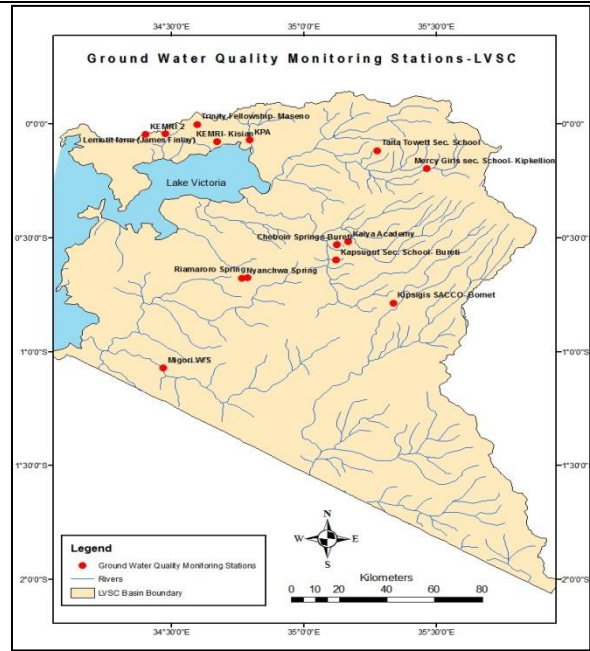
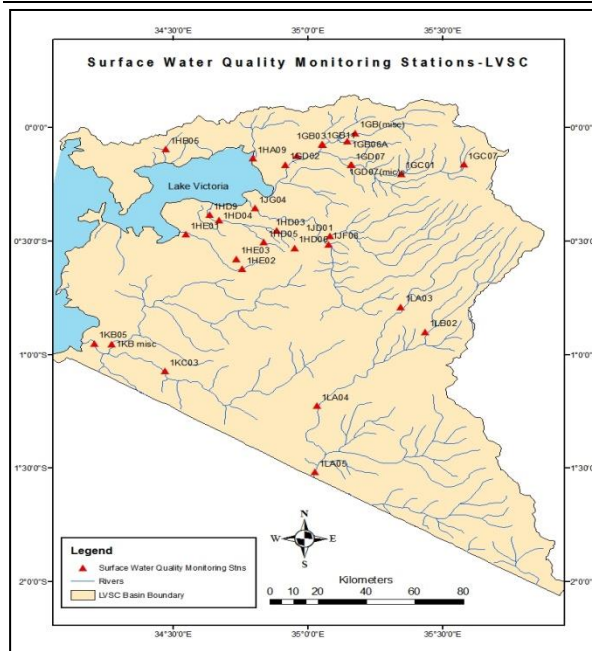
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 TSID 1200001302 - 1JA05-Ndoinet
 TSID 1200001303 - 1JB03-Itare
 TSID 1200001304 - 1JB05-Itare
 TSID 1200001299 - 1JC13-Sambret
 TSID 1200001297 - 1JC14-Lagan
 TSID 1200001298 - 1JC15-Sambret
 TSID 1200001300 - 1JC16-Sambret
 TSID 1200001186 - 1JD03-Yurith
 TSID 1200001294 - 1JF04-Kipsonoi
 TSID 1200001293 - 1JF06-Kipsonoi
 TSID 1200001306 - 1JF07-Kipsonoi Kapsimbiri
 TSID 1200001204 - 1JF08-Kipsonoi
 TSID 1200001296 - 1JG01-Sondu
 TSID 1200001277 - 1JG04-Sondu Miriu

Data Coverage

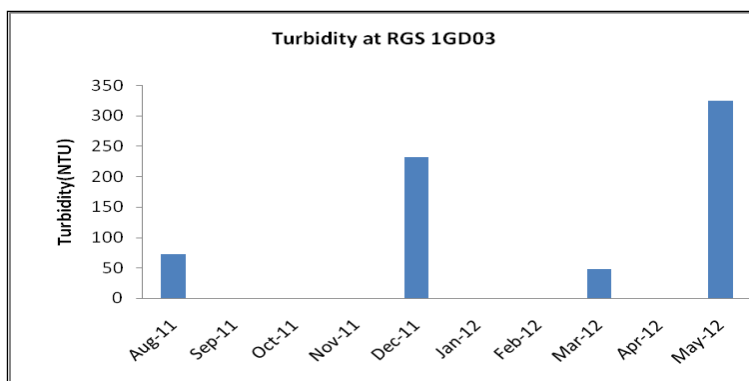
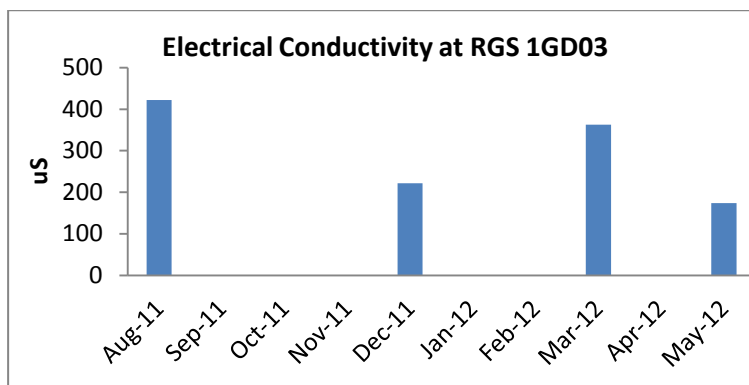


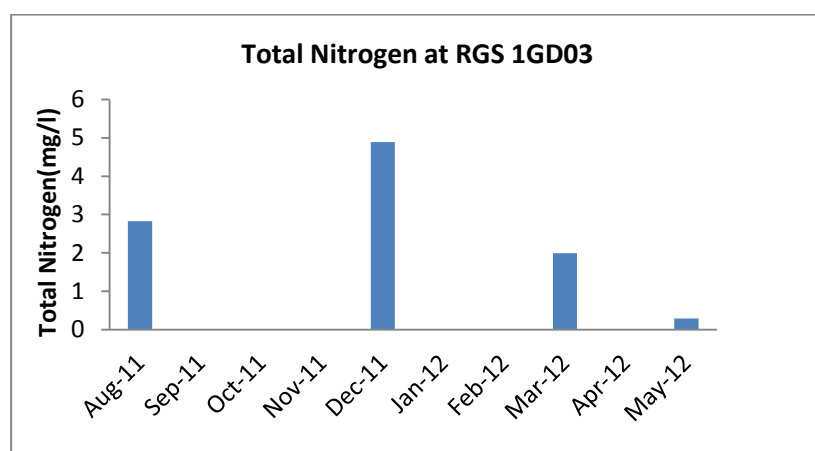
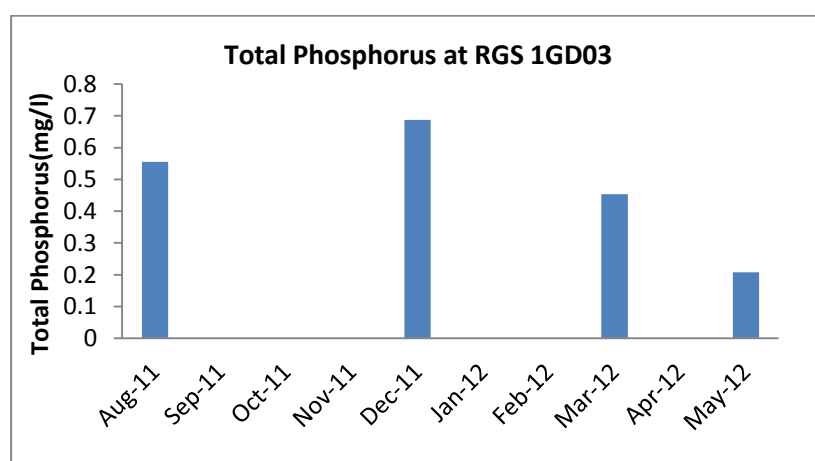
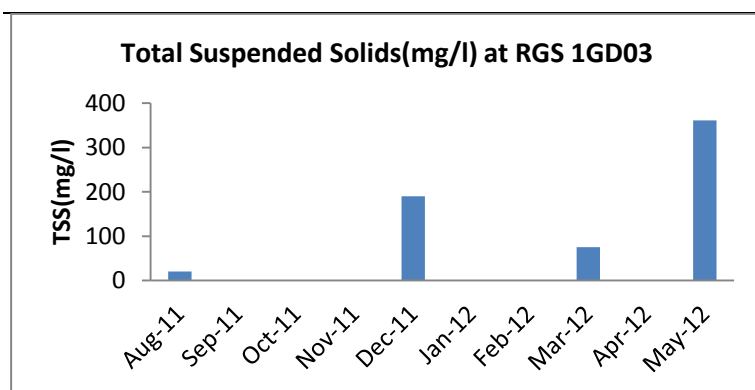


3.2 Water Quality at National River Gauging Stations

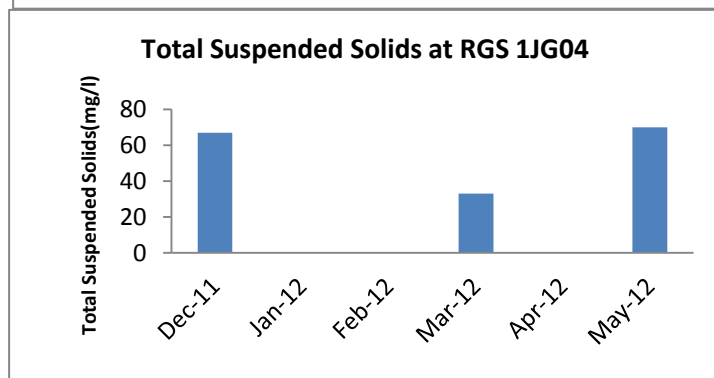
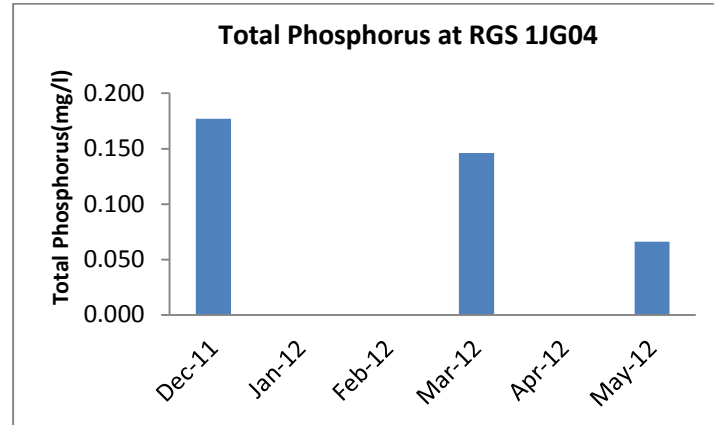
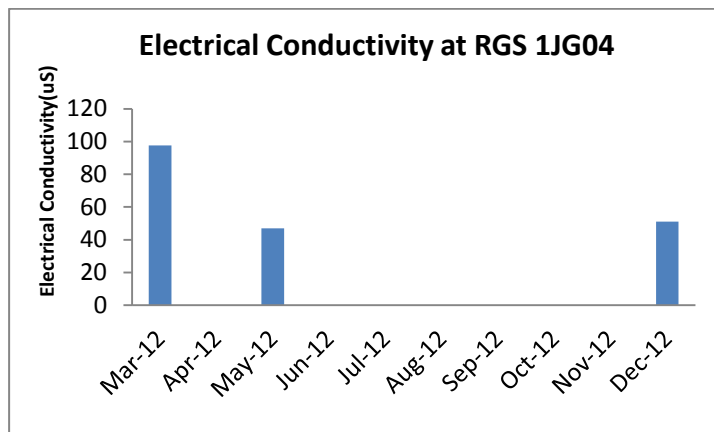
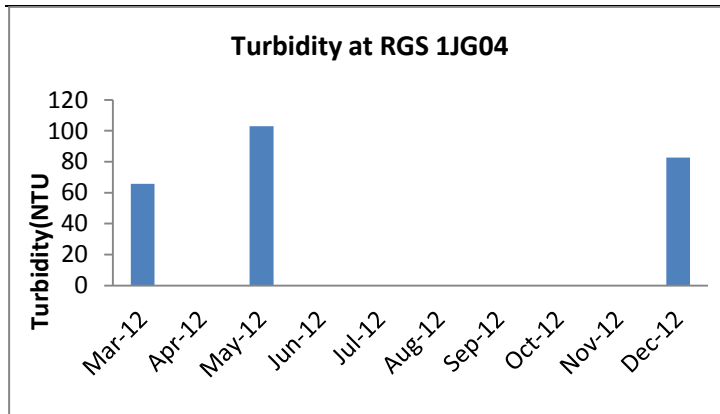


1. RGS 1GD03 Nyando River

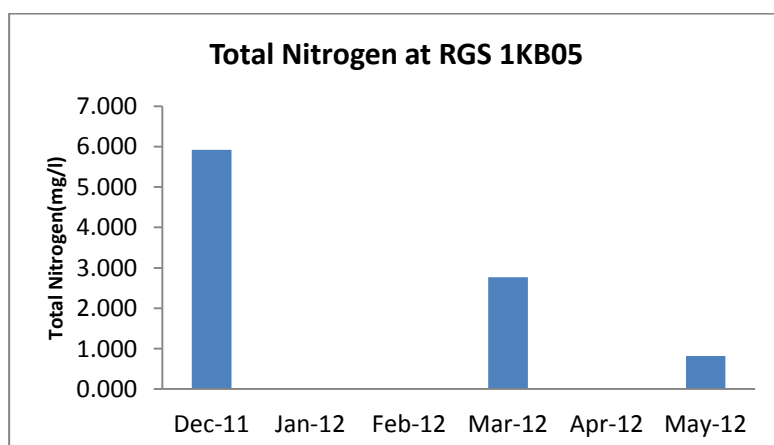
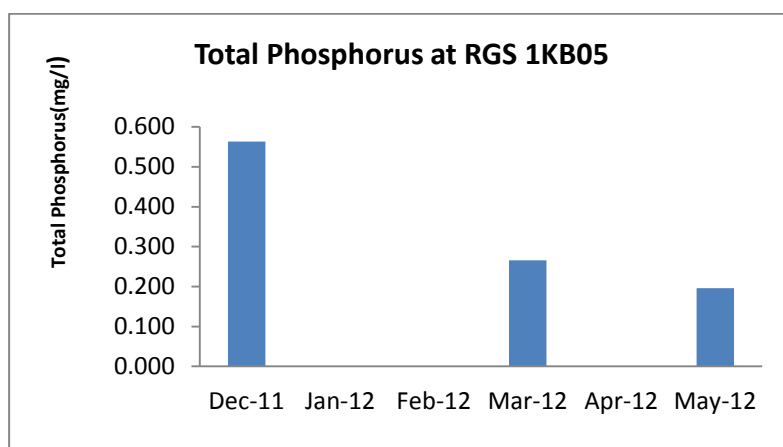
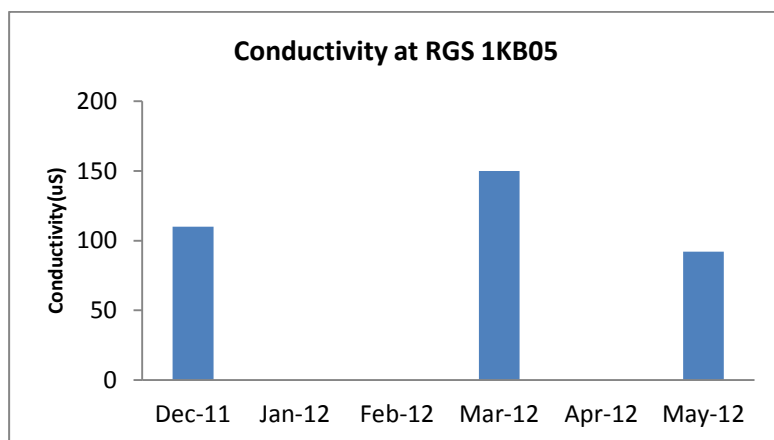


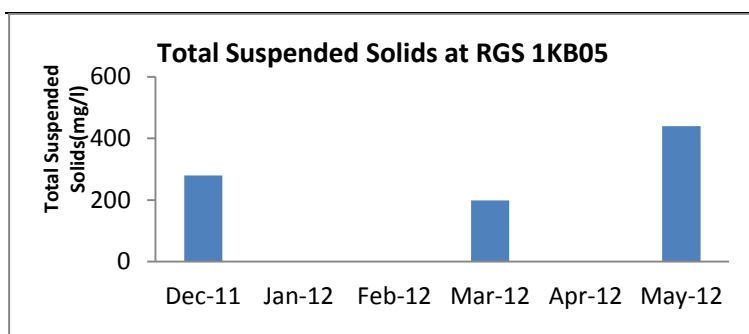


2. RGS 1JG04 Sondu Miriu

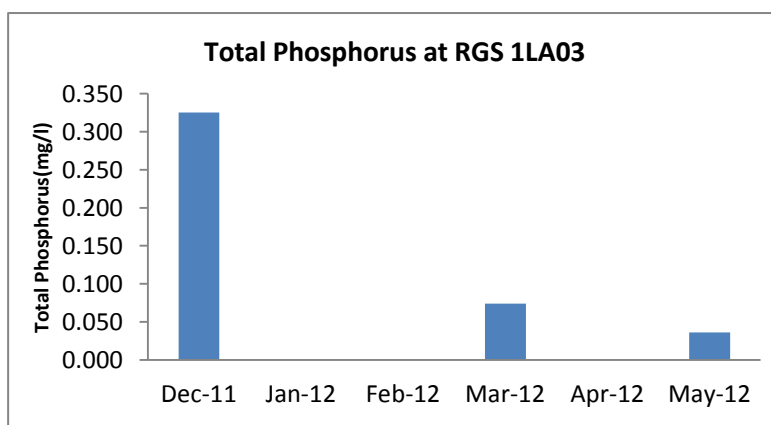
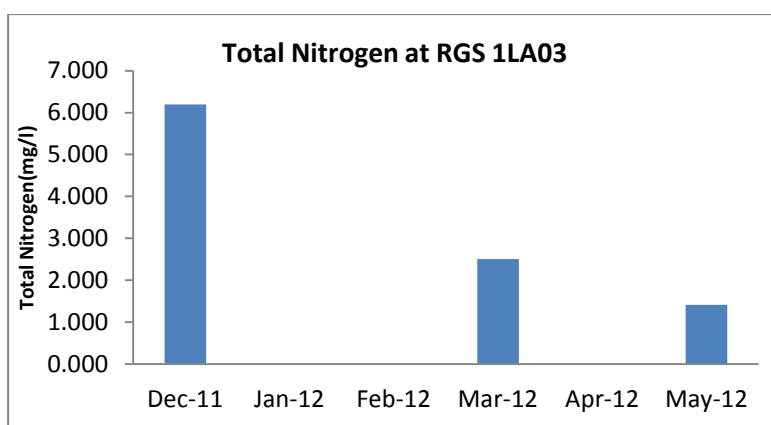
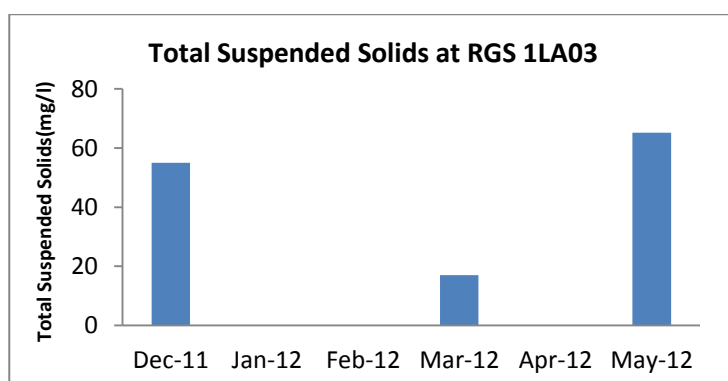


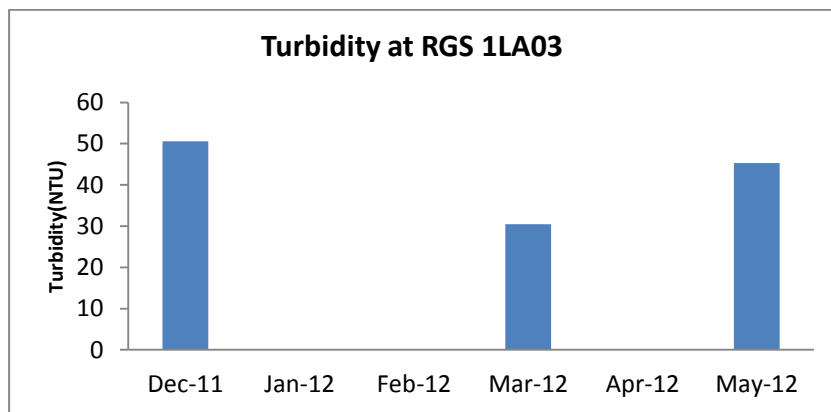
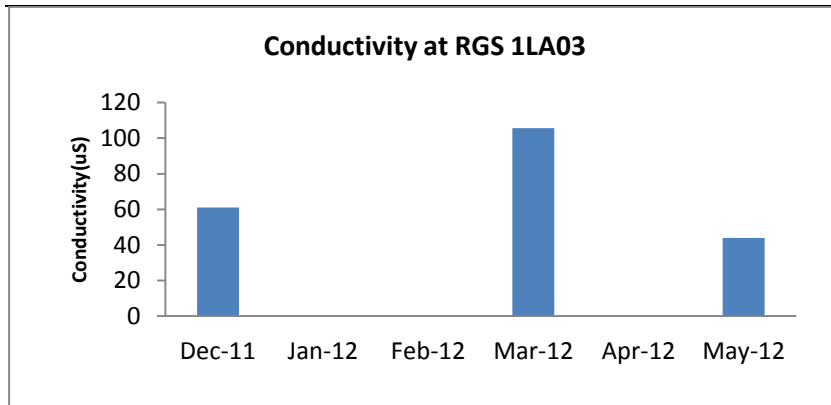
3. RGS 1KB05 Gucha Migori



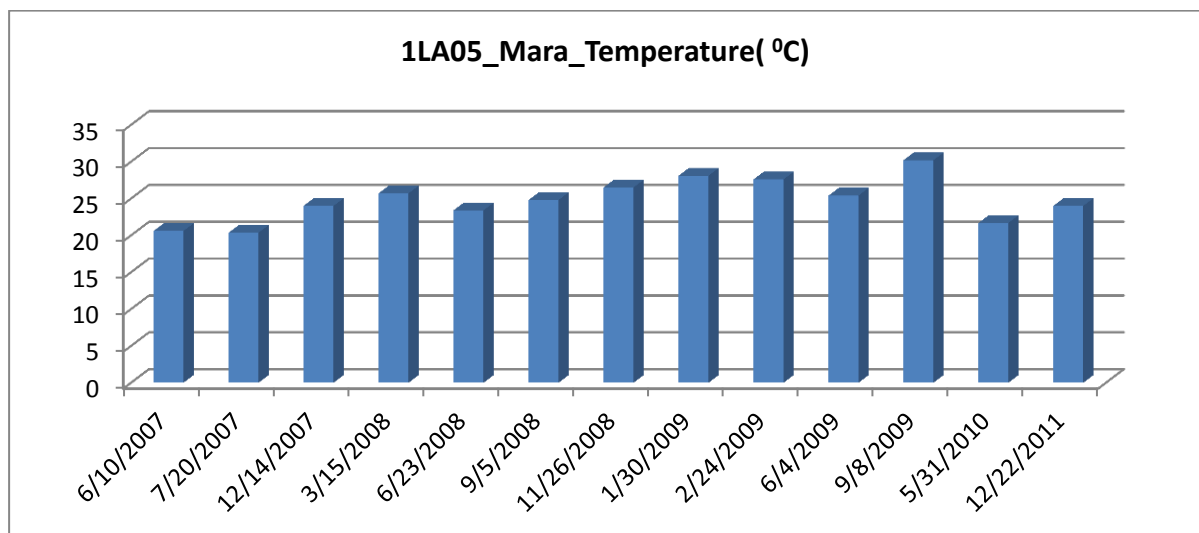


4. RGS 1LA03 Nyangores River

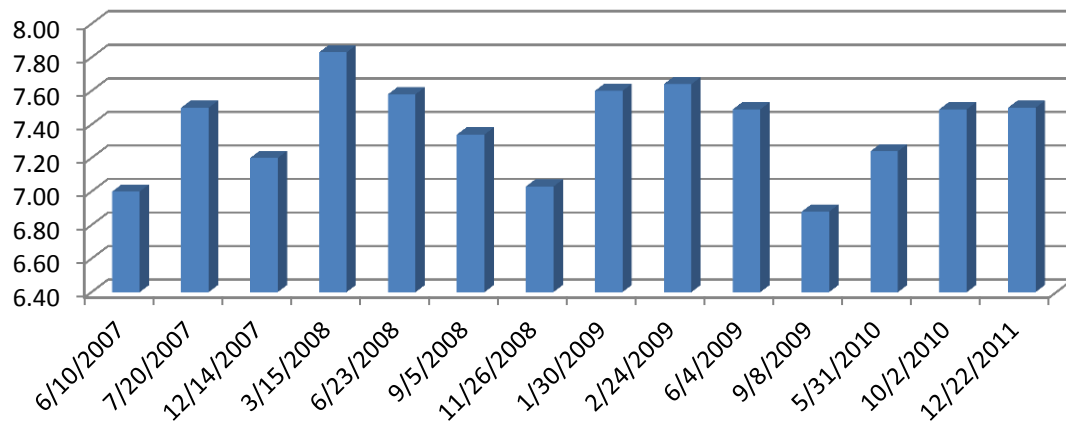




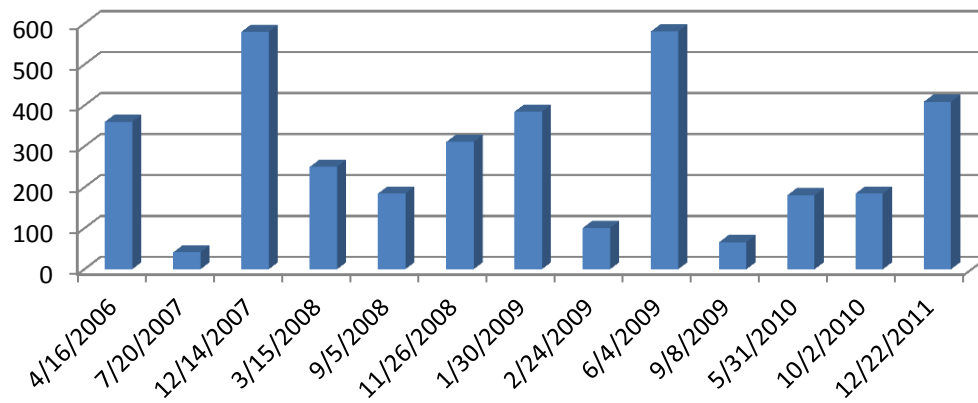
5. RGS 1LA05 Mara River



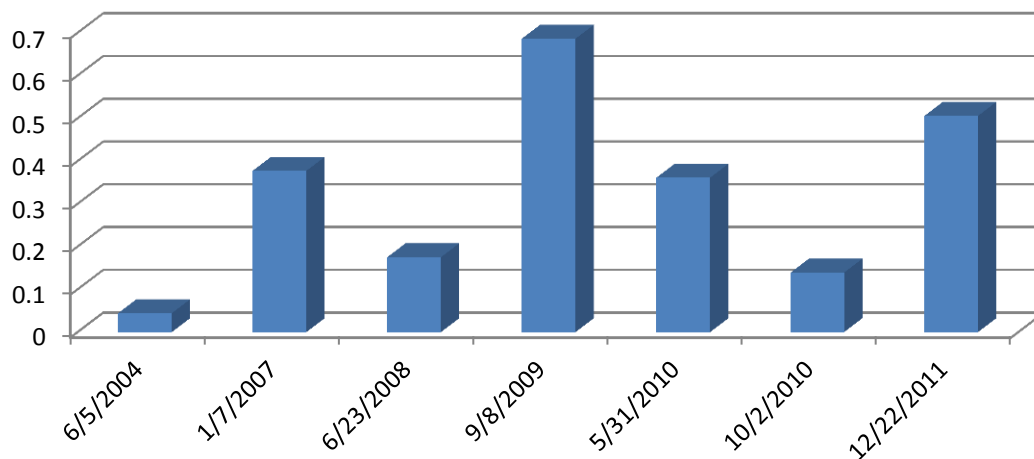
1LA05_Mara_pH (units)

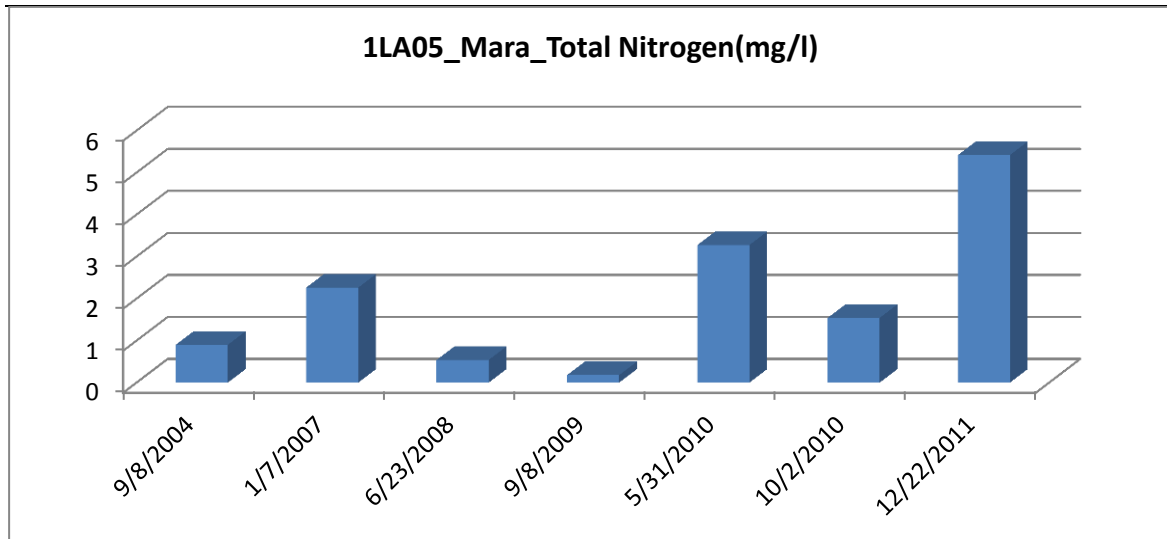


1LA05_Mara_Turbidity (NTU)

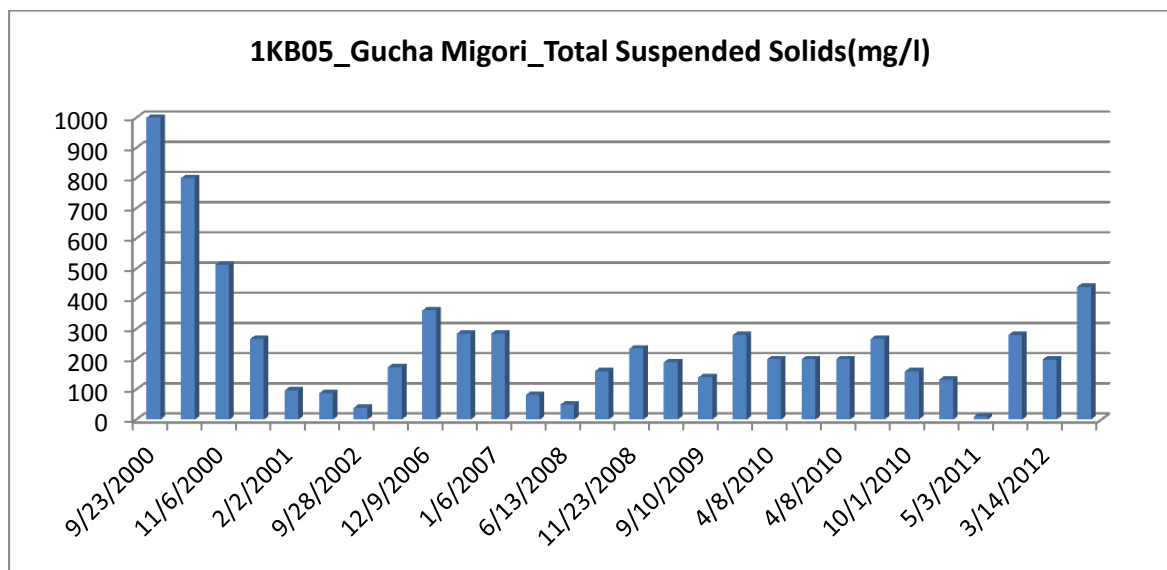


1LA05_Mara_Total phosphorus (mg/l)

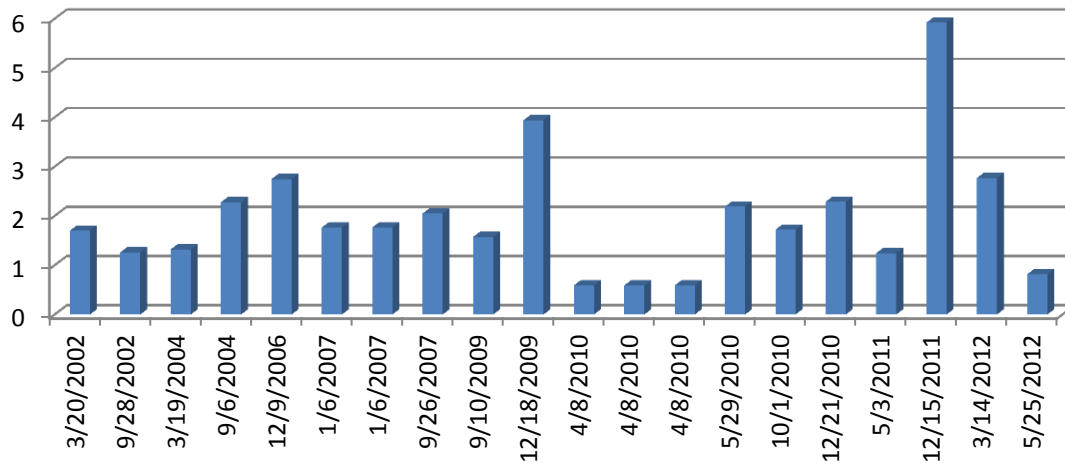




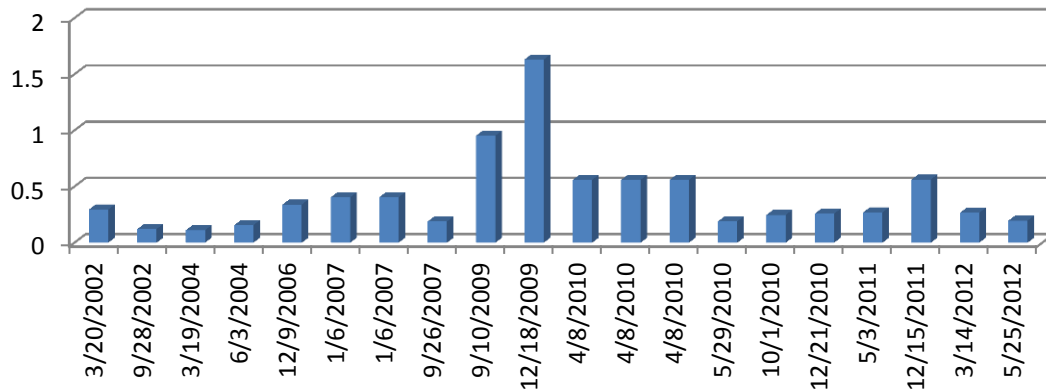
6. RGS 1KB05 Gucha Migori River



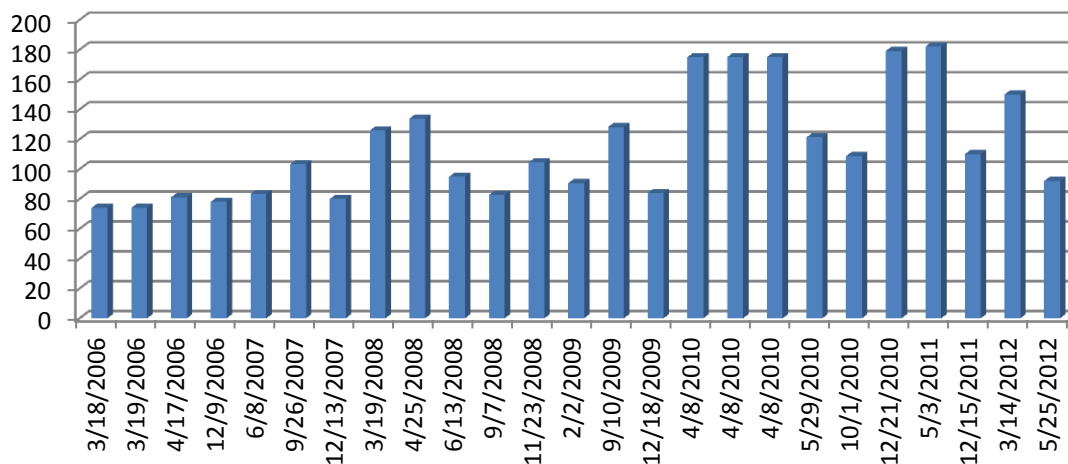
1KB05_Gucha Migori_Total Nitrogen (mg/l)



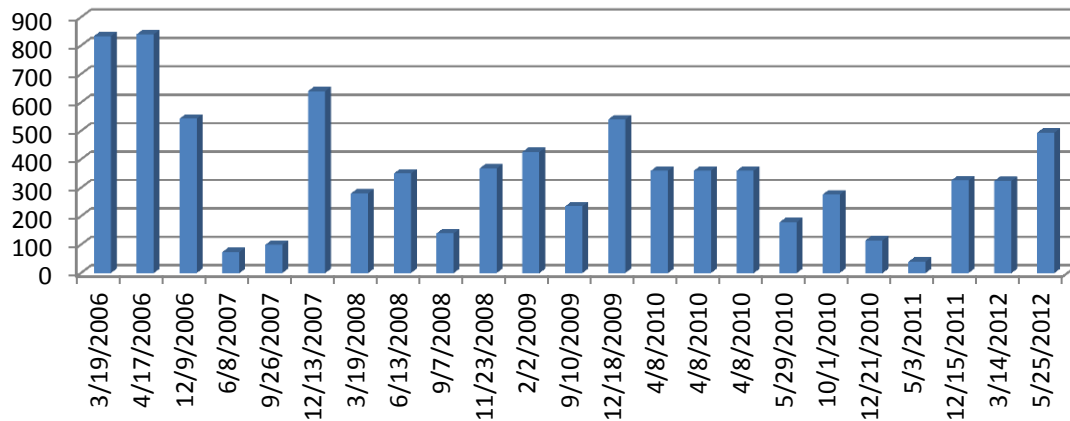
1KB05_Gucha Migori_Total Phosphate(mg/l)



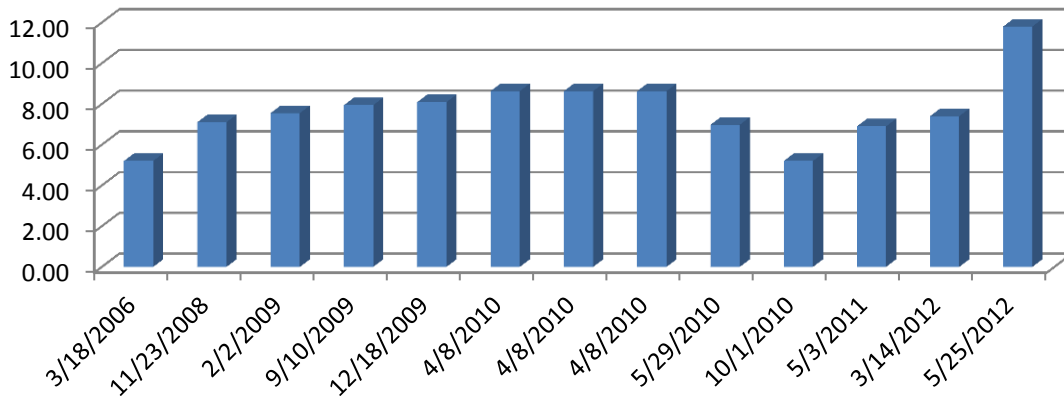
1KB05_Gucha Migori_Electrical Conductivity(uS)



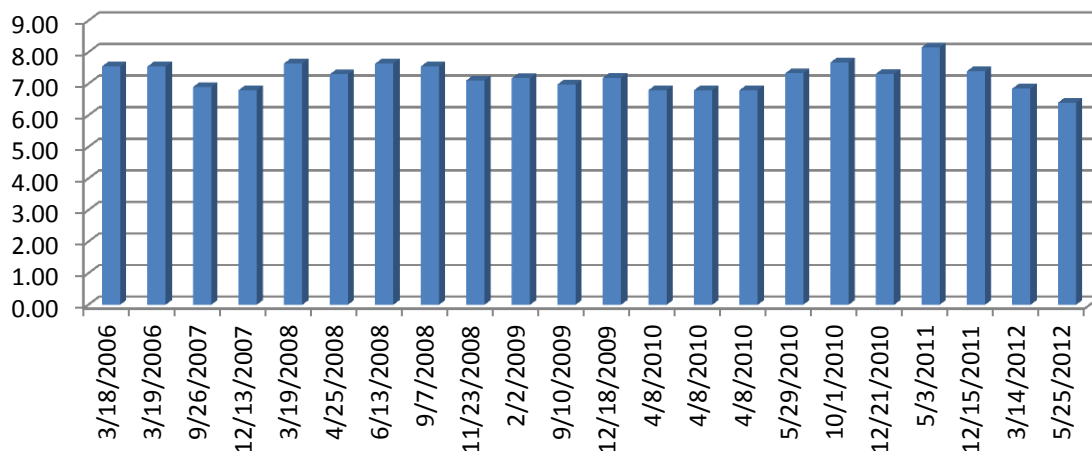
1KB05_Gucha Migori_Turbidity(NTU)

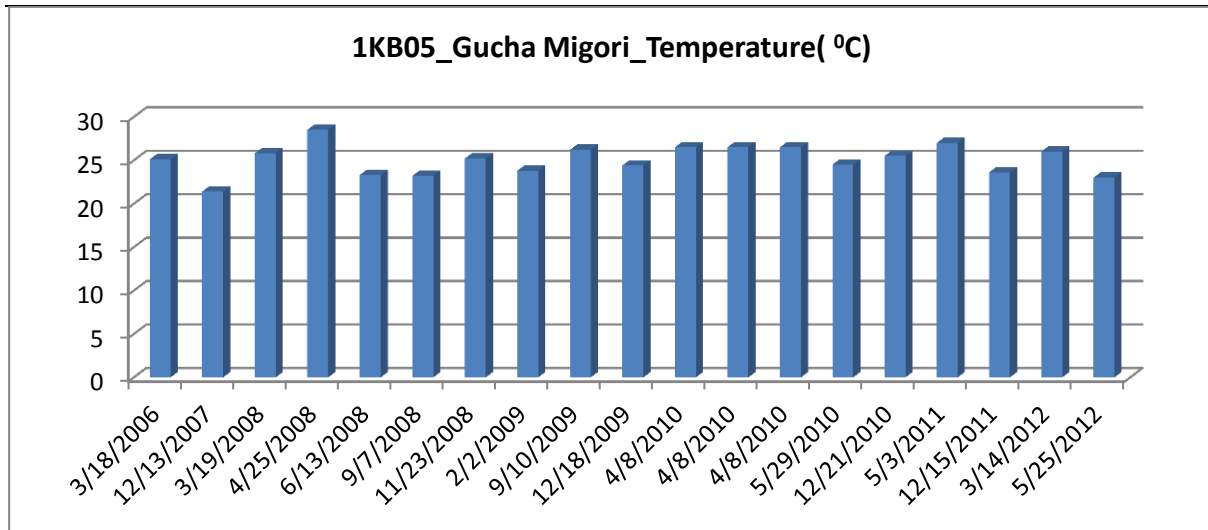


1KB05_Gucha Migori_Dissolved Oxygen (mg/l)

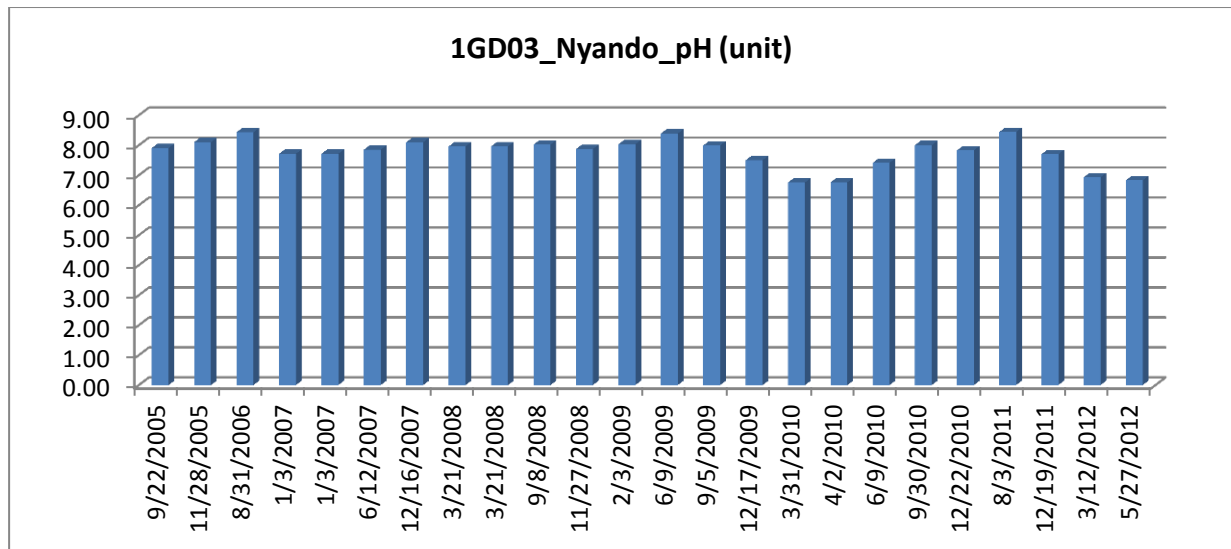


1KB05_Gucha Migori_pH(units)

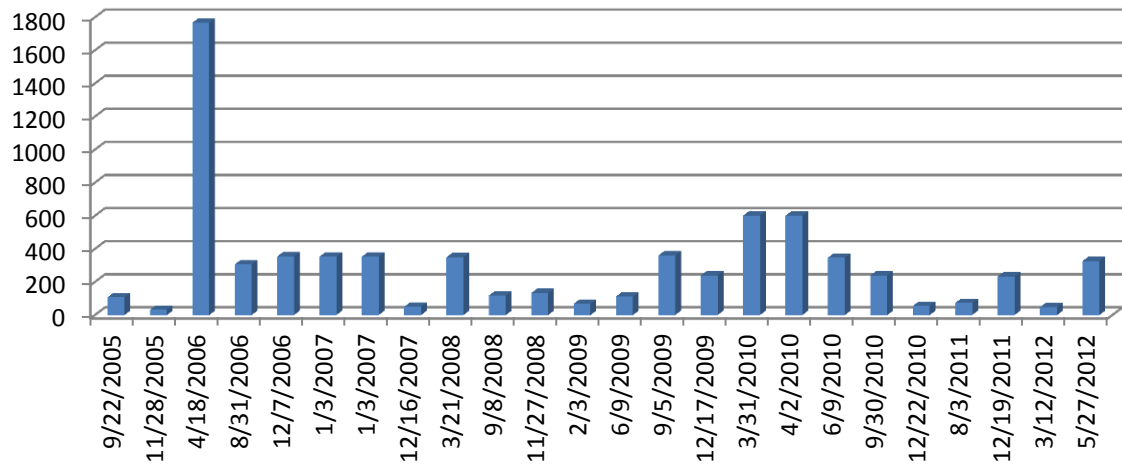




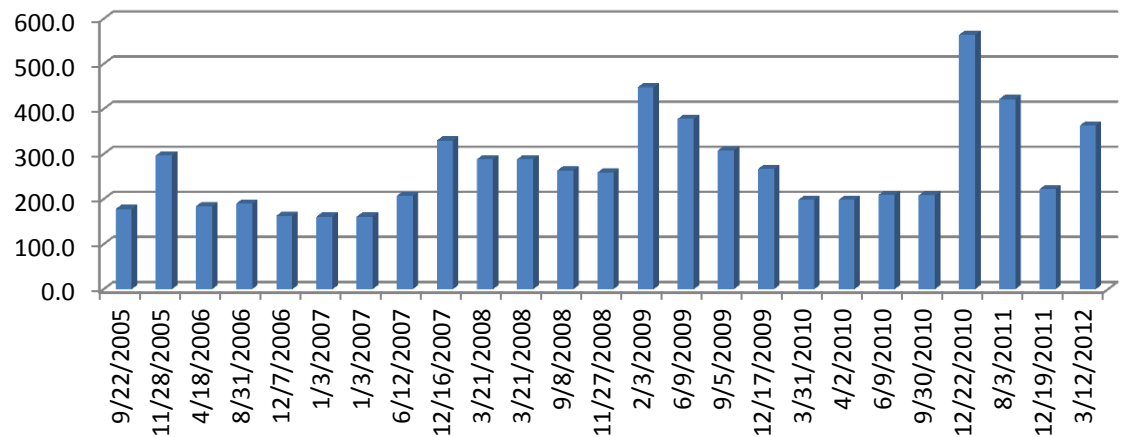
7. RGS 1GD03 Nyando River



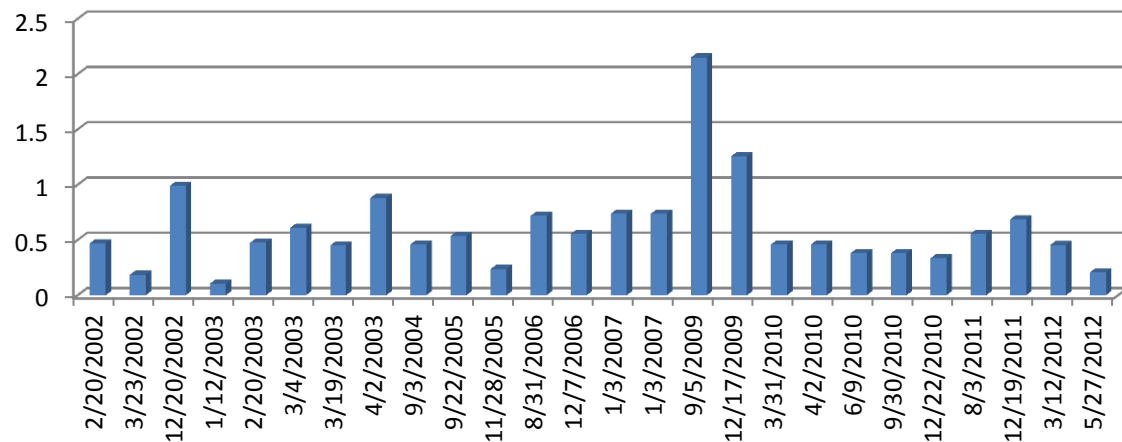
1GD03_Nyando_Turbidity(NTU)

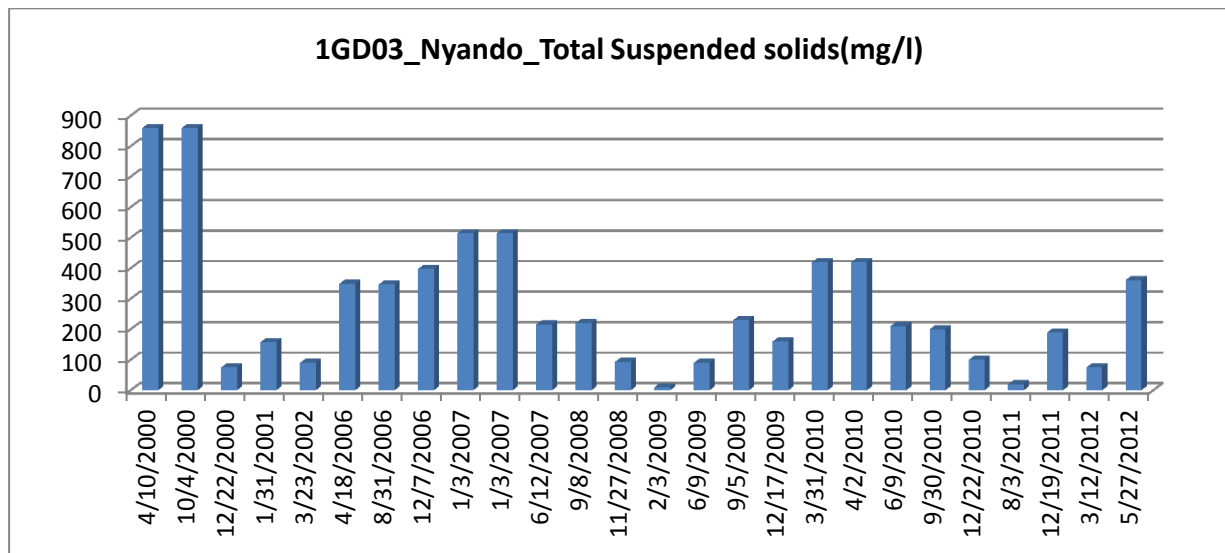
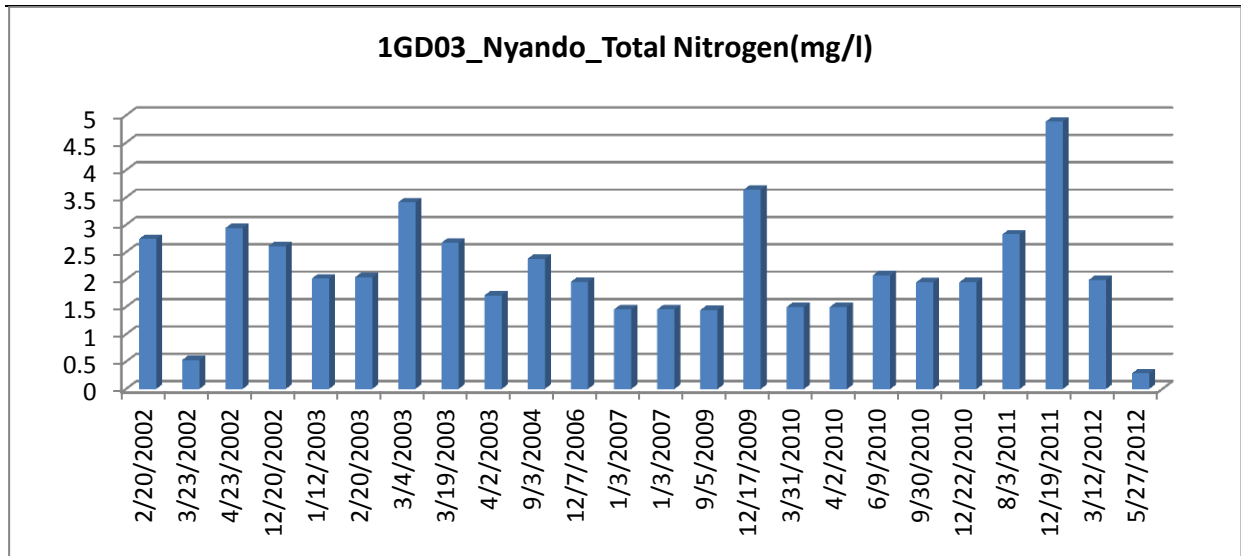


1GD03_Nyando_Electrical Conductivity(uS)

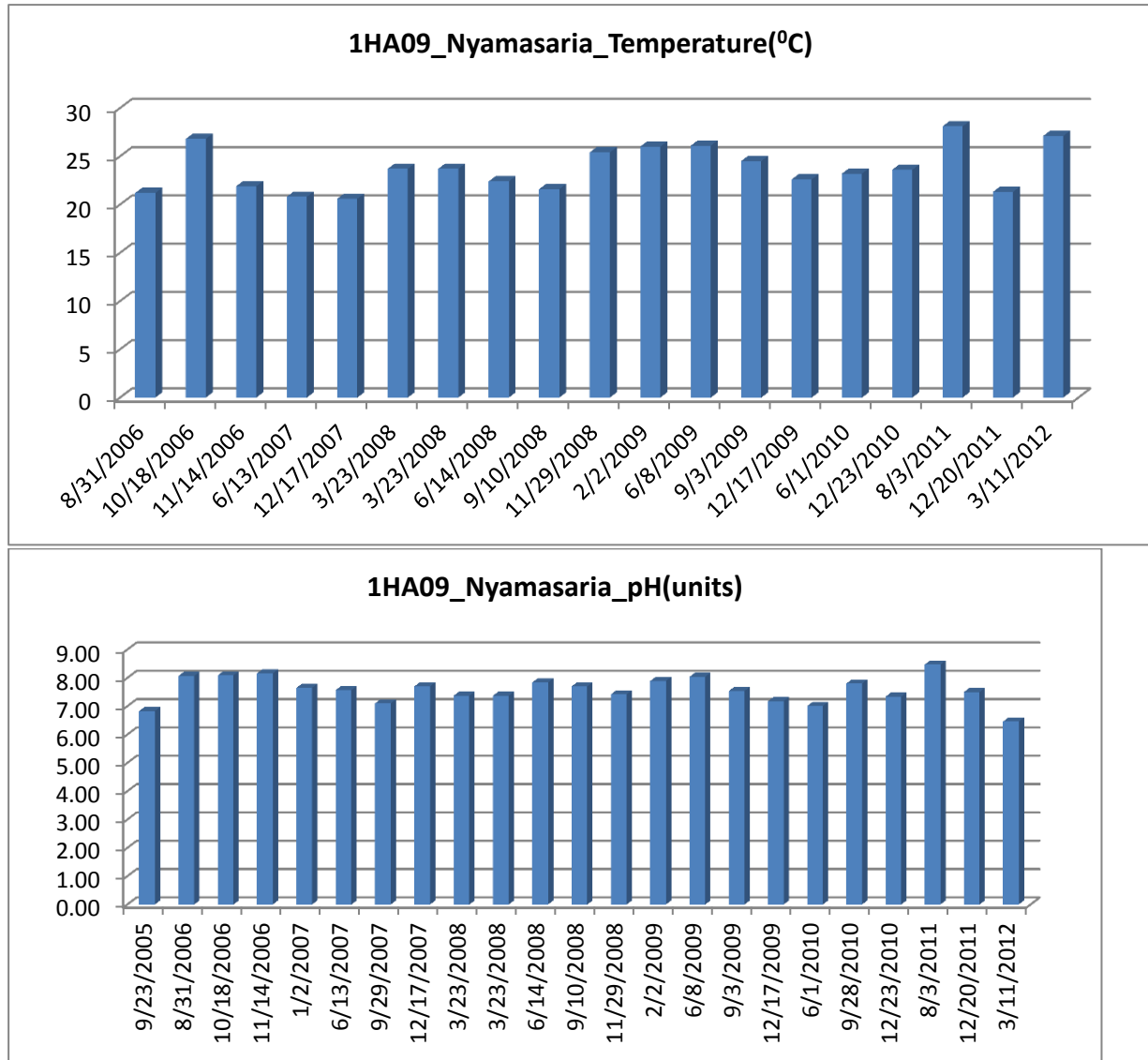


1GD03_Nyando_Total Phosphates (mg/l)

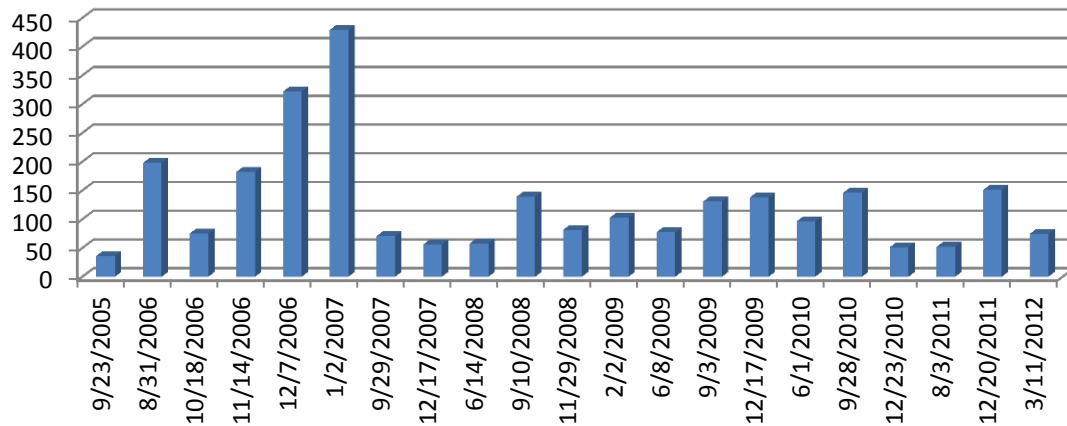




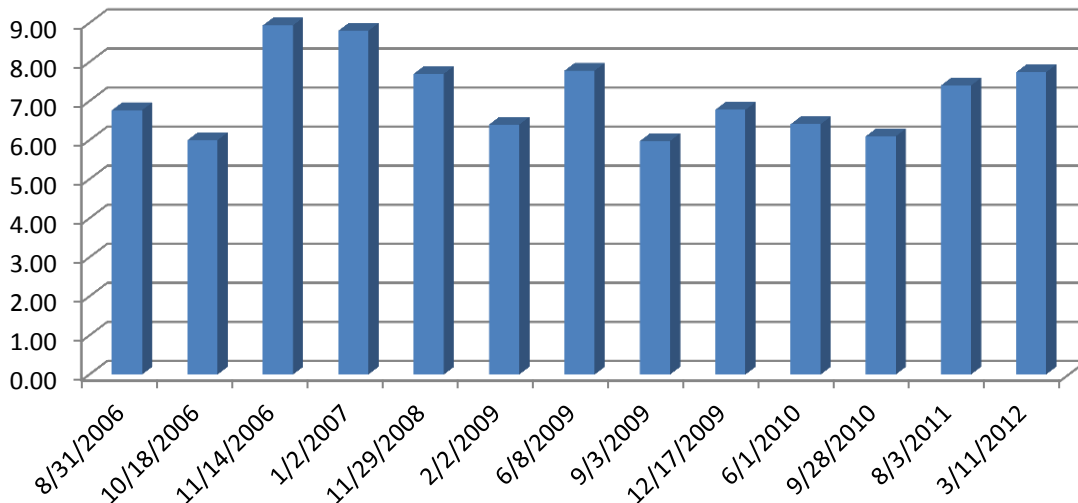
8. RGS 1HA09 Nyamasaria River



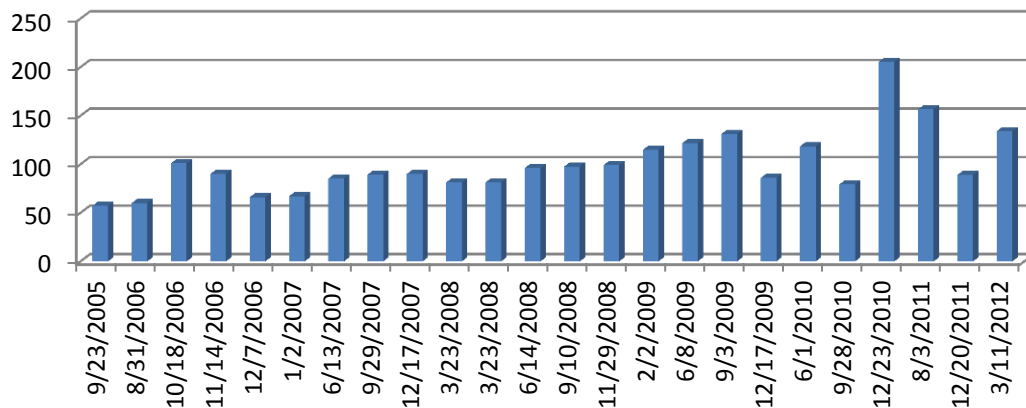
1HA09_Nyamasaria_Turbidity(NTU)



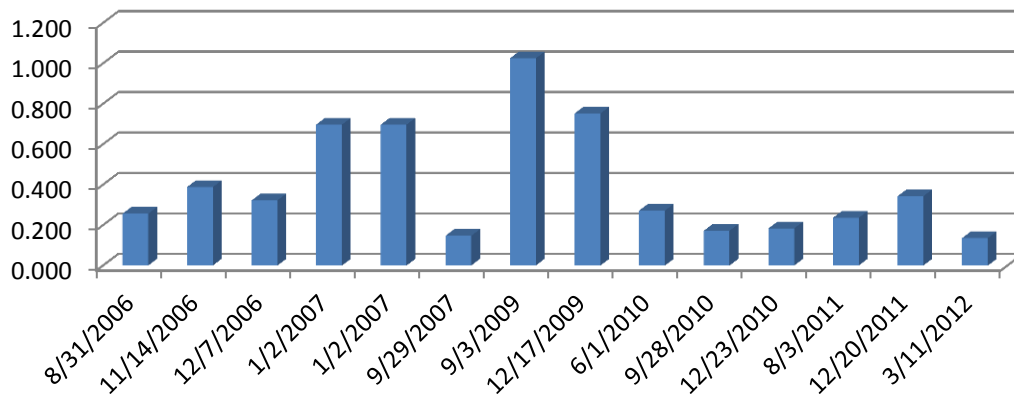
1HA09_Nyamasaria_Dissolved Oxygen (mg/l)



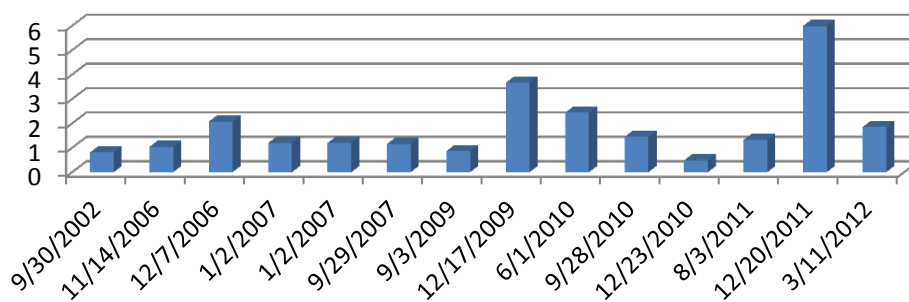
1HA09_Nyamasaria_Electrical Conductivity(uS)

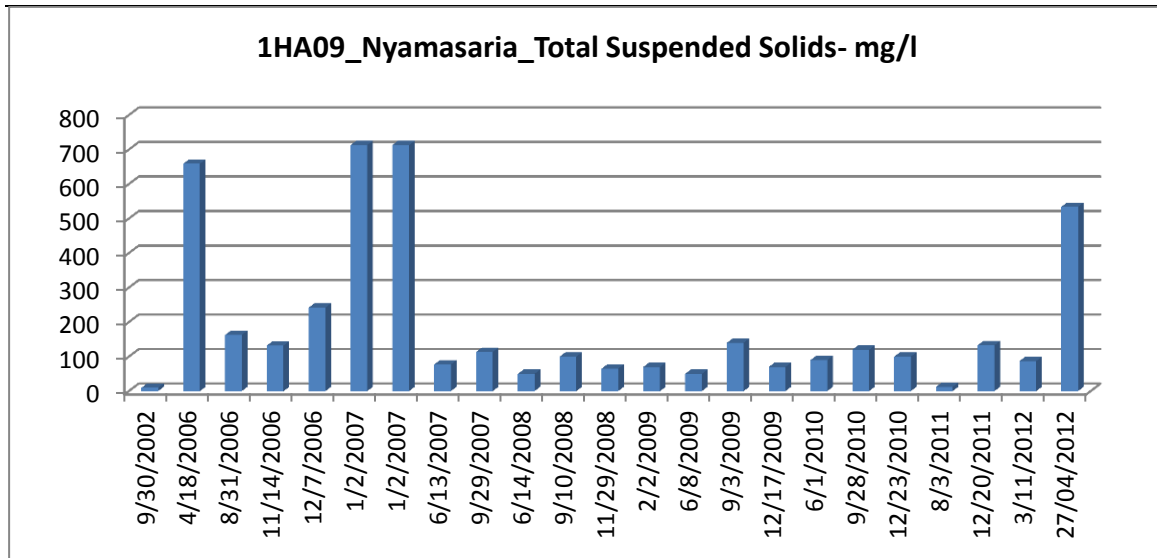


1HA09_Nyamasaria_Total phosphates(mg/l)

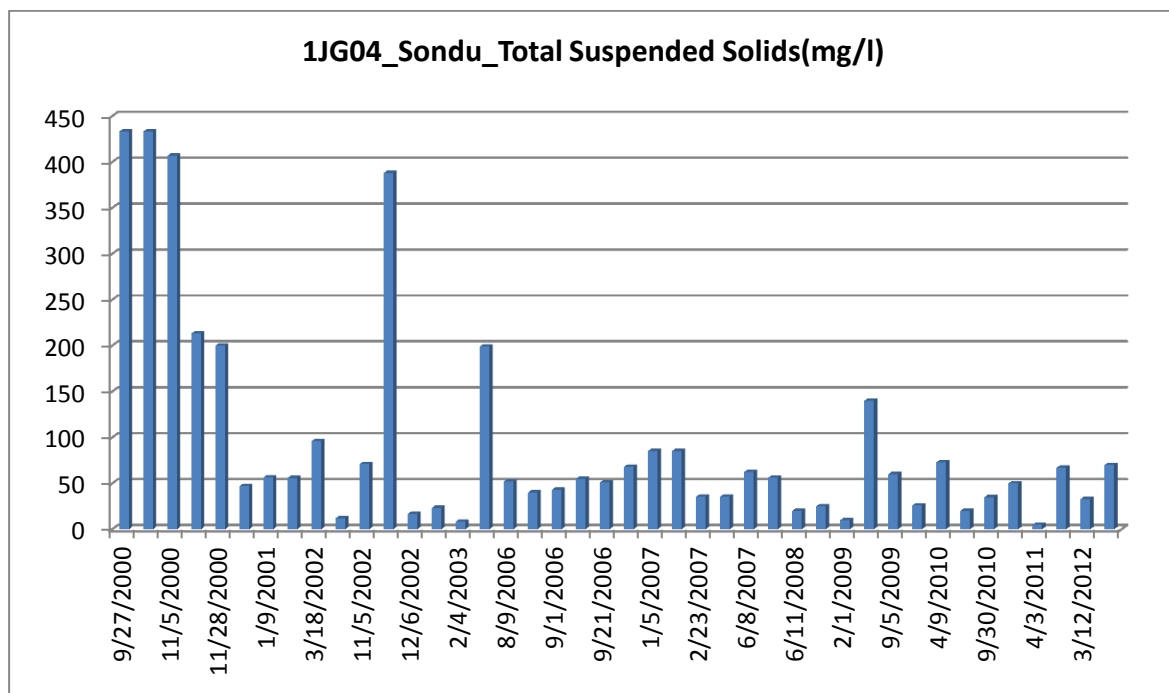


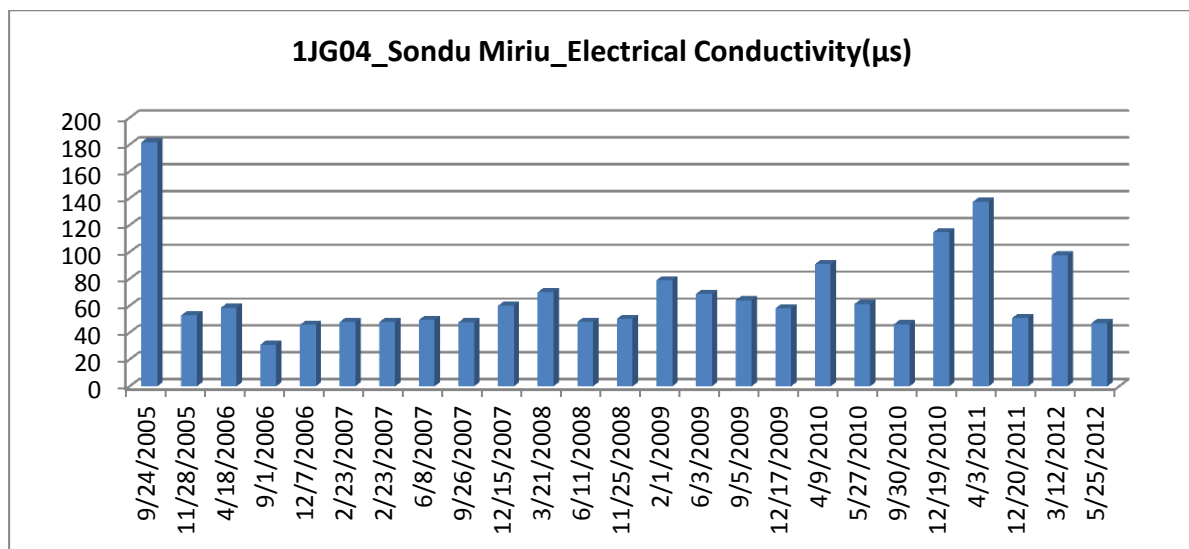
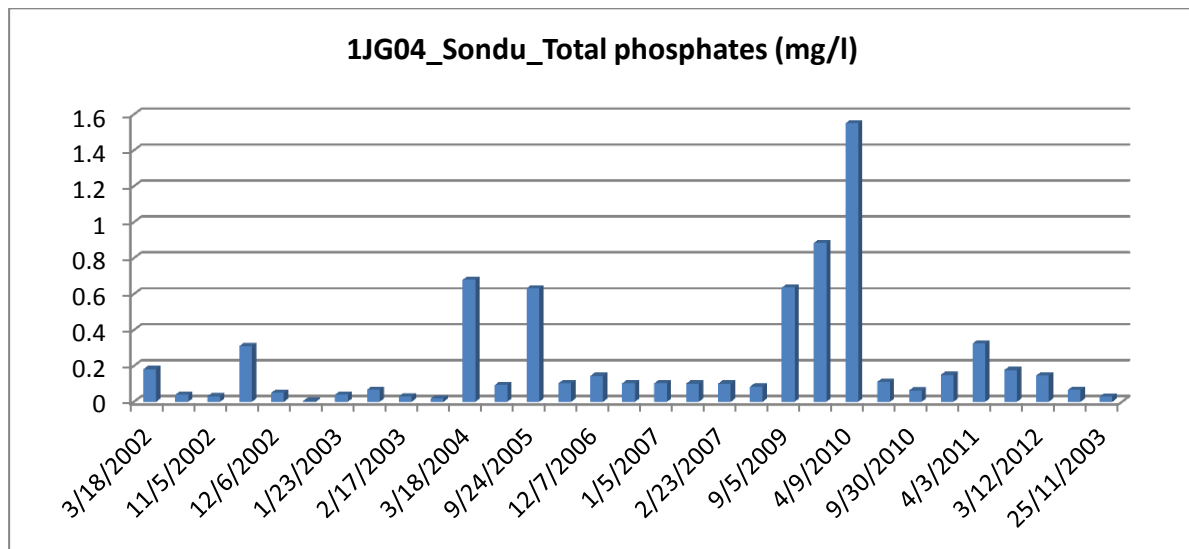
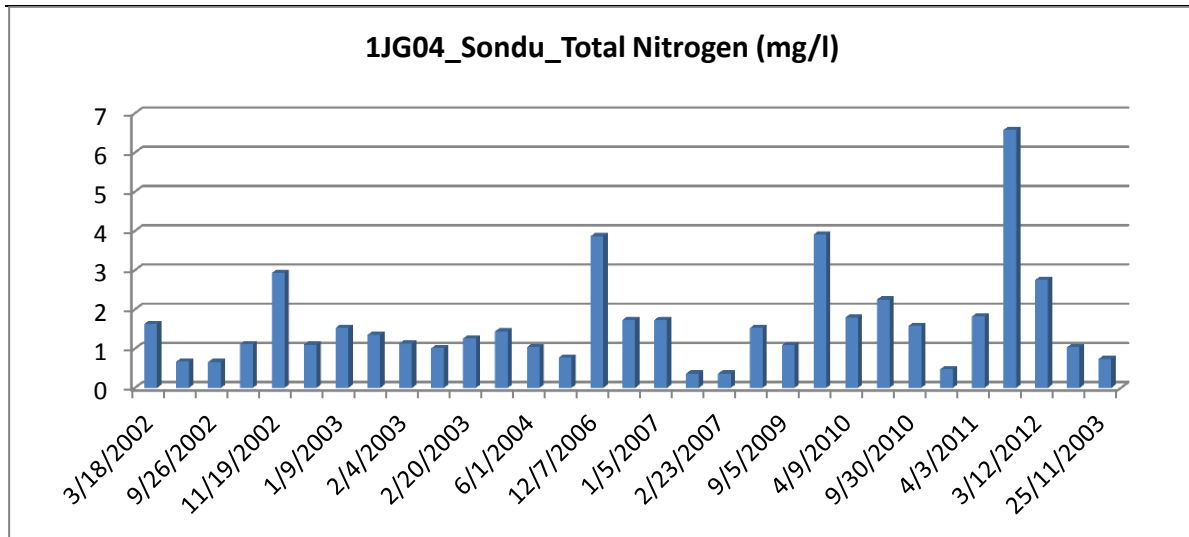
1HA09_Nyamasaria_Total Nitrogen- mg/l



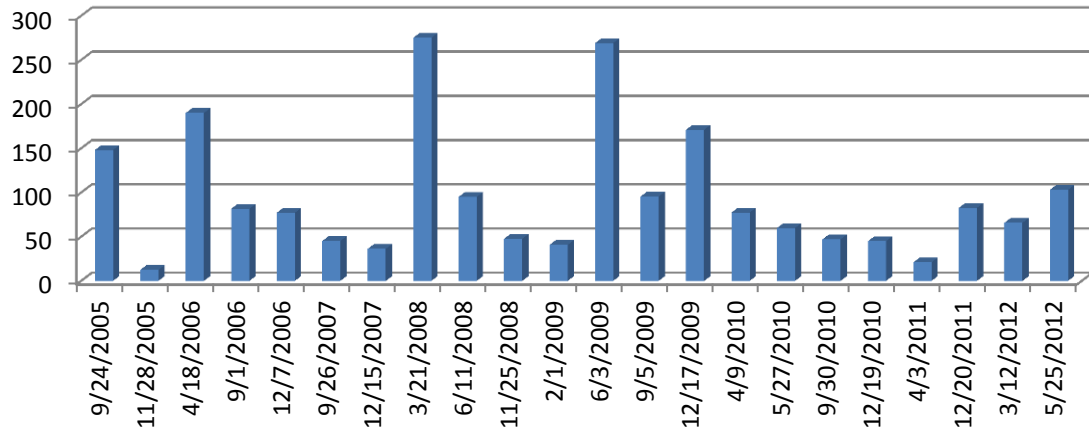


9. RGS 1JG04 Sondu River

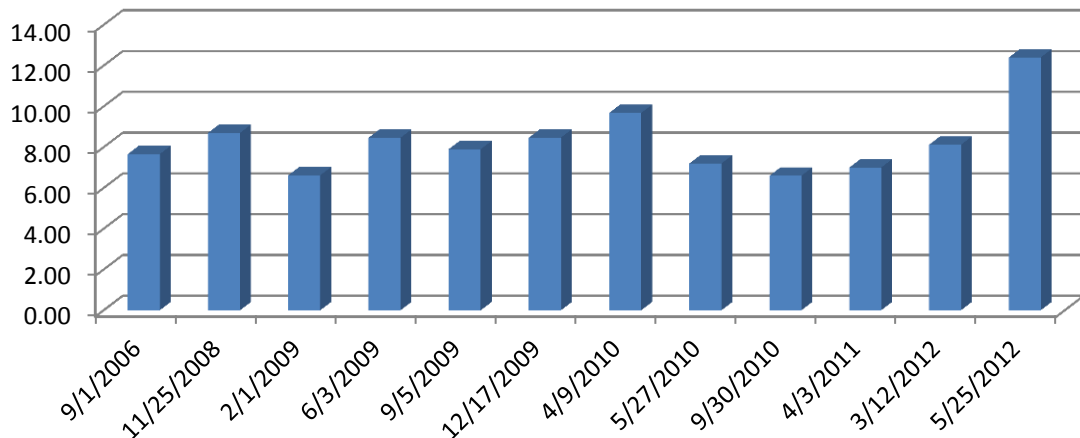




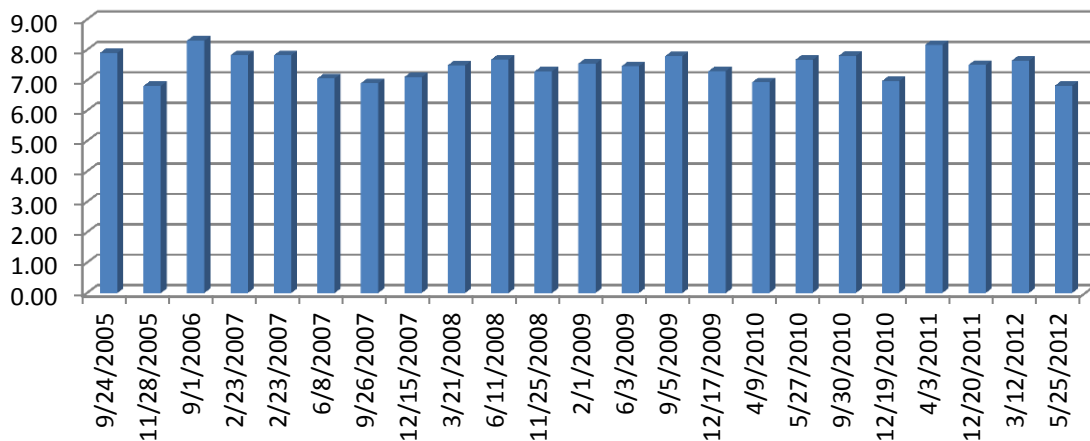
1JG04_Sondu Miriu_Turbidity (NTU)

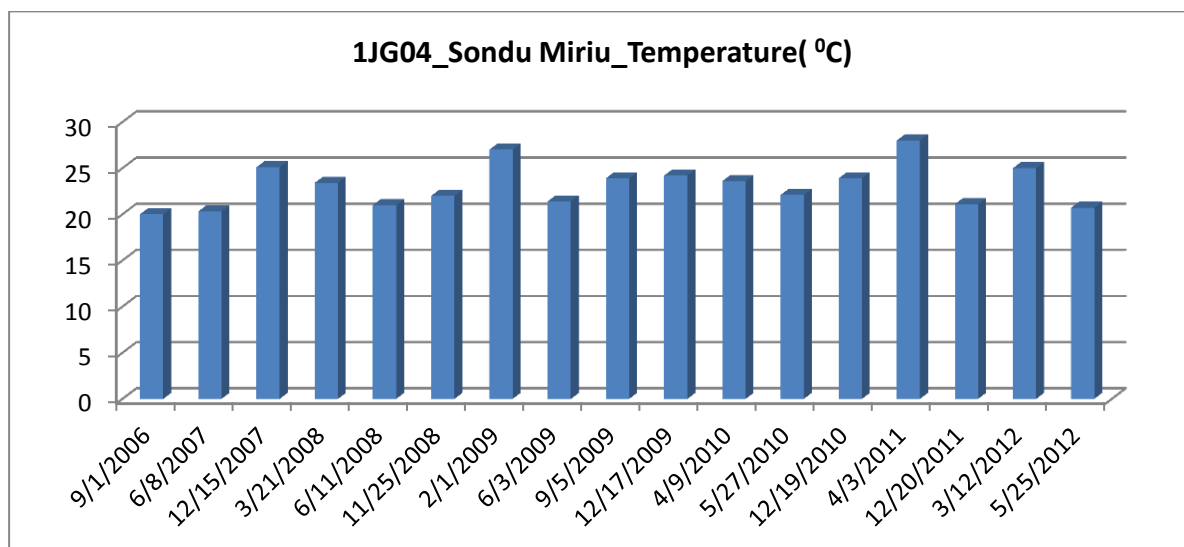


1JG04_Sondu_Dissolved oxygen(mg/l)



1JG04_Sondu Miriu_pH(units)

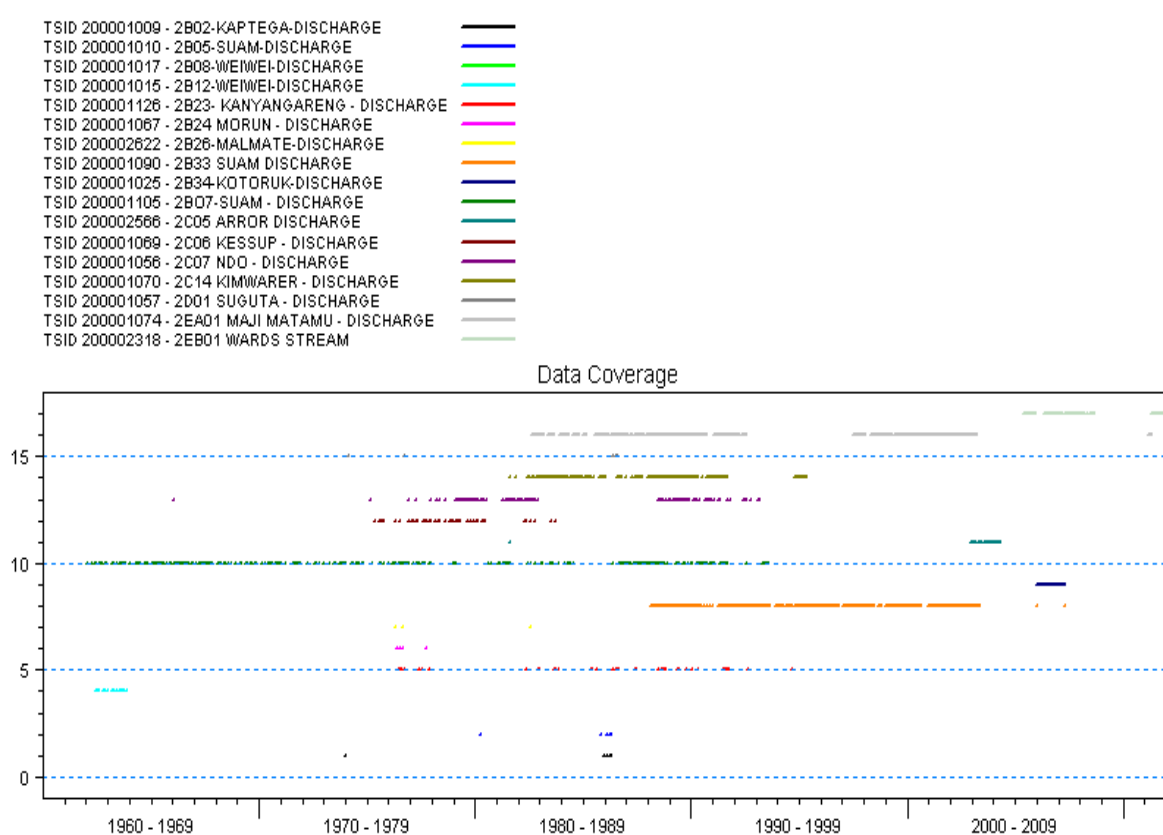




4. RIFT VALLEY CATCHMENT AREA

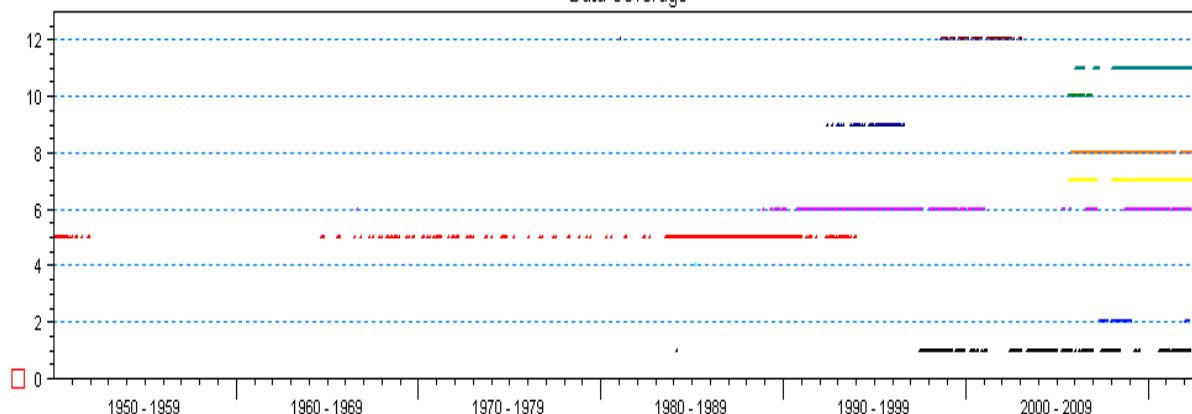
The river flow data that was collected during the year has been resampled and presented for a few stations as shown here below.

4.1 Data coverage for river monitoring stations



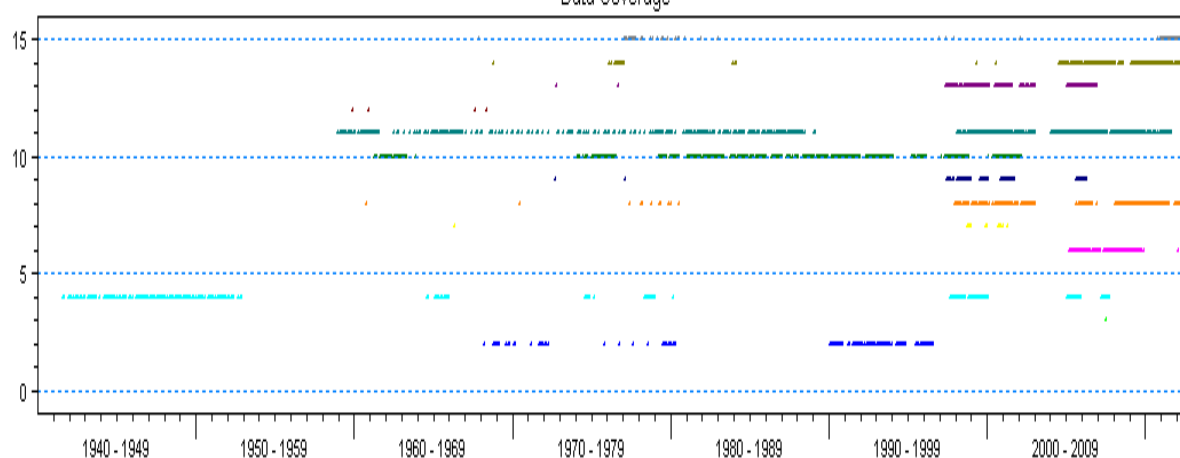
TSID 200001071 - 2EB03 SUBUKIA - DISCHARGE
 TSID 200001167 - 2EB04 LESSER SUBUKIA - DISCHARGE
 TSID 200001072 - 2EC02 RONGAI - DISCHARGE
 TSID 200002324 - 2EC02 RONGAI DISCHARGES
 TSID 200002313 - 2EC03
 TSID 200002244 - 2ED01 - TIGERI DISCHARGES
 TSID 200002246 - 2ED02 - LELGEL
 TSID 200002246 - 2ED03 - ELDAMA RAVINE
 TSID 200001024 - 2EE07A - PERKERRA - DISCHARGE
 TSID 200001062 - 2EE7B PERKERRA - DISCHARGE
 TSID 200002243 - 2EF04 - NAROSURA
 TSID 200001073 - 2EG01 MOLO - DISCHARGE

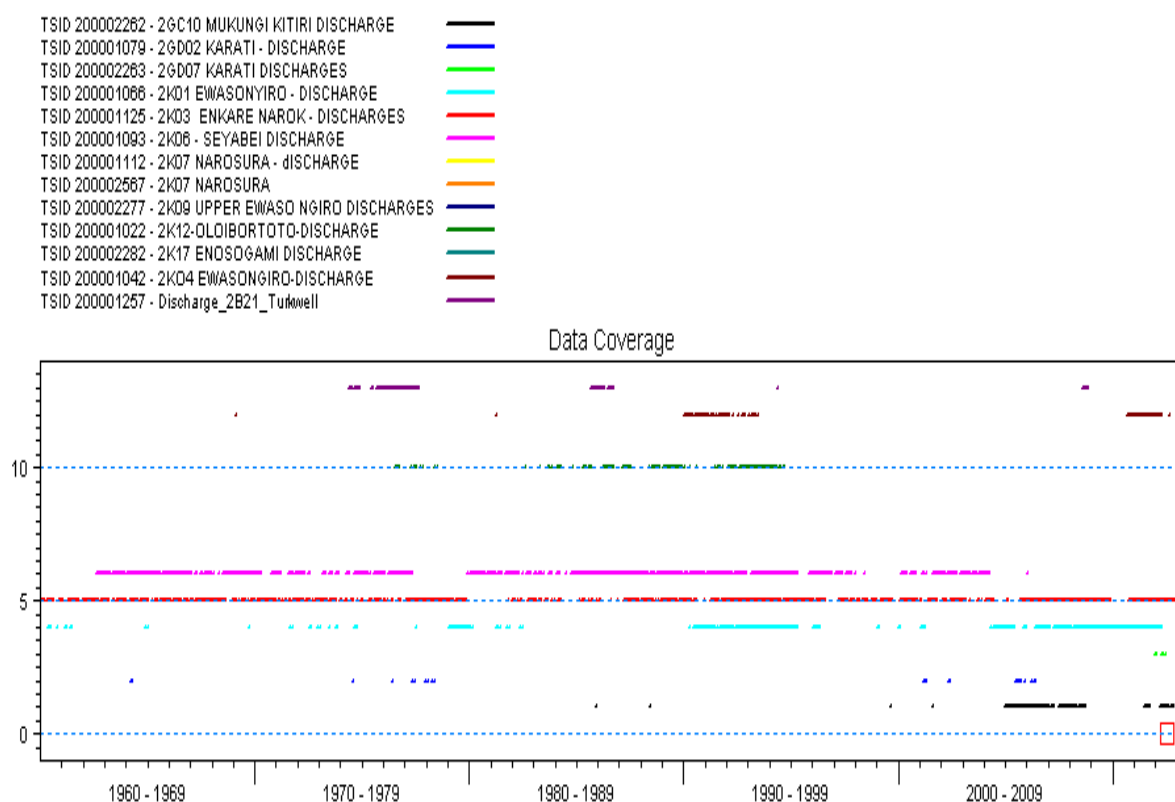
Data Coverage



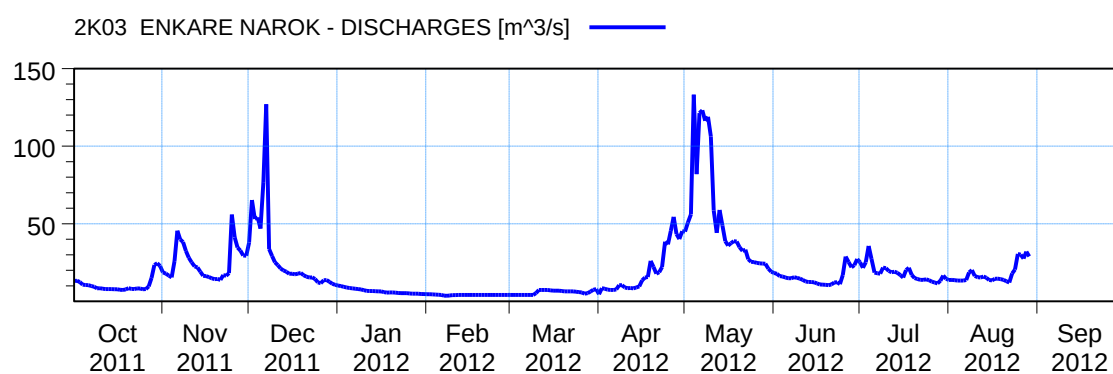
TSID 200002307 - 2EG08 LORWAI DISCHARGES
 TSID 200002305 - 2EH02 KINYO DISCHARGES
 TSID 200001063 - 2FA08 MERERONI - DISCHARGE
 TSID 200001075 - 2FC05 NJORO - DISCHARGE
 TSID 200002272 - 2FC11 NJORO DISCHARGES
 TSID 200002293 - 2FC19 NJORO DISCHARGES
 TSID 200001065 - 2GA01 GILGIL - DISCHARGE
 TSID 200001076 - 2GA03 GILGIL - DISCHARGE
 TSID 200001027 - 2GB01 MALEWA - DISCHARGE
 TSID 200001092 - 2GB04 MALEWA
 TSID 200002120 - 2GB05 Malewa
 TSID 200002161 - 2GB07 - MALEWA DISCHARGES
 TSID 200001077 - 2GC04 TURASHA - DISCHARGE
 TSID 200001078 - 2GC05 NANDARASI - DISCHARGE
 TSID 200002257 - 2GC07 TURASHA DISCHARGES

Data Coverage





4.2 Hydrograph for Enkare Narok (2K03) River Monitoring station



4.3 Rainfall data

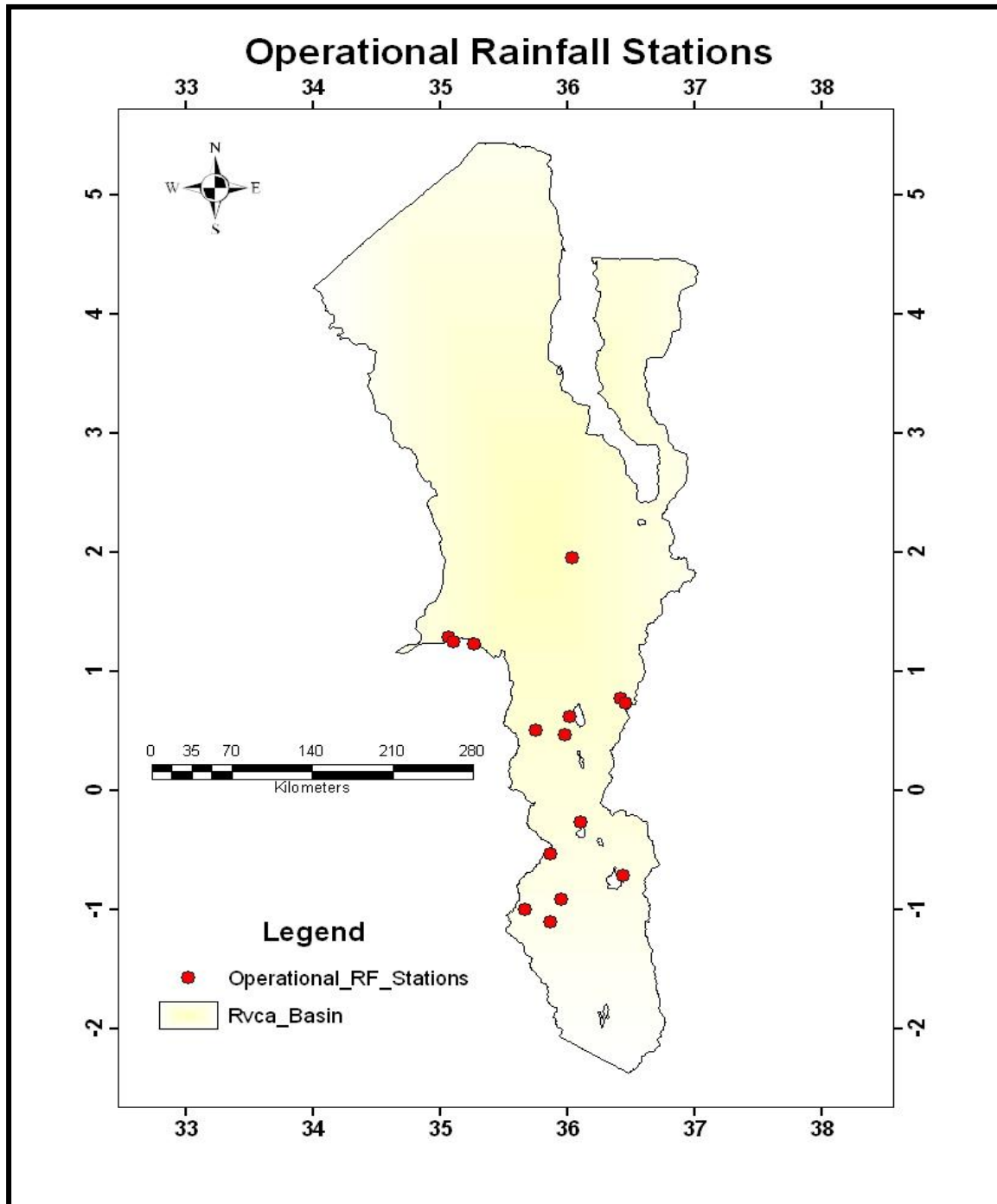


Fig. 4.3.1 Distribution of rainfall stations within RVCA

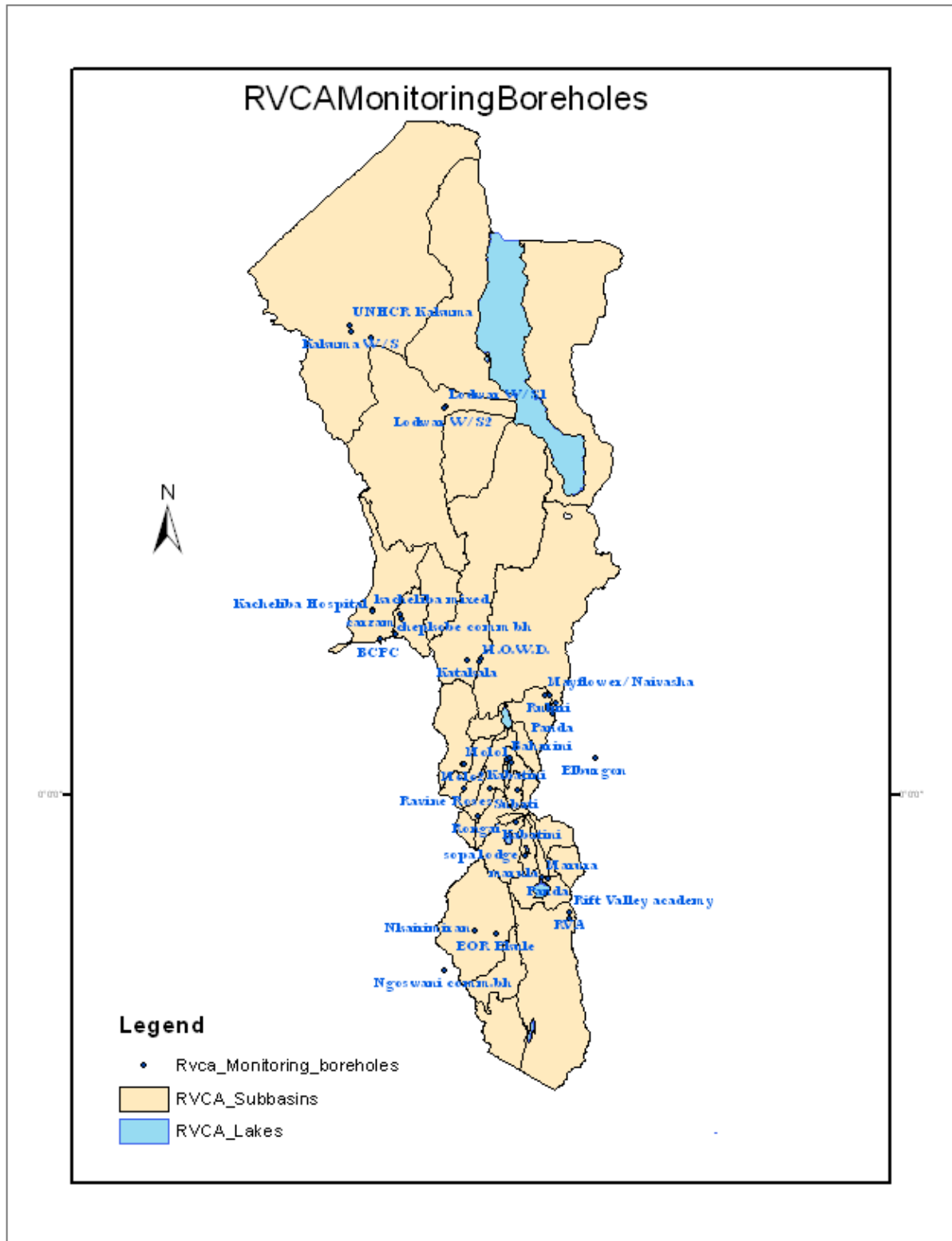
4.4 Groundwater Monitoring

List of GW monitoring stations in the region

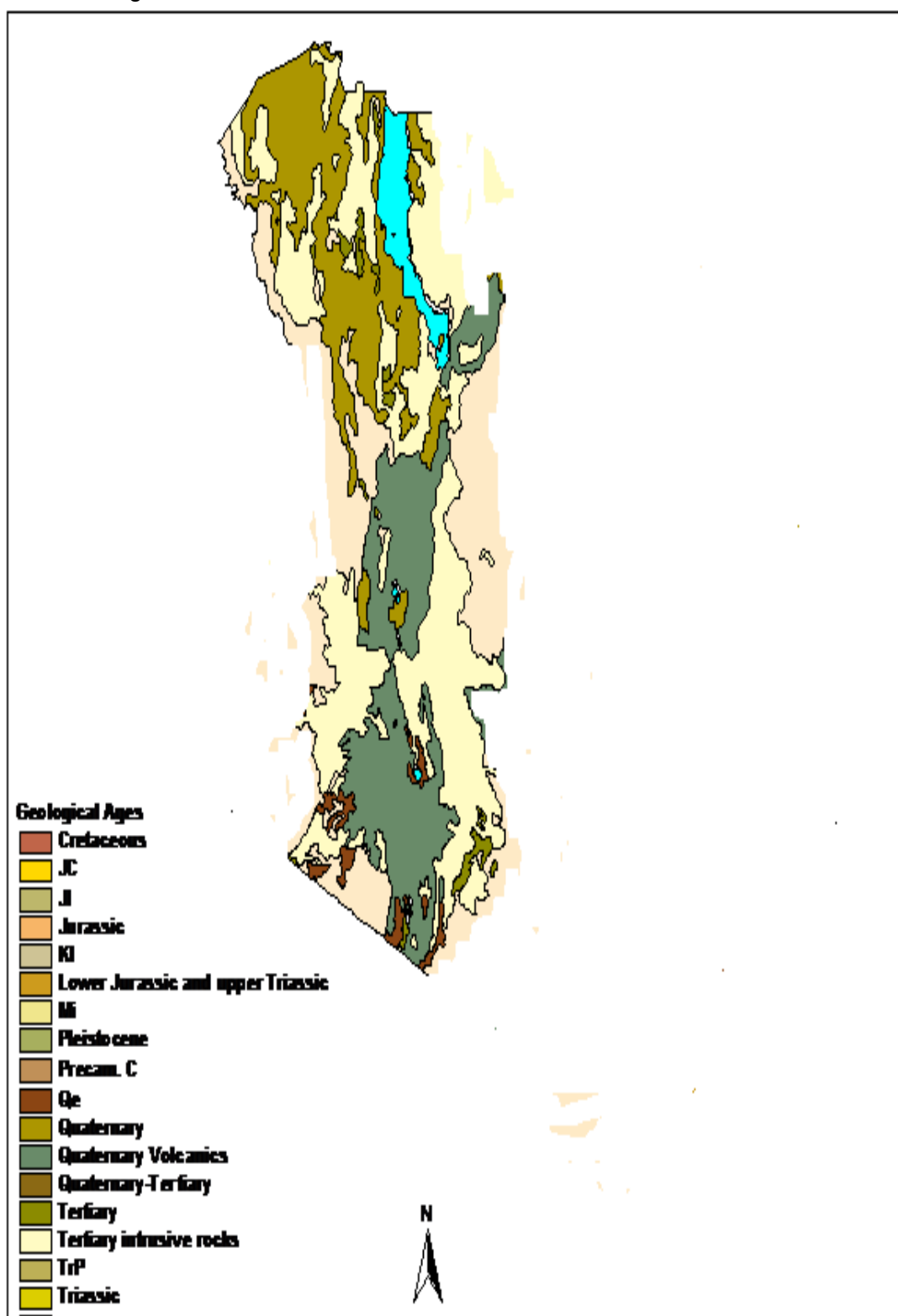
No.	BH Name/Owner	C-No.	X	Y
1	St. Mary's	1805	36.09182	-0.28252
2	Baharini	3047	36.12477	-0.30545
3	Kabatini	7384	36.1347	-0.26279
4	Panda	13355	36.458833	-0.653473
5	Subati	2303	36.217848	-0.041422
6	Kinyanjui/Naivasha	9679	36.43043	-0.71475
7	Carzam		35.00991	-1.49137
8	M.O.W.D	6807	35.87847	-1.0728056
9	Katakala	3299	35.769144	-1.0898056
10	Kabatini	7385	36.13461	-0.26424
11	Ayub suleiman	5504	35.88525	-1.0954167
12	Lodwar W/S2	5888	35.591506	3.114093
13	Naivasha MW&I	4397	36.42183	-0.69607
14	Marula		36.3806	-0.6555
15	Mayflower/Naivasha	13283	36.39584	-0.809579
16	Rubiri	13090	36.440495	-0.80258
17	UNHCR Kakuma		34.825423	3.7872225
18	Kacheliba Hospital		35.00991	1.49137
19	Lodwar W/S1	5890	35.6	3.129986
20	Ushirika	13623	36.493479	-0.744731
21	Alphega sisal estate	8466	35.95284	-0.05274
22	Ravine Roses	8258	35.75464	-0.05604
23	Molo1	422	35.73795	-0.24723
24	Molo2	421	35.74524	-0.25132
25	Kakuma W/S		34.837752	3.734668
26	Kakuma LEO SEC		34.9948	3.681966
27	Chepkobe comm bh		35.2305	1.46256
28	Elburgon	1695	35.81007	-0.30609
29	BCFC		35.07877	1.25451
30	Rift Valley academy	11674	36.59963	-0.94535
31	RVA	4634	36.59689	-0.94031
32	sopa lodge		36.23664	-0.4885
33	St Cecilia girls		35.19688	1.29722
34	Cheptianga com. bh		35.2457	1.41715
35	Ngoswani comm.bh		35.59418	-1.41298
36	Cherombai pri sch		35.19119	1.29908

37	Kacheliba mixed		35.00804	1.4798
38	Nkairimiran		35.84121	-1.08468
39	TD Jakes		36.59318	-0.99497
40	EOR Ekule		36.00313	-1.11519

The ground water monitoring is done as a means of generating data, below is a map showing the location of these monitoring sites.

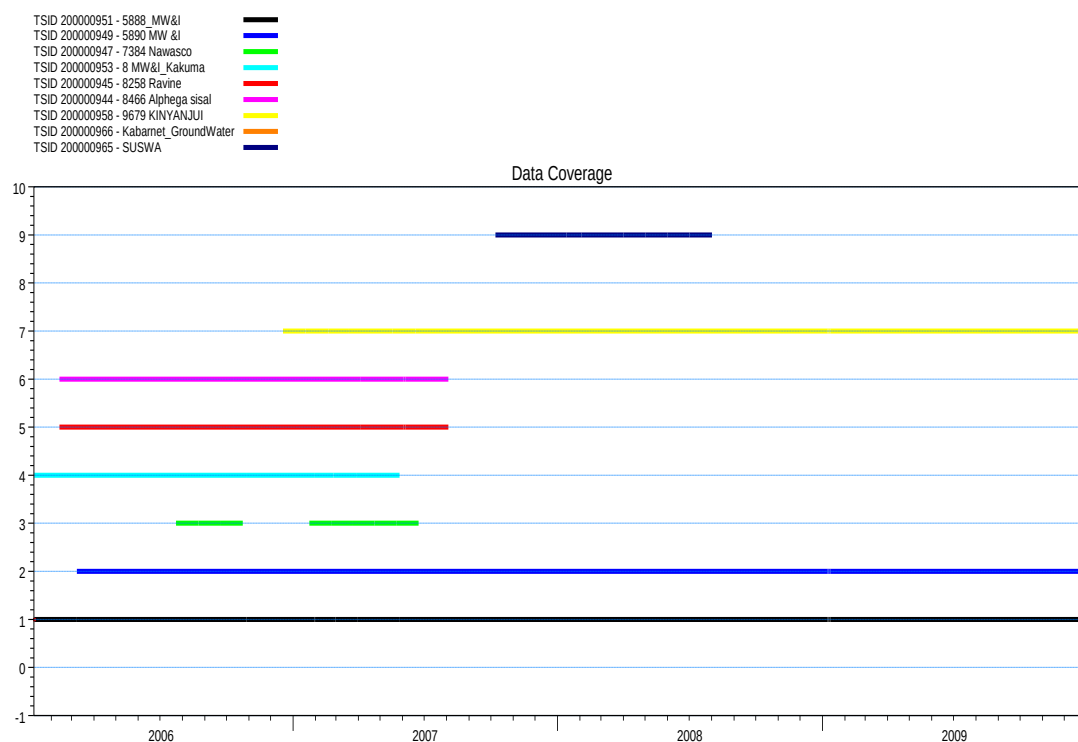


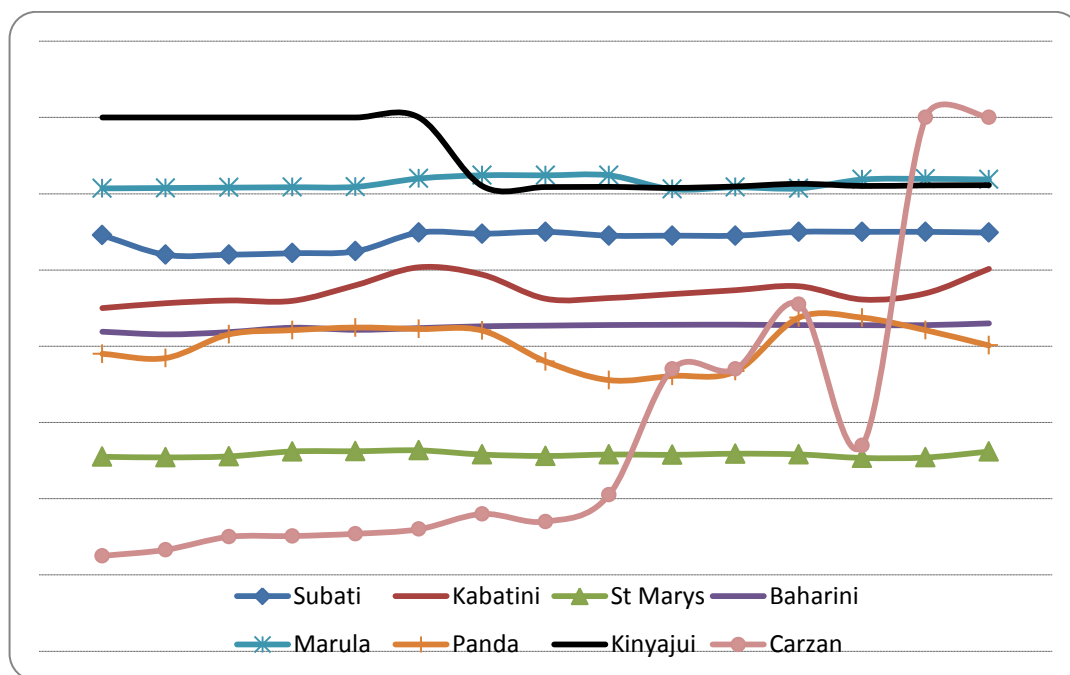
The distribution of the monitoring boreholes is according to the groundwater aquifers within the region as shown here below.



Ground Water Aquifer Map

The groundwater data that was collected during the year has been resampled and presented for a few stations as shown here below





Water levels of the selected boreholes

4.6 Groundwater Quality Data

The following are water quality monitoring stations that are being monitored.

- Baharini BH No 3047
- Kabatini BH 7384
- Olbanita BH
- St Marys Hosp at BH 1805
- Lake Naivasha - 2GD6
- Lake Elementaita - 2FA9
- Lake Nakuru - 2FC4
- Lake Bogoria - 2EB10
- Lake Baringo - 2H1
- Lake Turkana - 2B13
- Ewaso Nyiro River - 2K4
- Ewaso Nyiro River - 2K1
- Malewa River - 2GB1
- Perkerra River - 2E9
- Njoro River - 2FC16
- Gilgil River - 2GA1
- Molo River - 2EG1
- Turkwel River - 2B21

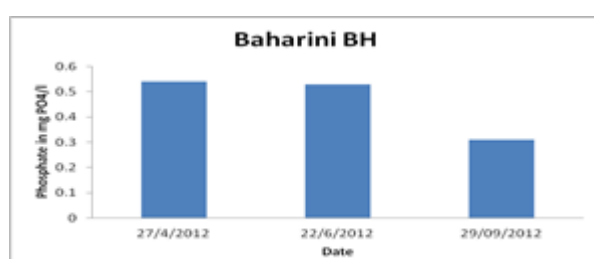
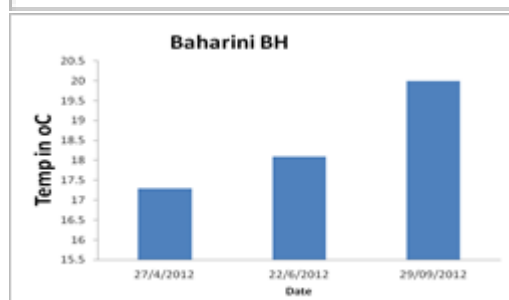
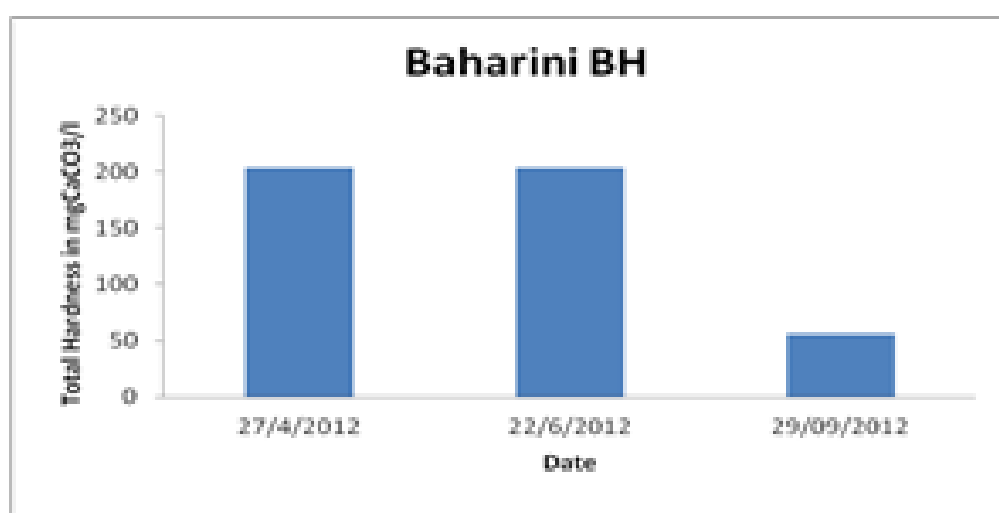
The common parameters that are monitored are:

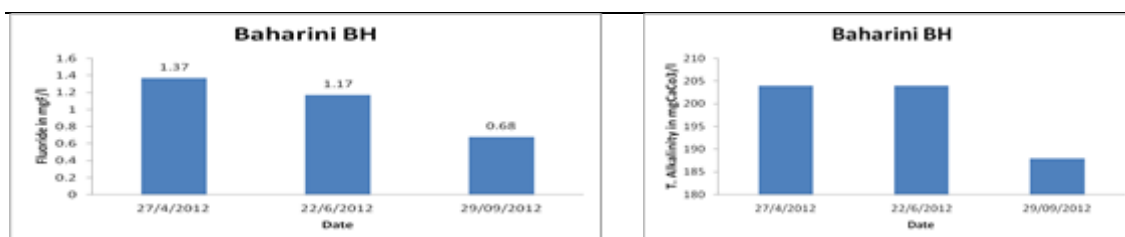
- Temperature
- pH
- Colour
- Turbidity
- Potassium
- Iron
- Manganese
- Conductivity
- Magnesium
- Sodium
- Total hardness
- Phosphorus
- Calcium
- Flouride
- Total Alkalinity
- Chloride
- Sulphates
- Nitrite
- Nitrate
- Total Dissolved solids
- Chemical Oxygen Demand

- Total Suspended Solids
- Total Phosphates
- Dissolved Oxygen
- Ammonium
- Biological Oxygen Demand
- General Coliform
- Faecal Coliform

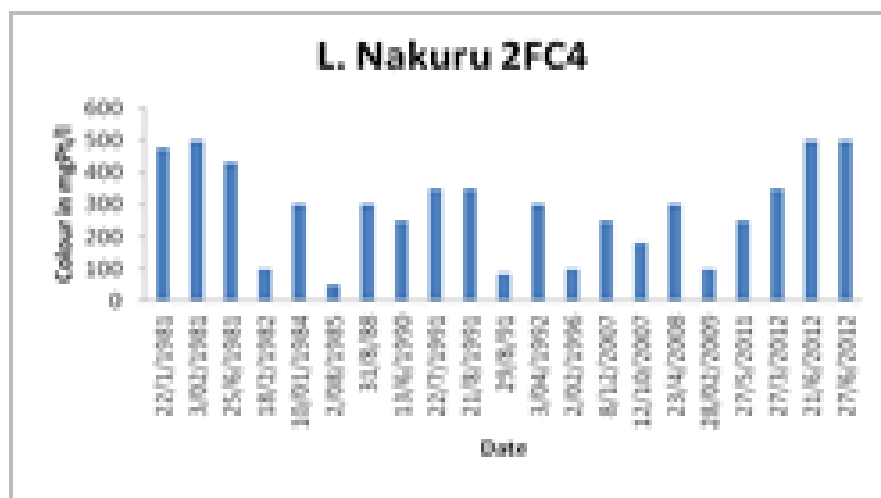
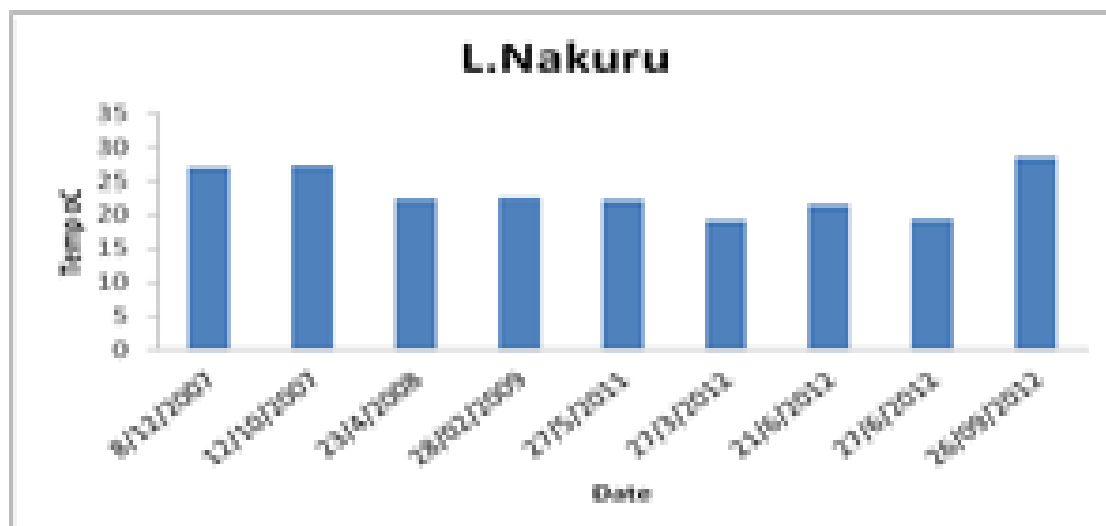
Some of the parameters analysed in the monitoring stations are presented herebelow.

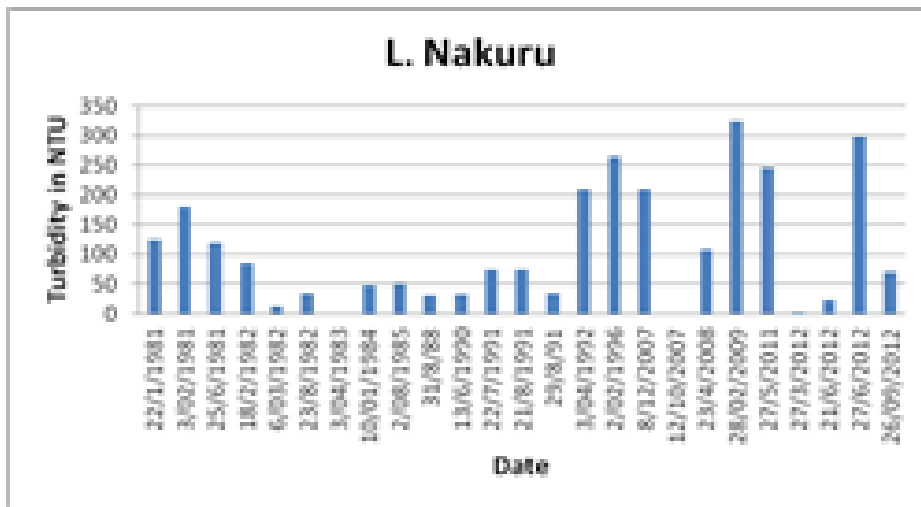
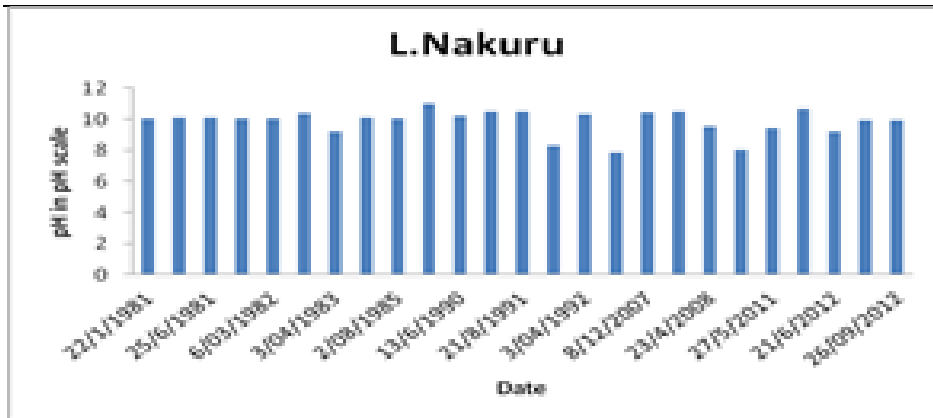
4.7 Water quality analysis result from Baharini springs within Lake Nakuru riparian area



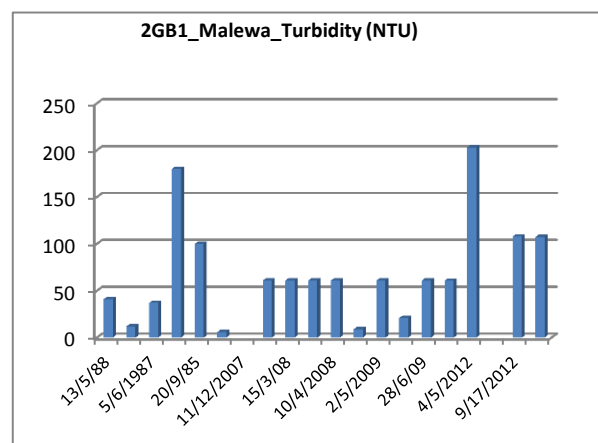
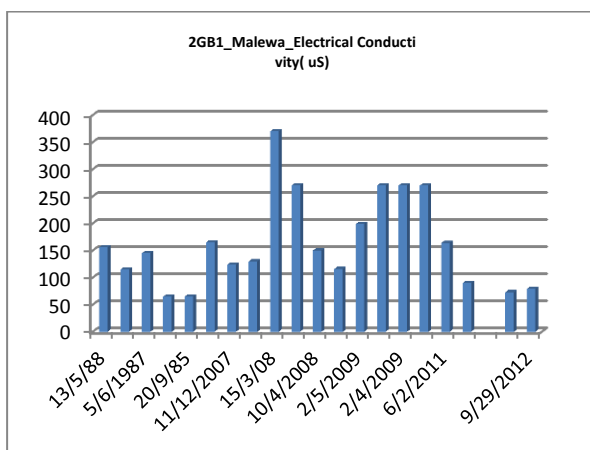


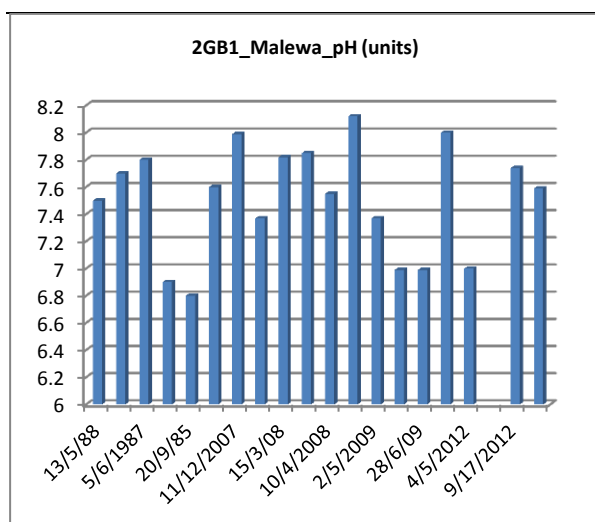
4.8 Water quality analysis result from Lake Nakuru at RGS 2FC4





4.9 Water quality analysis from 2GB01 Malewa River





4.10 List of All Historic Regular Gauging Stations

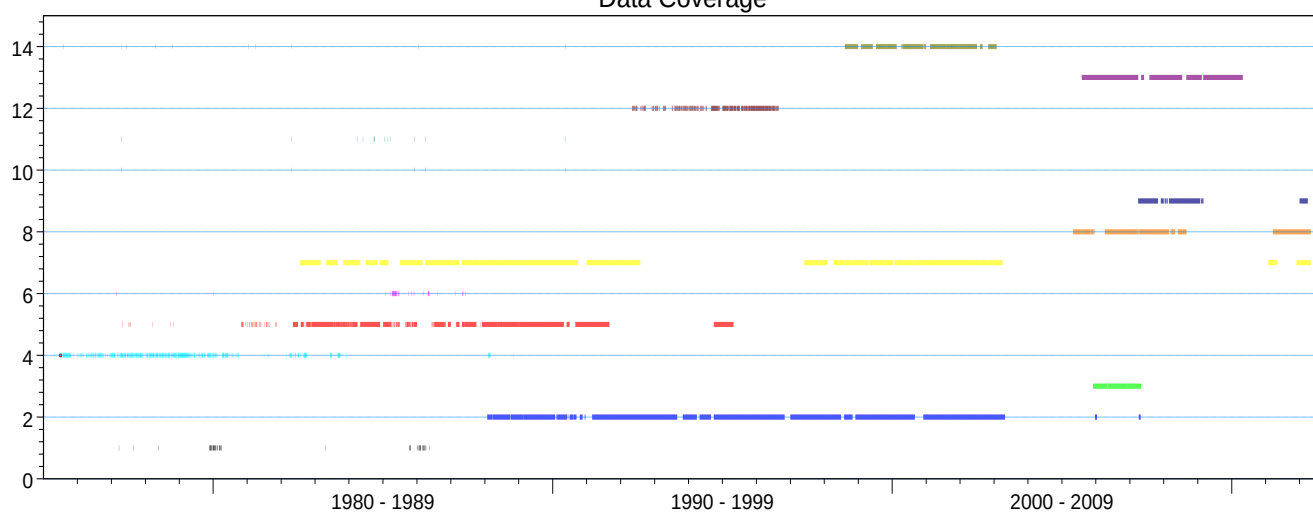
Sr No	Station ID	Station Name
1	2B05	SUAM
2	2B33	SUAM
3	2B34	KOTORUK
4	2C06	KESSUP
5	2C14	KIMWARER
6	2D01	SUGUTA
7	2EA01	MAJI MATAMU
8	2EB01	WARDS STREAM
9	2EB03	SUBUKIA
10	2EB04	LESSER SUBUKIA
11	2EC02	RONGAI
12	2ED01	TIGERI
13	2ED02	LELGEL
14	2ED03	ELDAMA
15	2EE07A	PERKERRA
16	2EE07B	PERKERRA
17	2EG01	MOLO

18	2EG08	LORWAI
19	2EH(NEW)	KIRANDICH
20	2EH02	KINYO
21	2FA08	MERERONI
22	2FC11	Little Shuru
23	2FC19	NJORO
24	2GA01	GILGIL
25	2GA03	GILGIL
26	2GB01	MALEWA
27	2GB04	WANJOHI
28	2GB07	MALEWA
29	2GC04	TURASHA
30	2GC05	NANDARASI
31	2GC07	TURASHA
32	2GC10	MUKUNGI
33	2GD02	KARATI
34	2GD07	KARATI
35	2K03	NAROK
36	2K04	EWASO NYIRO
37	2K06	SEYABEI
38	2K07	NAROSURA
39	2K09	EWASO NYIRO
40	2K12	OLOIBORTOTO
41	2K17	ENOSAGAMI

4.11 Data coverage for river monitoring stations

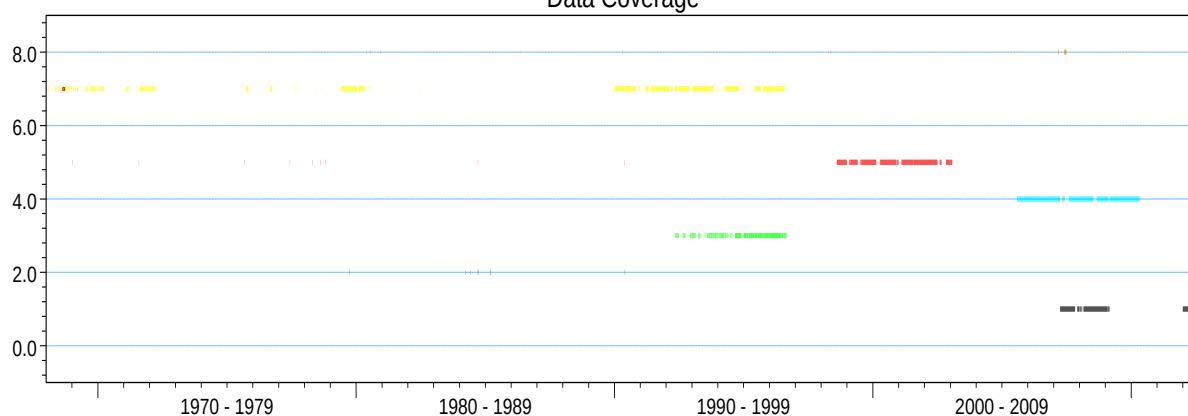
TSID 200001010 - 2B05-SUAM-DISCHARGE
 TSID 200001090 - 2B33 SUAM DISCHARGE
 TSID 200001025 - 2B34-KOTORUK-DISCHARGE
 TSID 200001069 - 2C06 KESSUP - DISCHARGE
 TSID 200001070 - 2C14 KIMWARER - DISCHARGE
 TSID 200001057 - 2D01 SUGUTA - DISCHARGE
 TSID 200001074 - 2EA01 MAJI MATAMU - DISCHARGE
 TSID 200002318 - 2EB01 WARDS STREAM
 TSID 200001167 - 2EB04 LESSER SUBUKIA DISCHARGE
 TSID 200001072 - 2EC02 RONGAI - DISCHARGE
 TSID 200002324 - 2EC02 RONGAI DISCHARGES
 TSID 200001024 - 2EE07A - PERKERRA-DISCHARGE
 TSID 200001062 - 2EE7B PERKERRA - DISCHARGE
 TSID 200001073 - 2EG01 MOLO - DISCHARGE

Data Coverage

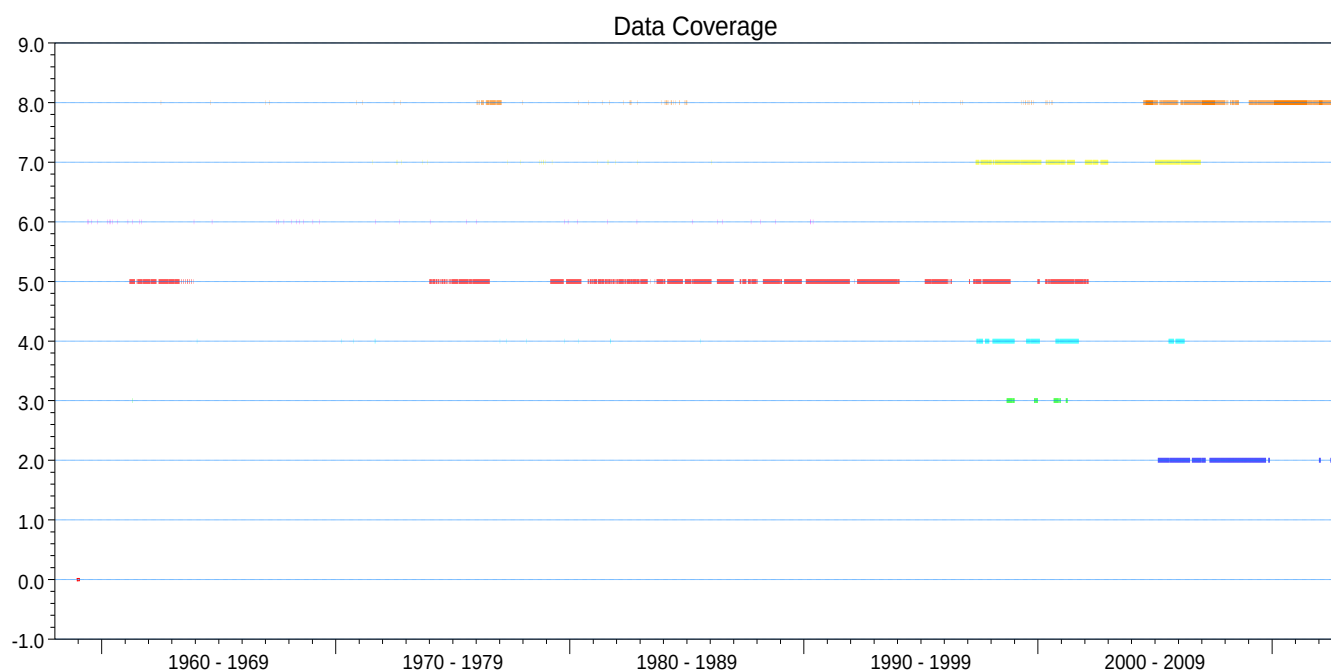


TSID 200001167 - 2EB04 LESSER SUBUKIA DISCHARGE
 TSID 200002324 - 2EC02 RONGAI DISCHARGES
 TSID 200001024 - 2EE07A - PERKERRA-DISCHARGE
 TSID 200001062 - 2EE7B PERKERRA - DISCHARGE
 TSID 200001073 - 2EG01 MOLO - DISCHARGE
 TSID 200002307 - 2EG08 LORWAI DISCHARGES
 TSID 200002305 - 2EH02 KINYO DISCHARGES
 TSID 200001063 - 2FA08 MERERONI - DISCHARGE

Data Coverage

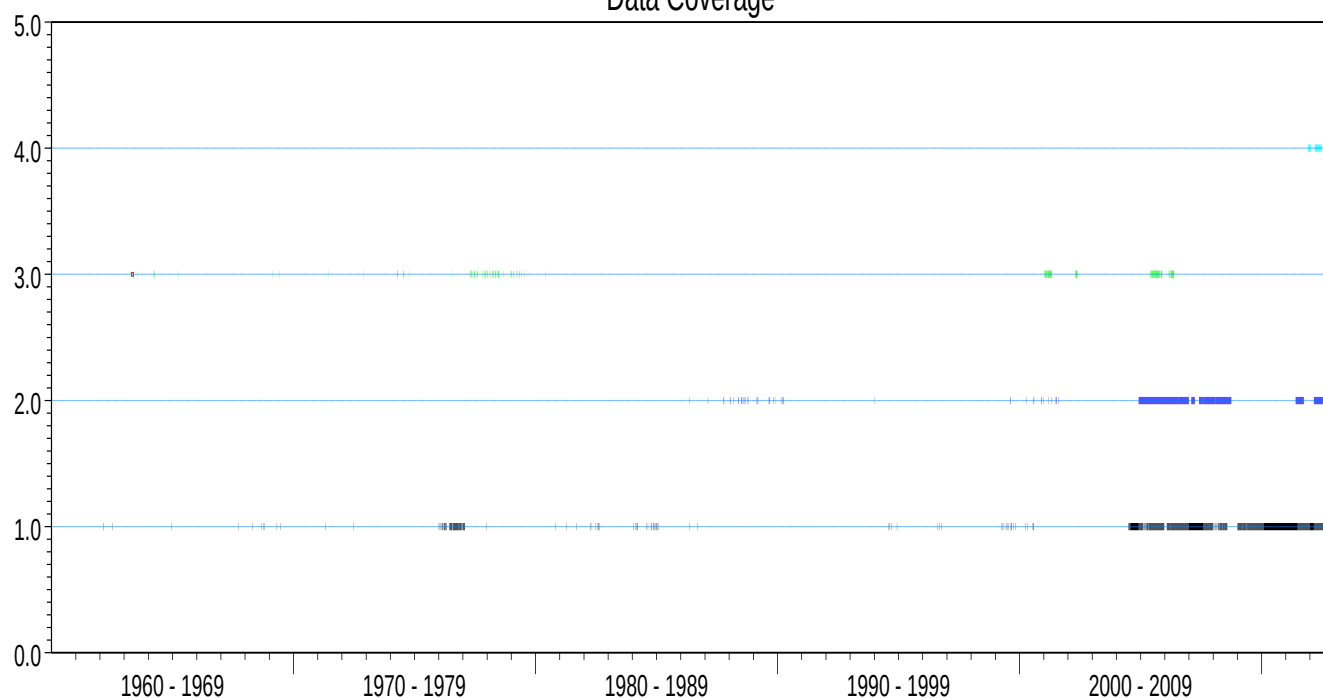


TSID 200002272 - 2FC11 NJORO DISCHSRGES
 TSID 200002293 - 2FC19 NJORO DISCHARGES
 TSID 200001065 - 2GA01 GILIGIL - DISCHARGE
 TSID 200001027 - 2GB01 MALEWA - DISCHARGE
 TSID 200001092 - 2GB04 MALEWA
 TSID 200002161 - 2GB07 - MALEWA DISCHARGES
 TSID 200001077 - 2GC04 TURASHA - DISCHARGE
 TSID 200001078 - 2GC05 NANDARASI - DISCHARGE



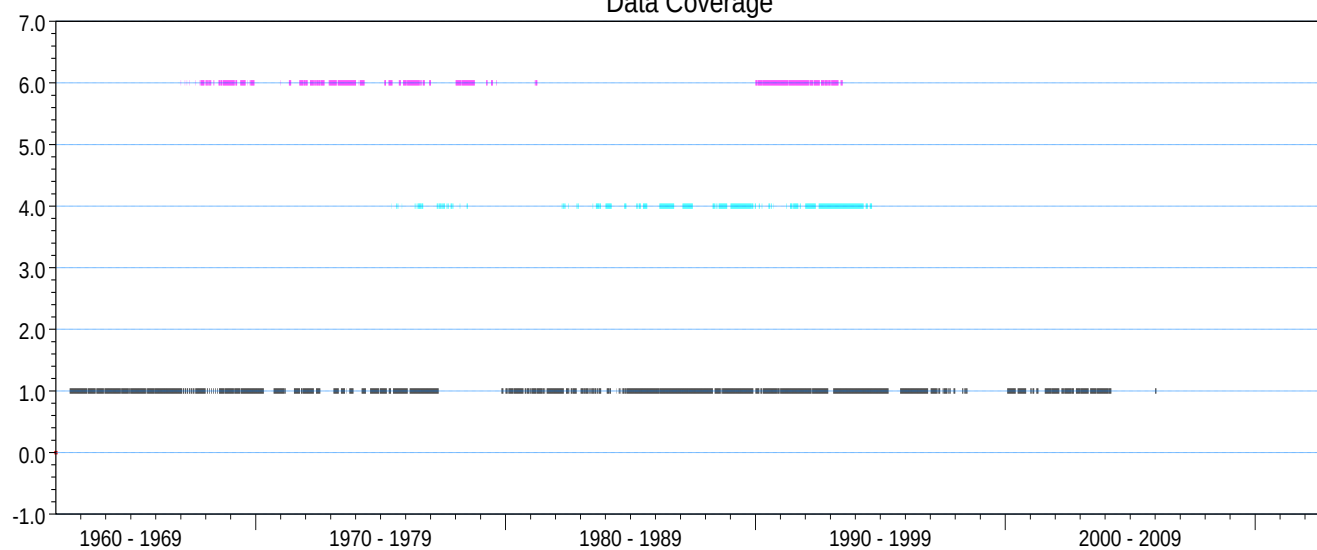
TSID 200001078 - 2GC05 NANDARASI - DISCHARGE
 TSID 200002262 - 2GC10 MUKUNGI KITIRI DISCHARGE
 TSID 200001079 - 2GD02 KARATI - DISCHARGE
 TSID 200002263 - 2GD07 KARATI DISCHARGES

Data Coverage



TSID 200001093 - 2K06 - SEYABEI DISCHARGE
 TSID 200001112 - 2K07 NAROSURA - DISCHARGE
 TSID 200002277 - 2K09 UPPER EWASO NGIRO DISCHARGES
 TSID 200001022 - 2K12-OLOIBORTOTO-DISCHARGE
 TSID 200002282 - 2K17 ENOSOGAMI DISCHARGE
 TSID 200001042 - 2K04 EWASONGIRO-DISCHARGE

Data Coverage

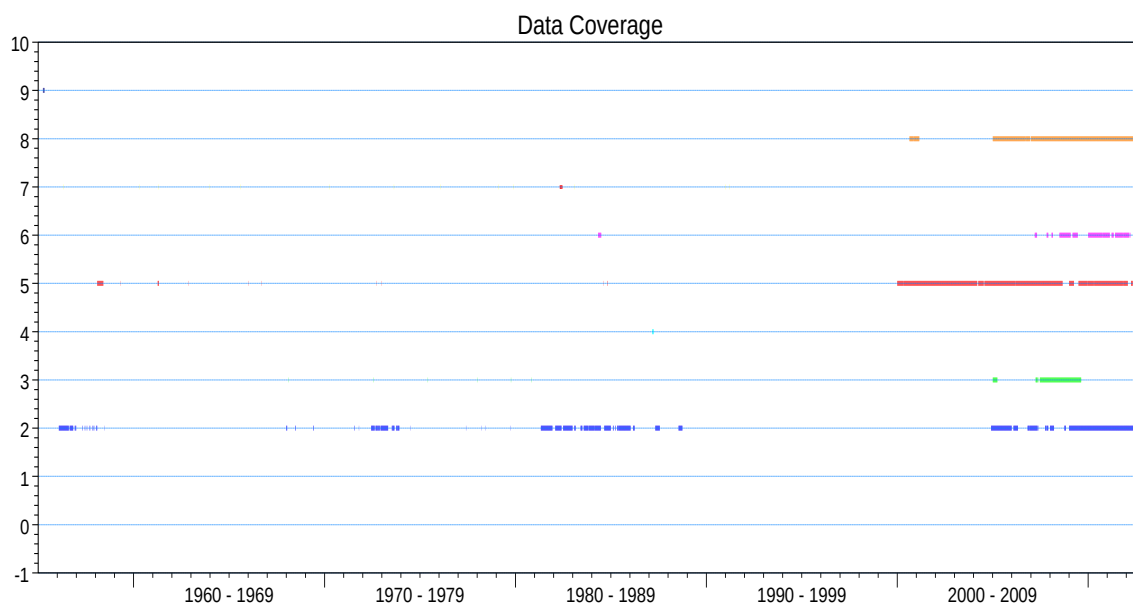


4.12 Lake Levels data coverage

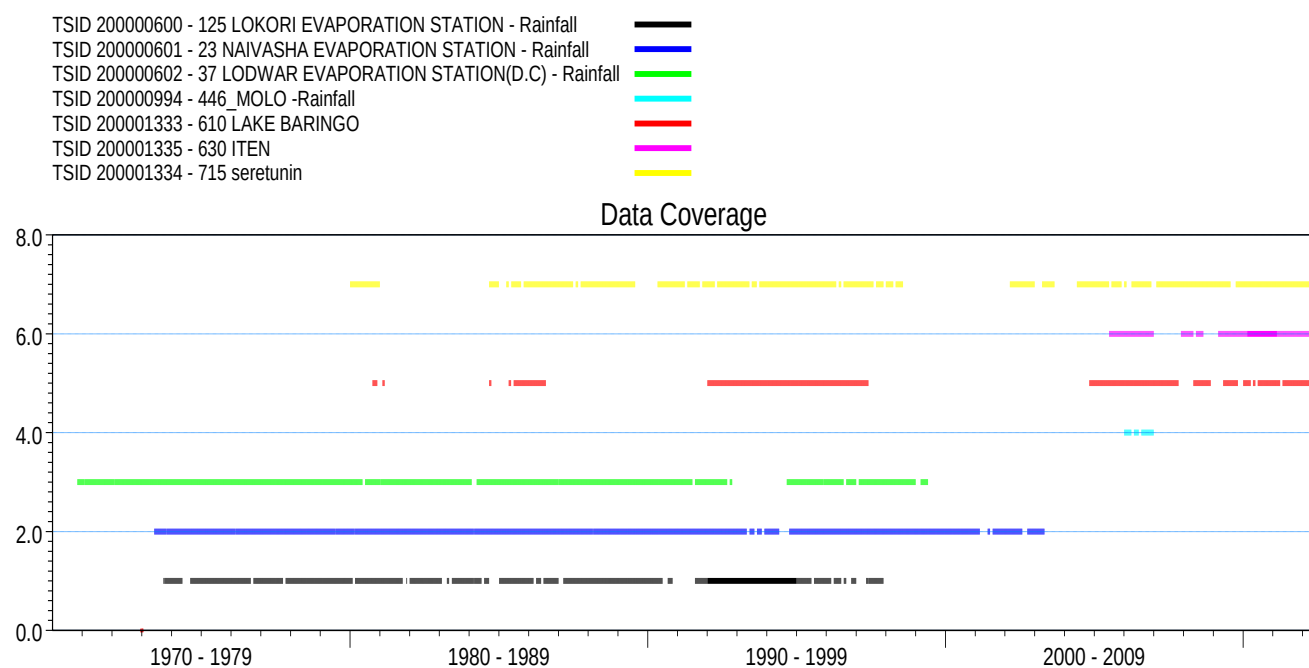
S/ No	Station ID	Station Name
4	2B04	LAKE TURKANA
11	2B13	LAKE TURKANA
63	2EB10	LAKE BOGORIA
96	2EH01	L.BARINGO
103	2FA09	L.ELEMENTAITA
106	2FC04	L.NAKURU
145	2GD06	L. NAIVASHA
147	2GD08	L. NAIVASHA

Lakes with water level gauging stations

TSID 200001029 - 2EB10 LAKE BOGORIA - WaterLevel
 TSID 200000008 - 2EH01 L.BARINGO - WaterLevel
 TSID 200000015 - 2FA09 L.ELEMENTAITA - WaterLevel
 TSID 200000058 - 2GD08 L. NAIVASHA - WaterLevel
 TSID 200000056 - 2GD06 L. NAIVASHA - WaterLevel
 TSID 200000089 - 2B13 LAKE TURKANA - WaterLevel
 TSID 200000018 - 2FC04 L.NAKURU - WaterLevel
 TSID 200001247 - 2EH_(new)KIRANDICH-WaterLevel
 TSID 200000082 - 2B04 LAKE TURKANA - WaterLevel

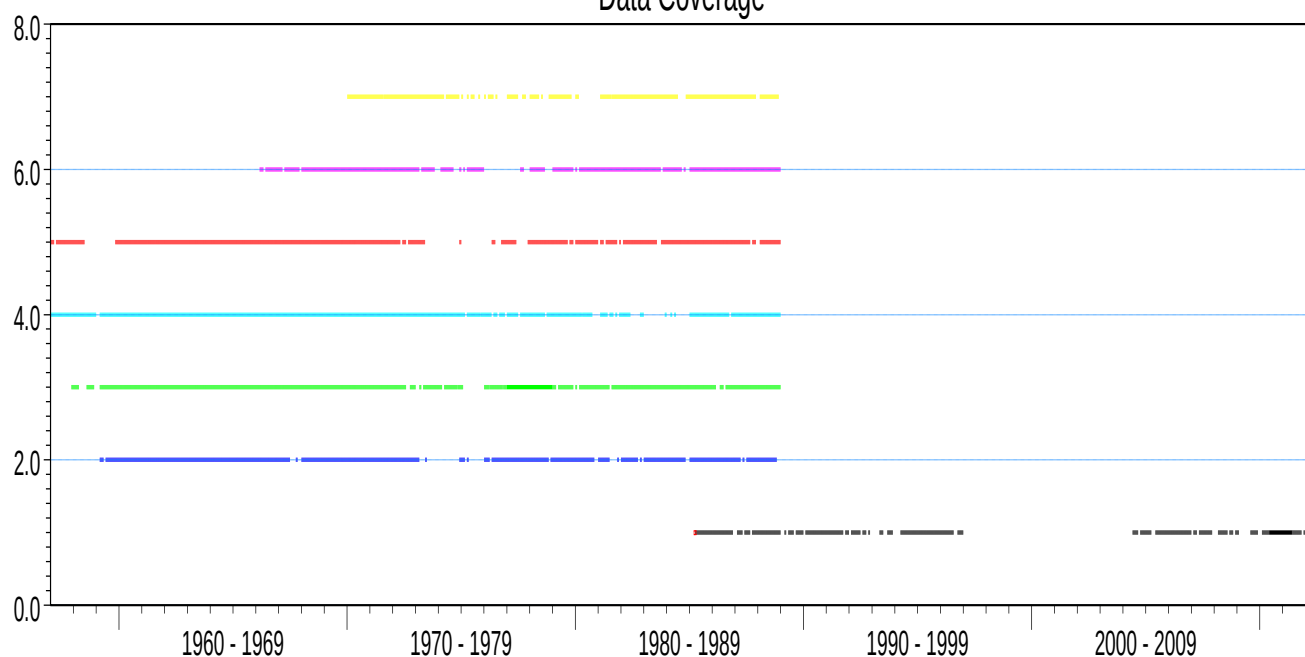


4.13 Rainfall Stations – Data Coverage



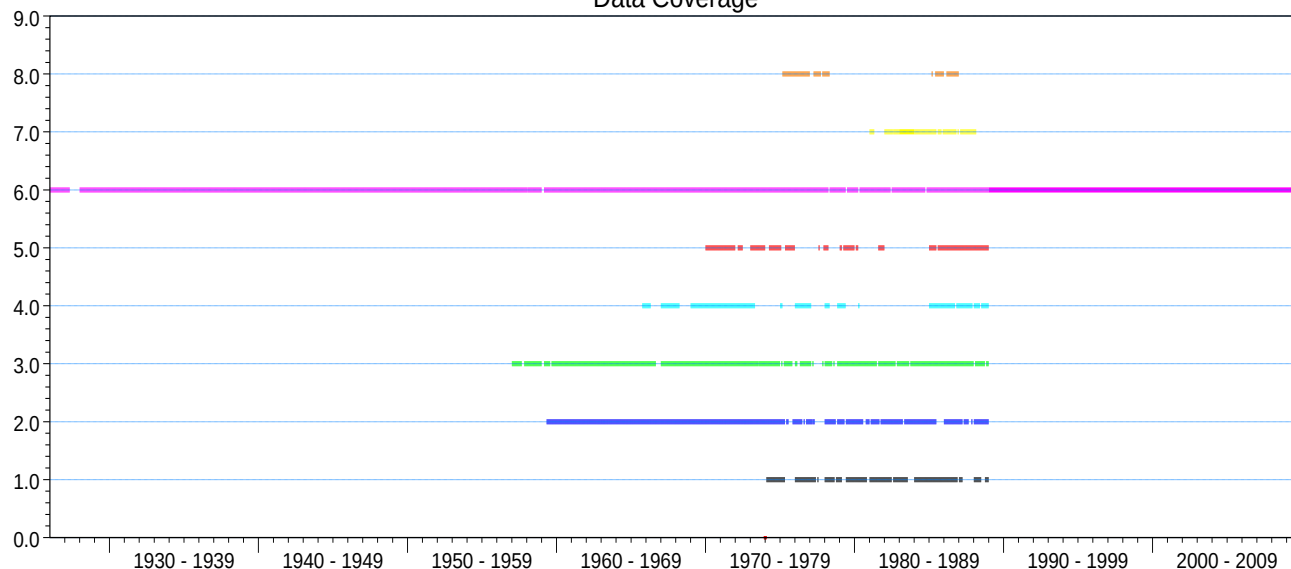
TSID 200001968 - 739 KOLLOA RF
 TSID 200000603 - 8435000 LOKOMARINYANG POLICE POST - Rainfall
 TSID 200000605 - 8534000 LOKICHOGGIO POLICE POST - Rainfall
 TSID 200000606 - 8535000 LOKITAUNG D.O.'S OFFICE - Rainfall
 TSID 200000607 - 8535001 TODENYANG POLICE POST - Rainfall
 TSID 200000608 - 8535003 KOKURO POLICE POST - Rainfall
 TSID 200000609 - 8535004 KAMATHIA POLICE POST - Rainfall

Data Coverage



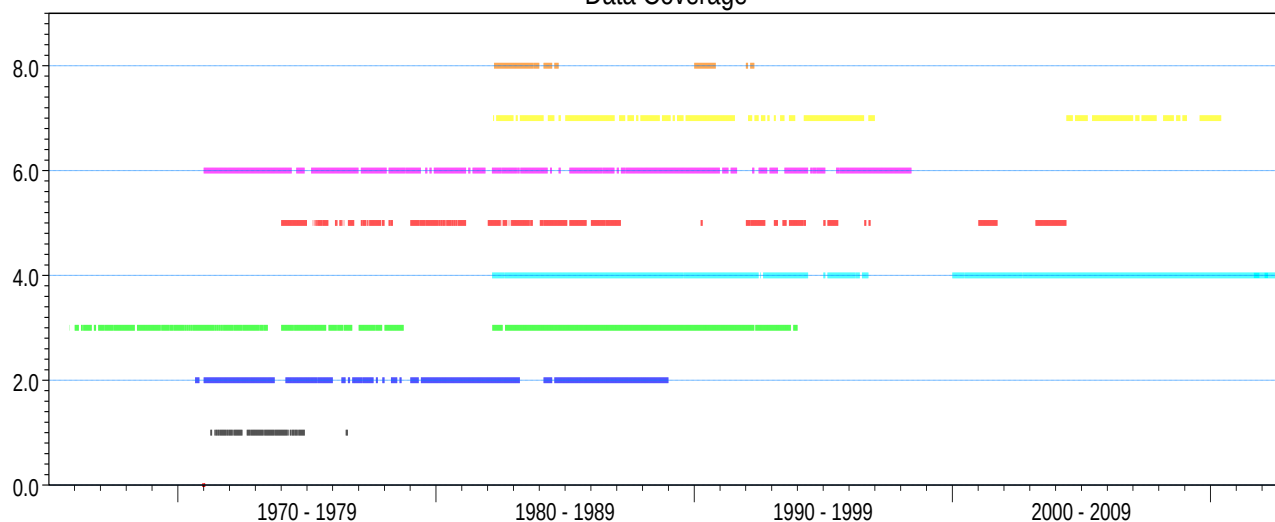
TSID 200000610 - 8535006 LOWARENGAK MISSION - Rainfall
 TSID 200000611 - 8536000 SABAREI POLICE POST - Rainfall
 TSID 200000612 - 8536001 ILERET POLICE POST - Rainfall
 TSID 200000613 - 8634005 KAKUMA CATHOLIC MISSION - Rainfall
 TSID 200000614 - 8634007 OROPOI POLICE POST - Rainfall
 TSID 200000615 - 8635000 LODWAR METEOROLOGICAL STATION - Rainfall
 TSID 200000616 - 8635002 KALOKAL FISHERIES DEPARTMENT - Rainfall
 TSID 200000617 - 8635003 MAKUTANO WATER SUPPLY - Rainfall

Data Coverage



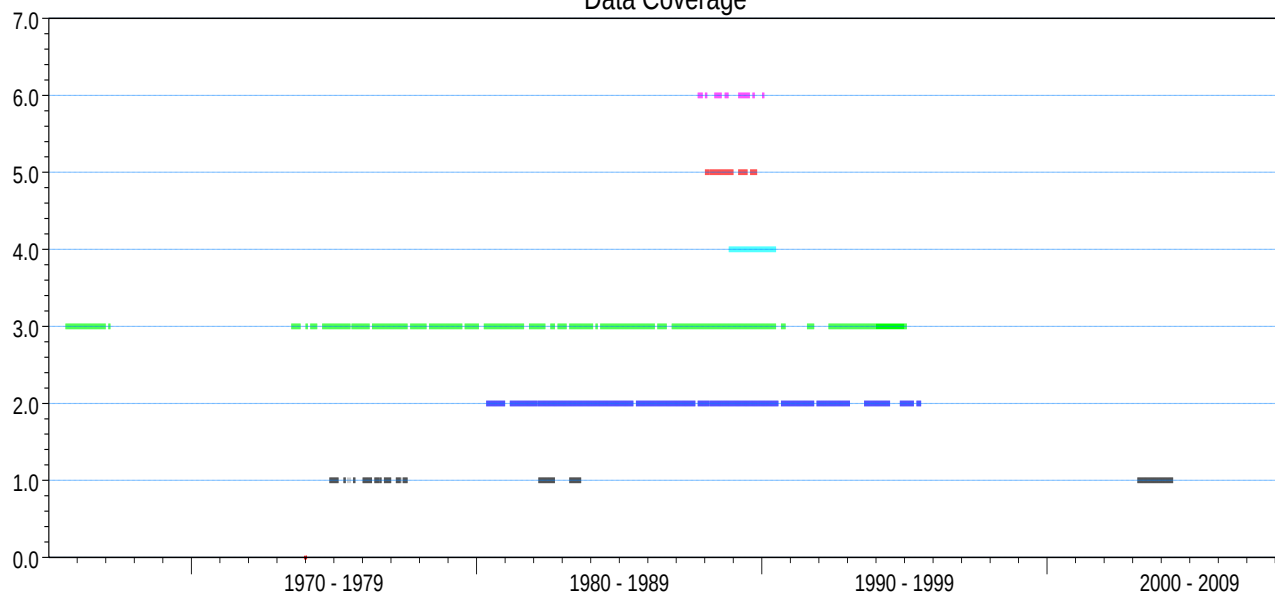
TSID 200000619 - 8735004 KEKORONGO IRRIGATION SCHEME - Rainfall
 TSID 200000620 - 8735005 KAPUTIR IRRIGATION SCHEME - Rainfall
 TSID 200000621 - 8835026 KACHELIBA D.O'S OFFICE - Rainfall
 TSID 200000622 - 8835027 SEBIT AGRIC.OFFICE KAPENGURIA - Rainfall
 TSID 200000623 - 8835028 CHEPARERIA PRIMARY SCHOOL - Rainfall
 TSID 200000624 - 8835029 SIGOR D.O'S OFFICE - Rainfall
 TSID 200000625 - 8835040 KOLLOA DISPENSARY - Rainfall
 TSID 200000626 - 8835046 CHESONGOCH MISSION - Rainfall

Data Coverage



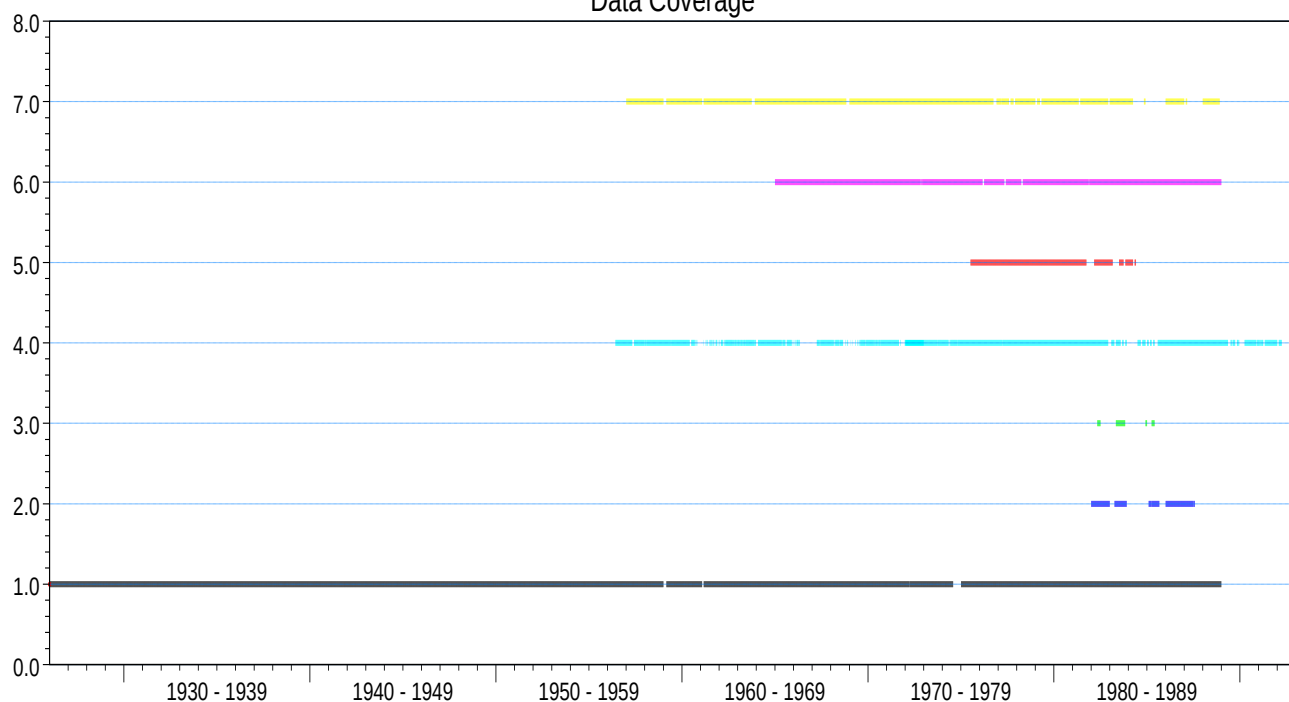
TSID 200000628 - 8835051 CHEPKOPEGH PRIMARY SCHOOL - Rainfall
 TSID 200000630 - 8835056 KODICH KARAPOKOT - Rainfall
 TSID 200000631 - 8836009 LOKORI SOUTH TURKANA - Rainfall
 TSID 200000632 - 8836013 LESIRIKAN TRADING CENTRE - Rainfall
 TSID 200000633 - 8836014 LOSUK PRIMARY SCHOOL - Rainfall
 TSID 200000634 - 8836017 MORIJO PRIMARY SCHOOL - Rainfall

Data Coverage



TSID 200000636 - 8935020 KABARNET D.C.'S OFFICE - Rainfall
 TSID 200000637 - 8935051 KABARTONJO AGRIC STATION - Rainfall
 TSID 200000638 - 8935093 KIBOINO PRIMARY SCHOOL KABARNET - Rainfall
 TSID 200000639 - 8935128 KABARNET DEMONSTRATION HOLDING - Rainfall
 TSID 200000640 - 8935134 KESSUP FOREST RESERVE ELGEYO - Rainfall
 TSID 200000641 - 8935163 PERKERRA AGRIC RESEARCH STN. - Rainfall
 TSID 200000642 - 8936026 KABARNET HOT SPRINGS DISPENSARY - Rainfall

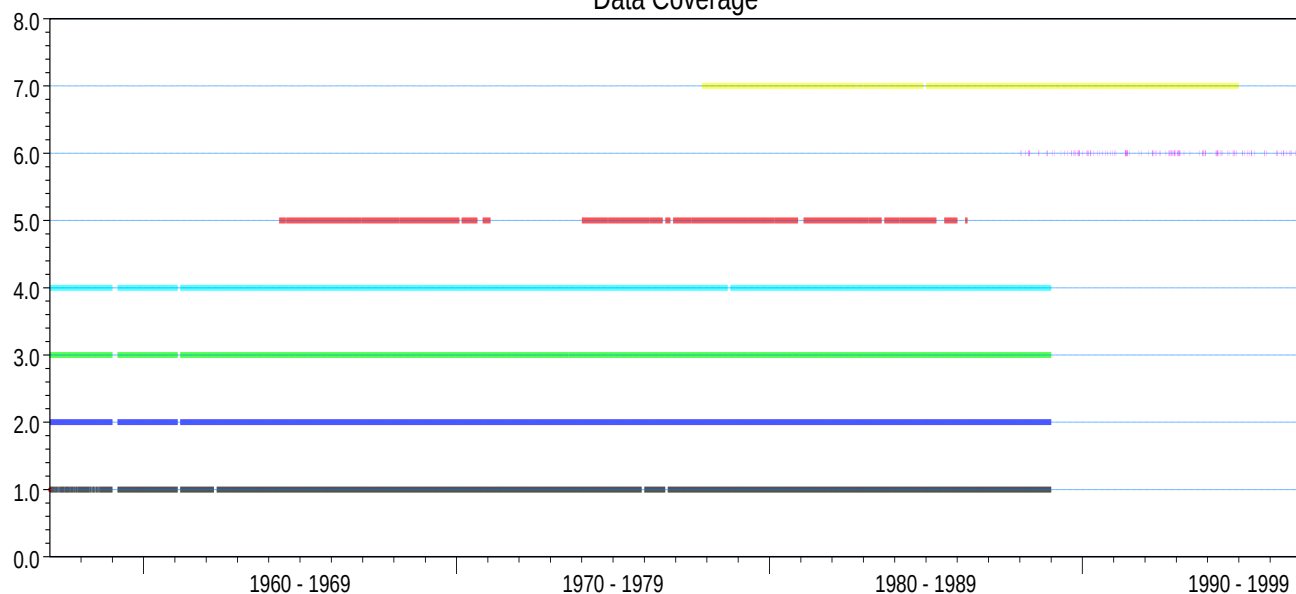
Data Coverage



TSID 200000655 - 9036020 NAKURU RAILWAY STATION - Rainfall
 TSID 200000656 - 9036025 N. KINANGOP FOREST STATION - Rainfall
 TSID 200000657 - 9036029 GILGIL KWETU FARM - Rainfall
 TSID 200000658 - 9036032 BAHATI FOREST STATION - Rainfall
 TSID 200000659 - 9036055 OL KALAU RAILWAY STATION - Rainfall
 TSID 200000661 - 9036081 NAIVASHA VET.EXPT. STATION - Rainfall
 TSID 200000663 - 9036227 ELEMENTAITA NDERIT RANGER POST - Rainfall



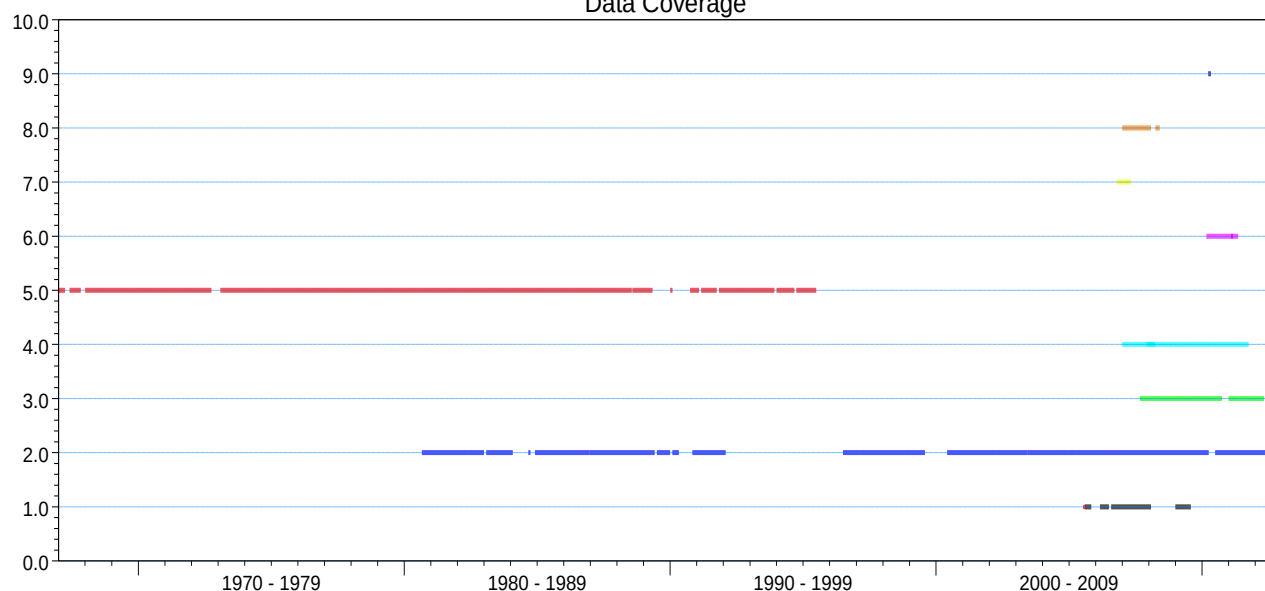
Data Coverage



TSID 200001337 - CHEMOLINGOT
 TSID 200001273 - KABARNET 53
 TSID 200001336 - KAPKOI
 TSID 200000998 - KISHAUNET -Rainfall
 TSID 200002238 - NAROK WATER SUPPLY - RAINFALL
 TSID 200002132 - NAROOSURA
 TSID 200001000 - RVCA -Rainfall
 TSID 200000999 - TURKWEL GORGE -Rainfall
 TSID 200002124 - WRMA_RVCA_YARD

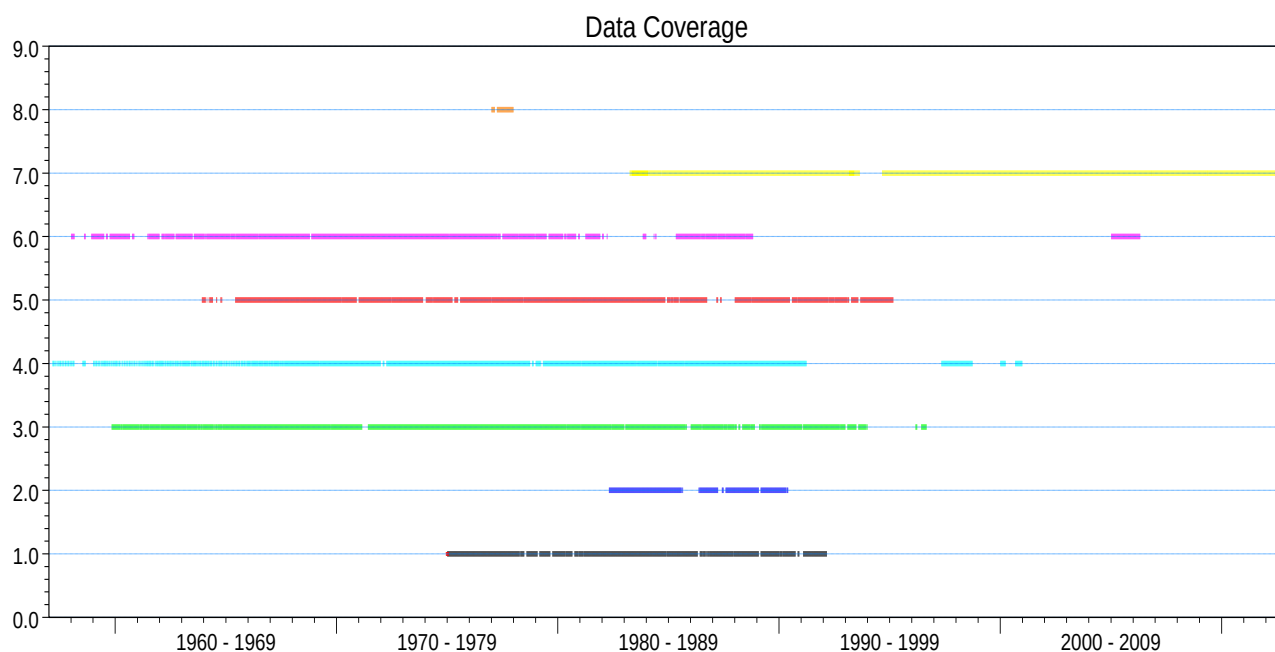


Data Coverage

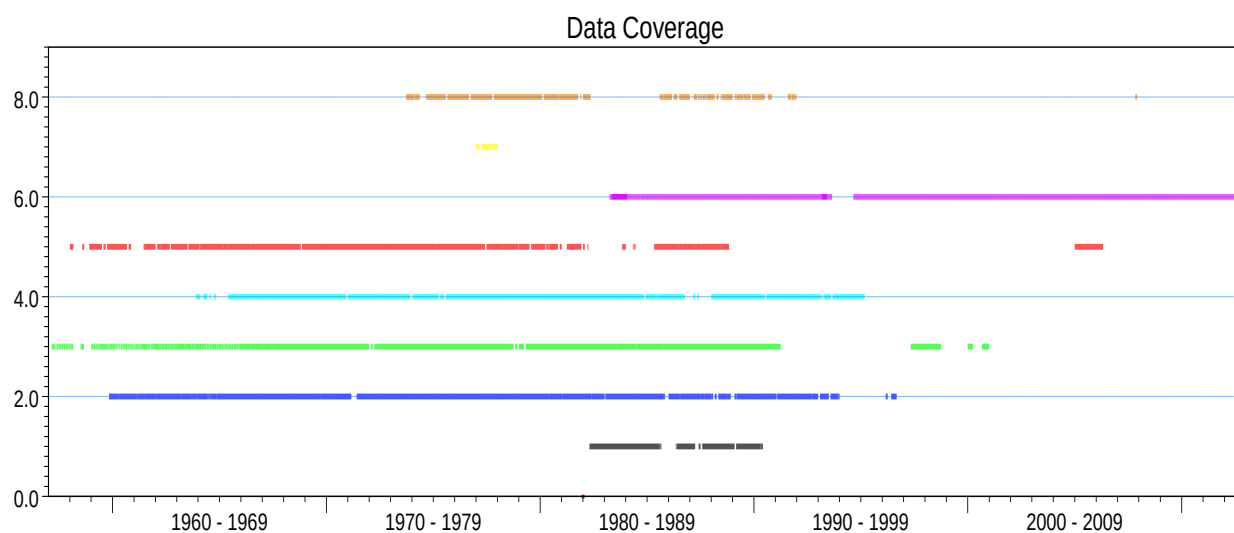


4.14 Data Coverage for Evaporation Stations

TSID 200000594 - 130 - ELDAMA RAVINE EVAP STATION - Evaporation_daily
 TSID 200000595 - 143 - GILGIL WATER SUPPLY EVAP STATION - Evaporation_daily
 TSID 200000596 - 23 - NAIVASHA EVAPORATION STATION - Evaporation_daily
 TSID 200000597 - 23000 - NAIVASHA AT KONGONI EVAP STATION - Evaporation_daily
 TSID 200000598 - 26 - NAKURU SHOW GROUND EVAP STATION - Evaporation_daily
 TSID 200000955 - 37 - LODWAR EVAPORATION STATION(D.C) - Evaporation_daily
 TSID 200002295 - 738 KAPENGURIA WATER YARD
 TSID 200002292 - ELDAMA RAVINE WATER SUPPLY



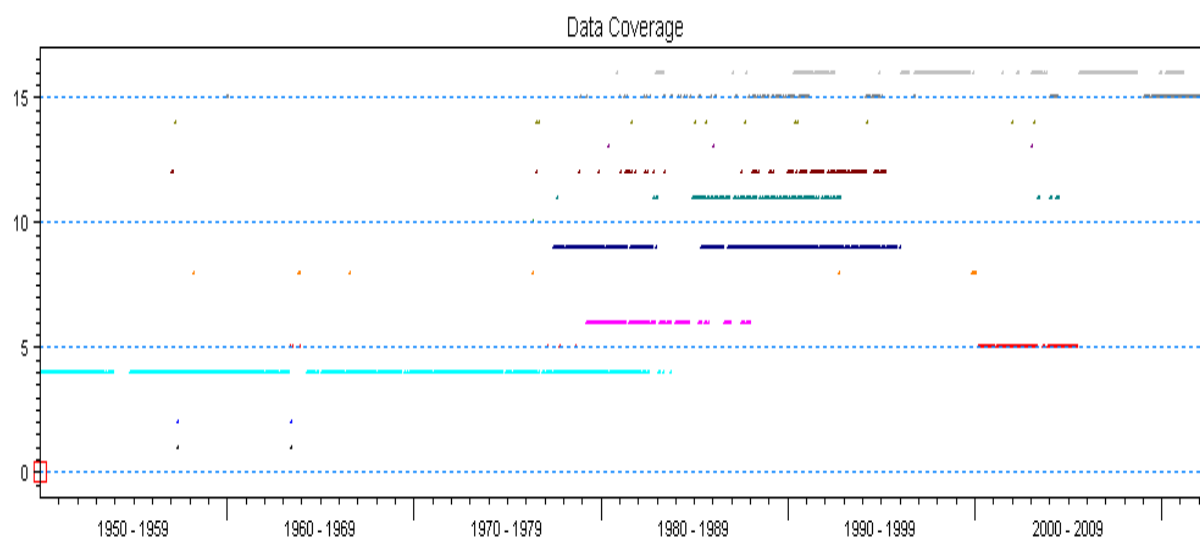
TSID 200000595 - 143 - GILGIL WATER SUPPLY EVAP STATION - Evaporation_daily
 TSID 200000596 - 23 - NAIVASHA EVAPORATION STATION - Evaporation_daily
 TSID 200000597 - 23000 - NAIVASHA AT KONGONI EVAP STATION - Evaporation_daily
 TSID 200000598 - 26 - NAKURU SHOW GROUND EVAP STATION - Evaporation_daily
 TSID 200000955 - 37 - LODWAR EVAPORATION STATION(D.C) - Evaporation_daily
 TSID 200002295 - 738 KAPENGURIA WATER YARD
 TSID 200002292 - ELDAMA RAVINE WATER SUPPLY
 TSID 200000593 - 125 - LOKORI EVAPORATION STATION - Evaporation_daily

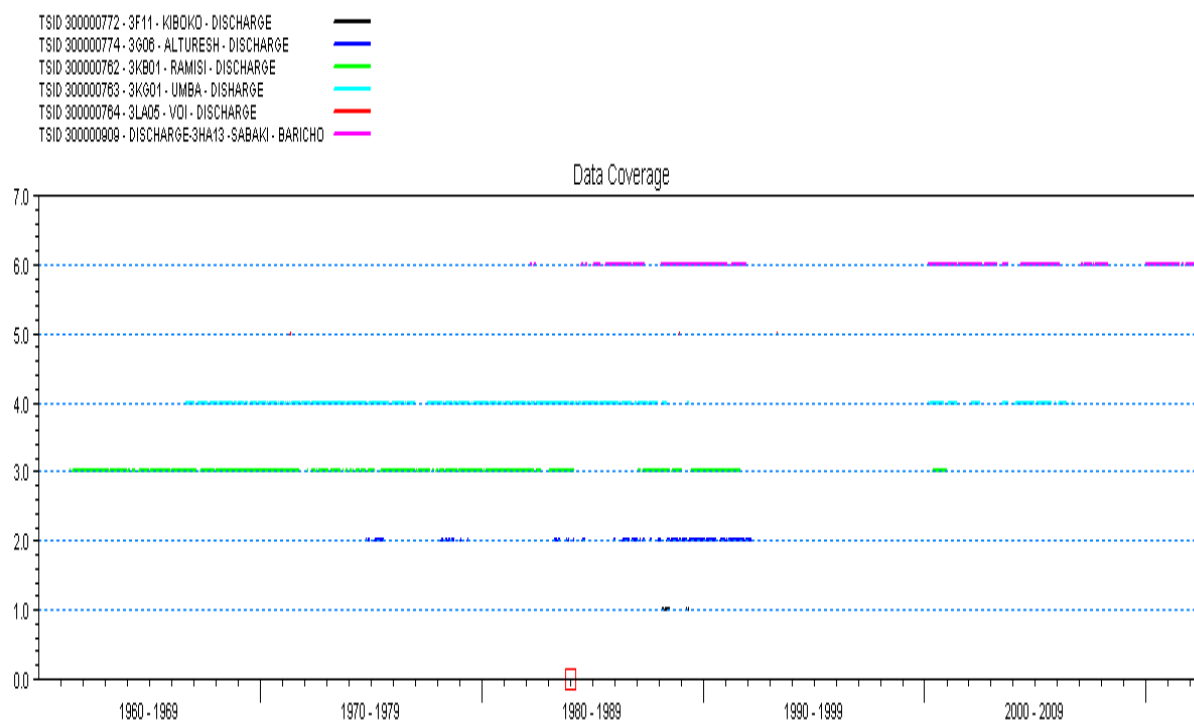


5. ATHI CATCHMENT AREA

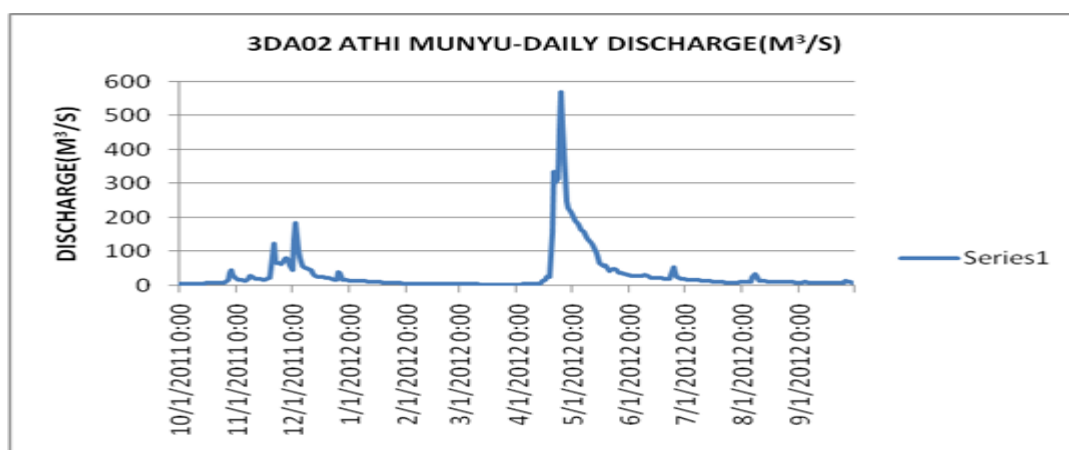
5.1 Data coverage for river monitoring stations

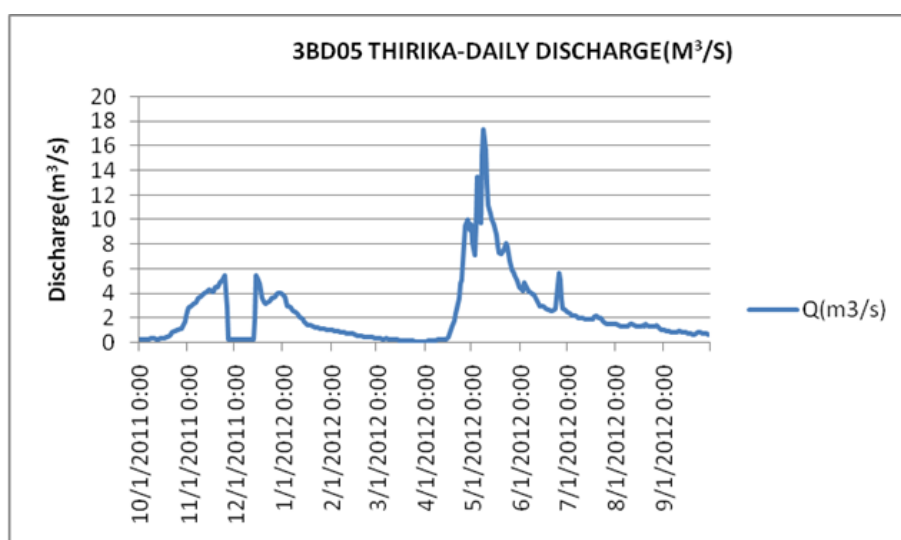
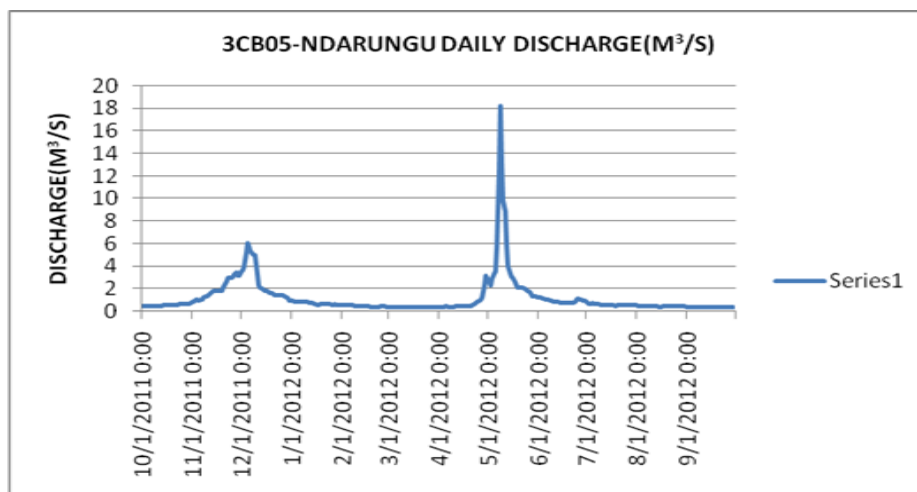
TSID 300000741 - 3AA04 - MBAGATHI - DISCHARGE	—
TSID 300000742 - 3AA04 - MBAGATHI - DISCHARGE	—
TSID 300000771 - 3AA06 - ATHI - DISCHARGE	—
TSID 300000748 - 3BA10 - RUARAKA - DISCHARGE	—
TSID 300000747 - 3BA29 - NAIROBI - DISCHARGE	—
TSID 300000746 - 3BA32 - NAIROBI - DISCHARGE	—
TSID 300000751 - 3BB11 - KIU - DISCHARGE	—
TSID 300000750 - 3BB12 - KAMITI - DISCHARGE	—
TSID 300000754 - 3BC08 - RUIRU - DISCHARGE	—
TSID 300000755 - 3BD05 - THIRIRIKA - DISCHARGE	—
TSID 300000906 - 3CB02 - NDARUGU - DISCHARGE	—
TSID 300000775 - 3CB05 - NDARUGU - DISCHARGE	—
TSID 300000907 - 3CB07 - RUABORA - DISCHARGE	—
TSID 300000740 - 3DA02 - ATHI MUNYU - DISCHARGE	—
TSID 300000758 - 3F02 - ATHI MAVINDINI - DISCHARGE	—
TSID 300000761 - 3F06 - KIBWEZI SPRINGS - DISCHARGE	—





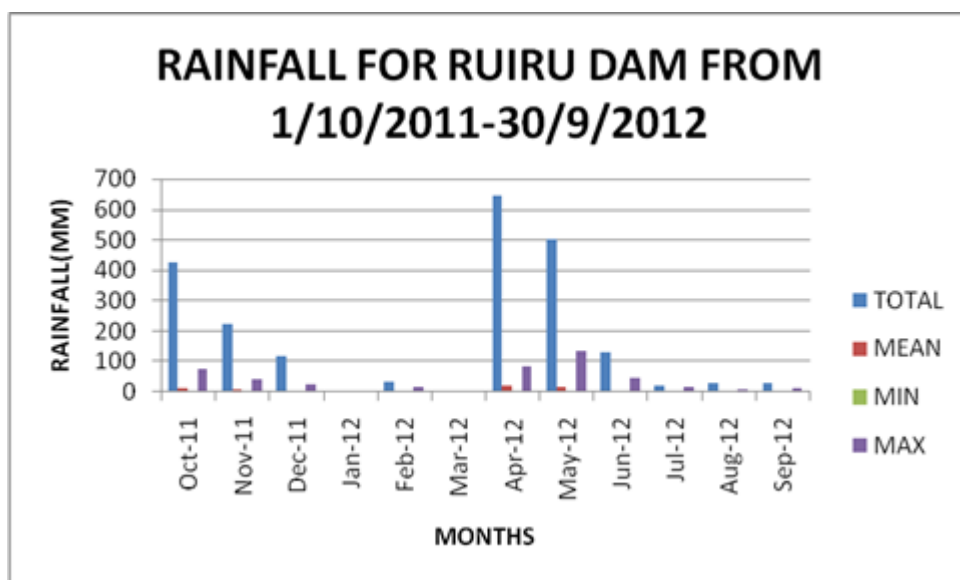
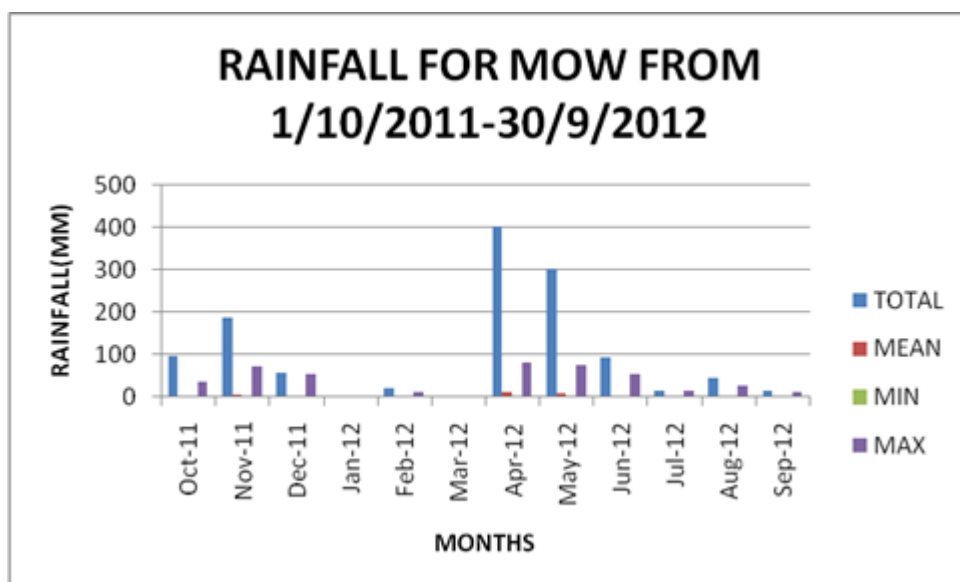
5.2 Hydrographs for selected stations

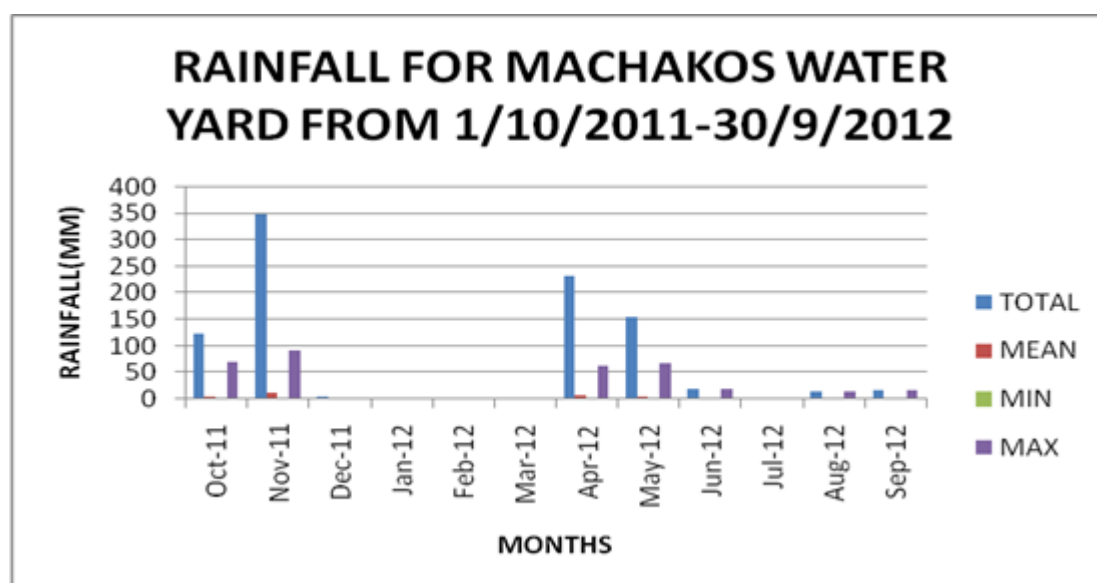
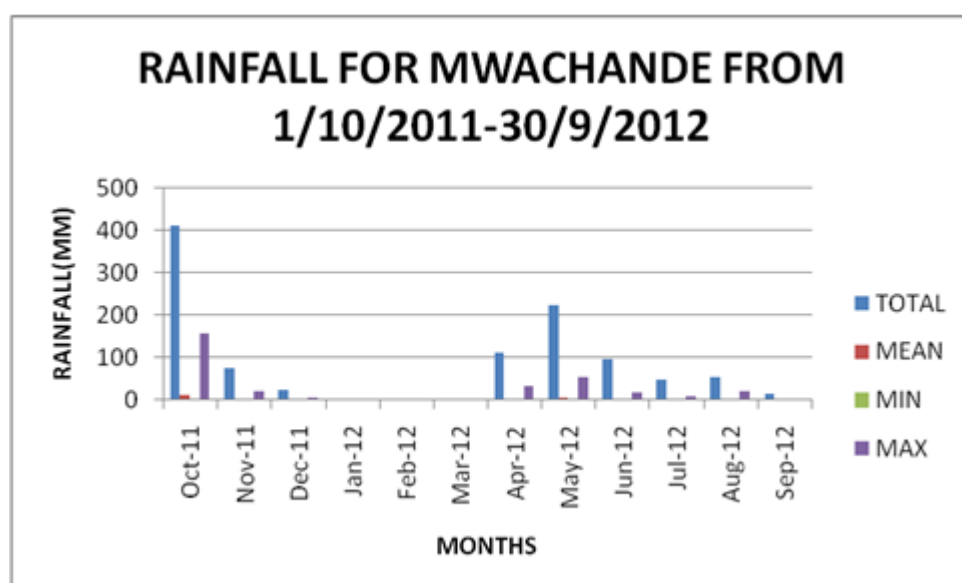


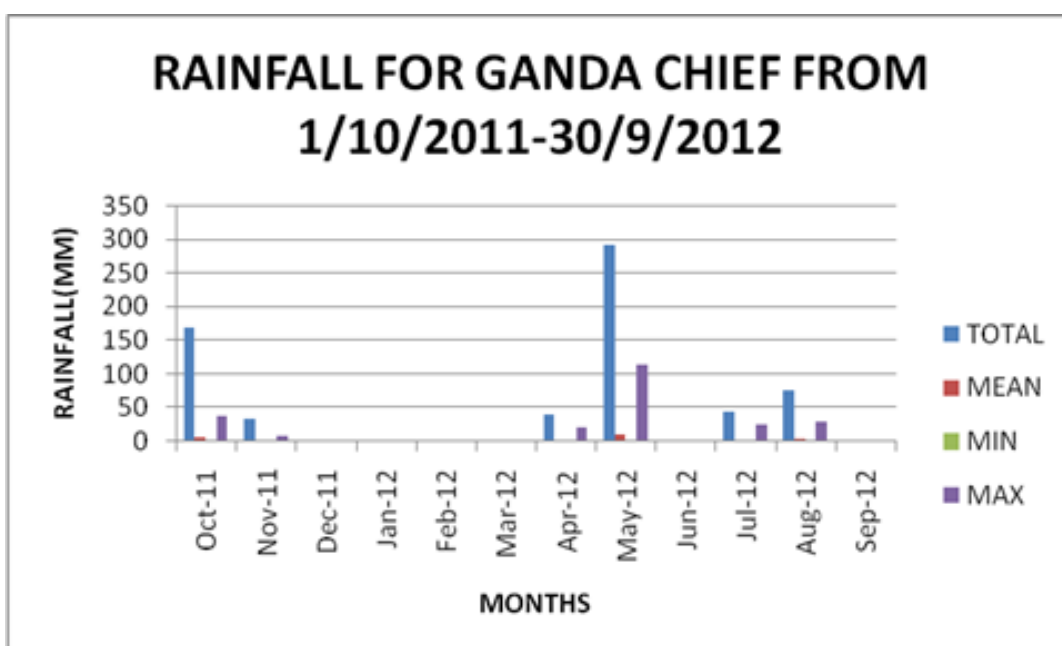
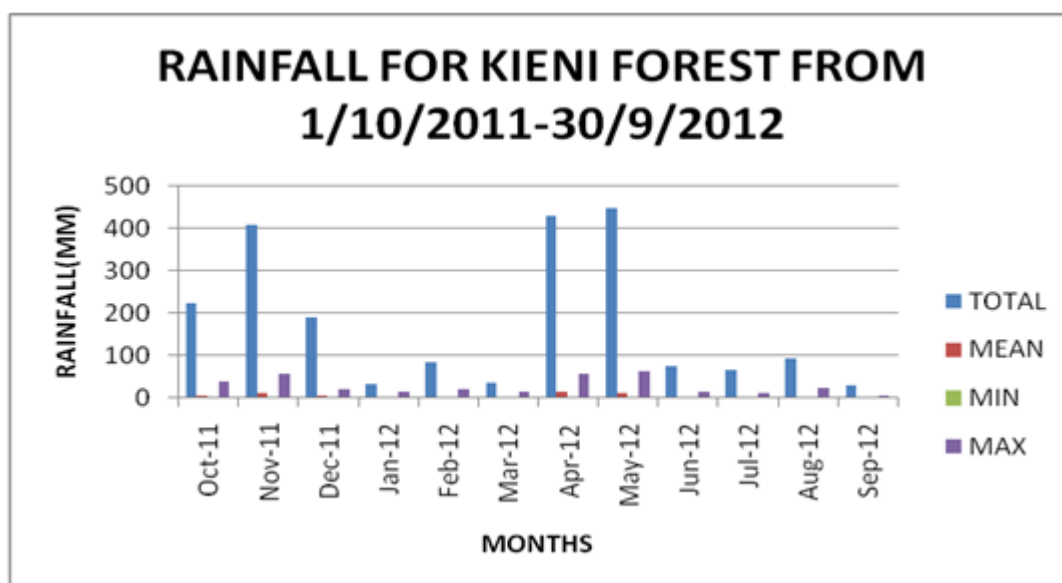


5.3 Rainfall Stations

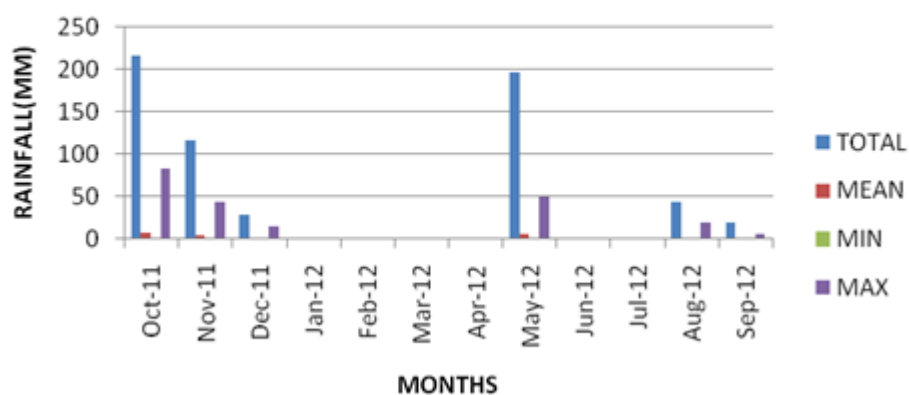
5.3.1 Bar graphs for selected stations



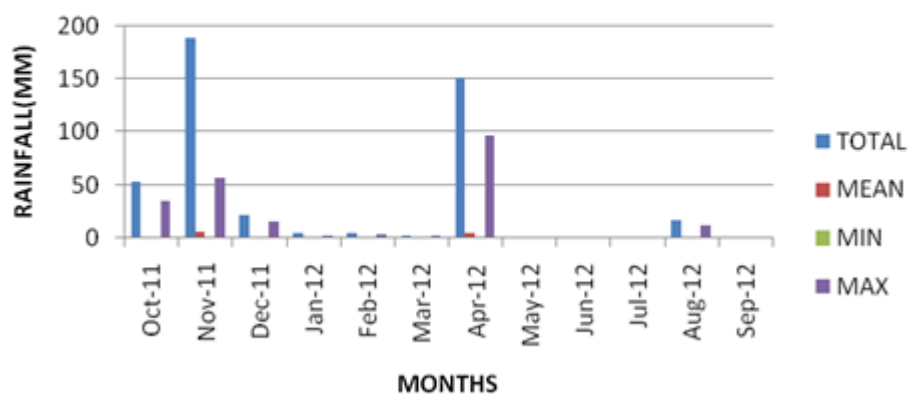




RAINFALL FOR KINANGO AGRI. FROM 1/10/2011-30/9/2012

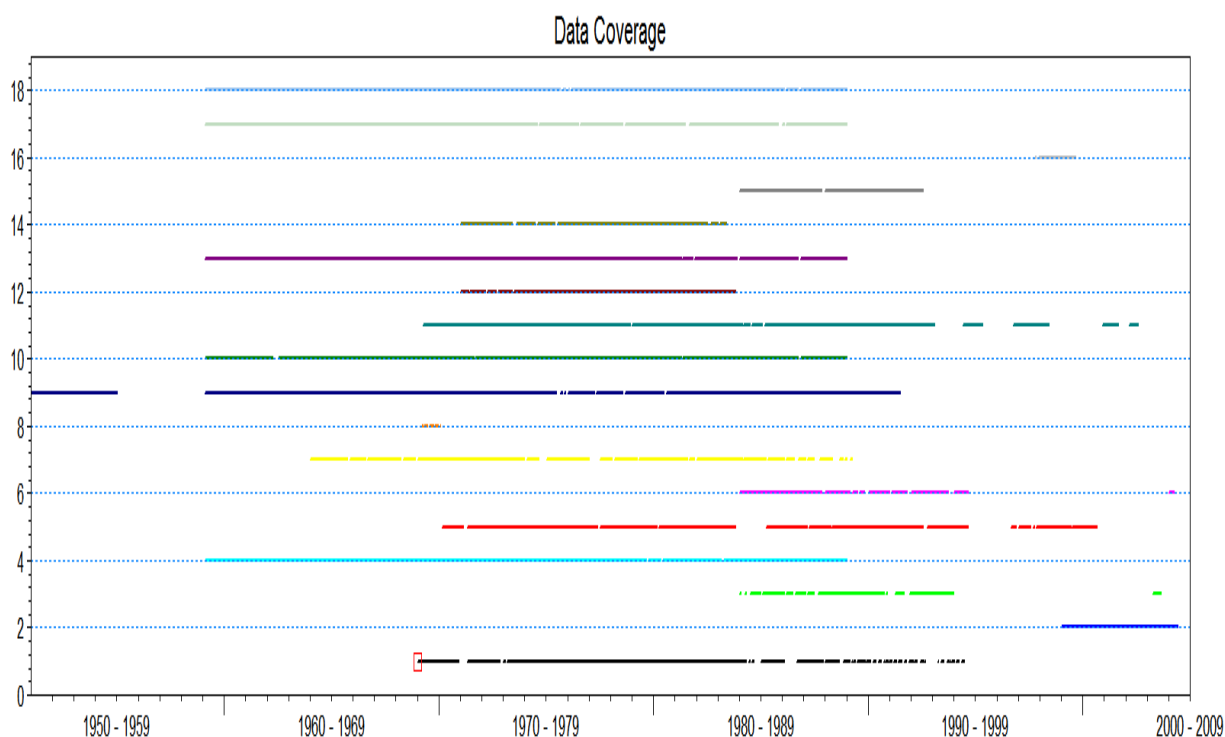


RAINFALL FOR WRMA KIBWEZI OFFICE FROM 1/10/2011-30/9/2012



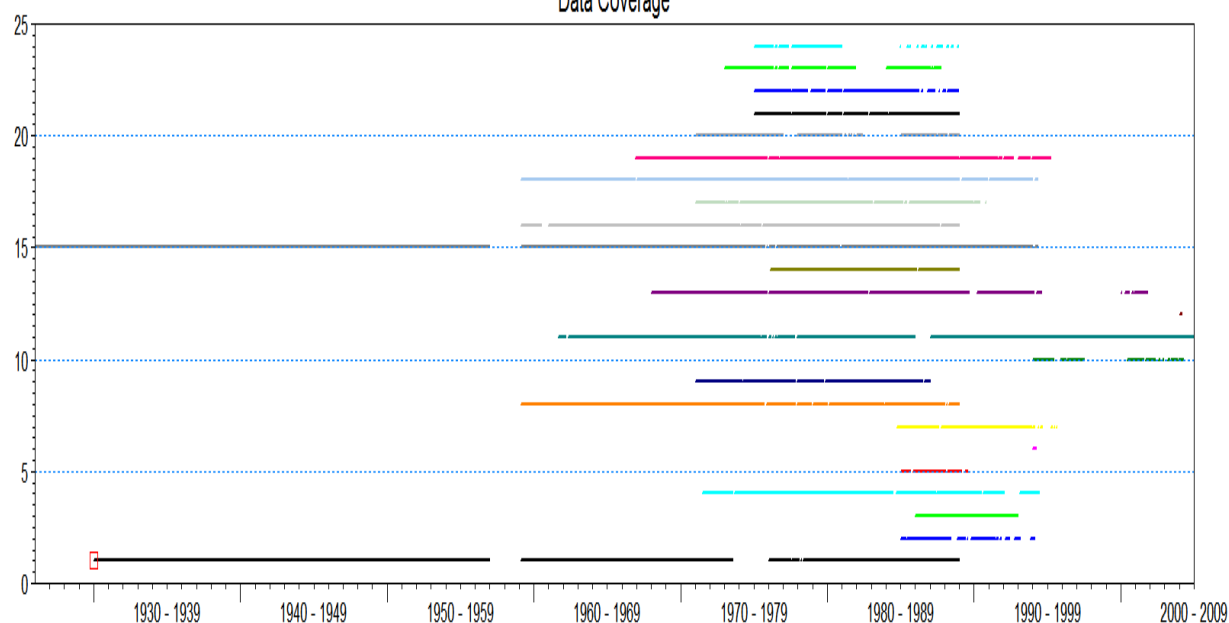
5.3.2 Rainfall Stations – Data Coverage

TSID 300000569 - 9036191 KERITA KINALE - Rainfall	—
TSID 300000570 - 9036244 KIENI FOREST STATION - Rainfall	—
TSID 300000571 - 9136013 NGONG DIVISIONAL OFFICE - Rainfall	—
TSID 300000572 - 9136014 KAMUNDU ESTATE KIAMBU - Rainfall	—
TSID 300000573 - 9136022 UPLANDS LARI FOREST STATION - Rainfall	—
TSID 300000574 - 9136039 KAJIADO DISTRICT OFFICE - Rainfall	—
TSID 300000575 - 9136084 RUIRU JACARANDA COFFEE RES. STN. - Rainfall	—
TSID 300000576 - 9136093 NAIROBI DAM - Rainfall	—
TSID 300000577 - 9136121 MUGUGA E.A.A.F.R.O. - Rainfall	—
TSID 300000578 - 9136130 NAIROBI WILSON AIRPORT - Rainfall	—
TSID 300000579 - 9136158 NAIROBI WATER DEVELOPMENT DEPT. - Rainfall	—
TSID 300000580 - 9136161 LIMURU DISTRICT OFFICE - Rainfall	—
TSID 300000581 - 9136164 DAGORETTI CORNER MET STATION - Rainfall	—
TSID 300000582 - 9136166 FARM 6831 DANDORA - Rainfall	—
TSID 300000583 - 9136185 KAJIADO MASAI RURAL TR. CENTRE - Rainfall	—
TSID 300000584 - 9137001 KONZA RAILWAY STATION - Rainfall	—
TSID 300000585 - 9137003 MALILI RANCH LTD. - Rainfall	—
TSID 300000586 - 9137010 MACHAKOS DISTRICT OFFICE - Rainfall	—



TSID 300000606 - 9237003 SIMBA RAILWAY STATION - Rainfall
 TSID 300000607 - 9237004 LOTOKITOK D.O.'S OFFICE - Rainfall
 TSID 300000608 - 9237007 KAJADO MASHURU DISPENSARY - Rainfall
 TSID 300000609 - 9237022 LOTOKITOK OUTWARD SCHOOL - Rainfall
 TSID 300000610 - 9237026 ENTONET AGR. TREE NURSERY - Rainfall
 TSID 300000611 - 9237032 SELENGETI GAME POST - Rainfall
 TSID 300000612 - 9237040 ILASSIT WATER DEV. CAMP. - Rainfall
 TSID 300000613 - 9238009 MITTO ANDEI TSAVO NAT. PARK - Rainfall
 TSID 300000614 - 9238018 BUSHWHACKER'S SAFARI CAMP - Rainfall
 TSID 300000615 - 9238034 T.A.D.A.FARM KEVANDA - Rainfall
 TSID 300000616 - 9239000 MALINDI ADU LOCATION - Rainfall
 TSID 300000617 - 9240027 KAMALE PRIMARY SCHOOL - Rainfall
 TSID 300000618 - 9337110 TAVETA WATER DEVELOPMENT STATION - Rainfall
 TSID 300000619 - 9337140 KIWALE MALARIA FIELD STATION - Rainfall
 TSID 300000620 - 9338001 VOI METEOROLOGICAL STATION - Rainfall
 TSID 300000621 - 9338007 MAKTAU RAILWAY STATION - Rainfall
 TSID 300000622 - 9338017 MZIMA SPRINGS - Rainfall
 TSID 300000623 - 9338018 VOI RUKANGA-KASIGAU - Rainfall
 TSID 300000624 - 9338022 BACHUMA RANGE RESEARCH STN - Rainfall
 TSID 300000625 - 9338027 NGULIA LODGE - Rainfall
 TSID 300000626 - 9338033 MBALE CHIEF'S OFFICE - Rainfall
 TSID 300000627 - 9338034 RONGE JUU NDILE SHOP - Rainfall
 TSID 300000628 - 9338036 MANYANI GATE - Rainfall
 TSID 300000629 - 9338040 LUGARD FALLS - Rainfall

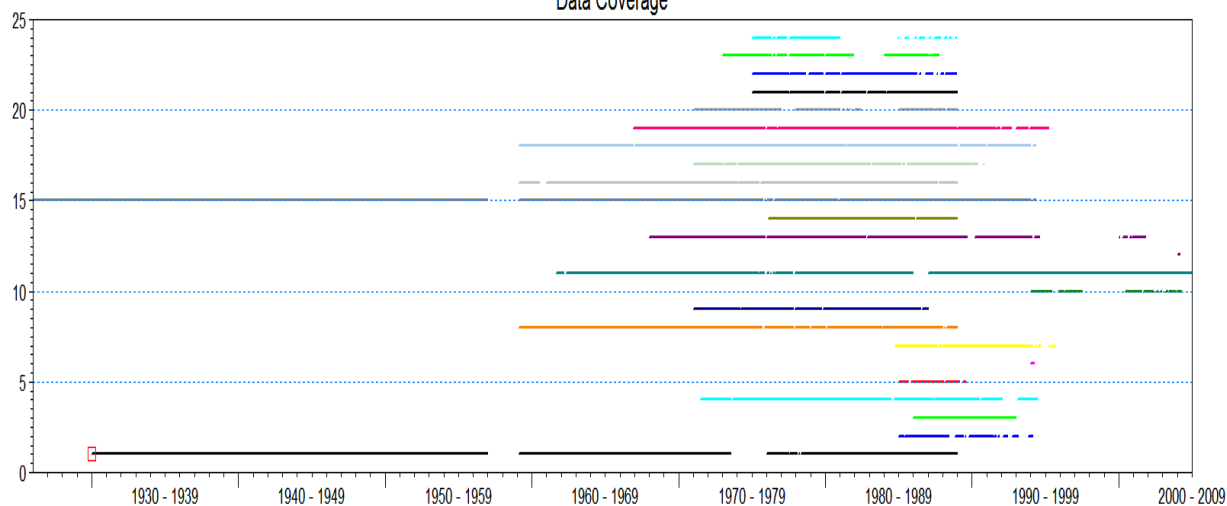
Data Coverage



TSID 300000606 - 9237003 SIMBA RAILWAY STATION - Rainfall
 TSID 300000607 - 9237004 LOITOKITOK D.O'S OFFICE - Rainfall
 TSID 300000608 - 9237007 KAJIADO MASHURU DISPENSARY - Rainfall
 TSID 300000609 - 9237022 LOITOKITOK OUTWARD SCHOOL - Rainfall
 TSID 300000610 - 9237026 ENTONENT AGR. TREE NURSERY - Rainfall
 TSID 300000611 - 9237032 SELENJEI GAME POST - Rainfall
 TSID 300000612 - 9237040 ILASSIT WATER DEV. CAMP. - Rainfall
 TSID 300000613 - 9238009 MTTITO ANDEI TSAVO NAT. PARK - Rainfall
 TSID 300000614 - 9238018 BUSHWHACKER'S SAFARI CAMP - Rainfall
 TSID 300000615 - 9238034 T.A.D.A.FARM KEVANDA - Rainfall
 TSID 300000616 - 9239000 MALINDI ADU LOCATION - Rainfall
 TSID 300000617 - 9240027 KAMALE PRIMARY SCHOOL - Rainfall
 TSID 300000618 - 9337110 TAVETA WATER DEVELOPMENT STATION - Rainfall
 TSID 300000619 - 9337140 KIWALWA MALARIA FIELD STATION - Rainfall
 TSID 300000620 - 9338001 VOI METEOROLOGICAL STATION - Rainfall
 TSID 300000621 - 9338007 MAKTAU RAILWAY STATION - Rainfall
 TSID 300000622 - 9338017 MZIMA SPRINGS - Rainfall
 TSID 300000623 - 9338018 VOI RUKANGA-KASIGAU - Rainfall
 TSID 300000624 - 9338022 BACHUMA RANGE RESEARCH STN - Rainfall
 TSID 300000625 - 9338027 NGULIA LODGE - Rainfall
 TSID 300000626 - 9338033 MBALE CHIEF'S OFFICE - Rainfall
 TSID 300000627 - 9338034 RONGE JUU NDILE SHOP. - Rainfall
 TSID 300000628 - 9338036 MANYANI GATE - Rainfall
 TSID 300000629 - 9338040 LUGARD FALLS - Rainfall

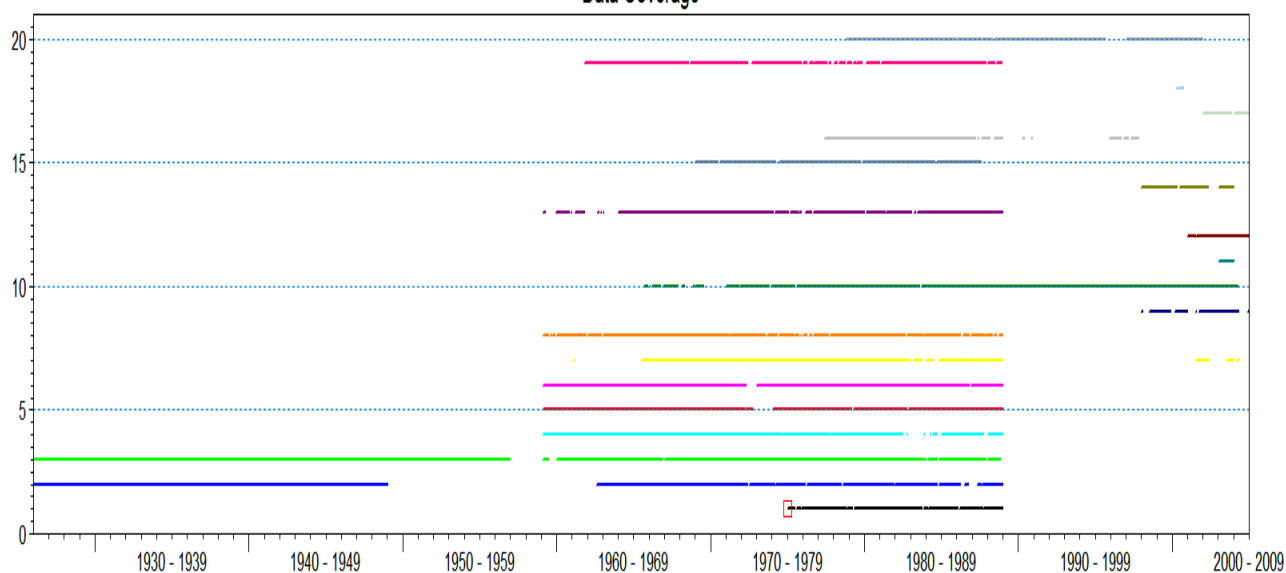


Data Coverage



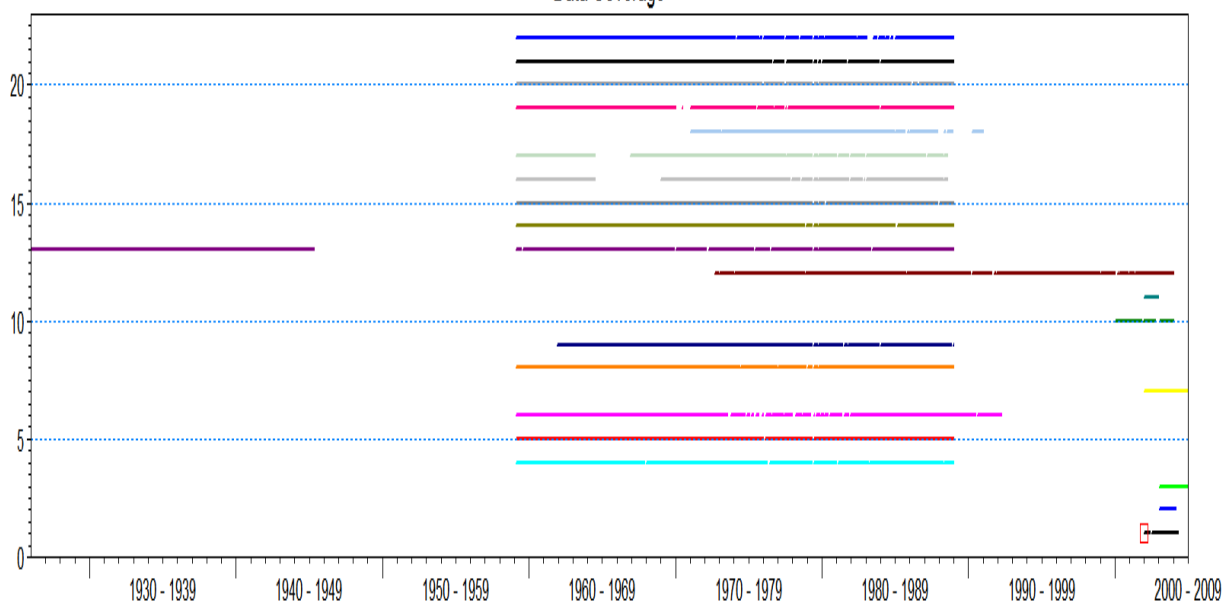
TSID 300000630 - 9338044 MWAKIKISEED FARM-MBOLOLO - Rainfall
 TSID 300000631 - 9339002 MACKINON ROAD RAILWAY STATION - Rainfall
 TSID 300000632 - 9339004 KILIFI DISTRICT OFFICE - Rainfall
 TSID 300000633 - 9339006 SAMBURU STATION(RAILWAY) - Rainfall
 TSID 300000634 - 9339008 KAKONENI CHIEF'S CAMP - Rainfall
 TSID 300000635 - 9339009 KILIFI KIBARANI - Rainfall
 TSID 300000636 - 9339012 GANZE DISPENSARY - Rainfall
 TSID 300000637 - 9339013 CHONYI DISPENSARY - Rainfall
 TSID 300000638 - 9339015 VITENGENI DISPENSARY - Rainfall
 TSID 300000639 - 9339016 BAMBA RESEARCH SUB-STATION - Rainfall
 TSID 300000640 - 9339020 MTWAPA KILIFI - Rainfall
 TSID 300000641 - 9339027 MALINDI BARICHO - Rainfall
 TSID 300000642 - 9339030 KILIFI JIBANA DISPENSARY - Rainfall
 TSID 300000643 - 9339035 KILIFI TAKAUNGU ARAB SCHOOL - Rainfall
 TSID 300000644 - 9339036 MTWAPA AGROMET STATION - Rainfall
 TSID 300000645 - 9339037 MAZERAS NURSERIES - Rainfall
 TSID 300000646 - 9339038 KALOLENI BOMA - Rainfall
 TSID 300000647 - 9339040 GALANA RIVER SCHEME - Rainfall
 TSID 300000648 - 9339041 GIRIAMA ST. GEORGE'S HIGH SCH. - Rainfall
 TSID 300000649 - 9339045 JILORE FOREST STATION - Rainfall

Data Coverage

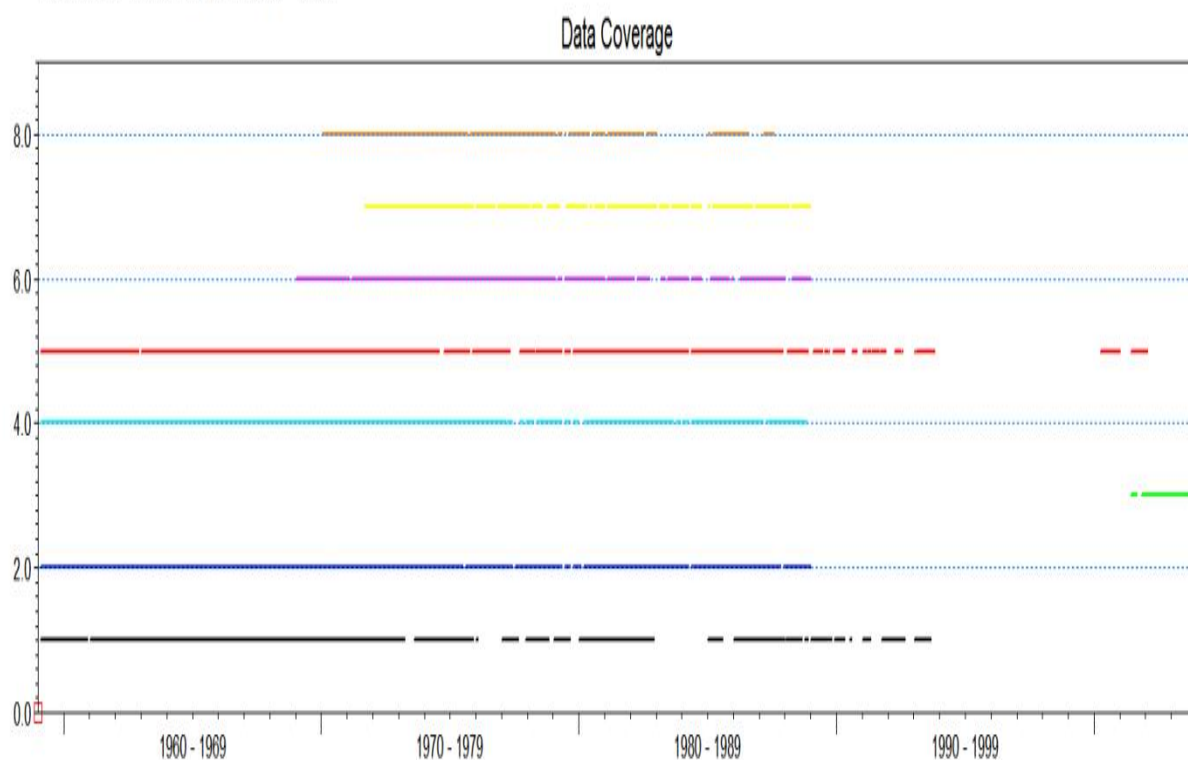


TSID 300000650 - 9339057 MARIKANI RESEARCH STATION - Rainfall	—
TSID 300000651 - 9339072 MARAFA MINISTRY OF WATER - Rainfall	—
TSID 300000652 - 9340000 MALINDI DISTRICT OFFICE - Rainfall	—
TSID 300000653 - 9340001 FUNDISHA SALT WORKS LTD. - Rainfall	—
TSID 300000654 - 9340002 GEDE MALINDI - Rainfall	—
TSID 300000655 - 9340005 MALINDI WATER SUPPLY - Rainfall	—
TSID 300000656 - 9340006 MALINDI A.D.C. KISWANI COMPLEX - Rainfall	—
TSID 300000657 - 9340007 MSABABA AGROMET STATION - Rainfall	—
TSID 300000658 - 9340009 MALINDI METEOROLOGICAL STATION - Rainfall	—
TSID 300000659 - 9340010 GANDA CHIEF'S CAMP - Rainfall	—
TSID 300000660 - 9340011 MERIKEBUNI CHIEF'S OFFICE - Rainfall	—
TSID 300000661 - 9340012 GEDE FOREST STATION - Rainfall	—
TSID 300000662 - 9439000 DISTRICT CIVIL ENGINEER'S OFFICE - Rainfall	—
TSID 300000663 - 9439001 KWALE AGRICULTURAL DEPARTMENT - Rainfall	—
TSID 300000664 - 9439002 MOMBASA OLD OBSERVATORY - Rainfall	—
TSID 300000665 - 9439003 ASSOCIATED SUGAR WORKS LTD.FAMON - Rainfall	—
TSID 300000666 - 9439004 GAZI ASSOCIATION SUGAR WORKS - Rainfall	—
TSID 300000667 - 9439013 VANGA FULL PRIMARY SCHOOL - Rainfall	—
TSID 300000668 - 9439014 MSAMBWENI DISTRICT OFFICE - Rainfall	—
TSID 300000669 - 9439015 KINANGO AGRIC. OFFICE KWALE - Rainfall	—
TSID 300000670 - 9439021 MOMBASA PORT REITZ AIRPORT - Rainfall	—
TSID 300000671 - 9439028 KWALE NDAVAYA - Rainfall	—

Data Coverage

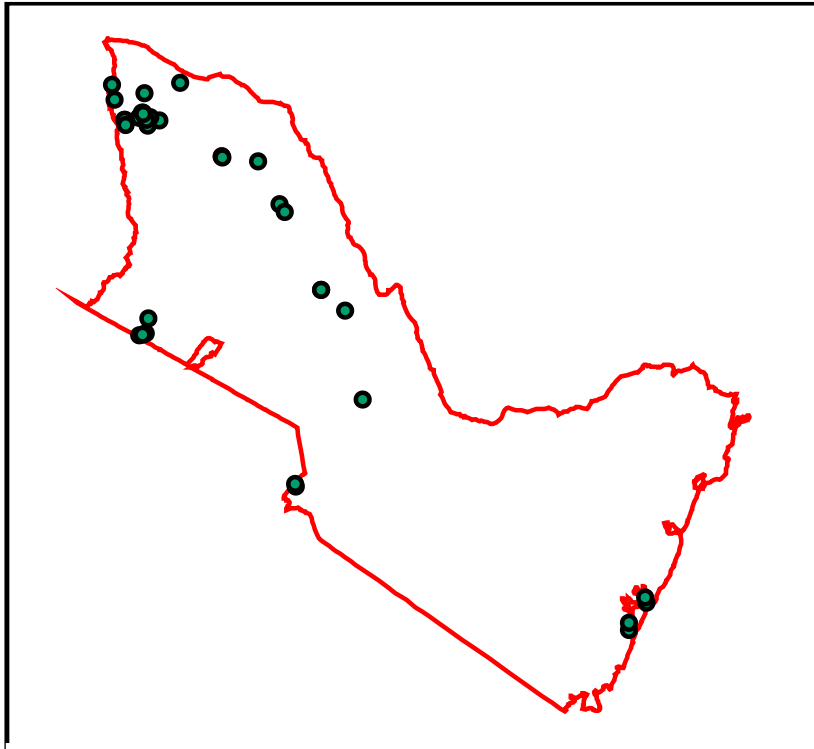


TSID 300000672 - 9439031 SHIMBA HILLS MRERE NO.1 - Rainfall
 TSID 300000673 - 9439038 MSAMBWENI WAA DISPENSARY - Rainfall
 TSID 300000674 - 9439041 MOMBASA PLAYING FEILDS - Rainfall
 TSID 300000675 - 9439043 SIMBA HILLS SETTLEMENT SCHEME - Rainfall
 TSID 300000676 - 9439046 VANGA LUNGA LUNGA CAMP - Rainfall
 TSID 300000677 - 9439054 MWENA FULL PRIMARY SCHOOL - Rainfall
 TSID 300000678 - 9439055 MWERENI AGRICULTURAL STATION - Rainfall
 TSID 300000679 - 9439057 PUMA CHIEF'S CAMP - Rainfall

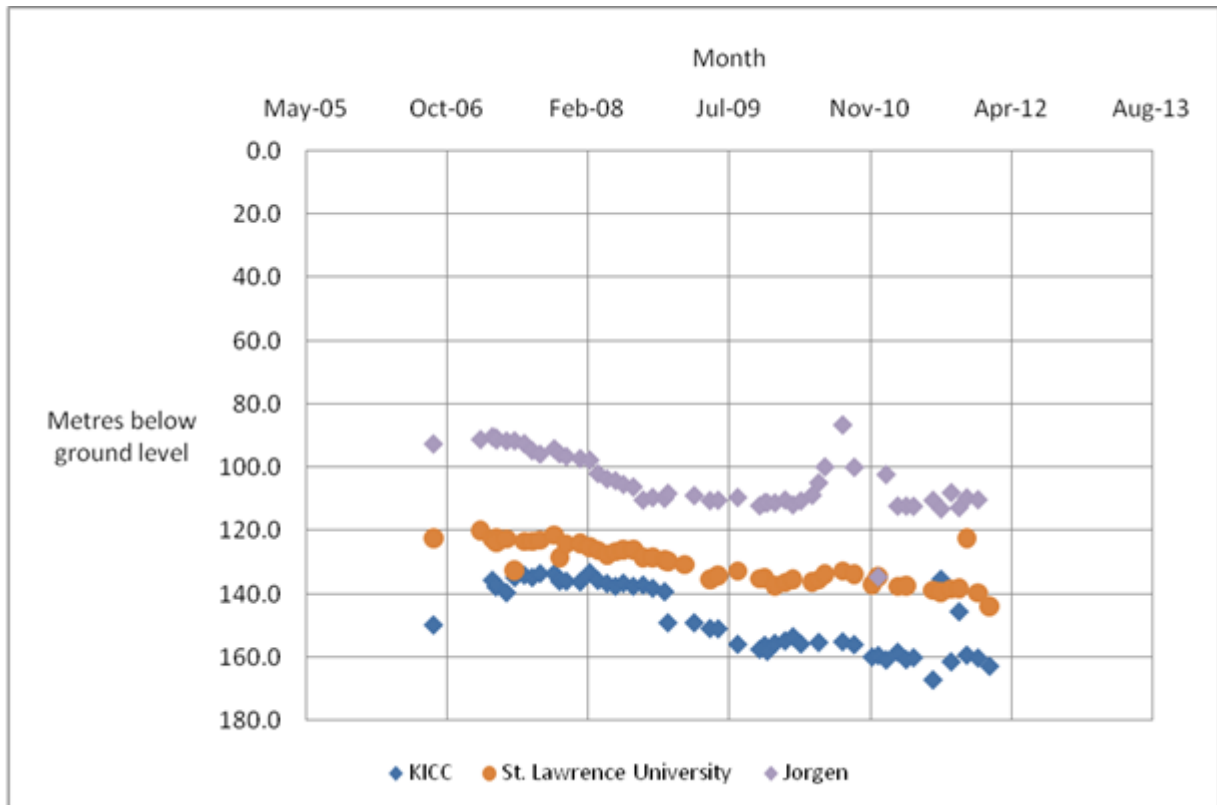


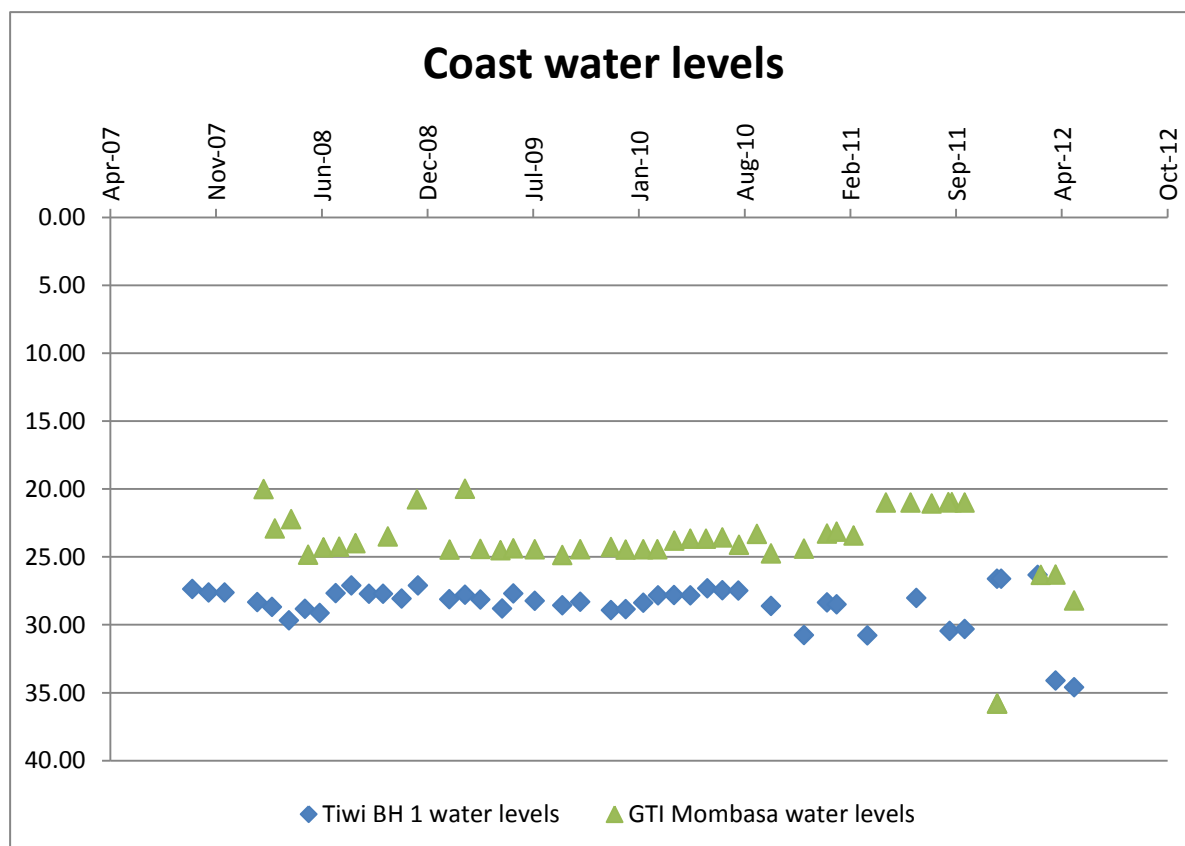
5.4 Groundwater data

The map below shows the distribution of groundwater monitoring stations in Athi catchment.



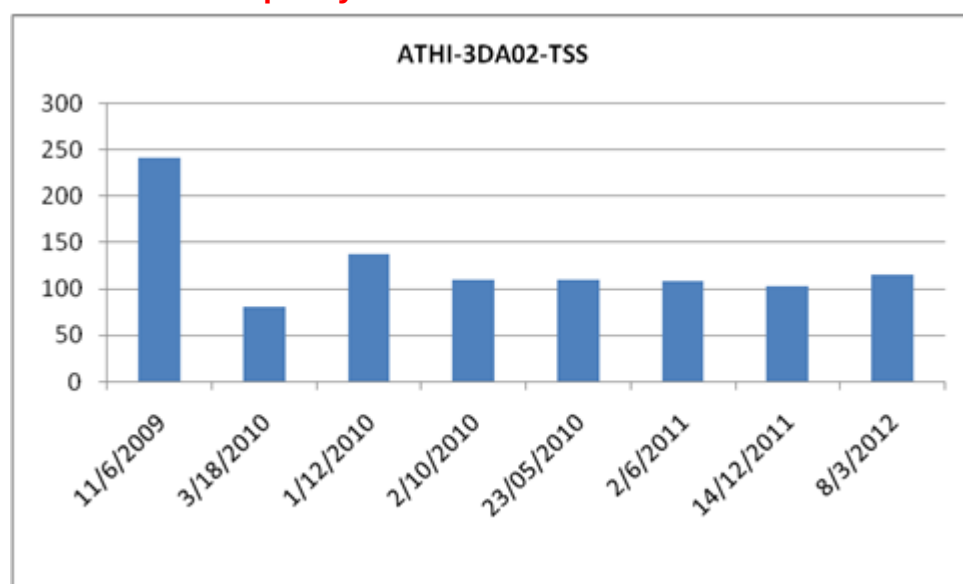
5.5 Groundwater levels

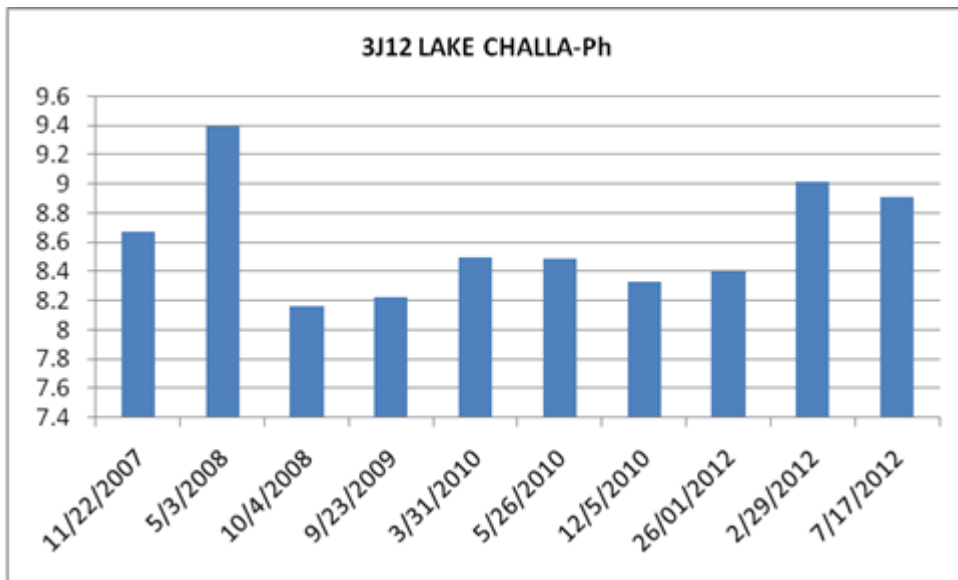
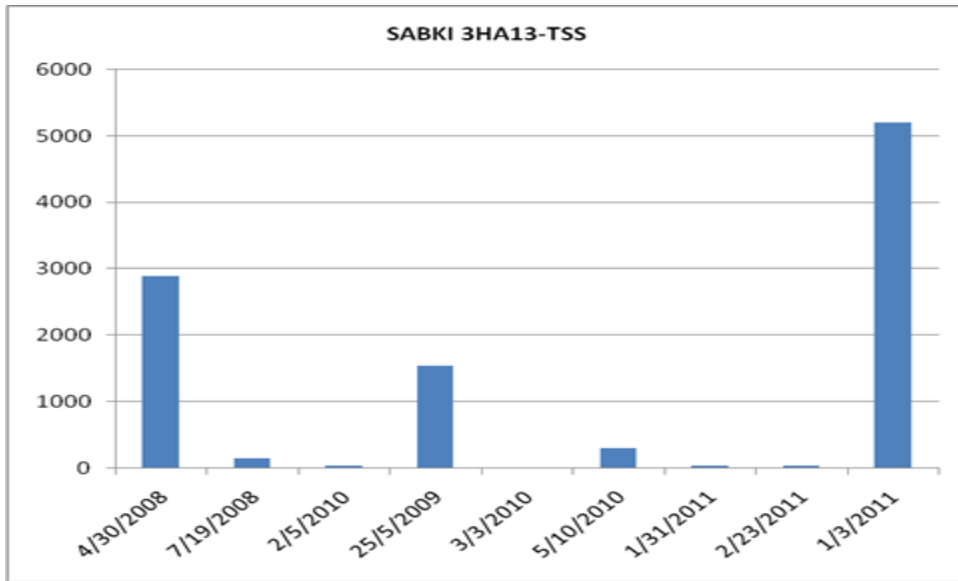


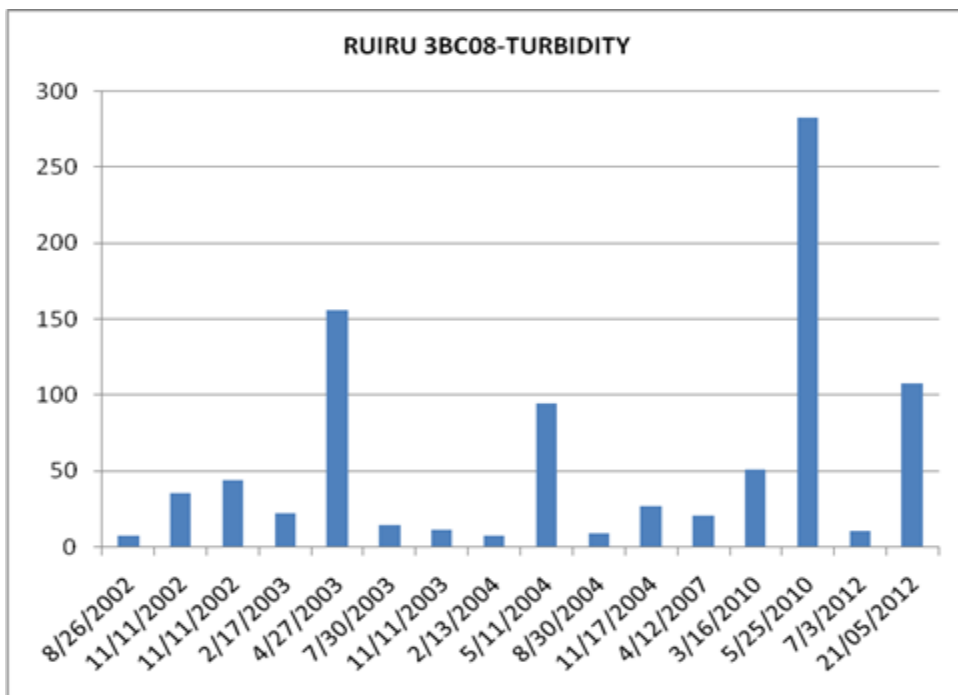
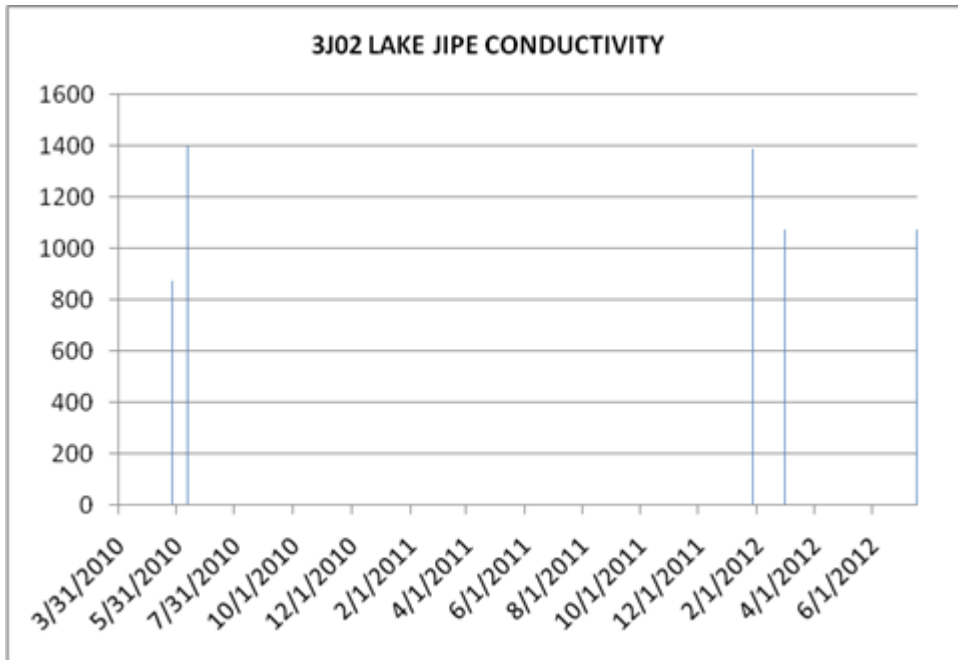


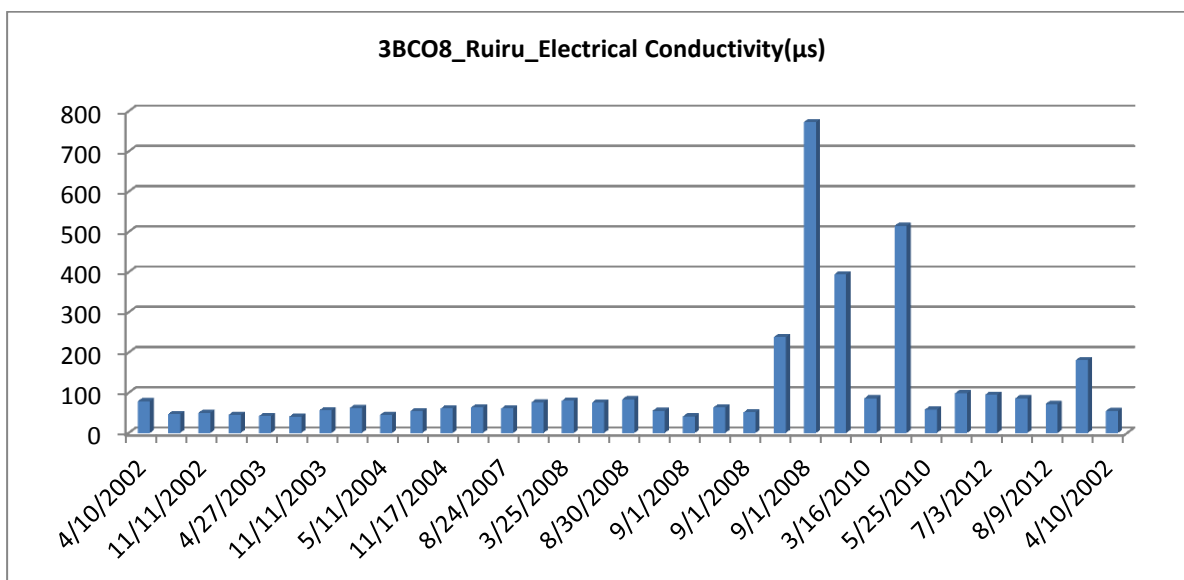
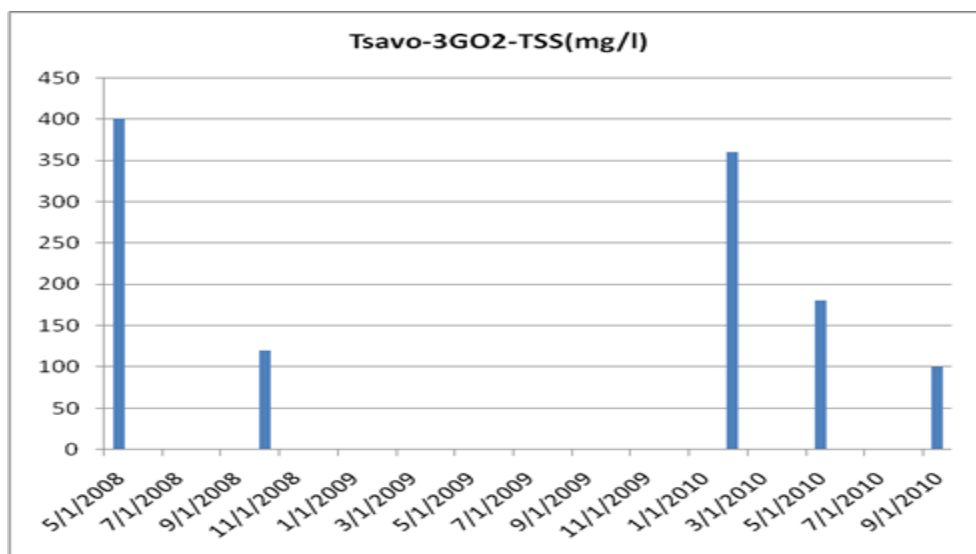
Hydrographs for the water levels of the selected GW monitoring stations

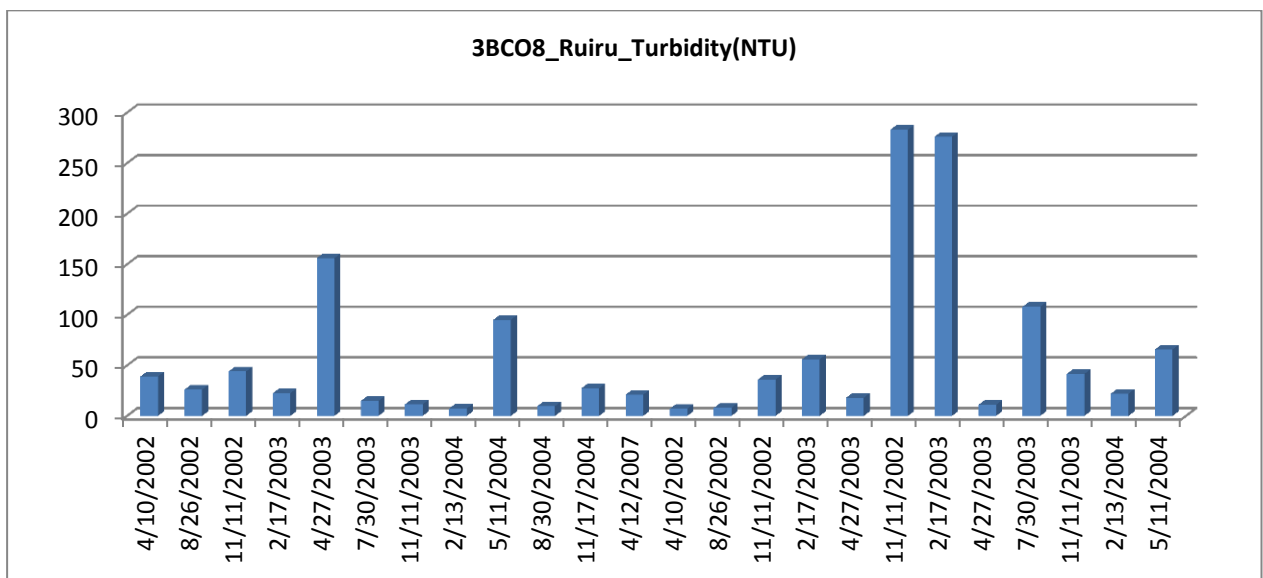
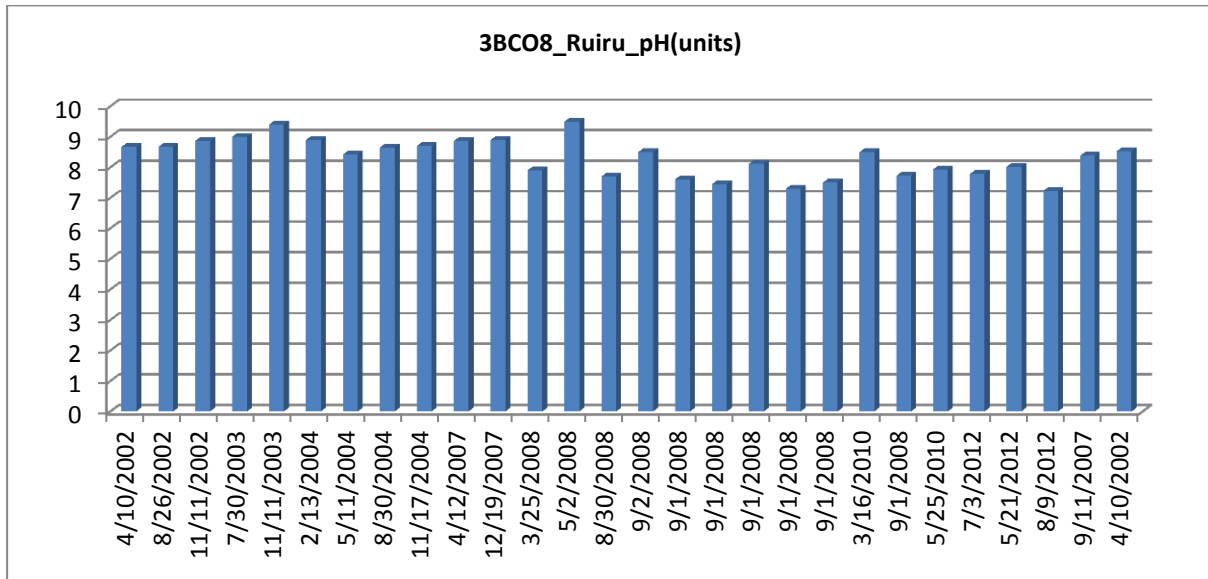
5.6 Water quality data

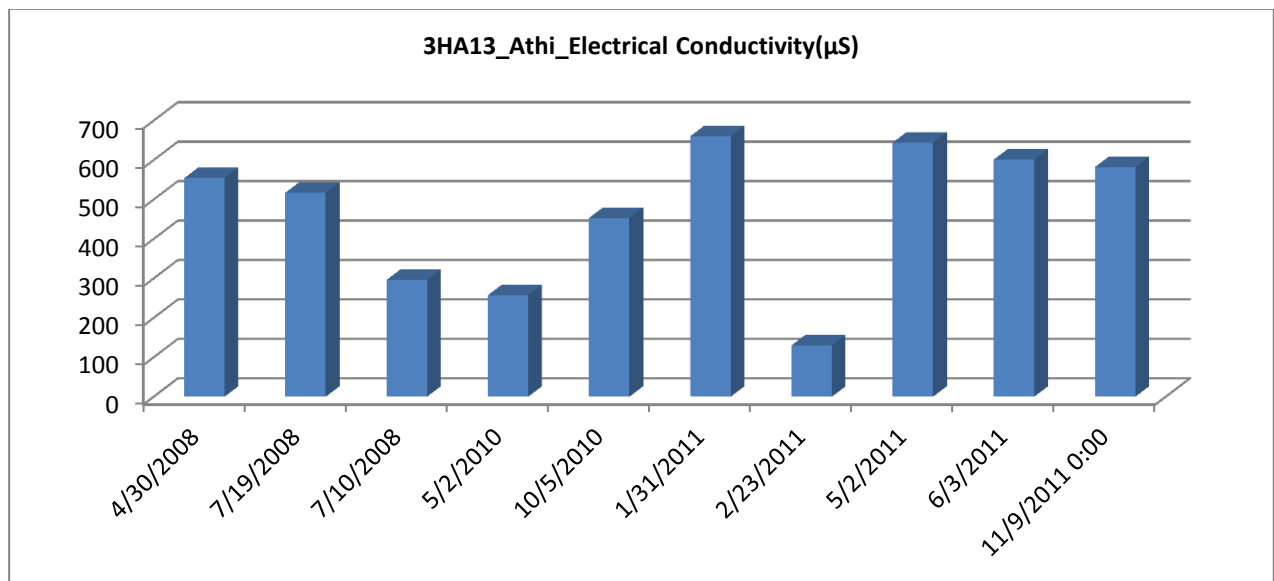
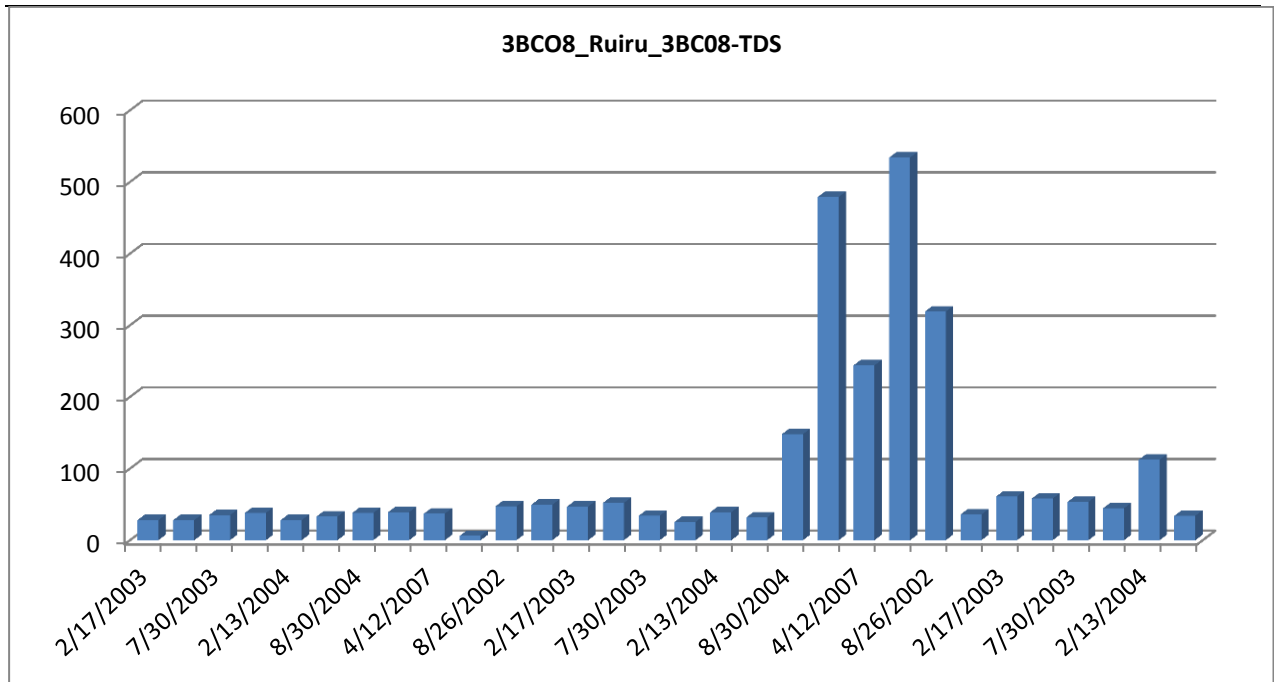


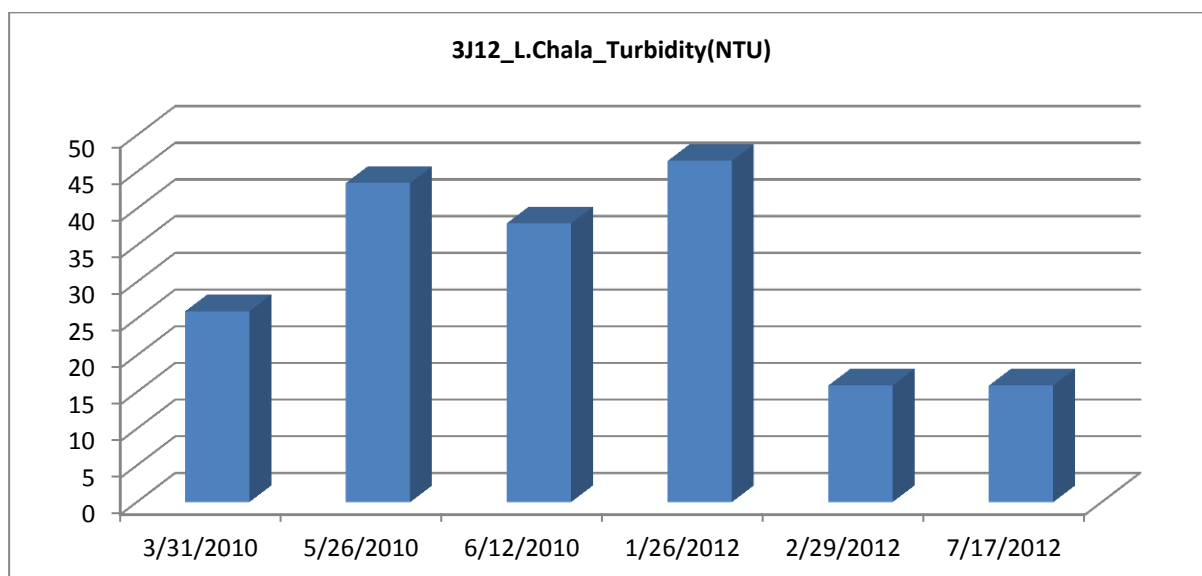
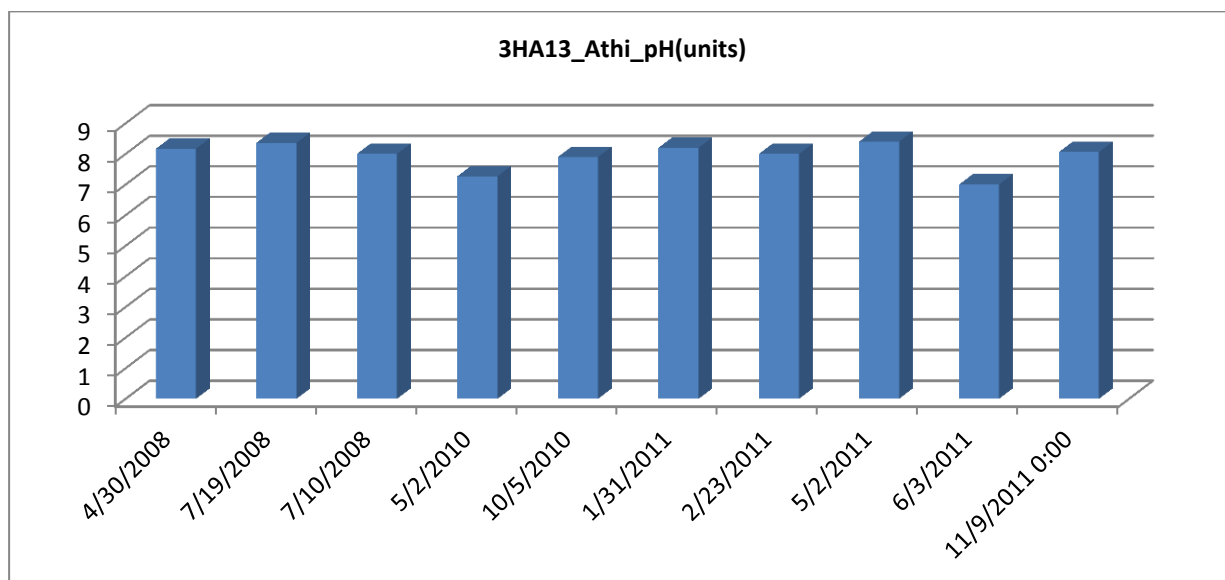


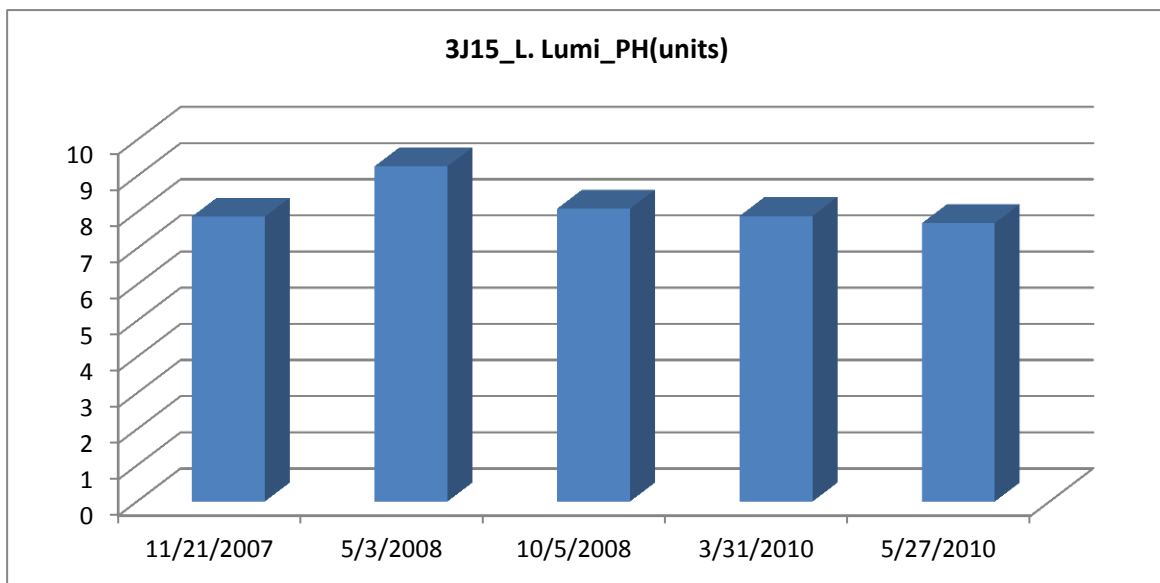
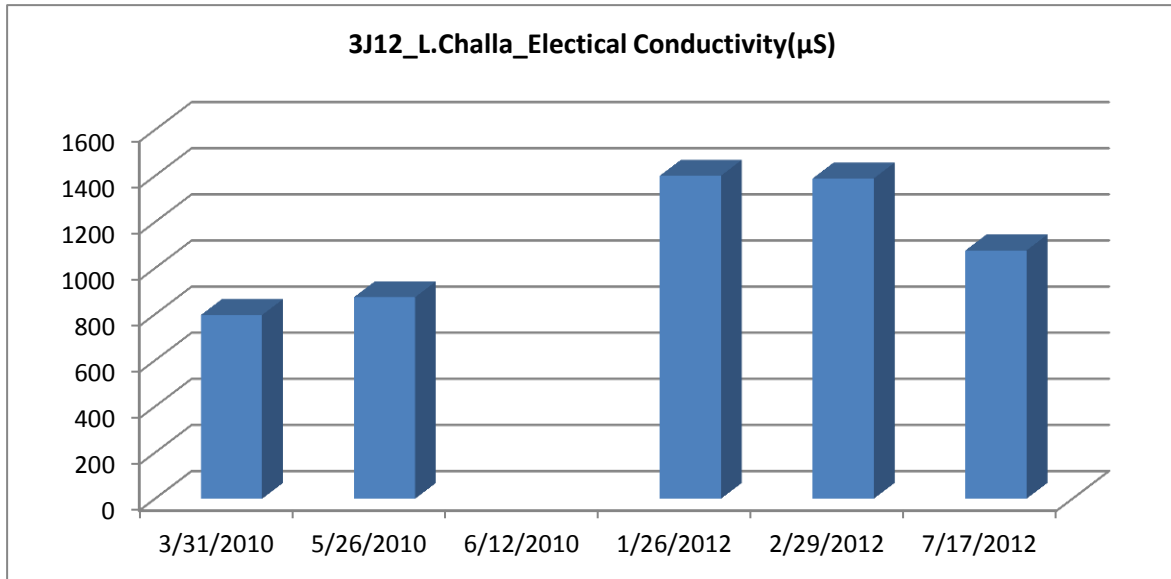






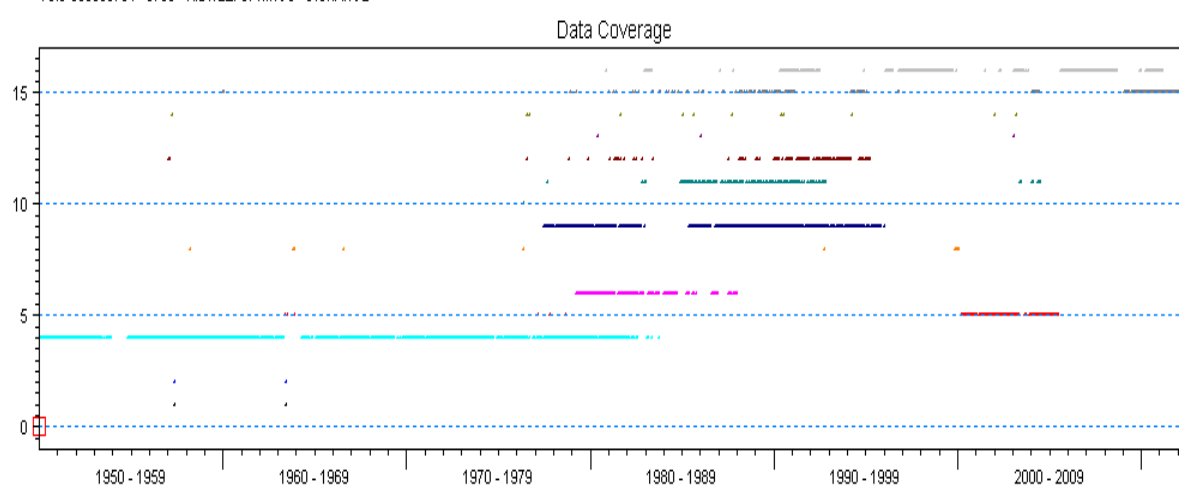


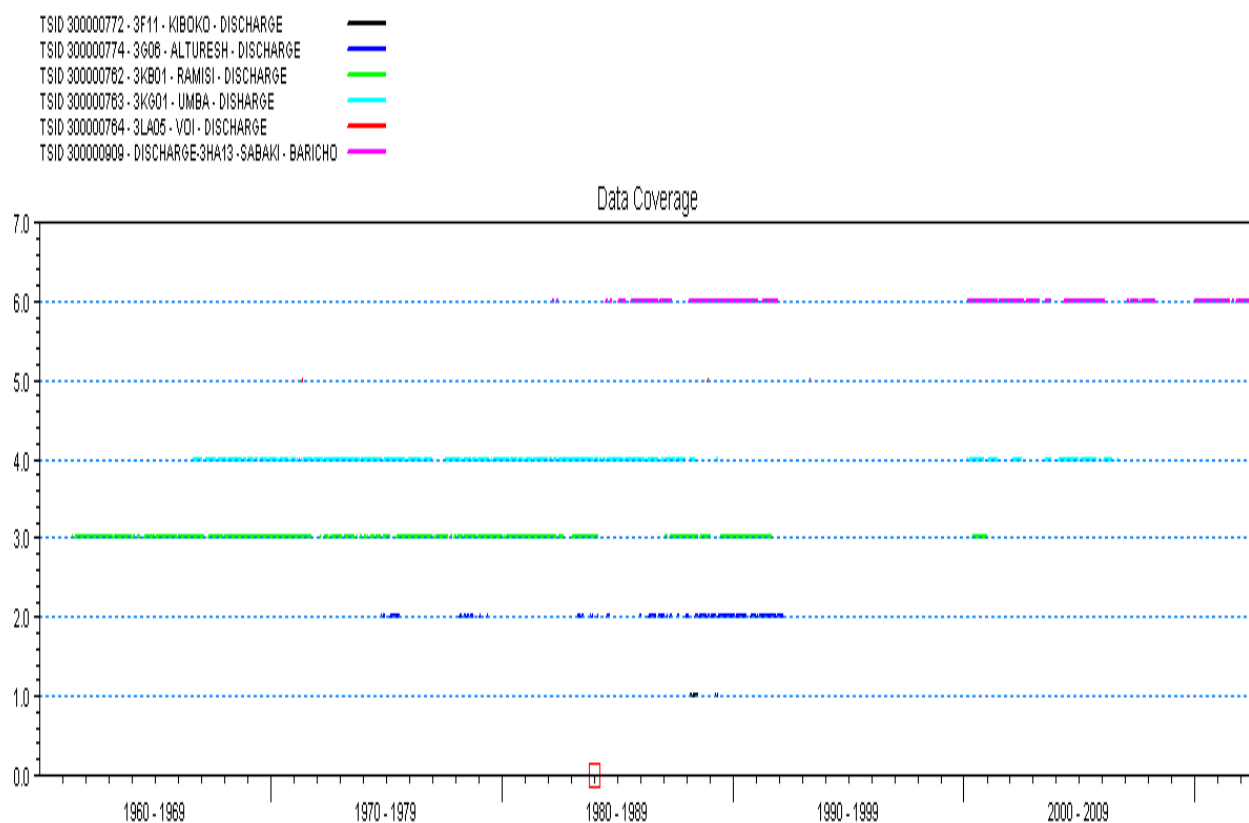




5.1 Data coverage for river monitoring stations

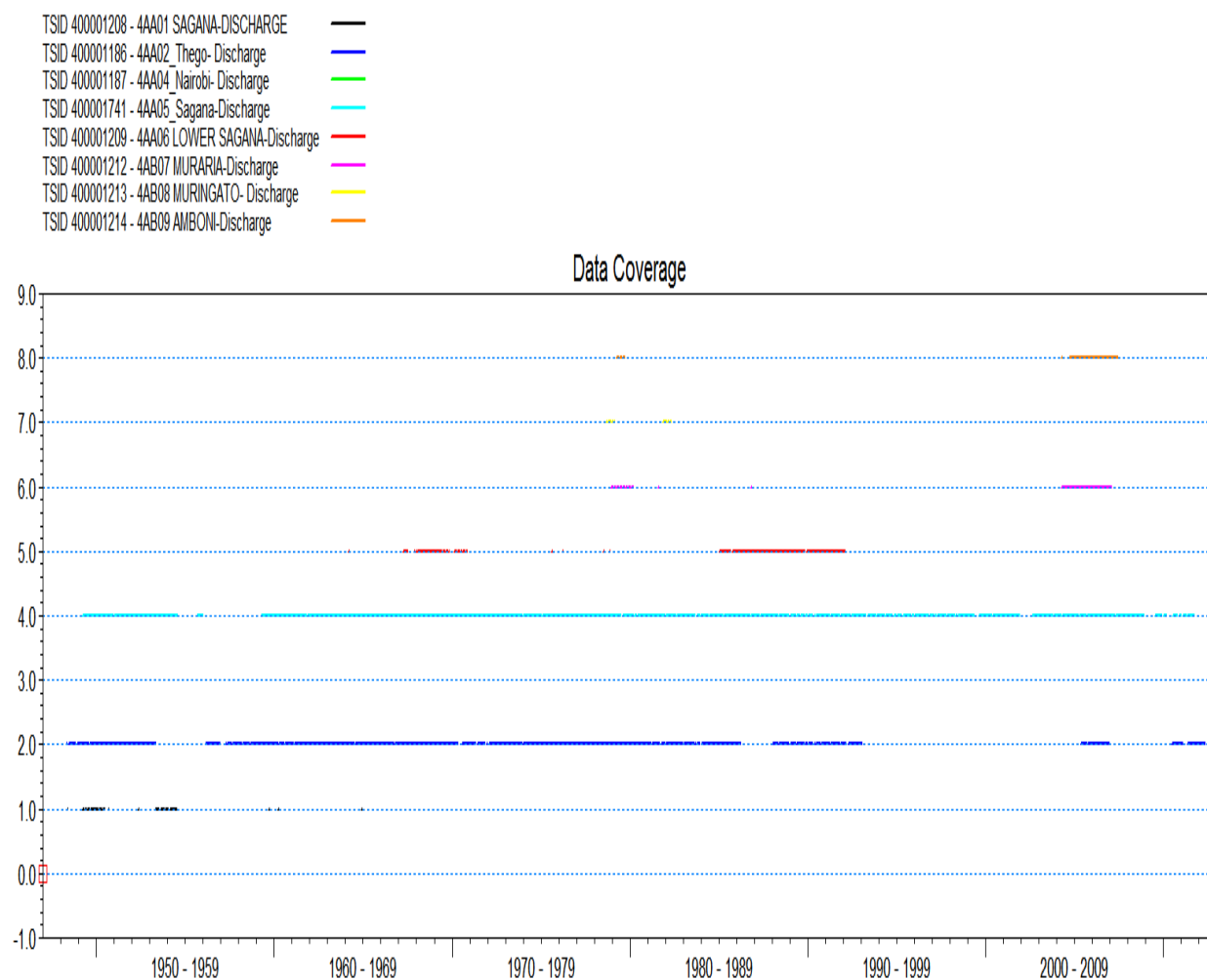
TSID 300000741 - 3AA04 - MBAGATHI - DISCHARGE
 TSID 300000742 - 3AA04 - MBAGATHI - DISCHARGE
 TSID 300000771 - 3AA06 - ATHI - DISCHARGE
 TSID 300000748 - 3BA10 - RUARAKA - DISCHARGE
 TSID 300000747 - 3BA29 - NAIROBI - DISCHARGE
 TSID 300000746 - 3BA32 - NAIROBI - DISCHARGE
 TSID 300000751 - 3BB11 - KIU - DISCHARGE
 TSID 300000750 - 3BB12 - KAMITI - DISCHARGE
 TSID 300000754 - 3BC08 - RUIRU - DISCHARGE
 TSID 300000755 - 3BD05 - THIRIRIKA - DISCHARGE
 TSID 300000906 - 3CB02 - NDARUGU - DISCHARGE
 TSID 300000775 - 3CB05 - NDARUGU - DISCHARGE
 TSID 300000907 - 3CB07 - RUABORA - DISCHARGE
 TSID 300000740 - 3DA02 - ATHI MUNYU - DISCHARGE
 TSID 300000758 - 3FD2 - ATHI MAVINDINI - DISCHARGE
 TSID 300000781 - 3FD6 - KIBWEZI SPRINGS - DISCHARGE

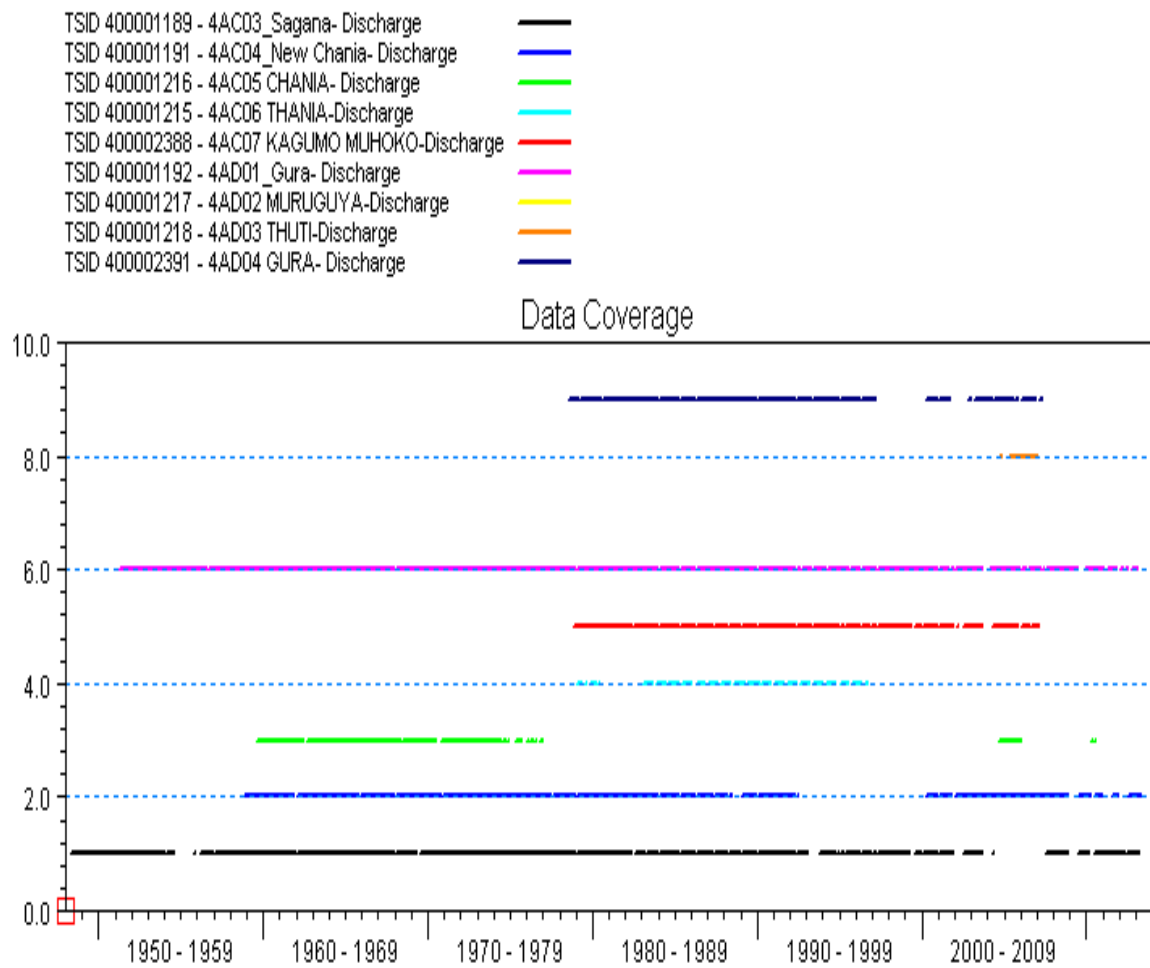




6. Tana Catchment Area

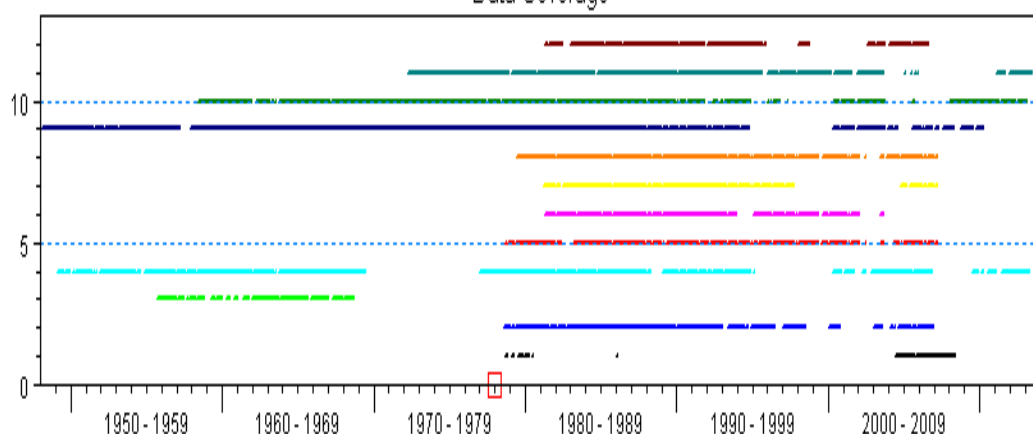
6.1 Data coverage for river monitoring stations





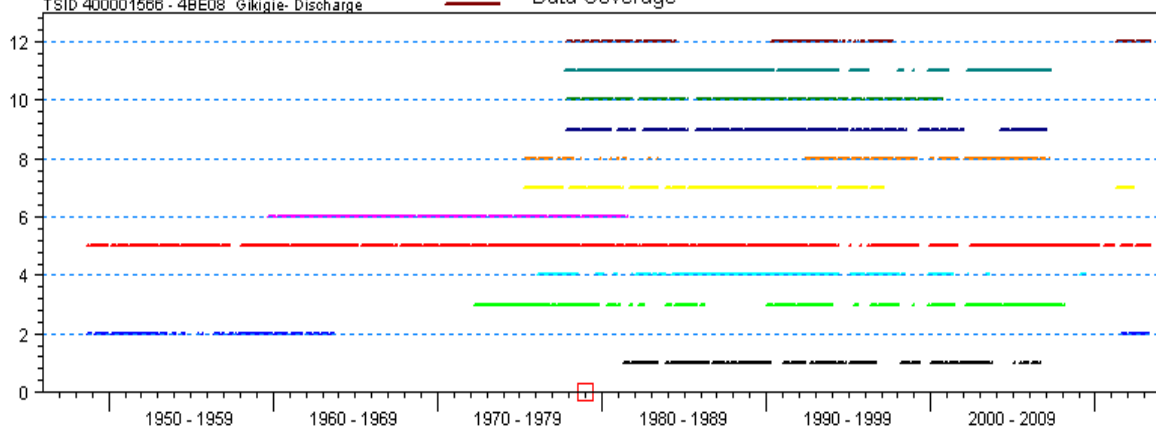
TSID 400001219 - 4AD05 TUNUKU-Discharge
 TSID 400002393 - 4AD06 GIKIRA-Discharge
 TSID 400001854 - 4BA01 Sagana-Discharge
 TSID 400001193 - 4BB01_Ragati-Discharge
 TSID 400002397 - 4BB02 KURURU-Discharge
 TSID 400002399 - 4BB03 MUHURI-Discharge
 TSID 400002401 - 4BB04 KURURU-Discharge
 TSID 400002403 - 4BB05 CHEHE-Discharge
 TSID 400001194 - 4BC02_Tana Sagana-Discharge
 TSID 400001304 - 4BC04 RWAMUTHAMBI- Discharge
 TSID 400001195 - 4BC05_Rwamuthambi- Discharge
 TSID 400002406 - 4BC06 KANDERA-Discharge

Data Coverage

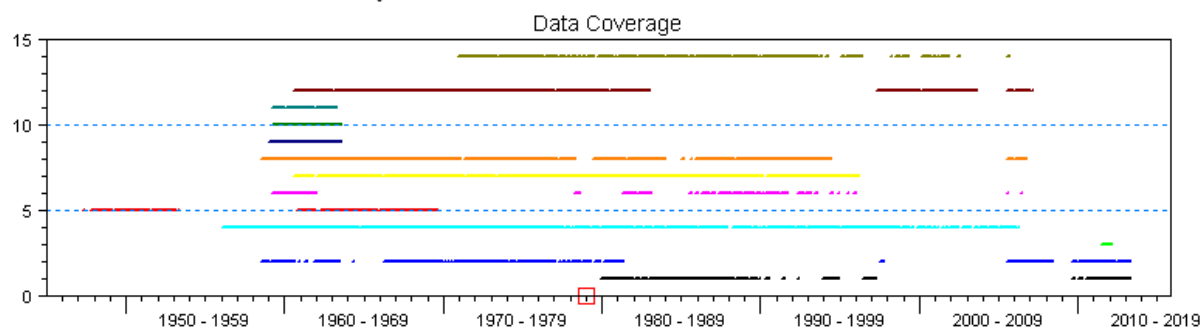


TSID 400002409 - 4BC07 RWAMUTHAMBI-Discharge
 TSID 400001560 - 4BD01_Mathioya-Discharge
 TSID 400002411 - 4BD06 MATHIOYA-Discharge
 TSID 400001568 - 4BD07_North Mathioya_Discharge
 TSID 400001196 - 4BE01_Maragua-Discharge
 TSID 400001856 - 4BE02 Tana-Discharge
 TSID 400001563 - 4BE03_Irati-Discharge
 TSID 400001570 - 4BE04_Kayahwe_Discharge
 TSID 400002413 - 4BE05 GATHANDA-Discharge
 TSID 400002415 - 4BE06 IRATI-Discharge
 TSID 400002417 - 4BE06 MARAGUA-Discharge
 TSID 400001566 - 4BE08 Gikigie- Discharge

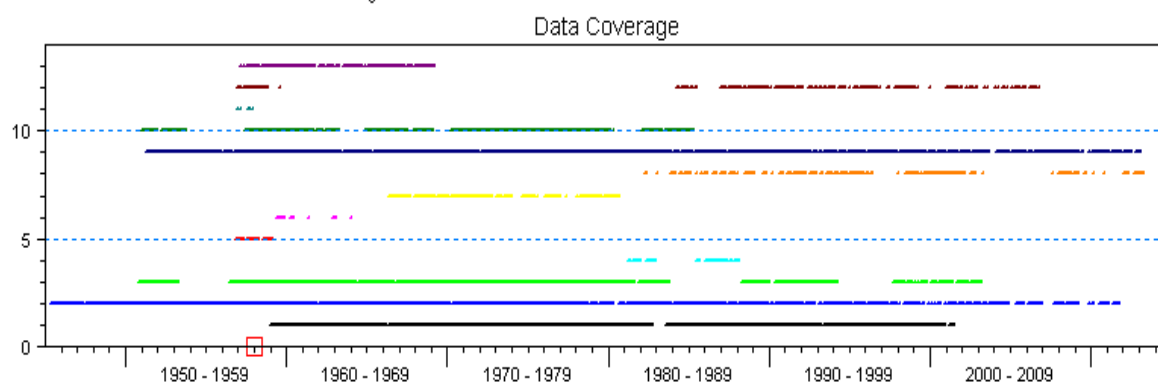
Data Coverage



TSID 400001197 - 4BE10_Tana Rukanga- Discharge
 TSID 400001198 - 4BF01_Sabasaba- Discharge
 TSID 400001580 - 4CA_Sasumua- Discharge
 TSID 400002419 - 4CA02 CHANIA-Discharge
 TSID 400001858 - 4CA03 Chania-Discharge
 TSID 400002421 - 4CA04 CHANIA-Discharge
 TSID 400002423 - 4CA14 KIMAKIA-Discharge
 TSID 400002425 - 4CA15 KIMAKIA-Discharge
 TSID 400002427 - 4CA16 KIMAKIA-Discharge
 TSID 400002429 - 4CA17 KIMAKIA-Discharge
 TSID 400002431 - 4CA18 RAGIA-Discharge
 TSID 400001572 - 4CA19- Kariminu- Discharge
 TSID 400002434 - 4CA22 CHANIA-Discharge
 TSID 400002436 - 4CA23 KARIMINU-Discharge

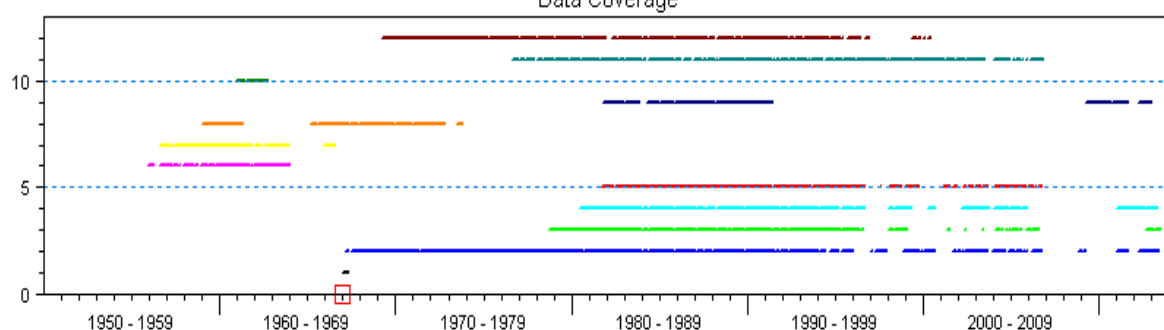


TSID 400002440 - 4CB04 THIKA- Discharge
 TSID 400001199 - 4CB04_Thika- Discharge
 TSID 400002438 - 4CB05 THIKA- Discharge
 TSID 400002442 - 4CB08 THIKA- Discharge
 TSID 400002444 - 4CC01 THIKA- Discharge
 TSID 400002446 - 4CC02 THIKA- Discharge
 TSID 400002448 - 4CC05 THIKA- Discharge
 TSID 400001200 - 4CC07_Thika- Discharge
 TSID 400001747 - 4DA01_Thiba-Discharge
 TSID 400002450 - 4DA02 THIBA- Discharge
 TSID 400002452 - 4DA05 MURUBARA- Discharge
 TSID 400002454 - 4DA06 MURUBARA- Discharge
 TSID 400002456 - 4DA07 THIBA-UP- Discharge



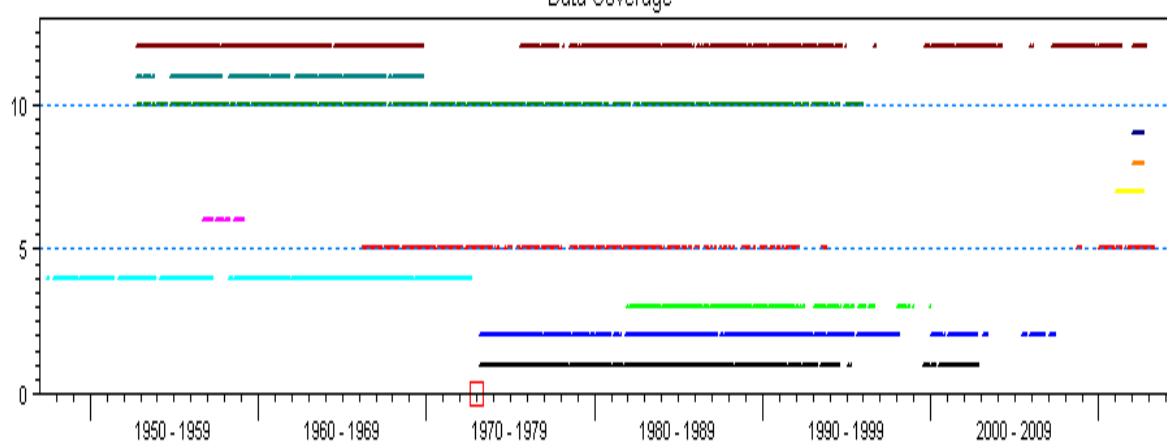
TSID 400002458 - 4DA08 THIBA CANAL-Discharge
 TSID 400001201 - 4DA10_Thiba- Discharge
 TSID 400001729 - 4DA11_Thiba-Discharge
 TSID 400001731 - 4DA12_Rutui-Discharge
 TSID 400002460 - 4DA14 KAMWETI - Discharge
 TSID 400002462 - 4DB01 NYAMINDI- Discharge
 TSID 400002464 - 4DB02 NYAMIND I- Discharge
 TSID 400002466 - 4DB04 NYAMIND I- Discharge
 TSID 400001732 - 4DB05_Nyamindi_Discharge
 TSID 400002468 - 4DC01 RUPINGAZI - Discharge
 TSID 400002470 - 4DC02 RUPINGAZI-Discharge
 TSID 400001202 - 4DC03_Rupingazi-Discharge

Data Coverage



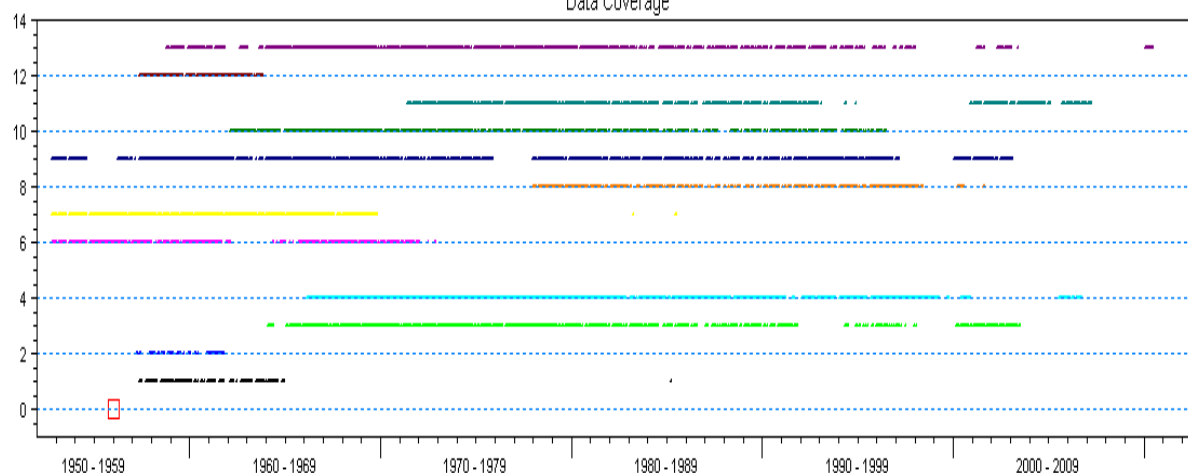
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 TSID 400002474 - 4DC05 THAMBANA - Discharge
 TSID 400002476 - 4DC07 KINE- Discharge
 TSID 400002479 - 4DD01 THIBA- Discharge
 TSID 400001203 - 4DD02_Thiba- Discharge
 TSID 400002481 - 4DE01 TANA - Discharge
 TSID 400001666 - 4E_Kinyartha Main_Discharge
 TSID 400001667 - 4E_Kinyartha Minor- Discharge
 TSID 400001668 - 4E_NGACIUMA- Discharge
 TSID 400002385 - 4EA01 MUTONGA-Discharge
 TSID 400002483 - 4EA02 IRARU-Discharge
 TSID 400001204 - 4EA03_Kithinu-Discharge

Data Coverage



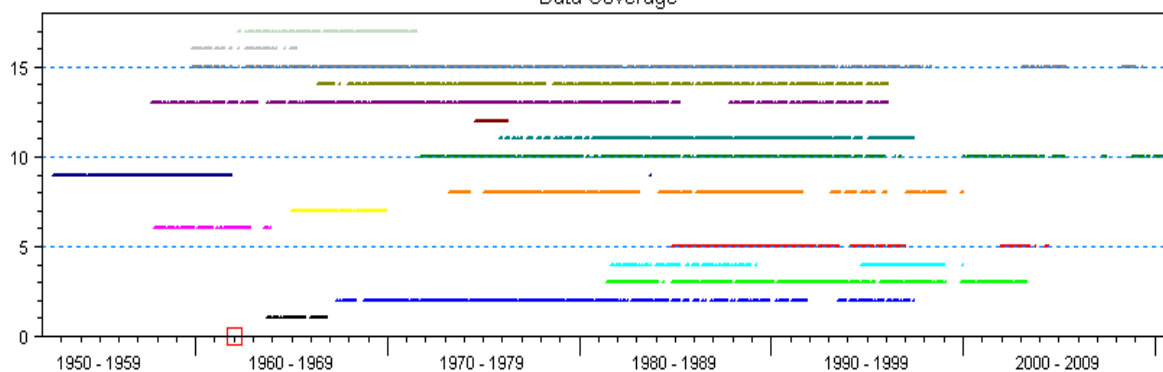
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 TSID 400002488 - 4EA05 MUTONGA-Discharge
 TSID 400001205 - 4EA06 Mutonga-Discharge
 TSID 400001206 - 4EA07 Mutonga-Discharge
 TSID 400001207 - 4EB01-Nitih- Discharge
 TSID 400002382 - 4EB02 SOUTH MARA-Discharge
 TSID 400002490 - 4EB03 SOUTH MARA-Discharge
 TSID 400002285 - 4EB04 Thuchi-Discharge
 TSID 400002308 - 4EB05 RUGUTI-Discharge
 TSID 400002482 - 4EB06A RUGUTI- Discharge
 TSID 400002494 - 4EB07 THUCHI- Discharge
 TSID 400002315 - 4EB08 MARA-Discharge
 TSID 400001882 - 4EB09_TUNGU- Discharge

Data Coverage

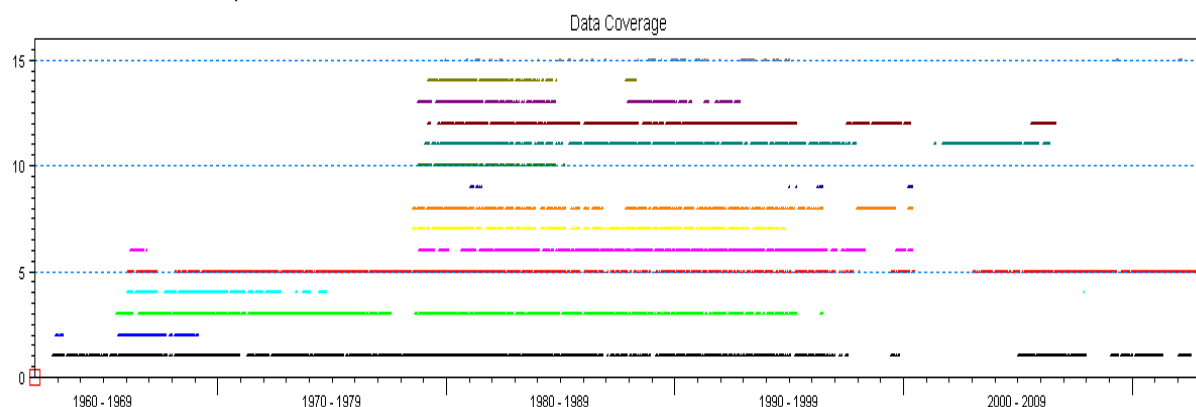


TSID 400002496 - 4EB10 MARA - Discharge
 TSID 400002384 - 4EB11 OLD MARA-Discharge
 TSID 400002499 - 4EB14 GITWE - Discharge
 TSID 400002313 - 4EB15 SOUTH MARA-Discharge
 TSID 400002311 - 4EB16 NORTH MARA-Discharge
 TSID 400001134 - 4EC01_Calculated Discharge
 TSID 400002501 - 4EC02 ENA - Discharge
 TSID 400002503 - 4EC03 ENA -Discharge
 TSID 400002505 - 4F03 KAZITA - Discharge
 TSID 400002283 - 4F04_Thingithu-Discharge
 TSID 400002326 - 4F05 NEW MARIARA-Discharge
 TSID 400002327 - 4F06 GATABORA-Discharge
 TSID 400002329 - 4F08 THANGATHA - Discharge
 TSID 400002317 - 4F09 URA-Discharge
 TSID 400001685 - 4F10_KAZITA-Discharge
 TSID 400002507 - 4F11 THINGITHU- Discharge
 TSID 400002509 - 4F12 THANANTU - Discharge

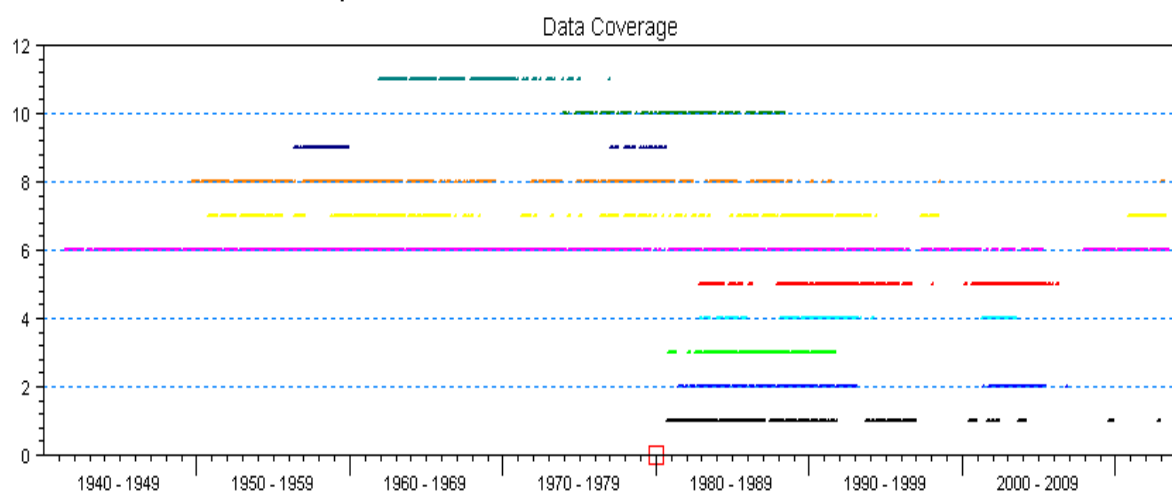
Data Coverage



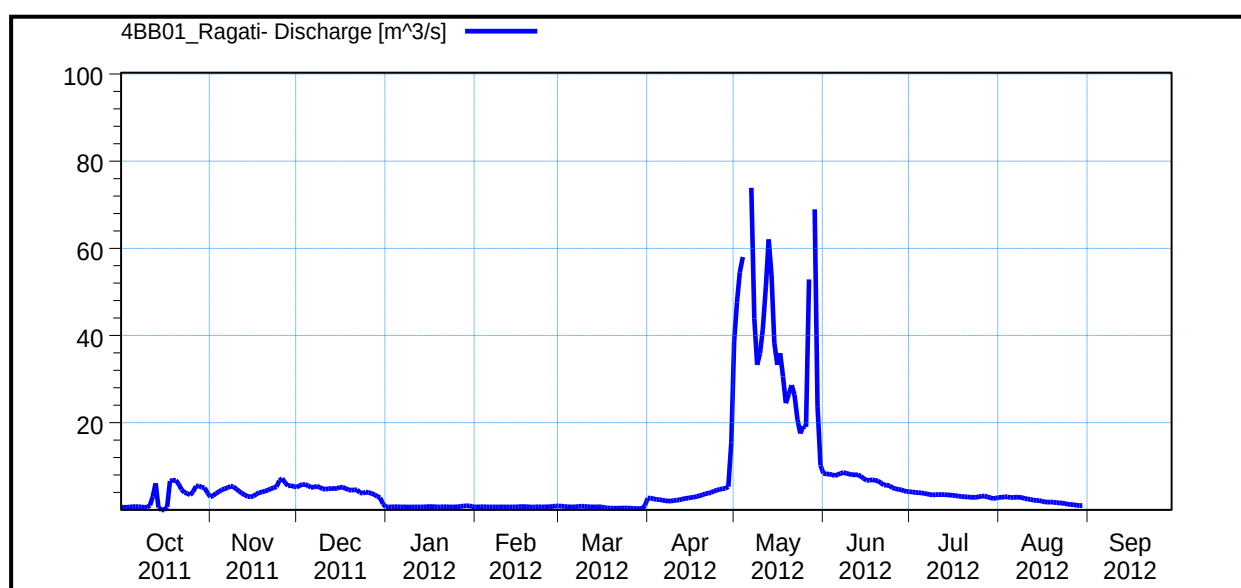
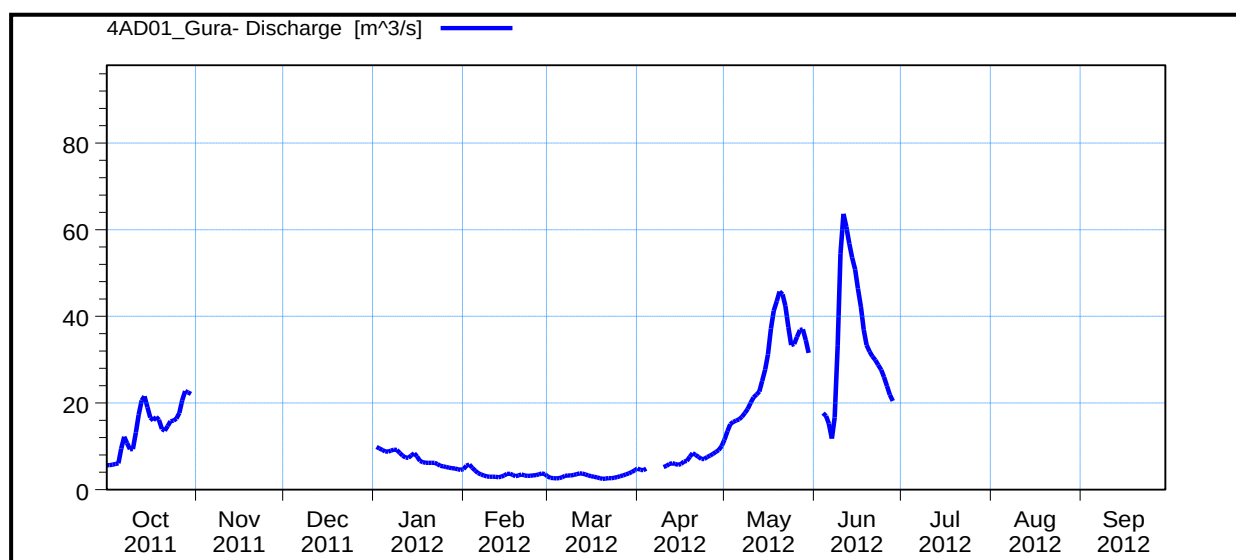
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 TSID 400002510 - 4F14 RUUJI-WERU- Discharge
 TSID 400002513 - 4F17 THINGITHU- Discharge
 TSID 400002515 - 4F18 RUUJI-WERU- Discharge
 TSID 400001306 - 4F19 KAZITA- Discharge
 TSID 400001395 - 4F20-THANANTU-Discharge
 TSID 400002517 - 4F21 RUNKUNU-Discharge
 TSID 400002519 - 4F22 URA - Discharge
 TSID 400002521 - 4F23 URA - Discharge
 TSID 400002523 - 4F24 THANGATHA - Discharge
 TSID 400002525 - 4F25 KUURU - Discharge
 TSID 400002527 - 4F26 KAZITA - Discharge
 TSID 400002529 - 4F27 THANGATHA - Discharge
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 TSID 400002531 - 4F29 KAZITA - Discharge

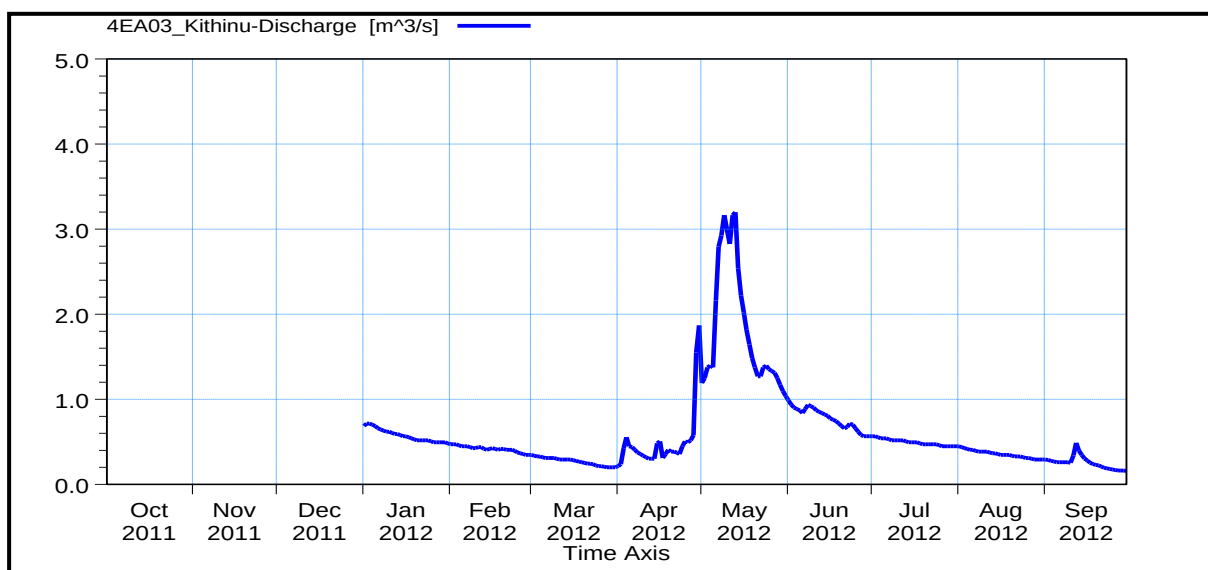
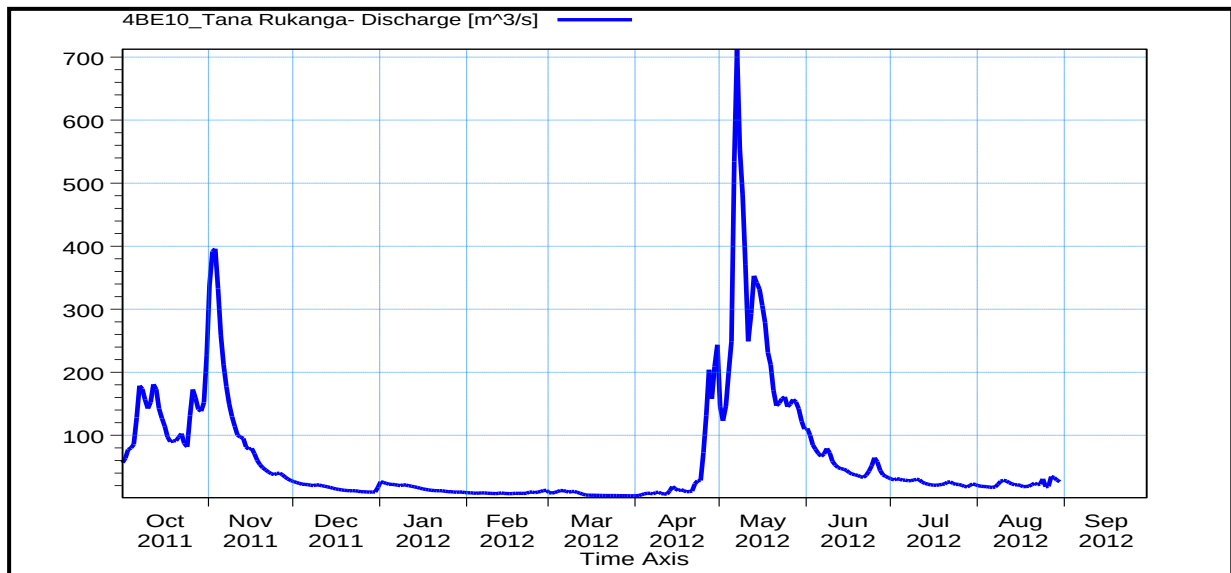
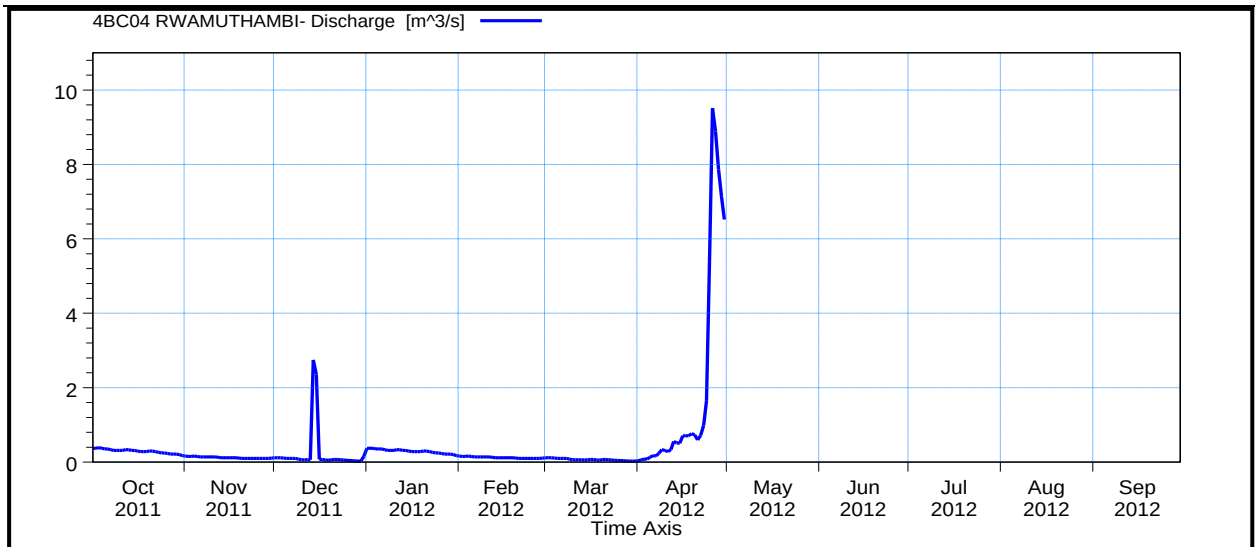


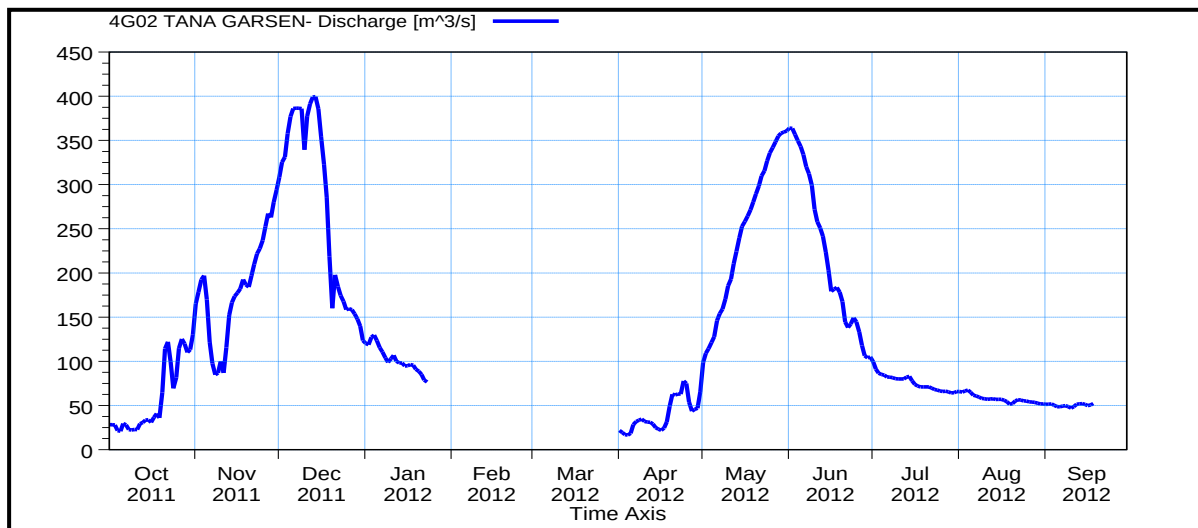
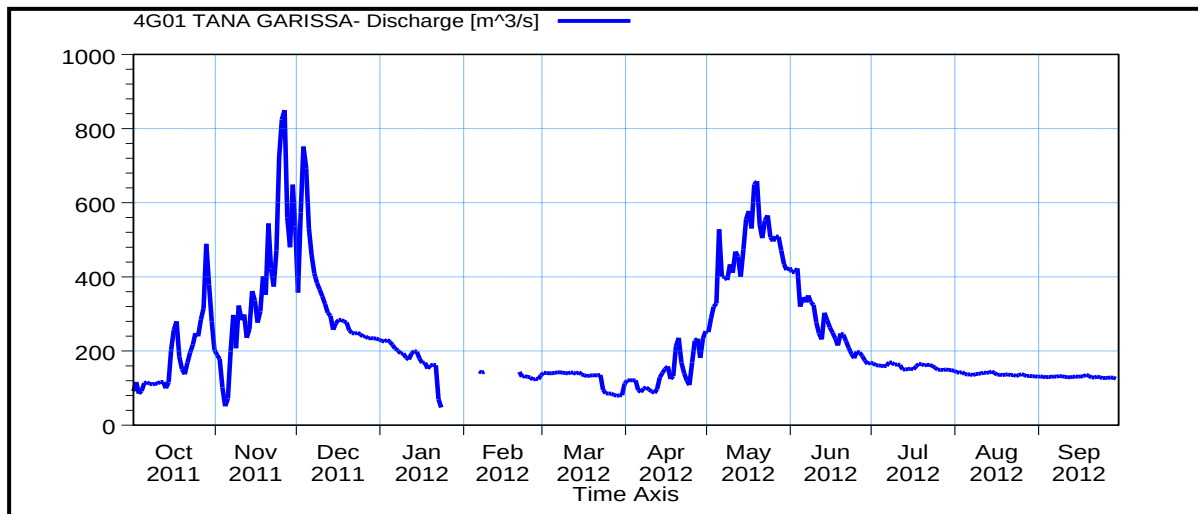
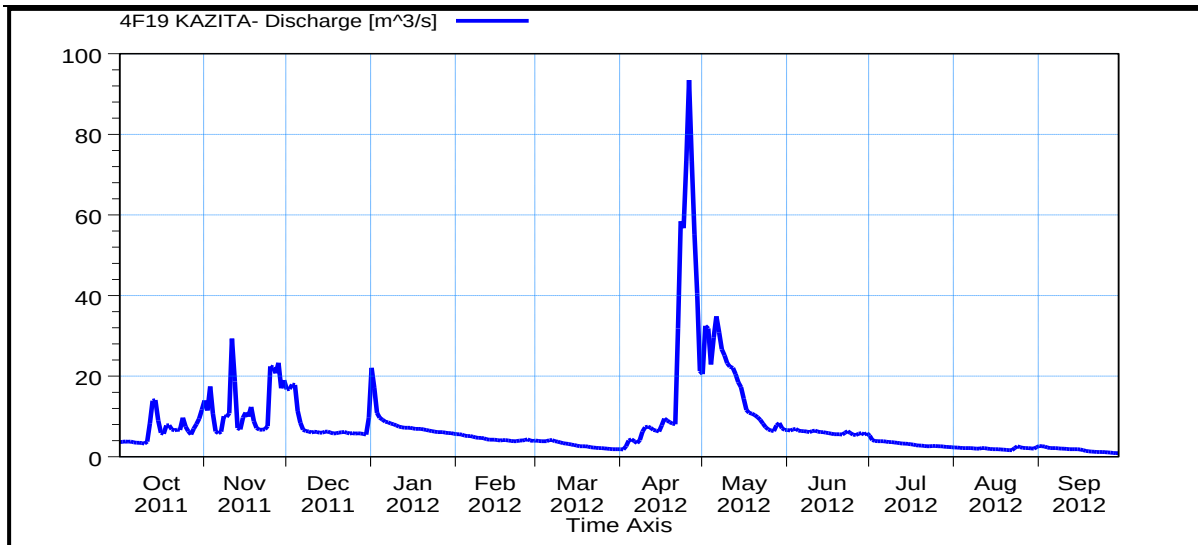
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 TSID 400002404 - 4F33 THANANTU-Discharge
 TSID 400002536 - 4F34 RUUJI-WERU- Discharge
 TSID 400002534 - 4F36 MUKURU LIUTUMUCII -Discharge
 TSID 400002538 - 4F37 LIUTU MIKINDURI - Discharge
 TSID 400001308 - 4G01 TANA GARISSA- Discharge
 TSID 400001309 - 4G02 TANA GARSEN- Discharge
 TSID 400001739 - 4G04_Tana Hola_Discharge
 TSID 400002540 - 4G05 TANA GALOLE - Discharge
 TSID 400002543 - 4G08 NANIGI - Discharge
 TSID 400002546 - 4H01 KALUNDU - Discharge



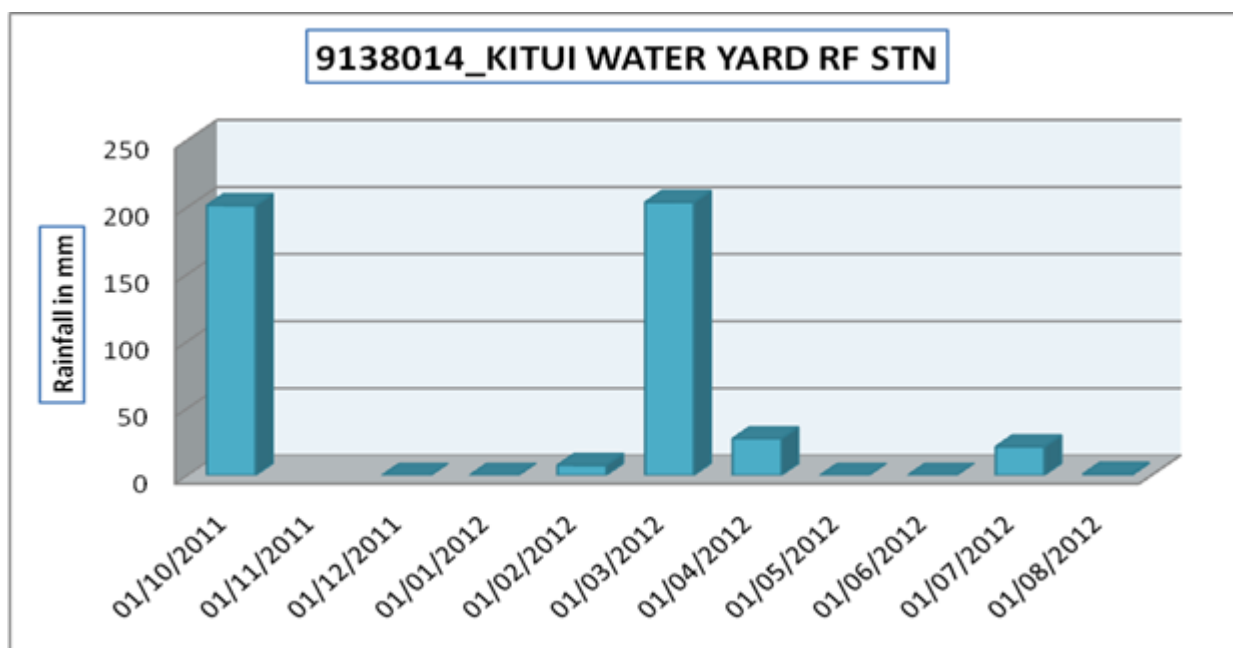
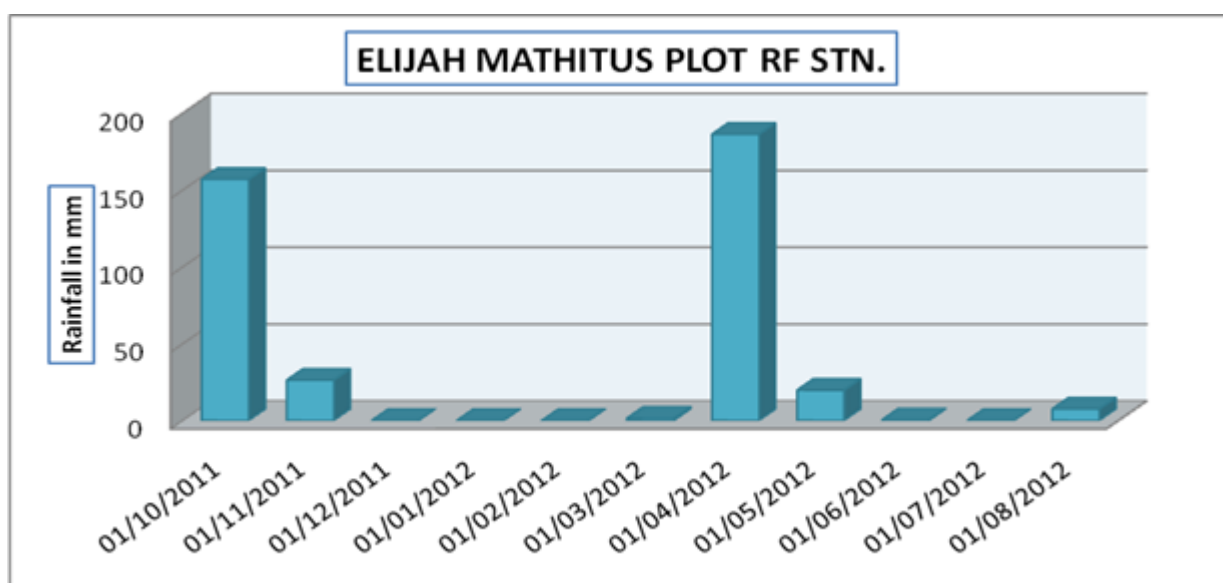
6.2 Hydrograph for selected River Monitoring Stations (October 2011-September 2012)

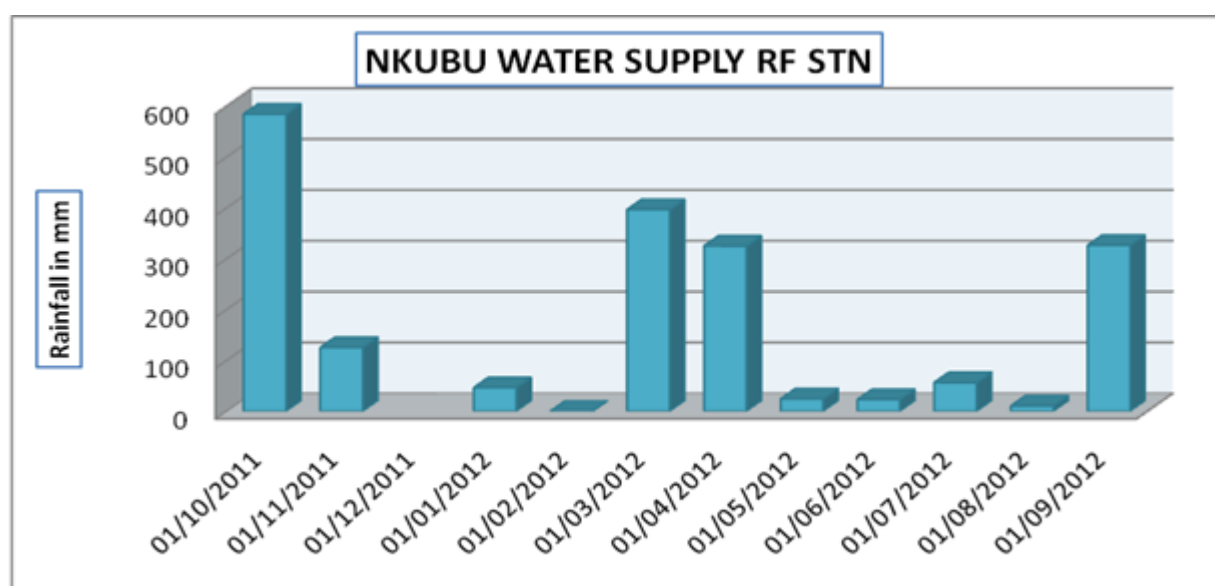
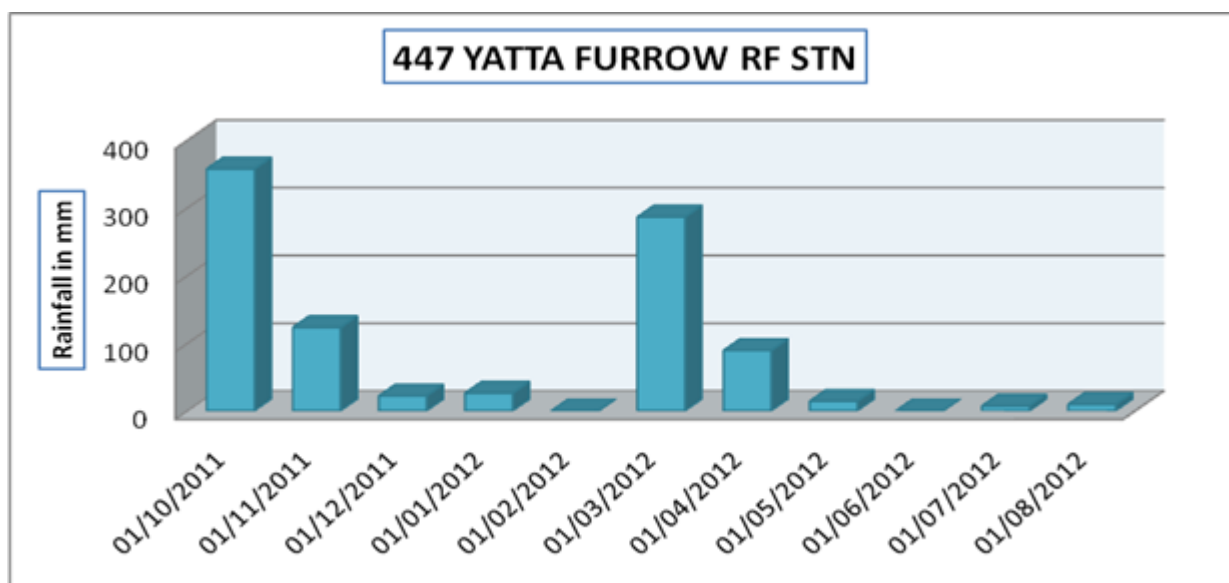


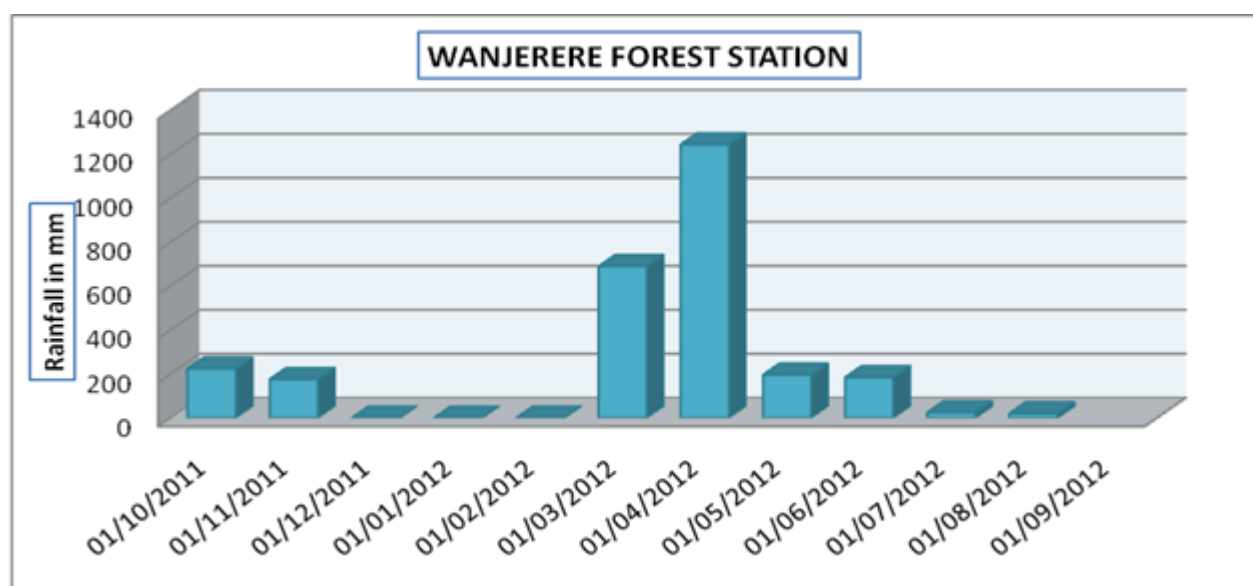
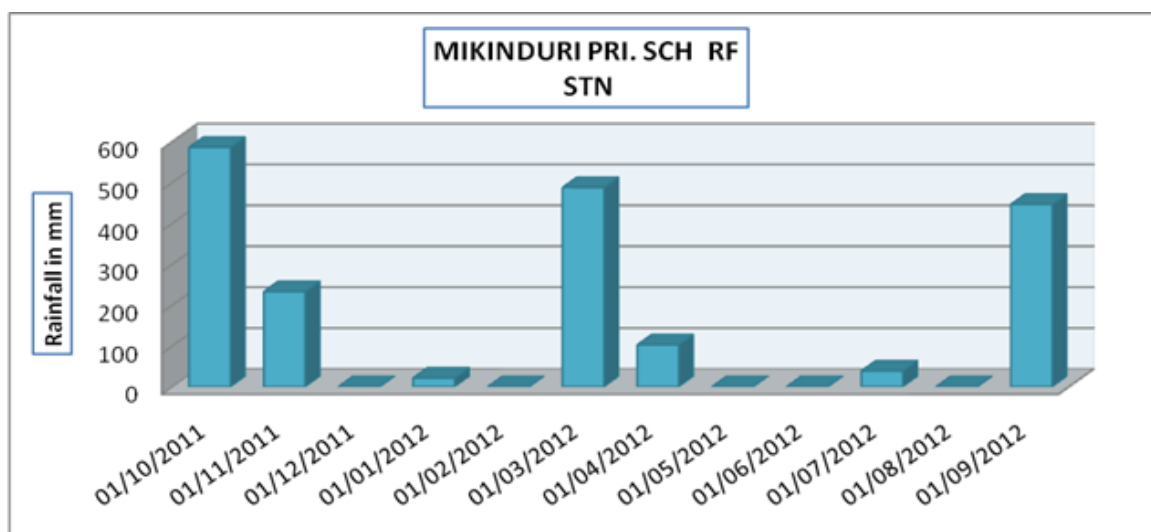


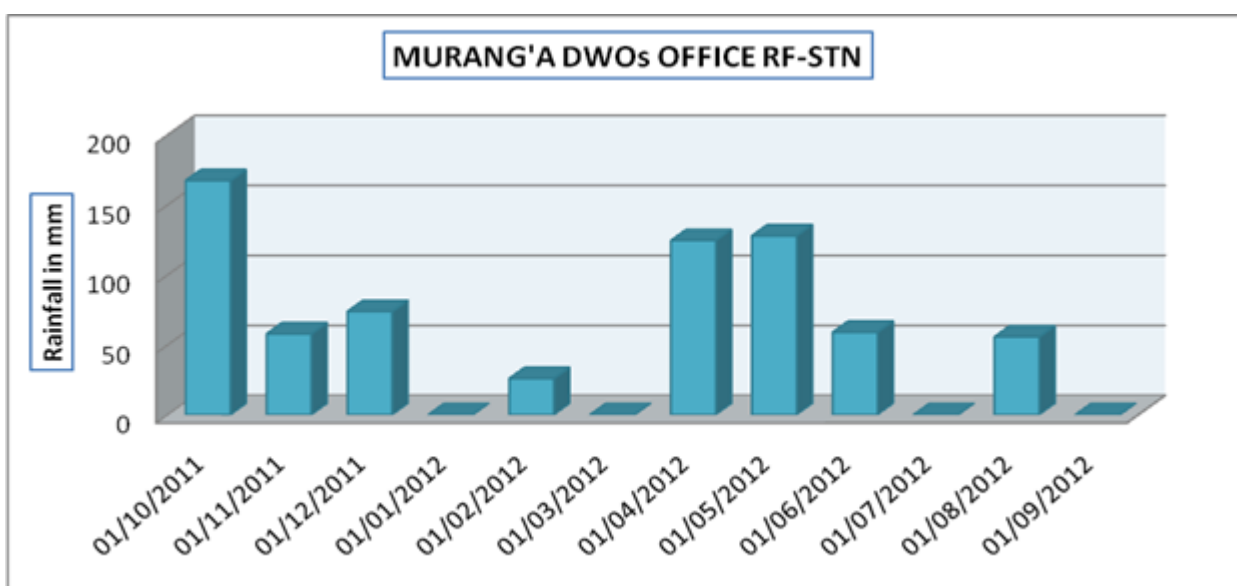
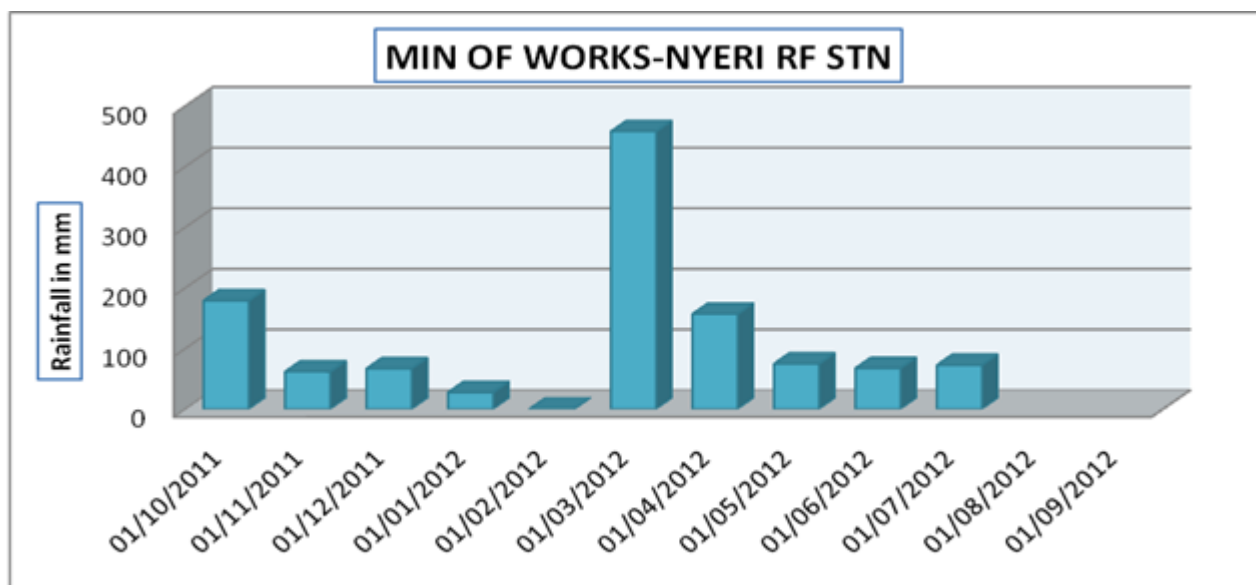


6.3 Rainfall data 2011 October -2012 September

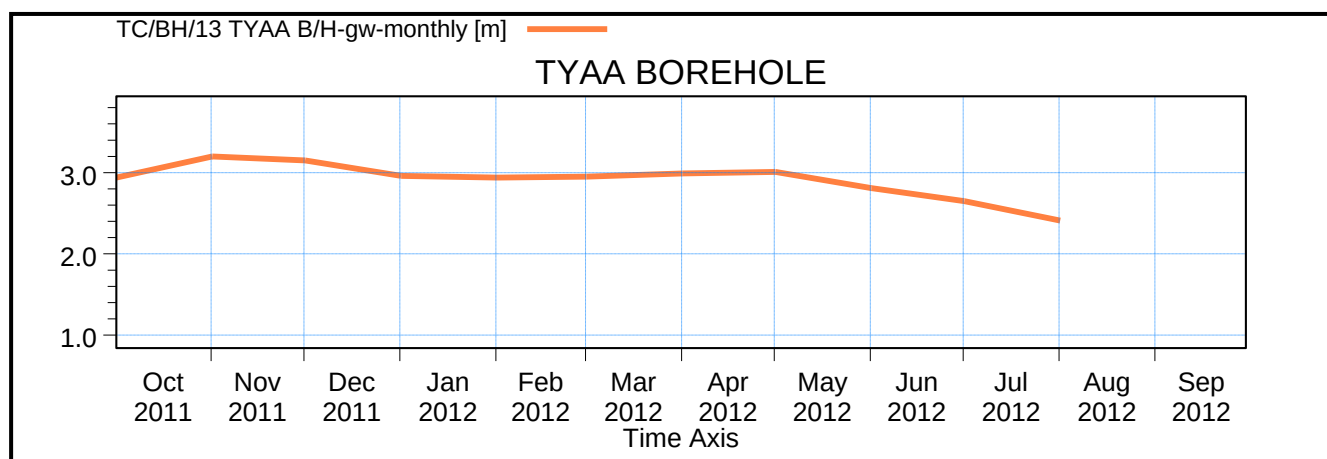
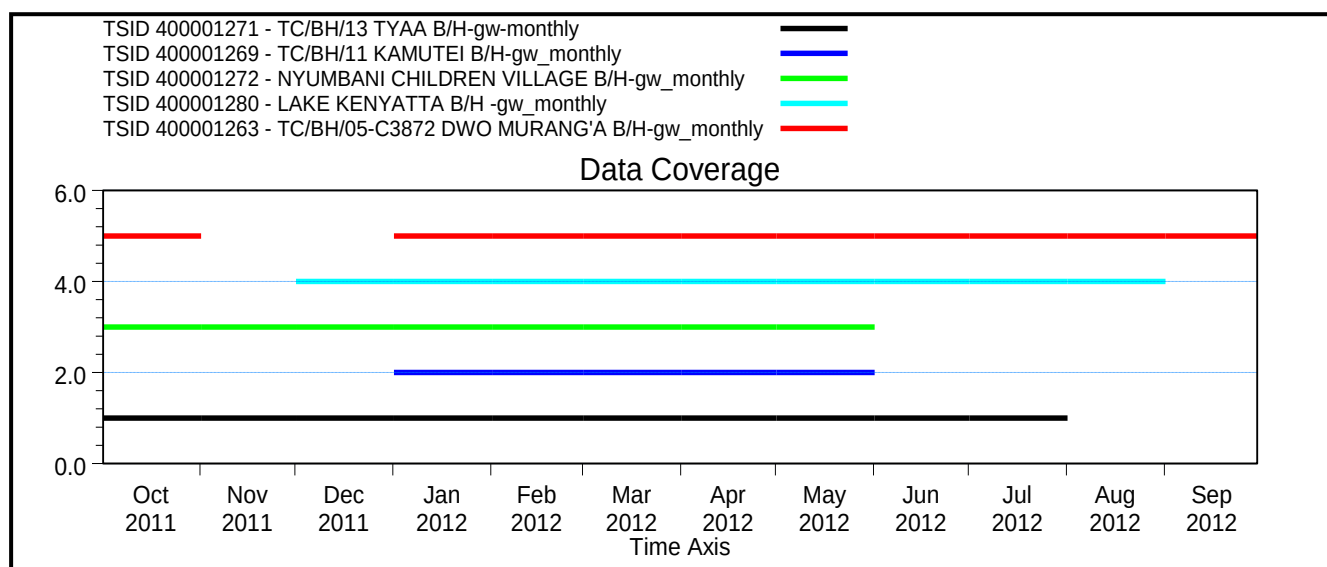


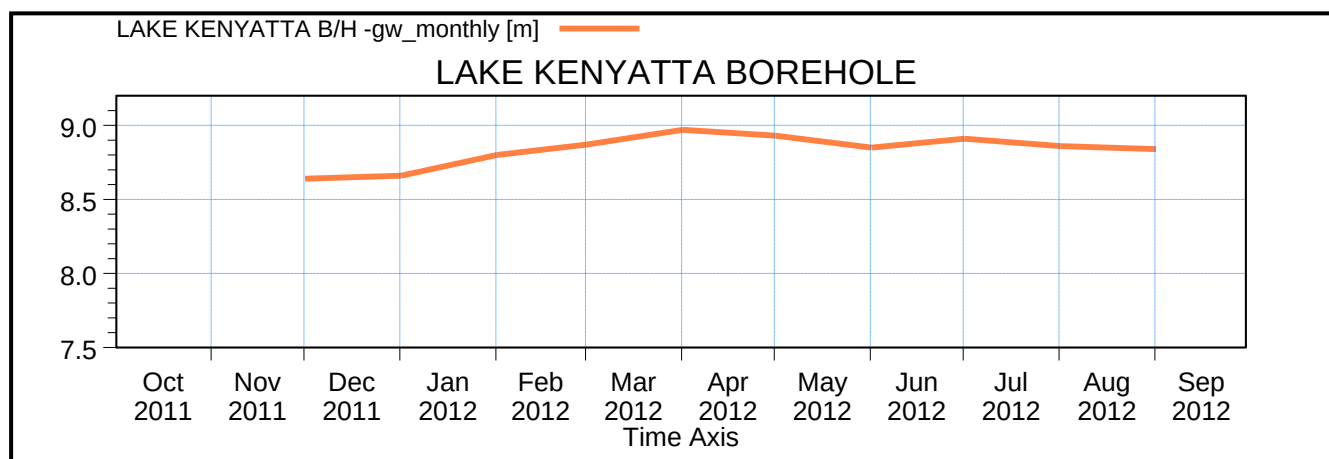
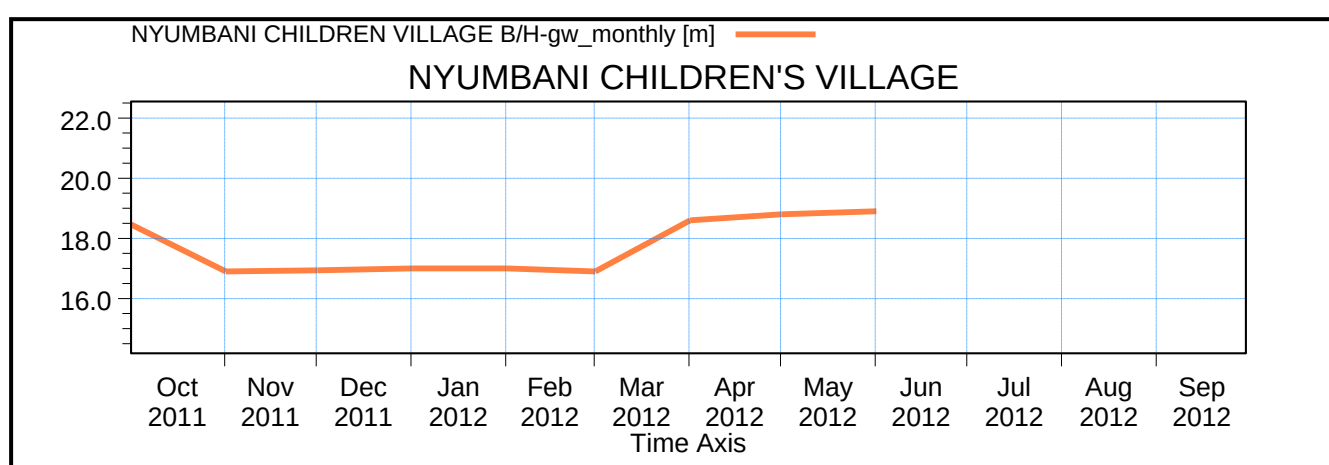
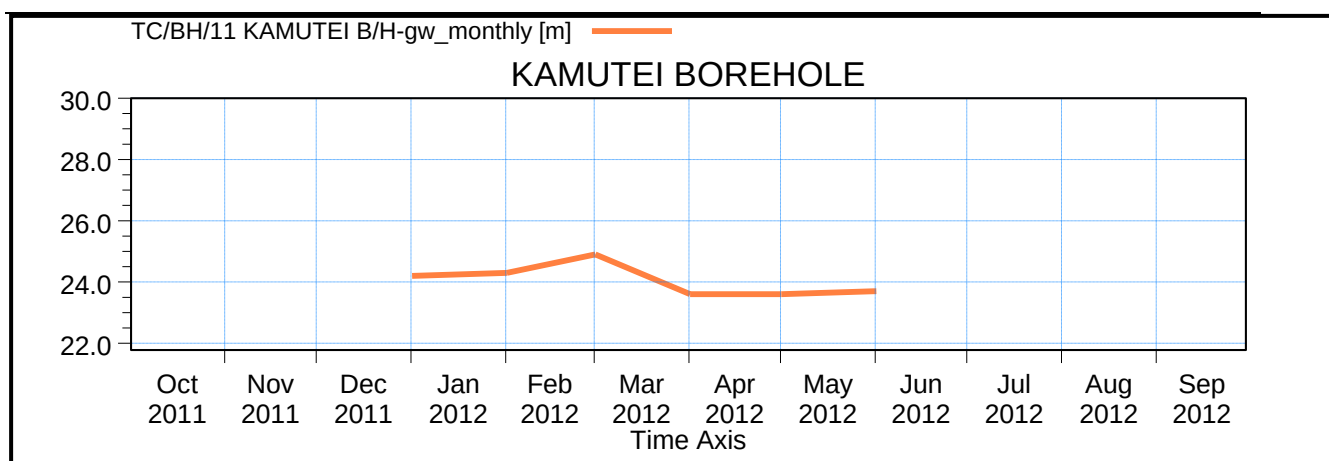


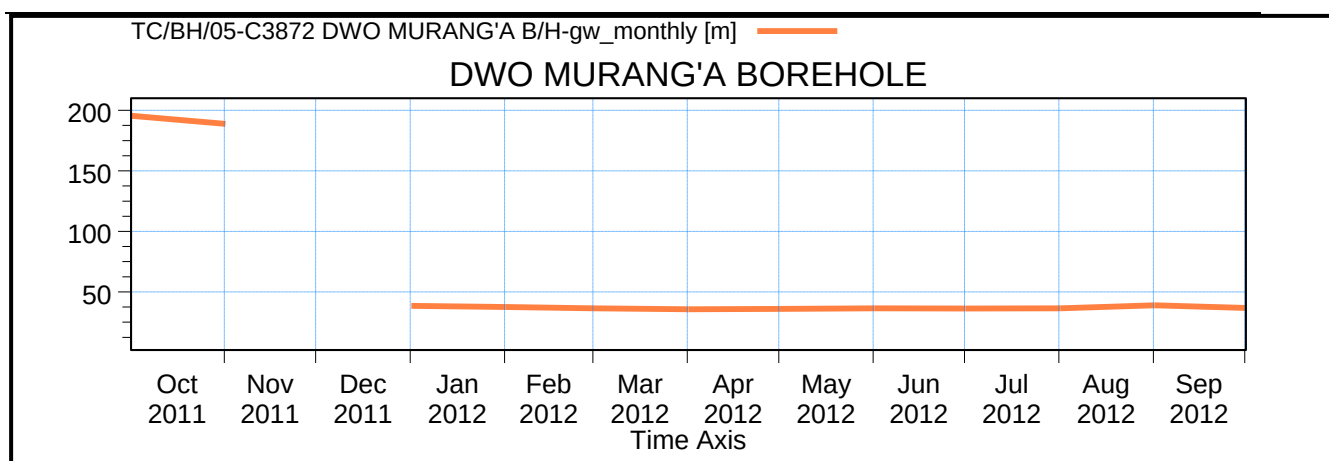




6.4 Groundwater level data coverage 2011 October -2012 September

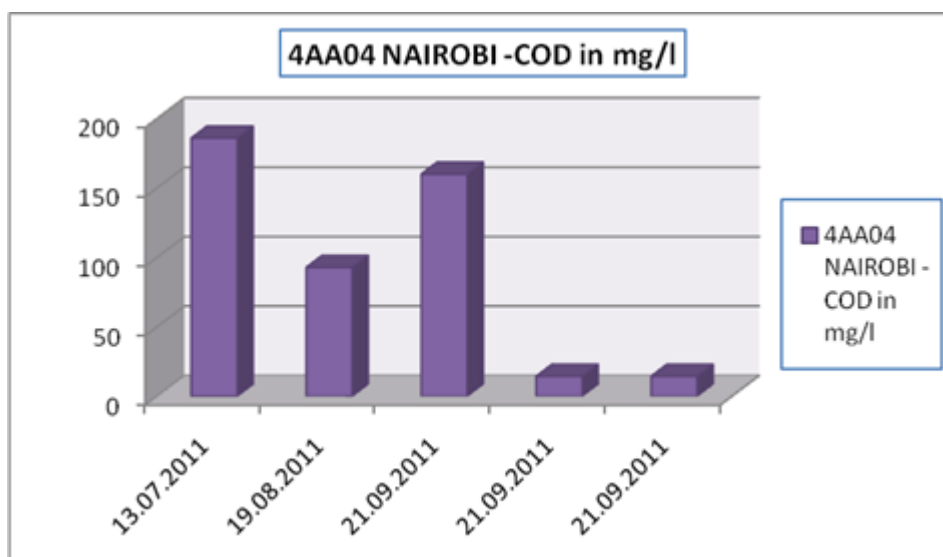
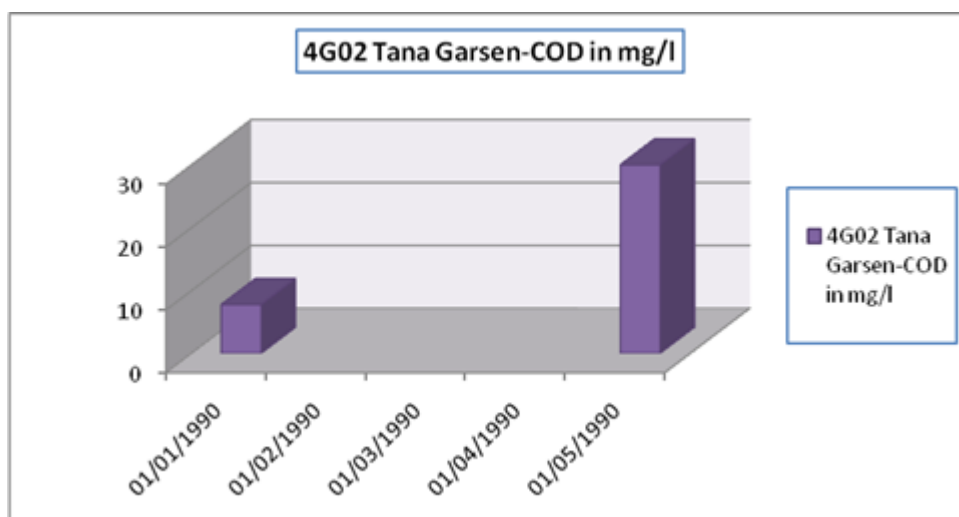




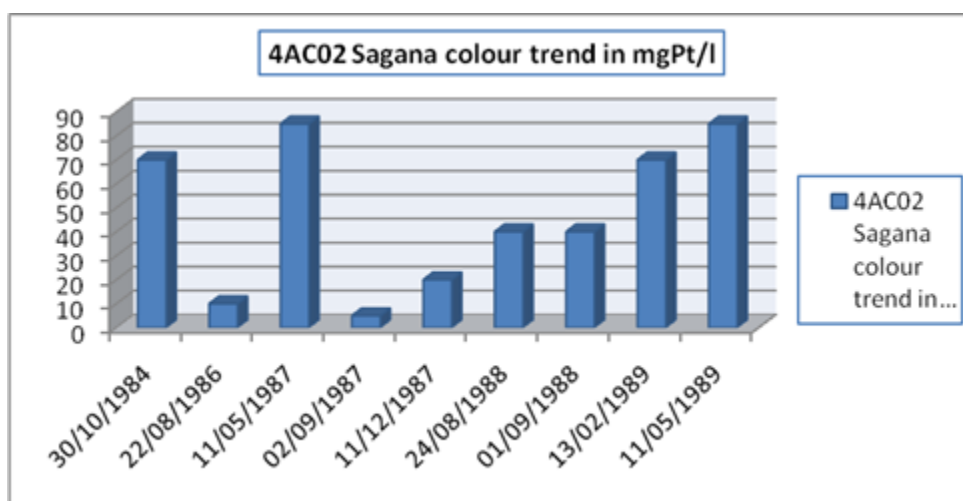
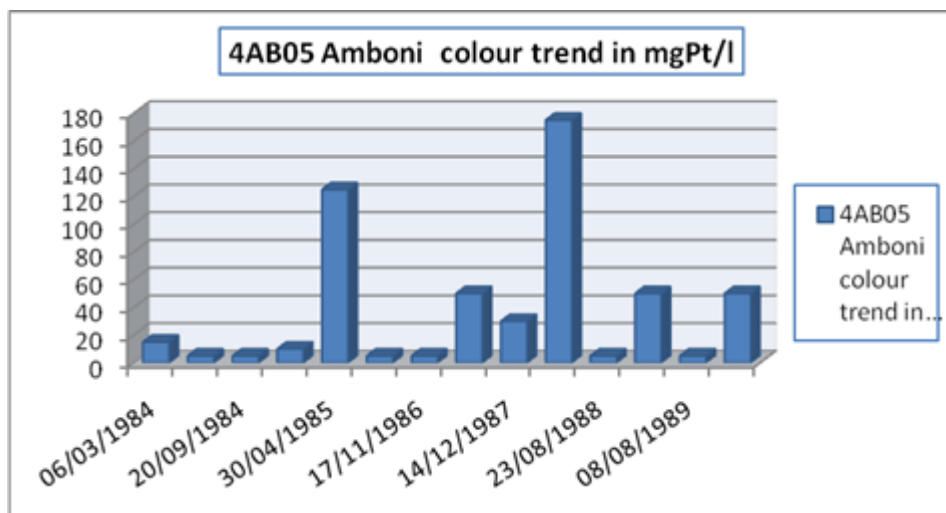


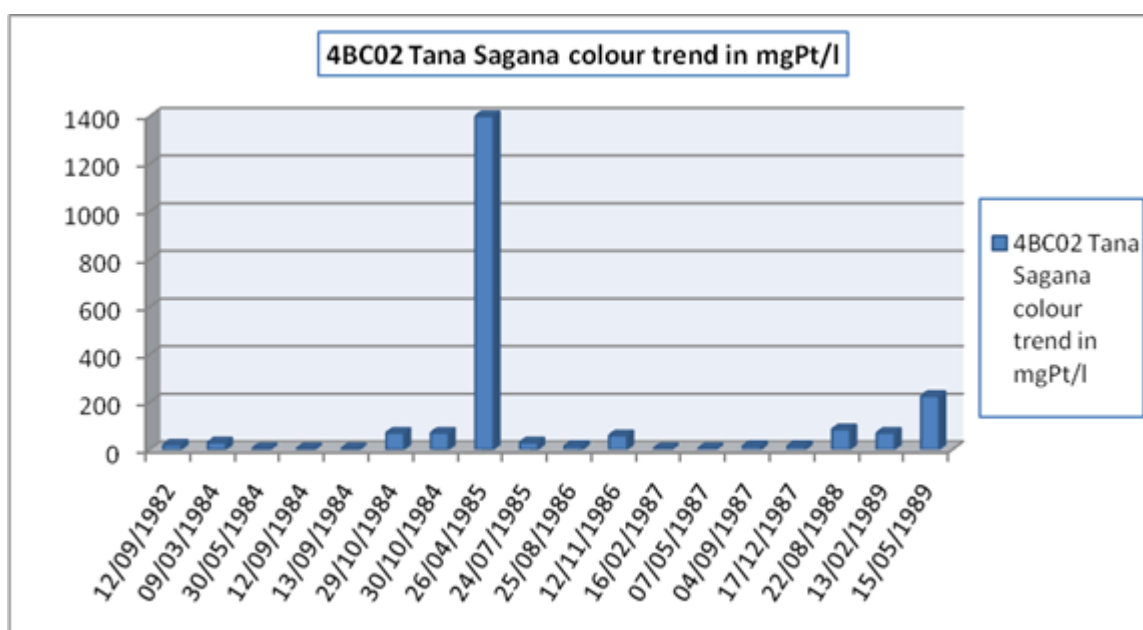
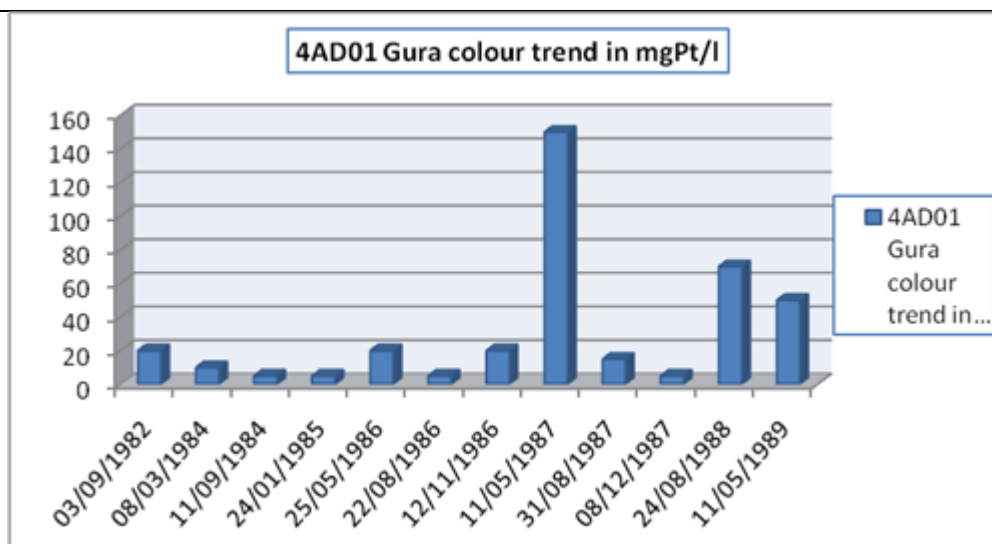
6.5 Water quality data

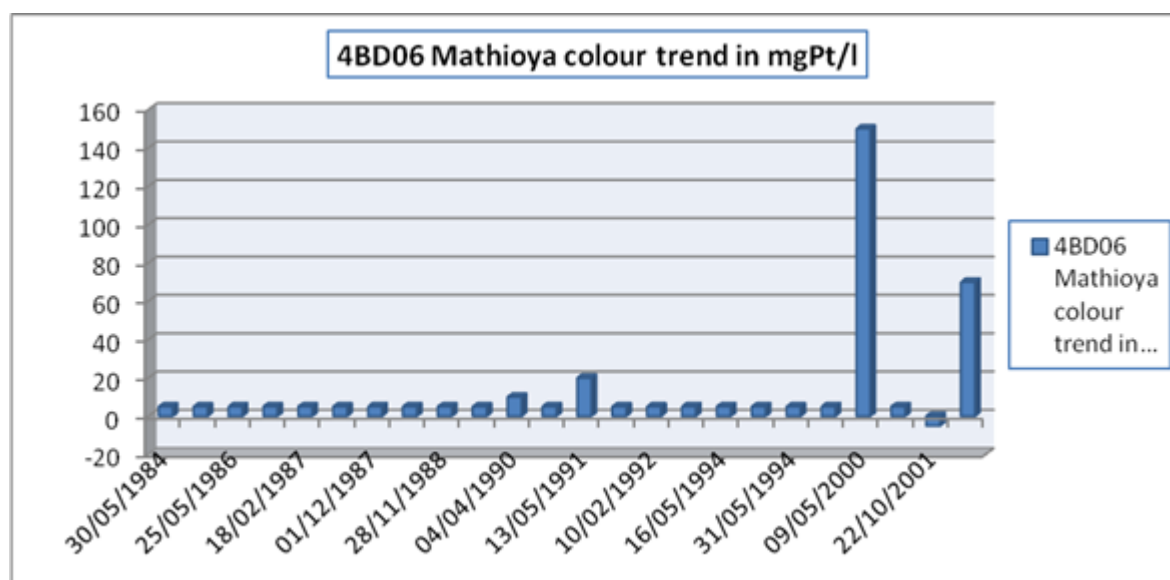
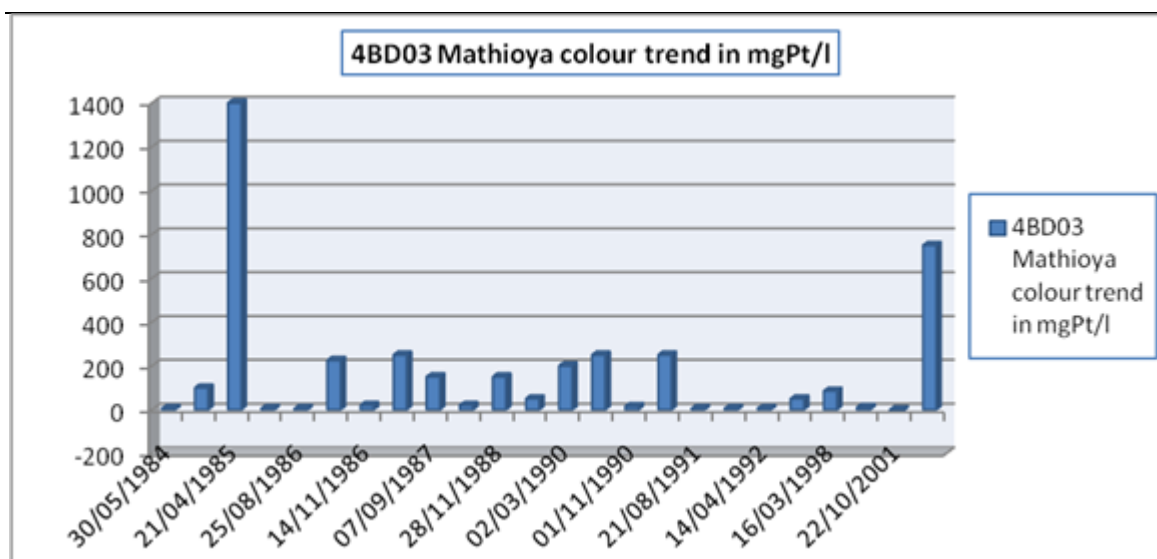
6.5.1 COD

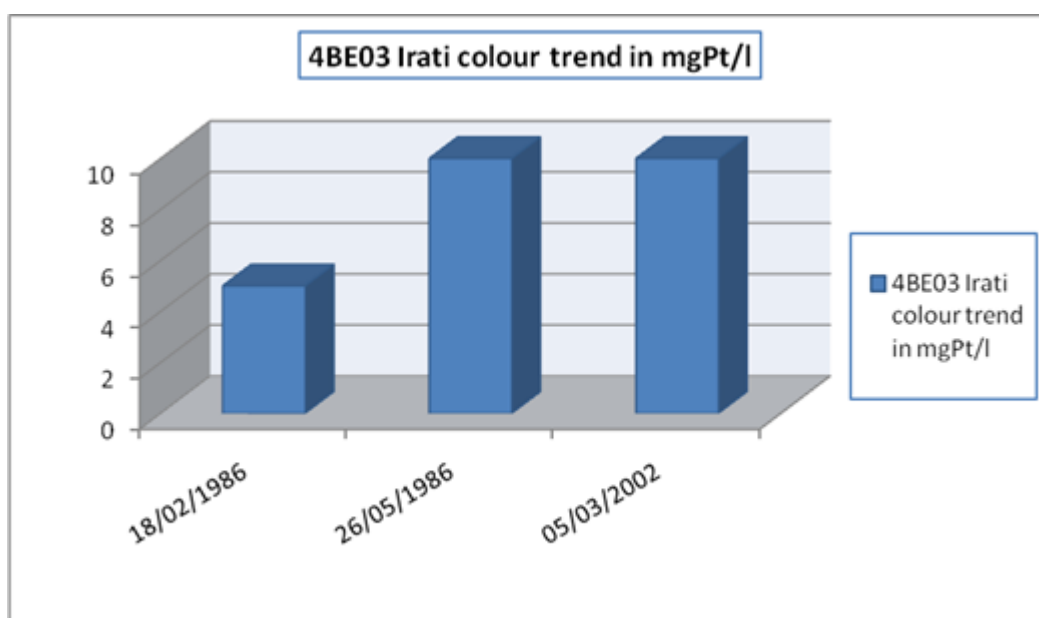
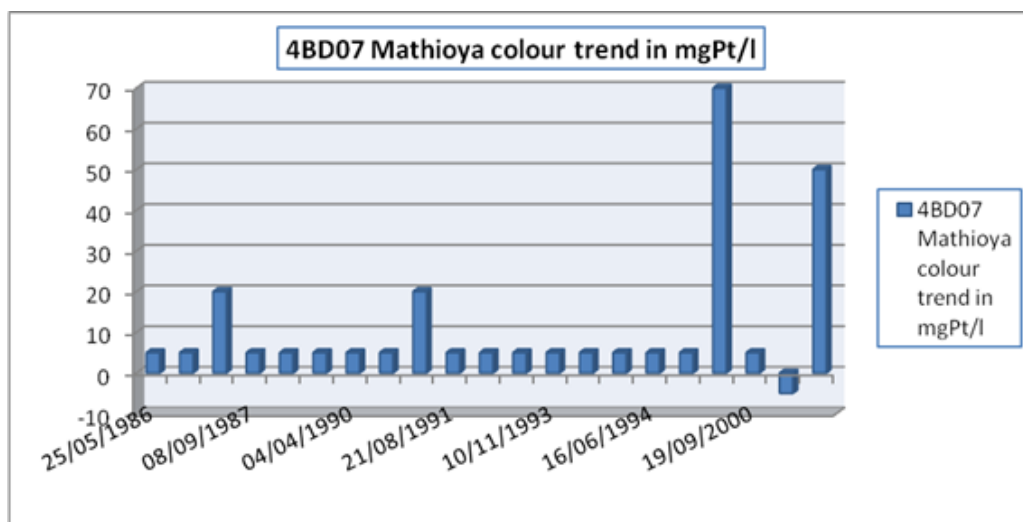


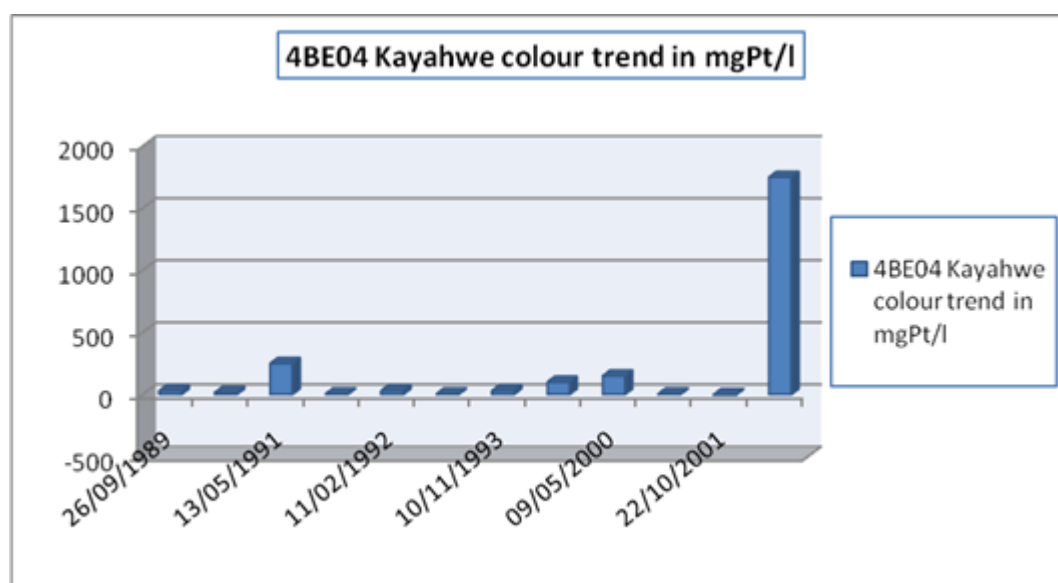
6.5.2 Rivers Colour trends



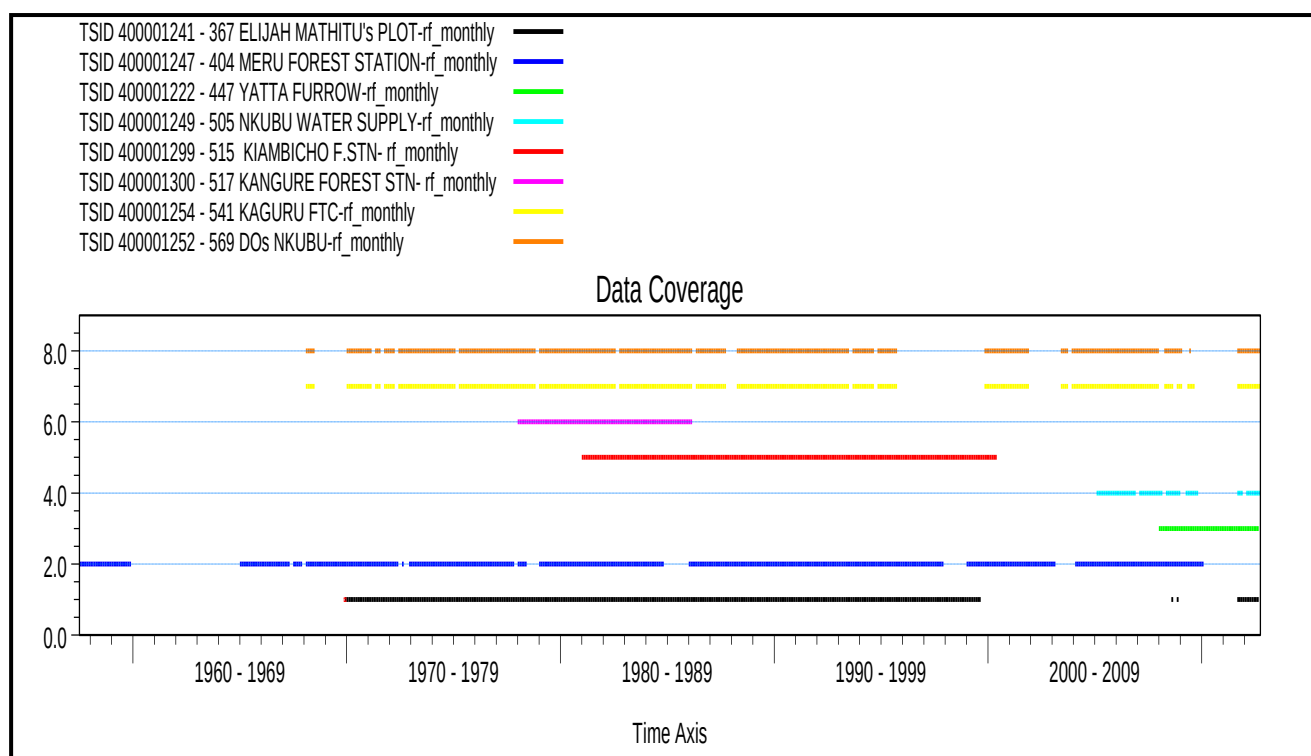


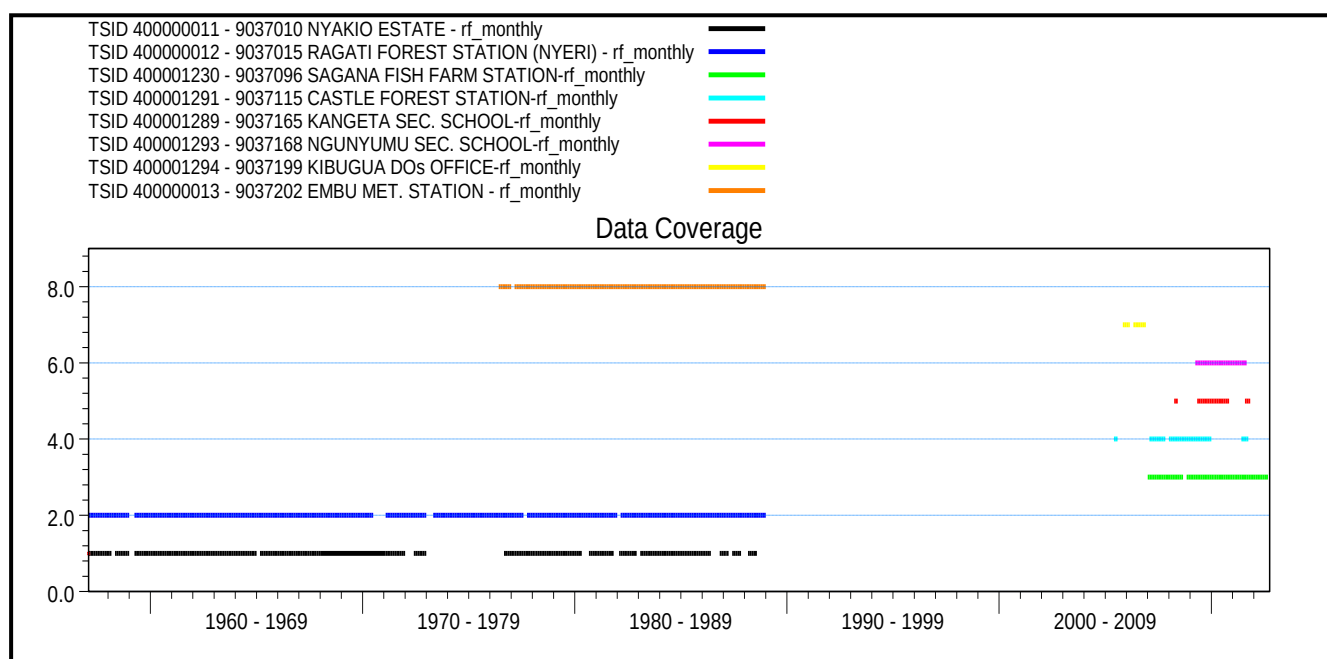
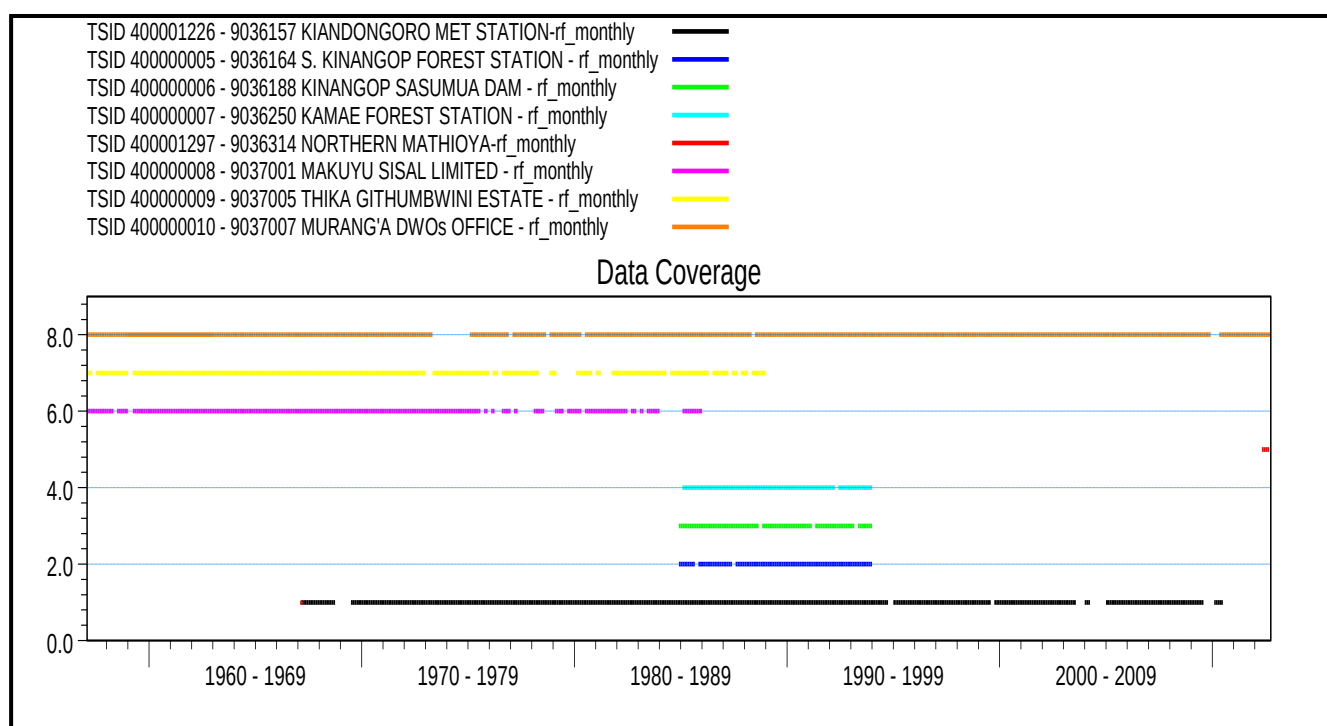


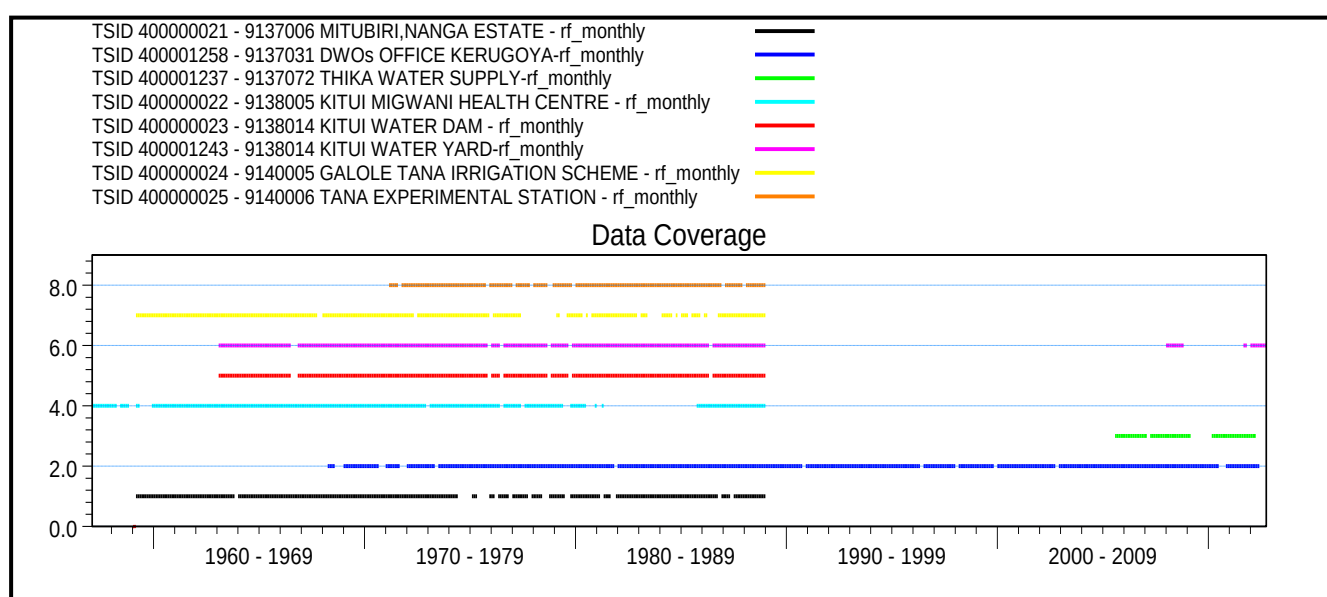
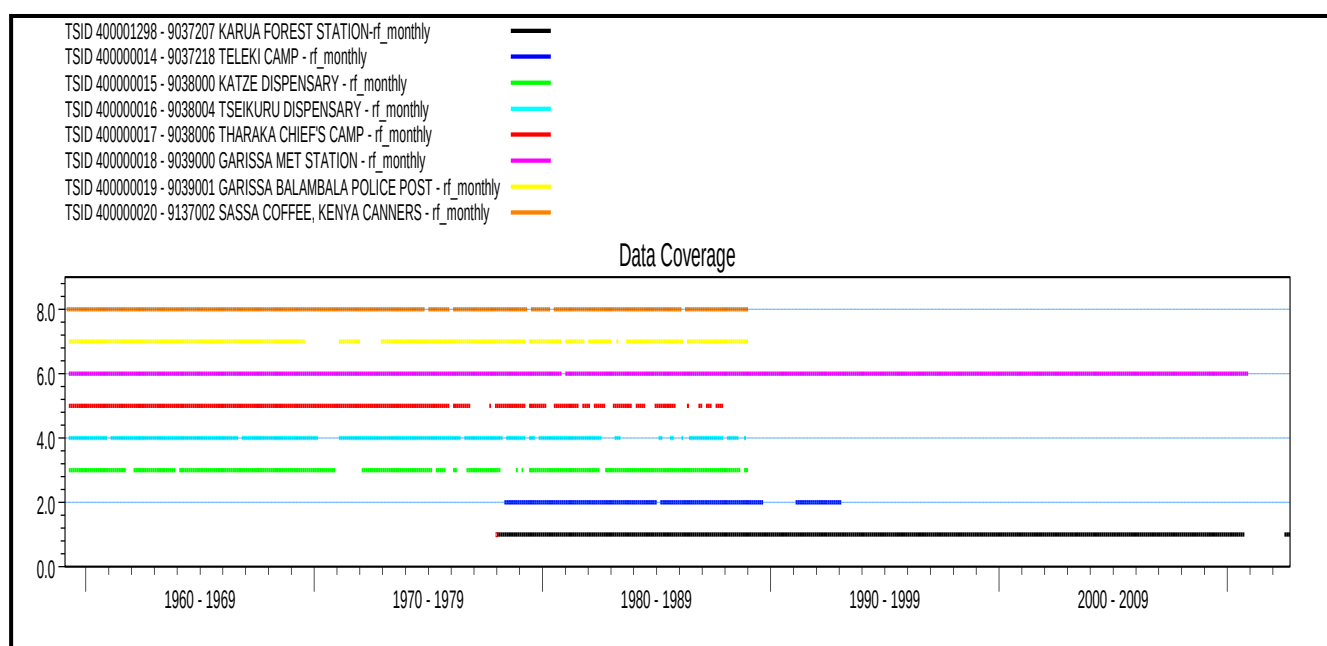


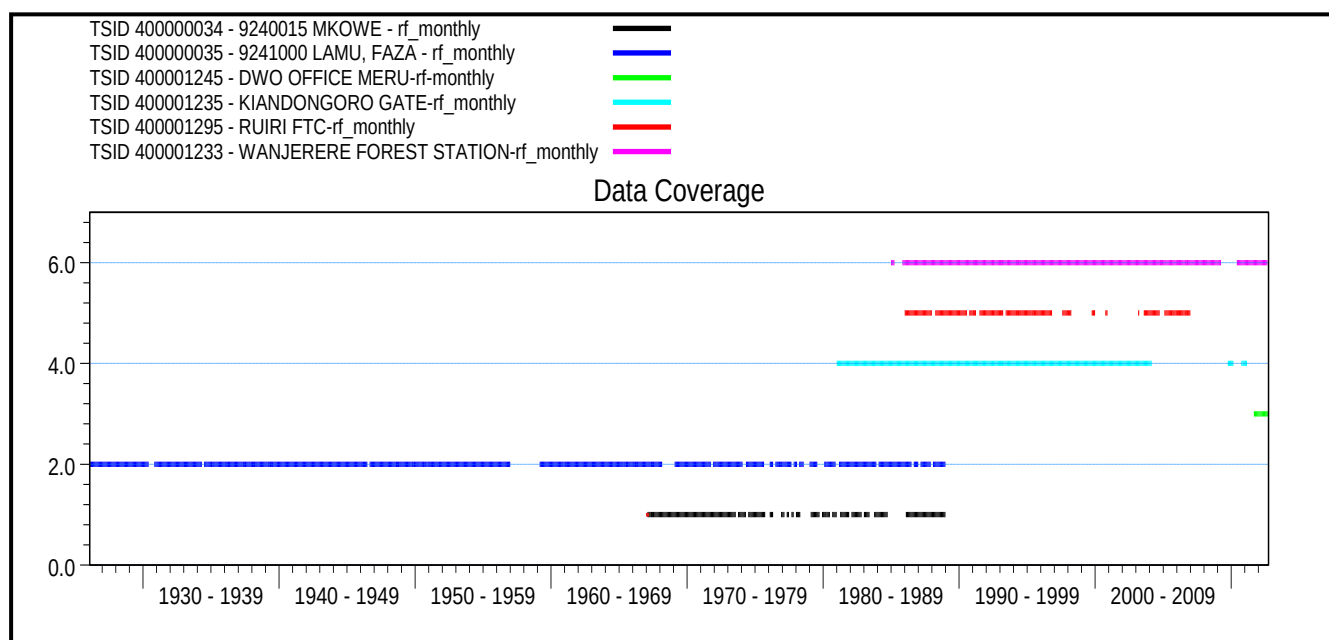
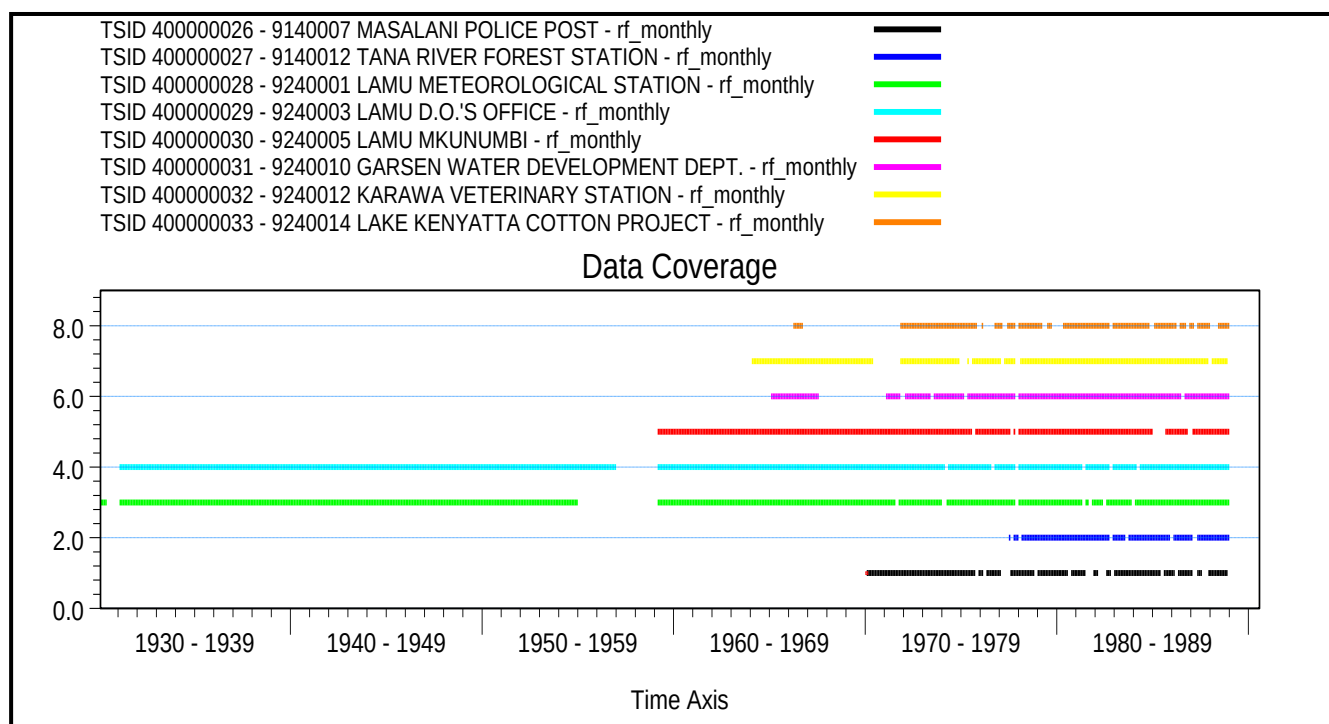


6.6 Data coverage for rainfall stations(Monthly)



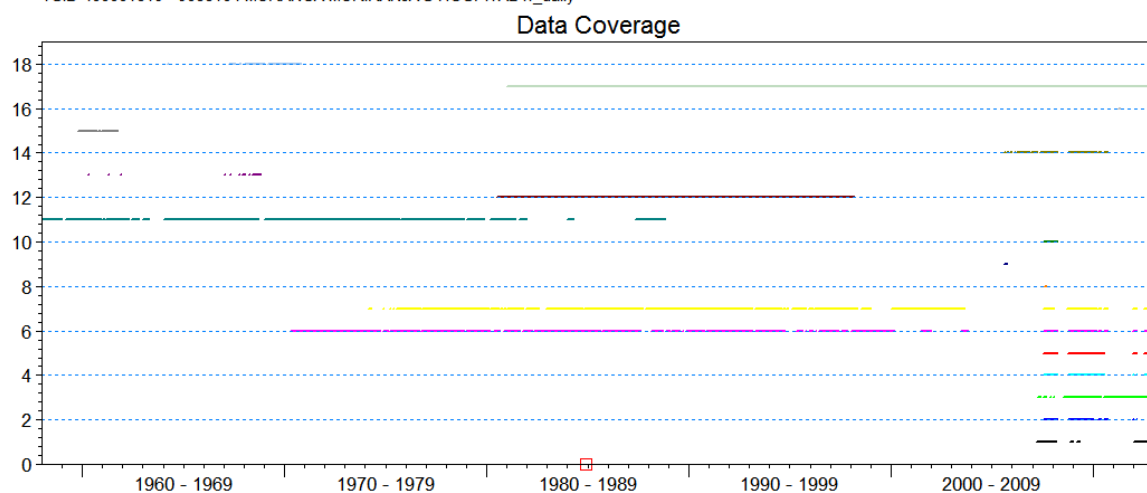






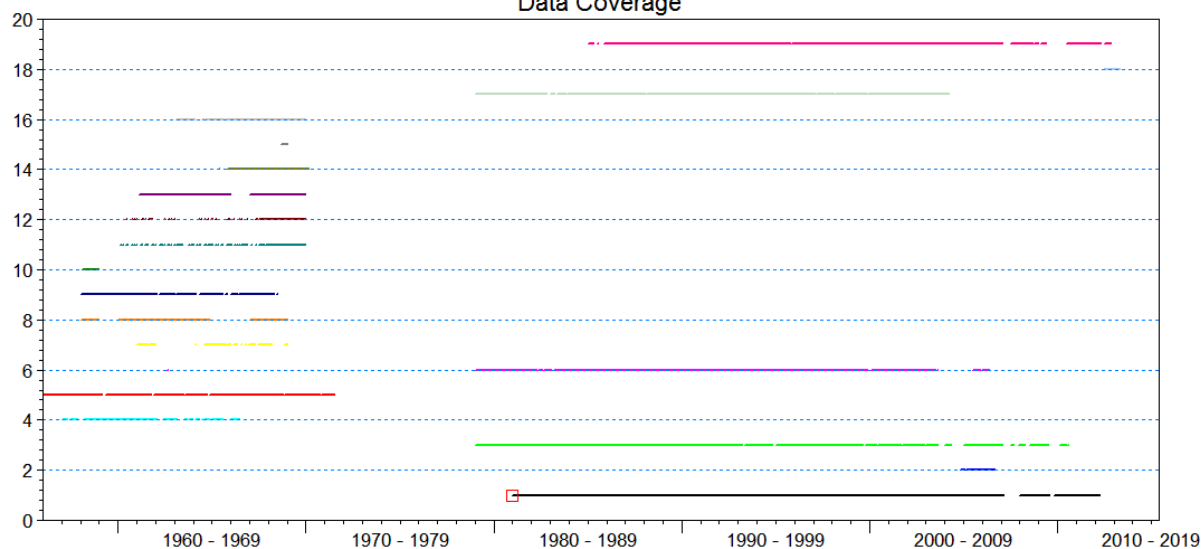
6.7 Data coverage for rainfall stations(Daily)

TSID 400001240 - 367 ELIJAH MATHITU'S PLOT-rf_daily	—
TSID 400001246 - 404 MERU FOREST STATION-rf_daily	—
TSID 400001220 - 447 YATTA FURROW_rf_daily	—
TSID 400001248 - 505 NKUBU WATER SUPPLY-rf_daily	—
TSID 400001253 - 541 KAGURU FTC_rf_daily	—
TSID 400001315 - 569 DOs OFFICE NKUBU-rf_daily	—
TSID 400001255 - 641 MIKINDURI PRIMARY SCHOOL-rf_daily	—
TSID 400001410 - 827 KIBARANYEKI FOREST-rf_daily	—
TSID 400001415 - 86- KIANYAGA-rf_daily	—
TSID 400001238 - 876 DWOs MWINGI OFFICE-rf_daily	—
TSID 400001316 - 8937021 KIANJA CHIEF'S CENTRE-rf_daily	—
TSID 400002553 - 8937031-TIGANIA WATER SUPPLY-rf_daily	—
TSID 400001317 - 8937038 MERU FOREST STATION-rf_daily	—
TSID 400001411 - 8937059 DC'S OFFICE MAUA-rf_daily	—
TSID 400001318 - 8937071 KIEGOI PRIMARY SCHOOL-rf_daily	—
TSID 400001413 - 8939085 THUURA CHIEF'S CAMP-rf_daily	—
TSID 400001231 - 9036017 NYERI MINISTRY OF WORKS_rf_daily	—
TSID 400001319 - 9036104 MURANGA MURIRANJA'S HOSPITAL-rf_daily	—



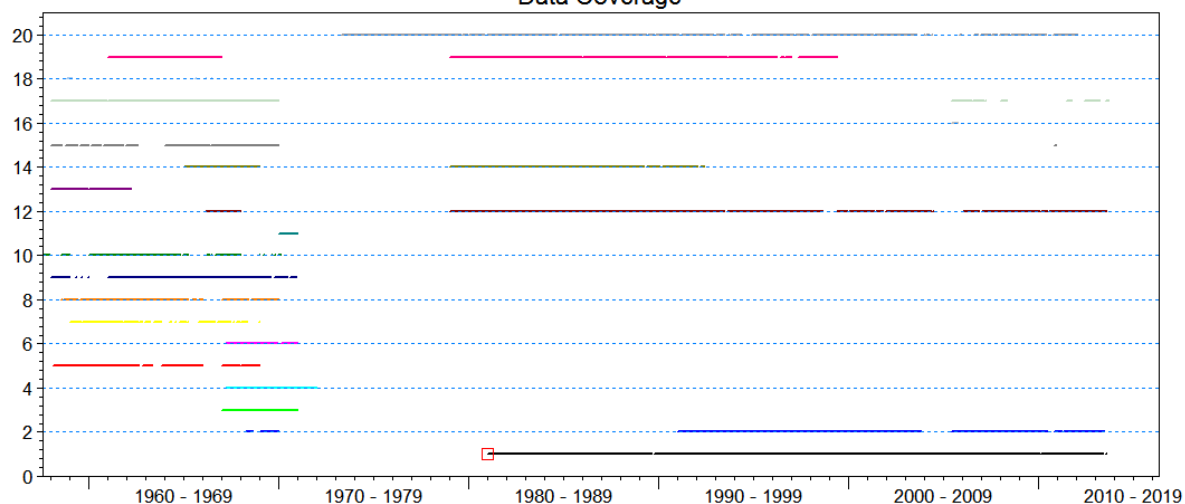
TSID 400001227 - 9036120 KABARU FOREST STATION-rf_daily
 TSID 400001403 - 9036144 MWEIGA MCR-rf_daily
 TSID 400001225 - 9036157 KIANDONGORO MET STATION-rf_daily
 TSID 400001320 - 9036223 NYERI PRISONS-rf_daily
 TSID 400001321 - 9036230 ST. FRANCIS G.S.SCHOOL MANGU-rf_daily
 TSID 400001322 - 9036233 KIMAKIA FOREST STATION-rf_daily
 TSID 400001323 - 9036246 ZAINA FOREST STATION
 TSID 400001324 - 9036247 KABAGE FOREST STATION-rf_daily
 TSID 400001327 - 9036251 MURINGATO FOREST RESERVE
 TSID 400001328 - 9036259 GATARE FOREST STATION
 TSID 400001234 - 9036271 KIANDONGORO GATE(A.N.PARK)-rf_daily
 TSID 400001329 - 9036273 ROHURUINI GATE (A.N.PARK)-rf_daily
 TSID 400001330 - 9036274 ABERDARE PARK TREE TOPS GATE-rf_daily
 TSID 400001331 - 9036275 MWEIGA HQ. MT. NATIONAL PARK-rf_daily
 TSID 400001332 - 9036282 NYERI HILL-rf_daily
 TSID 400001333 - 9036284 MUTARA FARM- MURANG'A-rf_daily
 TSID 400001370 - 9036298 WANDARE GATE A. PARK-rf_daily
 TSID 400001381 - 9036314 NORTHERN CAMP-rf_daily
 TSID 400001232 - 9036330 WANJERERE FOREST STATION-rf_daily

Data Coverage



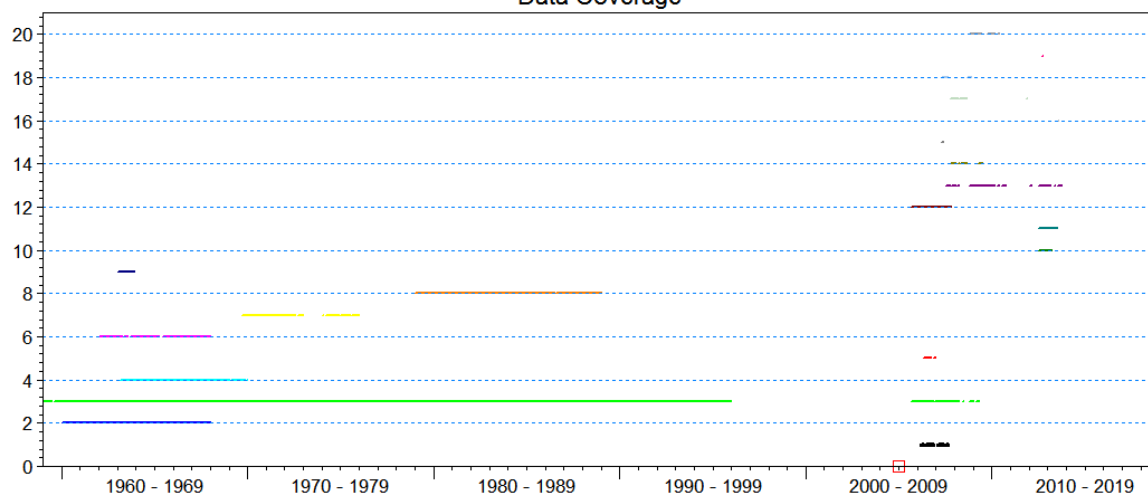
TSID 400001223 - 9037007 MURANG'A DWOs OFFICE-rf_daily
 TSID 400001257 - 9037031 DWOs OFFICE KERUGOYA-rf_daily
 TSID 400001334 - 9037039 KIRITIRI CHIEF'S CAMP-rf_daily
 TSID 400001335 - 9037042 KAHUHIA GIRLS SECONDARY SCHOOL-rf_daily
 TSID 400001336 - 9037050 PROVINCIAL AGRIC. TRAINING COLLEGE-rf_daily
 TSID 400001337 - 9037063 MURANG'A MUGOIRI GIRLS SCHOOL-rf_daily
 TSID 400001338 - 9037064 NARO MORU FOREST GUARD POST-rf_daily
 TSID 400001339 - 9037069 KARATINA HOMBE FOREST STATION-rf_daily
 TSID 400001340 - 9037075 KARATINA CHEHE FOREST STATION-rf_daily
 TSID 400001341 - 9037077 IRANGI FOREST STATION-rf_daily
 TSID 400001342 - 9037086 WAATHINE KITHURINE-rf_daily
 TSID 400001229 - 9037096 SAGANA FISH FARM STATION-rf_daily
 TSID 400001343 - 9037102 MARIMBA AGRIC. FARM-rf_daily
 TSID 400001344 - 9037103 MURINDUKO EXPERIMENTAL FARM-rf_daily
 TSID 400001345 - 9037104 MACHANG'A MET. SITE EMBU-rf_daily
 TSID 400001404 - 9037109 MUMBI GIRLS-rf_daily
 TSID 400001346 - 9037109 MURANG'A WATER SUPPLY-rf_daily
 TSID 400001348 - 9037110 MWEA TEBERE CHIEF'S CAMP-rf_daily
 TSID 400001349 - 9037112 MWEA EXPERIMENTAL STATION-rf_daily
 TSID 400001290 - 9037115 CASTLE FOREST STATION-rf_daily

Data Coverage



TSID 400001405 - 9137174 NDALANI CHIEF'S CAMP-rf_daily
 TSID 400001365 - 9138000 KITUI AGRICULTURAL STATION-rf_daily
 TSID 400001242 - 9138014 KITUI WATER YARD_rf_daily
 TSID 400001366 - 9140006 TANA EXPERIMENTAL STATION-rf_daily
 TSID 400001402 - 9238006 IKUTHA AGR. OFFICE-rf_daily
 TSID 400001367 - 9240000 KIPINI DISTRICT OFFICE-rf_daily
 TSID 400001368 - 9240006 LAMU SHEILA-rf_daily
 TSID 400001372 - 9240010 GARSEN WATER OFFICE -rf_daily
 TSID 400001369 - 9240012 KARAWA VETERINARY STATION-rf_daily
 TSID 400001697 - BURA NIB RAINFALL STN_rf_daily
 TSID 400001696 - DWO GARISSA_rf_daily
 TSID 400001399 - DWO LAMU-rf_daily
 TSID 400001244 - DWO OFFICE MERU-rf_daily
 TSID 400001416 - DWO SIAKAGO-RG-rf_daily
 TSID 400001407 - ITHANGA-rf_daily
 TSID 400002554 - KIRU TEA FACTORY-rf_daily
 TSID 400001414 - KUNE MAGACA MET STN-rf_daily
 TSID 400001409 - MUKINDU RAIN GAUGE-rf_daily
 TSID 400001382 - NDAKAINI RAINFAL STN-rf_daily
 TSID 400001412 - NKUNYA RAINGAUGE-rf_daily

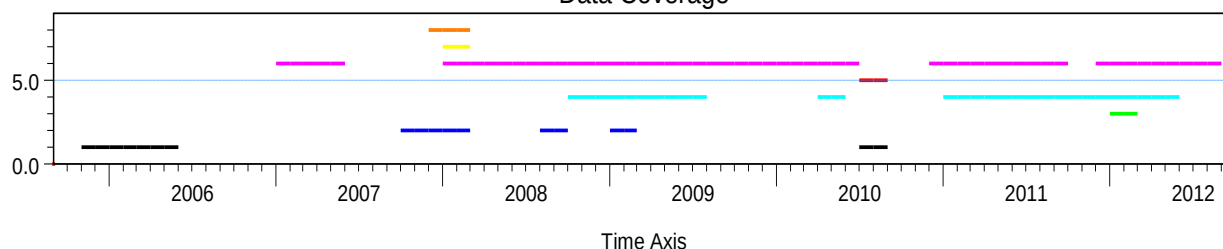
Data Coverage

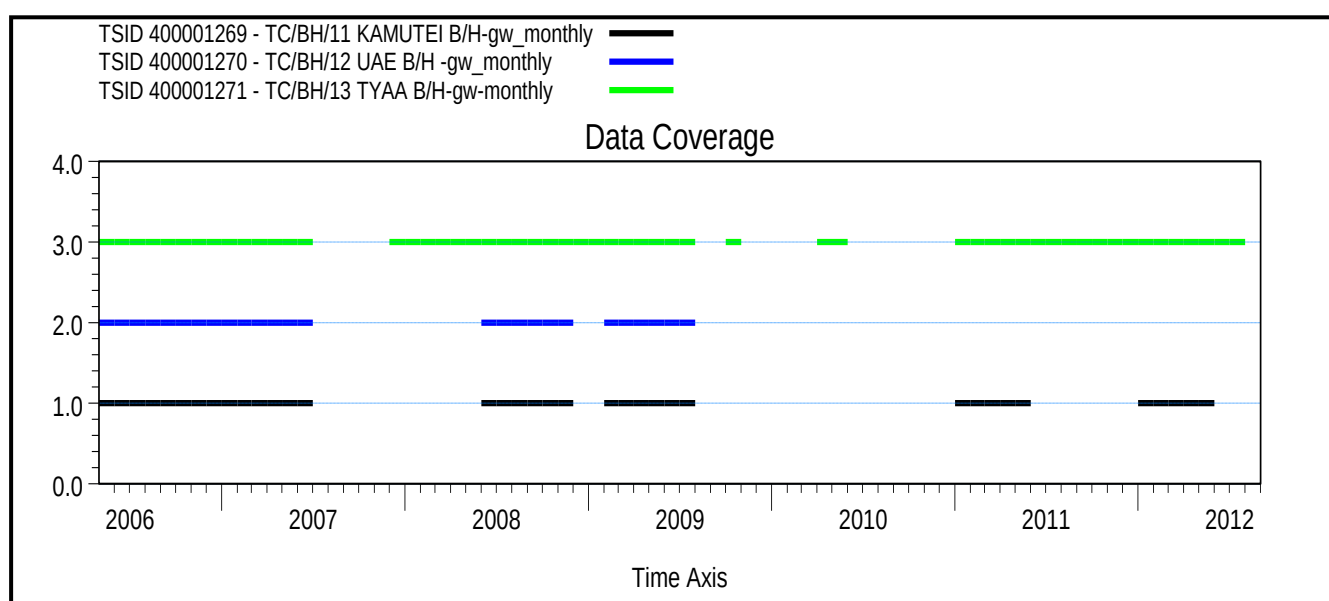
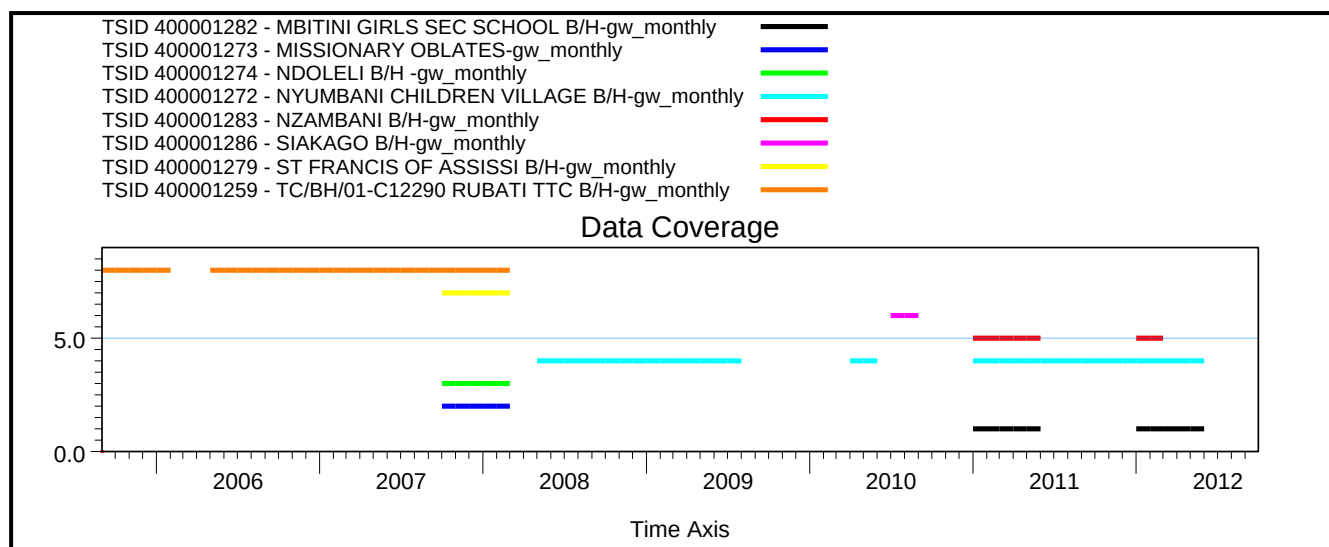


6.8 Groundwater level stations data coverage

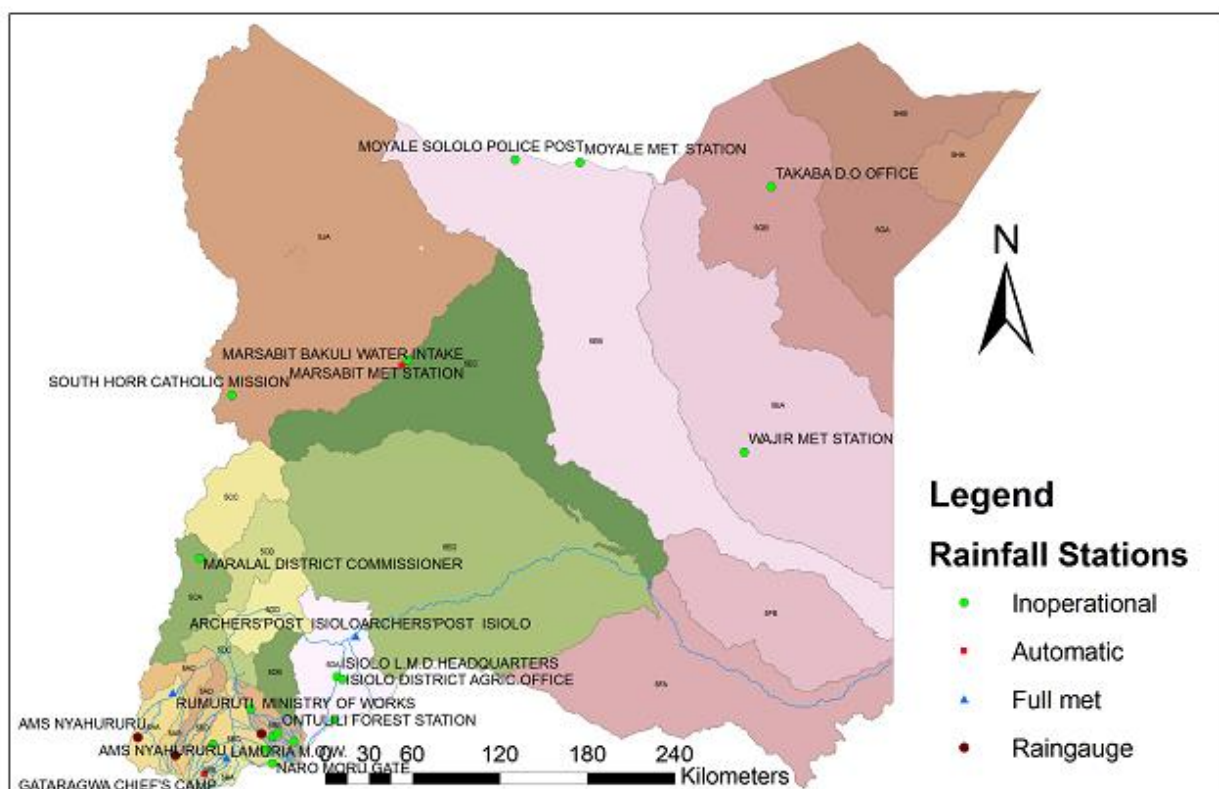
TSID 400001265 - DON BOSCO B/H-gw_monthly
 TSID 400001275 - ASK MERU B/H -gw_monthly
 TSID 400001284 - ATONGOI PRI. SCH. B/H-gw_monthly
 TSID 400001281 - ITUMBA B/H-gw_monthly
 TSID 400001287 - KARABA MISSION B/H-gw_monthly
 TSID 400001280 - LAKE KENYATTA B/H -gw_monthly
 TSID 400001278 - MATIRINE B/H-gw_monthly
 TSID 400001277 - MBIRIKINE OBSERV. WELL-gw_monthly

Data Coverage

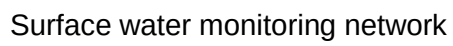




7. EWASO NG'RO NORTH CATCHMENT AREA

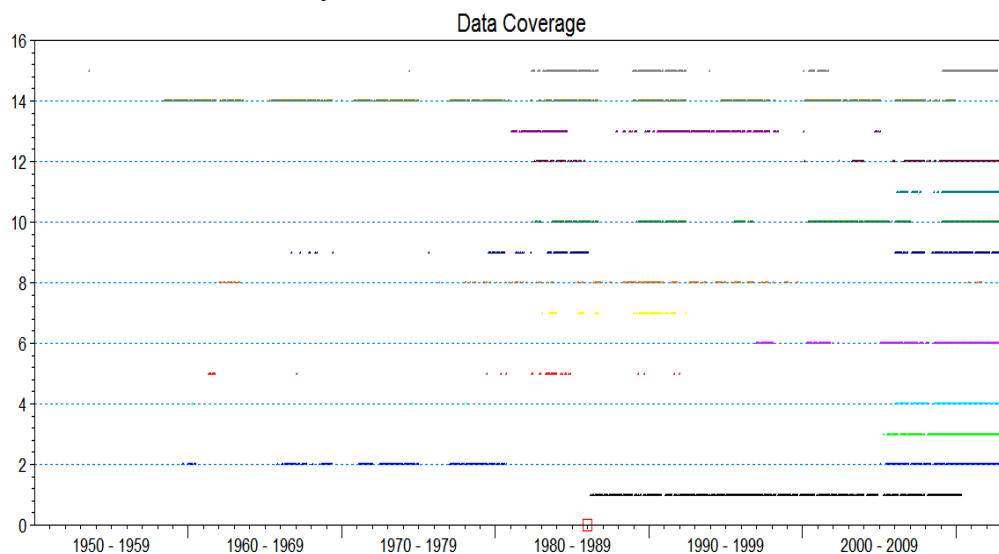


Meteorological Monitoring Network

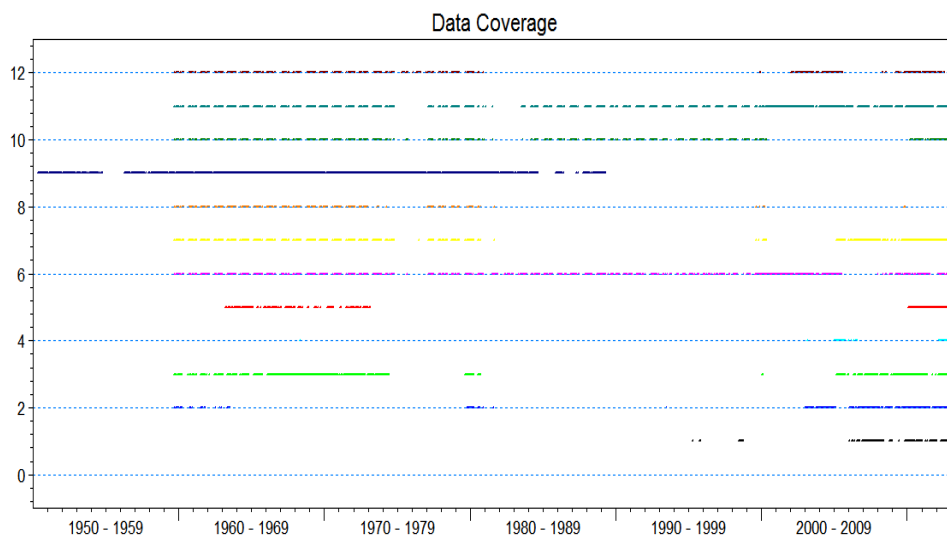


7.1 Data coverage for river monitoring stations

TSID 500000632 - 5AA01A EWASO NAROK - Discharge
 TSID 500000574 - 5AA05 EQUATOR - Discharge
 TSID 500001362 - 5AA17 EWASO NAROK - Discharge
 TSID 500000577 - 5AB02 PESI - Discharge
 TSID 500001785 - 5AB03 PESI - Discharge
 TSID 500000579 - 5AB04 PESI - Discharge
 TSID 500000708 - 5AC02 Ewaso Narok - Discharge
 TSID 500000600 - 5AC08 EWASO NAROK - Discharge
 TSID 500000633 - 5AC10 EWASO NAROK - Discharge
 TSID 500000634 - 5AC15 EWASO NAROK - Discharge
 TSID 500000635 - 5AD01 MUTARA - Discharge
 TSID 500000575 - 5AD04 MUTARA - Discharge
 TSID 500000637 - 5BA03 MOYOK - Discharge
 TSID 500000583 - 5BB02 EWASO NGIRO - Discharge
 TSID 500000584 - 5BC02 NARO MORU - Discharge

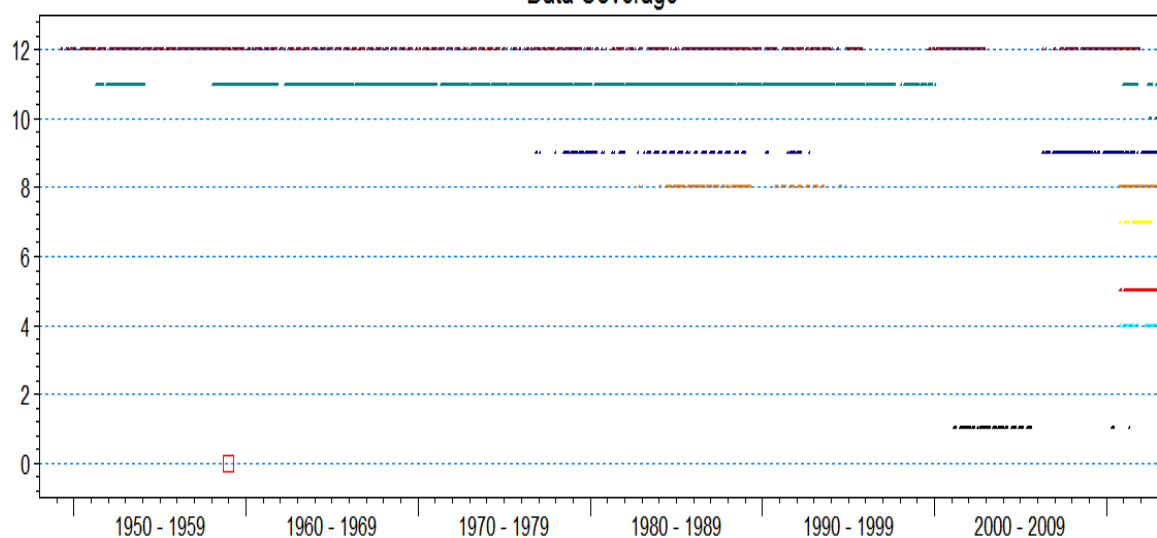


TSID 500000582 - 5BC04 EWASO NGIRO - Discharge
 TSID 500000694 - 5BC05 RONGAI - Discharge
 TSID 500000639 - 5BC06 BURGURET - Discharge
 TSID 500000589 - 5BC08 NGOBIT - Discharge
 TSID 500000680 - 5BD02 SUGUROI - Discharge
 TSID 500000587 - 5BE01 NANYUKI - Discharge
 TSID 500000578 - 5BE02 ONTULILI - Discharge
 TSID 500000640 - 5BE03 KONGONI - Discharge
 TSID 500000606 - 5BE04 SIRIMON - Discharge
 TSID 500000580 - 5BE05 TELESWANI - Discharge
 TSID 500000611 - 5BE06 TIMAU - Discharge
 TSID 500000586 - 5BE07 LIKILI - Discharge
 TSID 500000658 - 5BE19 NGUSISHI DISCHARGE

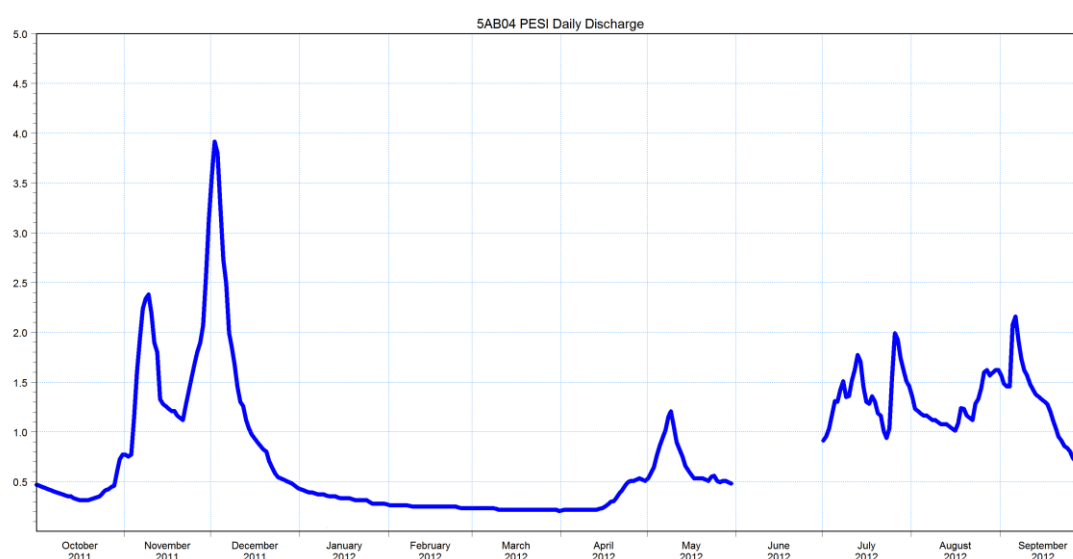
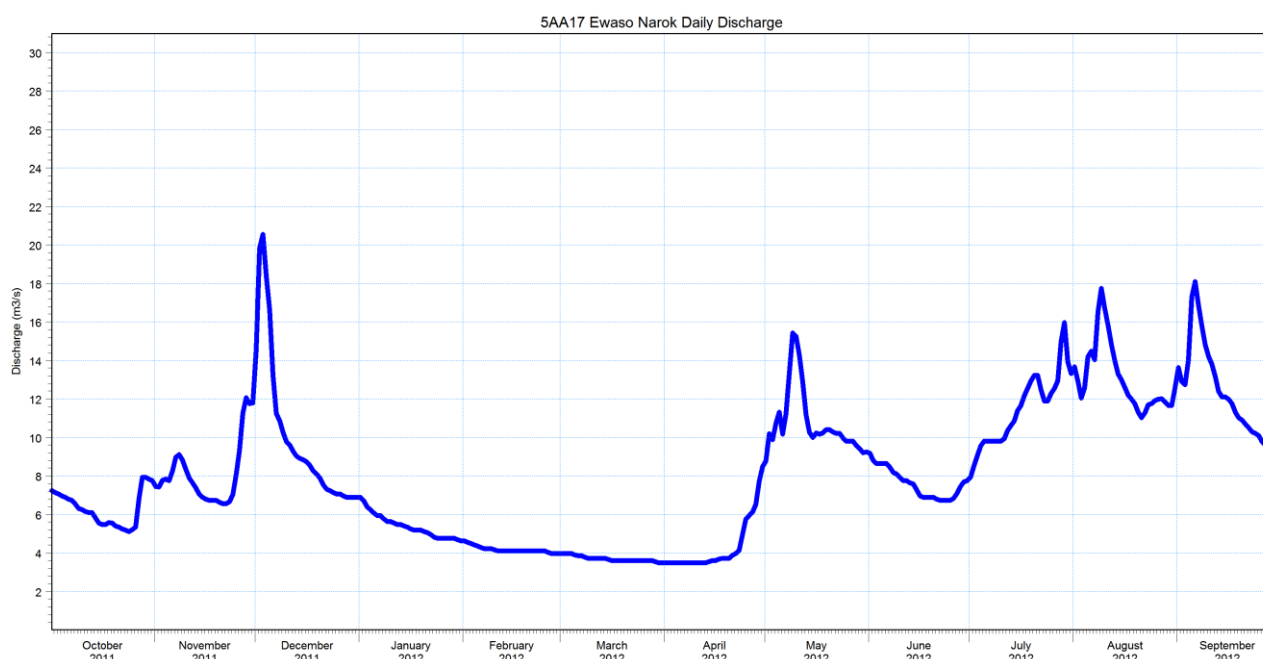


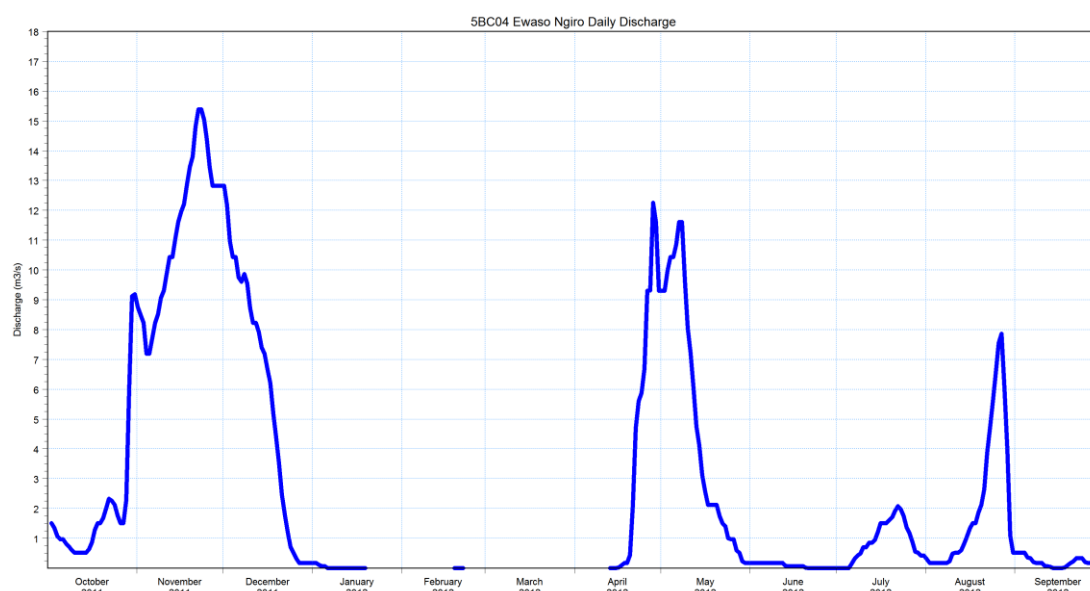
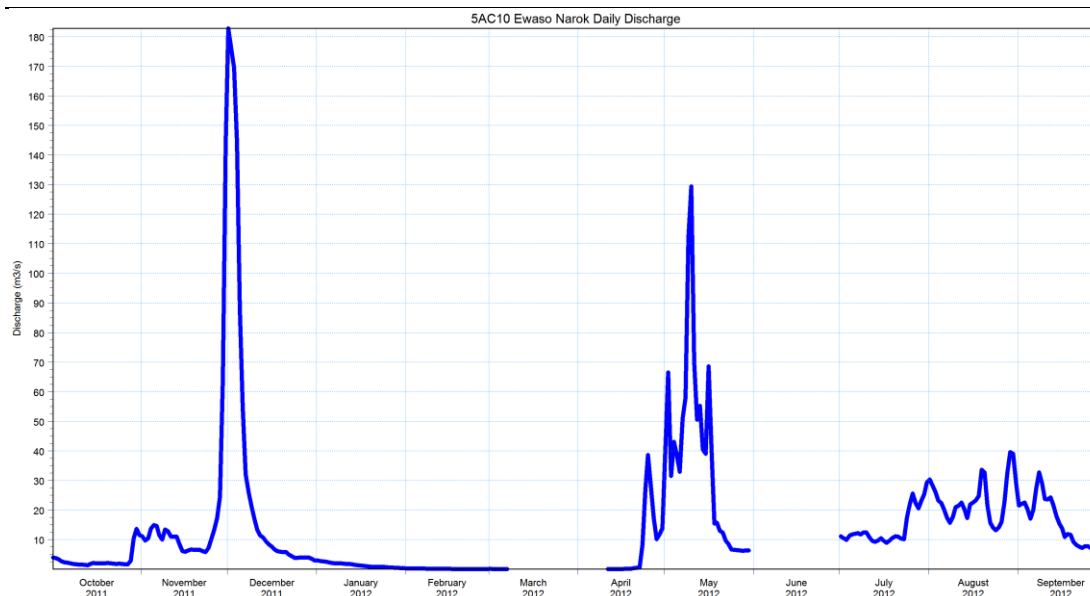
TSID 500000590 - 5BE20 NANYUKI - Discharge
 TSID 500000641 - 5BE21 NANYUKI - Discharge
 TSID 500000760 - 5BE22 - SIRIMON DISCHARGE
 TSID 500001380 - 5DA01 NGARE NYTHING
 TSID 500001786 - 5DA02 NGARE NDARE - Discharge
 TSID 500000745 - 5DA03 - RUGUSU - Discharge
 TSID 500000754 - 5DA04 - KITHIMA - Discharge
 TSID 500000842 - 5DA05 LIKIUNDU - Discharge
 TSID 500000804 - 5DA07 ISIOLO - Discharge
 TSID 500001782 - 5DA08 KIANJURI DAM - Discharge
 TSID 500000596 - 5DC01 EWASO NGIRO - Discharge
 TSID 500000588 - 5ED01 ARCHERS POST - Discharge
 TSID 500000648 - 5H01 DAUA Discharge

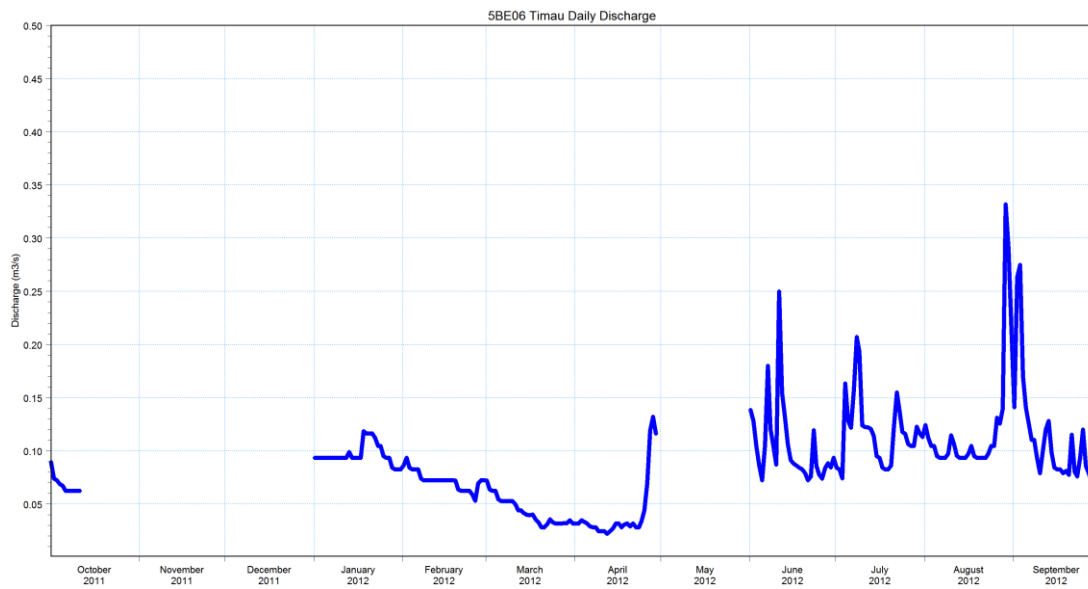
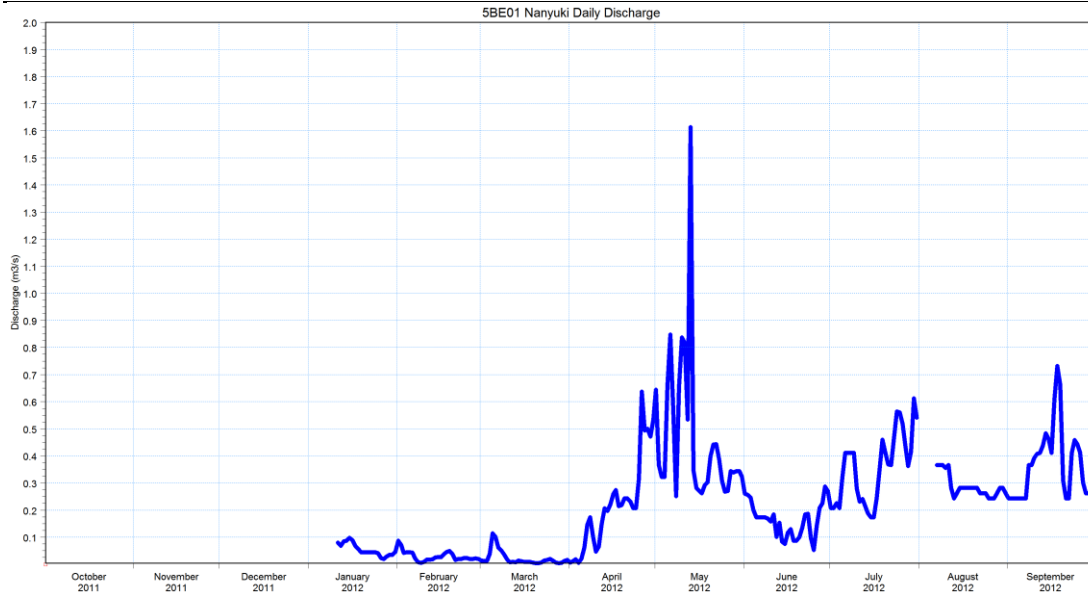
Data Coverage

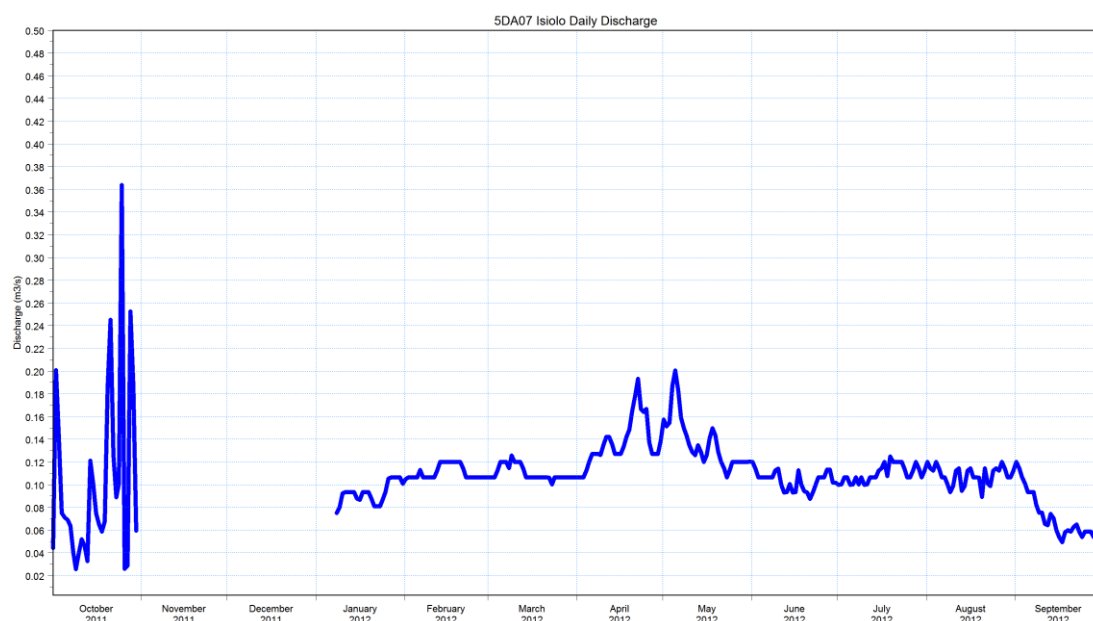
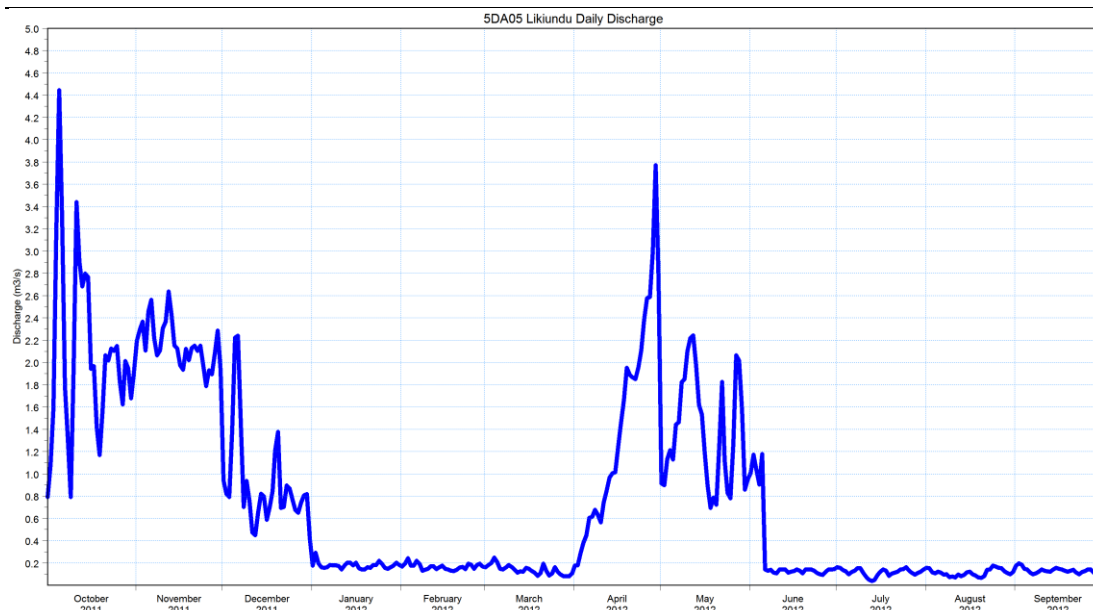


7.2 Hydrographs of selected River monitoring stations(October 2011-September 2012)





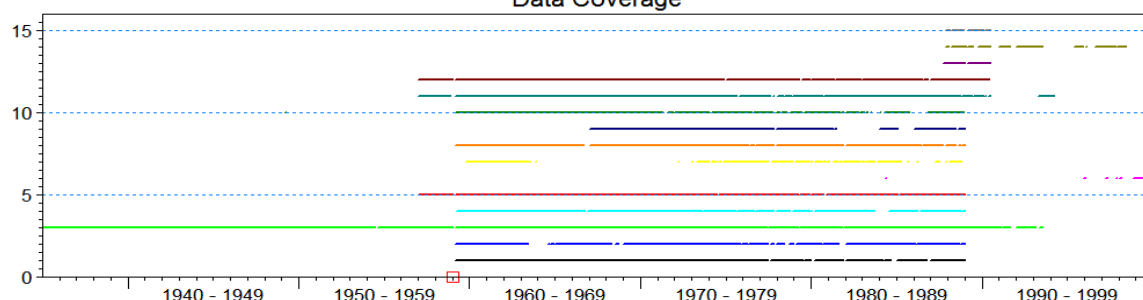




7.3 Rainfall data

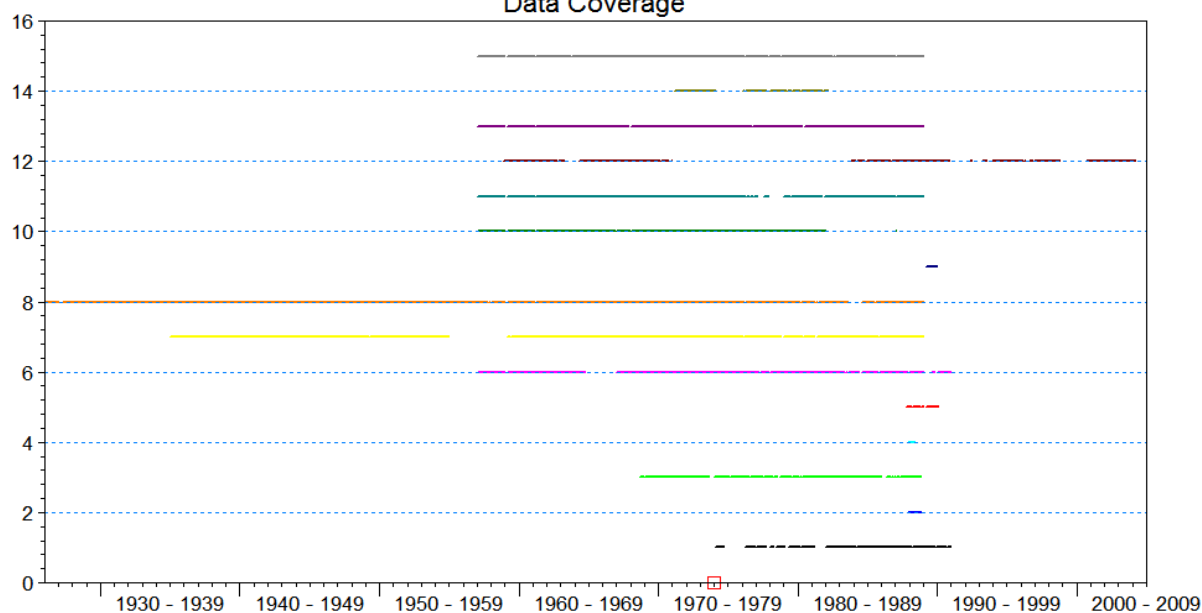
TSID 500000006 - 8637000 NORTH HERR POLICE POST - Rainfall
 TSID 500000007 - 8638000 MOYALE SOLOLO POLICE POST - Rainfall
 TSID 500000008 - 8639000 MOYALE MET. STATION - Rainfall
 TSID 500000009 - 8639001 GURAR POLICE POST - Rainfall
 TSID 500000010 - 8641000 MANDERA MET STATION - Rainfall
 TSID 500000011 - 8641001 MANDERA RHAMU POLICE POST - Rainfall
 TSID 500000012 - 8736000 SOUTH HERR CATHOLIC MISSION - Rainfall
 TSID 500000015 - 8739000 BUNA POLICE POST - Rainfall
 TSID 500000016 - 8739001 GIRIFTU POLICE POST - Rainfall
 TSID 500000017 - 8740000 EL WAK MANDERA - Rainfall
 TSID 500000018 - 8836000 MARALAL DISTRICT COMMISSIONER - Rainfall
 TSID 500000019 - 8836001 BARAGOI EL BARTA D.O'S OFFICE - Rainfall
 TSID 500000020 - 8836003 MARALAL POROR FOREST POST - Rainfall
 TSID 500000021 - 8836006 MERTI TRADING CENTRE - Rainfall
 TSID 500000022 - 8836007 BARSALOI PRIMARY SCHOOL - Rainfall

Data Coverage

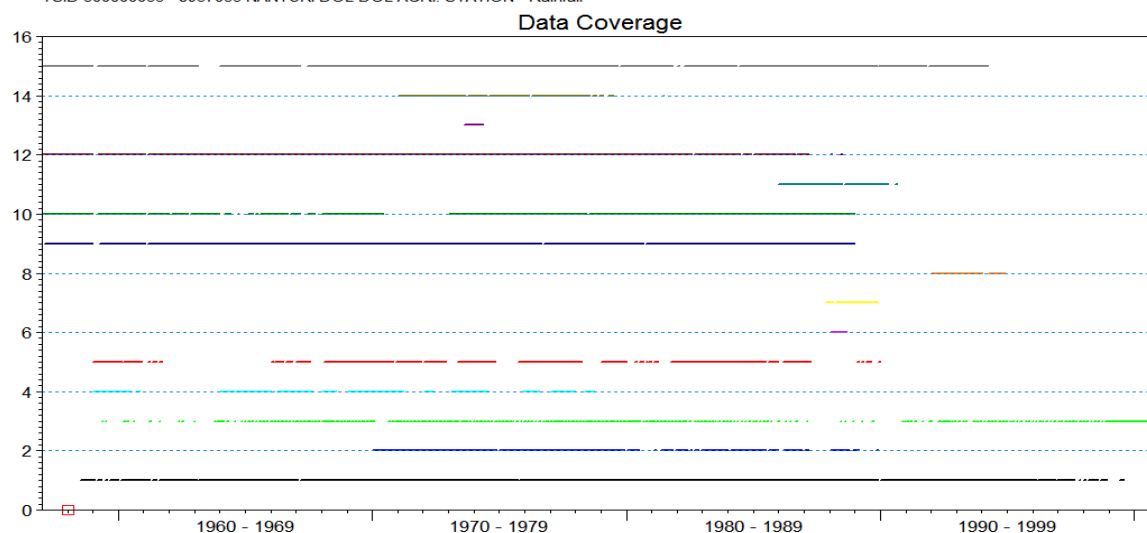


TSID 500000023 - 8836015 BAAWA CATHOLIC PRIMARY SCHOOL - Rainfall
 TSID 500000024 - 8836016 OPIROI CATHOLIC PR.SCHOOL - Rainfall
 TSID 500000025 - 8837004 LAISANUS POLICE POST - Rainfall
 TSID 500000026 - 8837007 SEROLEVI POLICE POST - Rainfall
 TSID 500000027 - 8837009 KICHICHI GAME POST - Rainfall
 TSID 500000028 - 8839000 HABBASWEIN POLICE POST - Rainfall
 TSID 500000029 - 8840000 WAJIR MET STATION - Rainfall
 TSID 500000030 - 8936001 RUMURUTI D.O'S OFFICE - Rainfall
 TSID 500000031 - 8936003 AVONTUUR NANYUKI - Rainfall
 TSID 500000032 - 8936006 SOSIAN LIMITED RUMURUTI - Rainfall
 TSID 500000033 - 8936014 MUTARA ESTATE MANAGER'S HOUSE - Rainfall
 TSID 500000034 - 8936022 OL-JORO-OROK COMPLEX UNIT 339 - Rainfall
 TSID 500000035 - 8936023 SOUTH MARMANET FOREST STATION - Rainfall
 TSID 500000036 - 8936030 THOMSON'S FALLS SIRON FARM - Rainfall
 TSID 500000037 - 8936049 RUMURUTI OL MYSOR - Rainfall

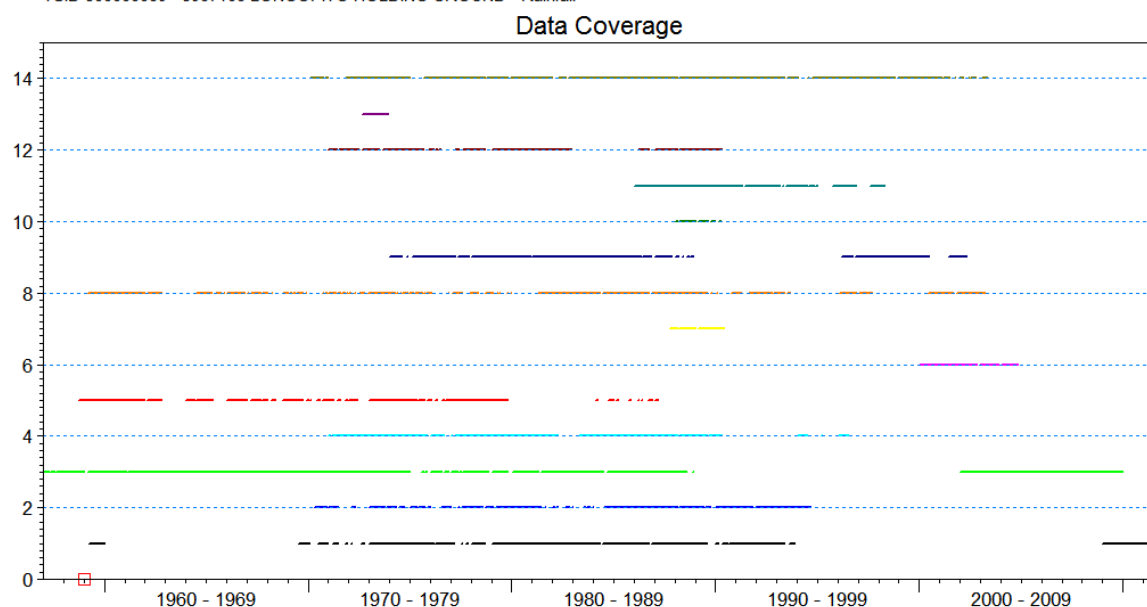
Data Coverage



TSID 500000039 - 8936065 EWASO NAROK NYIRO JUNCTION - Rainfall
 TSID 500000040 - 8936066 OL PEJETA RANCH LTD KAMOK - Rainfall
 TSID 500000041 - 8936068 T/FALLS FARMERS TRAINING CENTRE - Rainfall
 TSID 500000042 - 8936069 OL ERERAI COMPANY LTD. - Rainfall
 TSID 500000043 - 8936071 OL PEJETA RANCH ELAND DOWNS - Rainfall
 TSID 500000044 - 8936078 LONGEWAN(NTIM-NARIWO) SHOP - Rainfall
 TSID 500000045 - 8936079 LODOKEJEK CHIEF'S CAMP - Rainfall
 TSID 500000046 - 8936092 LARIAK FOREST STN. - Rainfall
 TSID 500000047 - 8937002 TIMAU MARANIA - Rainfall
 TSID 500000048 - 8937003 ISIOLO DISTRICT AGRIC.OFFICE - Rainfall
 TSID 500000049 - 8937019 MIATHENE MERU - Rainfall
 TSID 500000050 - 8937022 NANYUKI MET. STATION - Rainfall
 TSID 500000051 - 8937025 NANYUKI K.C.C. LIMITED - Rainfall
 TSID 500000052 - 8937031 TIGANIA WATER SUPPLY MERU - Rainfall
 TSID 500000053 - 8937033 NANYUKI DOL DOL AGRI. STATION - Rainfall

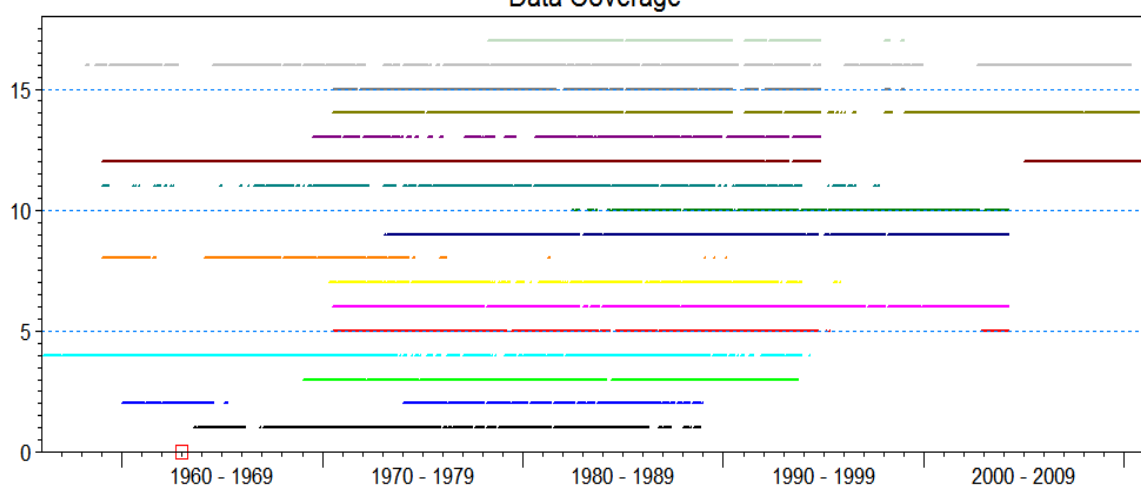


TSID 500000055 - 8937040 ONTULILI FOREST STATION - Rainfall
 TSID 500000056 - 8937045 MUKOGODO FOREST RESERVE NANYUKI - Rainfall
 TSID 500000057 - 8937048 OLPOTO FARM NANYUKI - Rainfall
 TSID 500000058 - 8937060 MERU MICII MIKURU - Rainfall
 TSID 500000059 - 8937061 ANADUNGURU FOREST POST - Rainfall
 TSID 500000060 - 8937067 NANYUKI DISTRICT AGRIC OFFICE - Rainfall
 TSID 500000061 - 8937069 WAMBA MARALAL GAME OFFICE - Rainfall
 TSID 500000063 - 8937077 NGARE NDARE WEST - Rainfall
 TSID 500000064 - 8937078 MUCHEENE FOREST STATION - Rainfall
 TSID 500000065 - 8937079 LERATA BOREHOLE - Rainfall
 TSID 500000066 - 8937088 RUIRI FARMERS COOP. SOCIETY - Rainfall
 TSID 500000067 - 8937089 KATHANGA PRIMARY SCHOOL - Rainfall
 TSID 500000068 - 8937090 LILIBA CHIEF'S CAMP - Rainfall
 TSID 500000069 - 8937103 LONGOPITO HOLDING GROUND - Rainfall

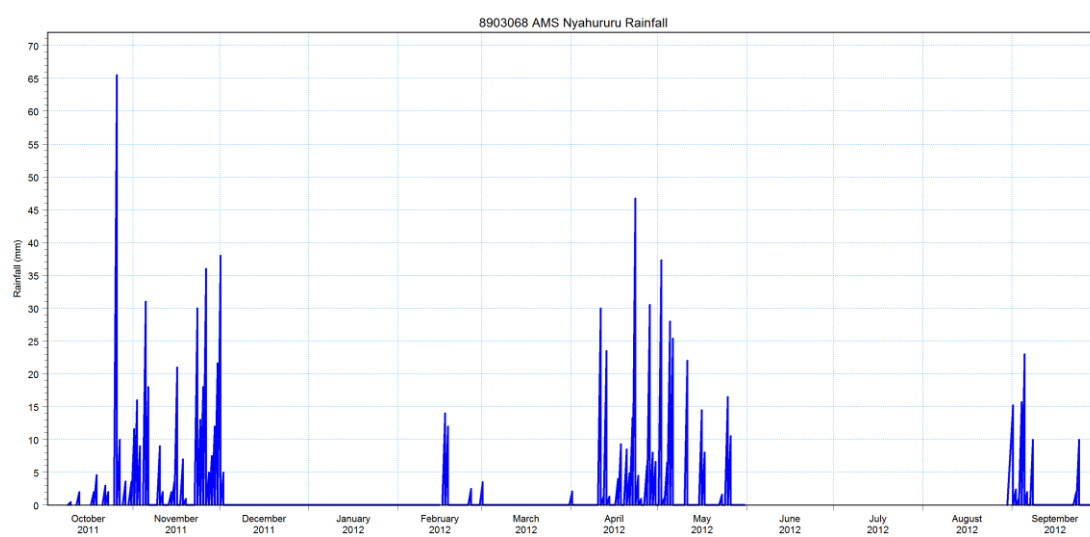
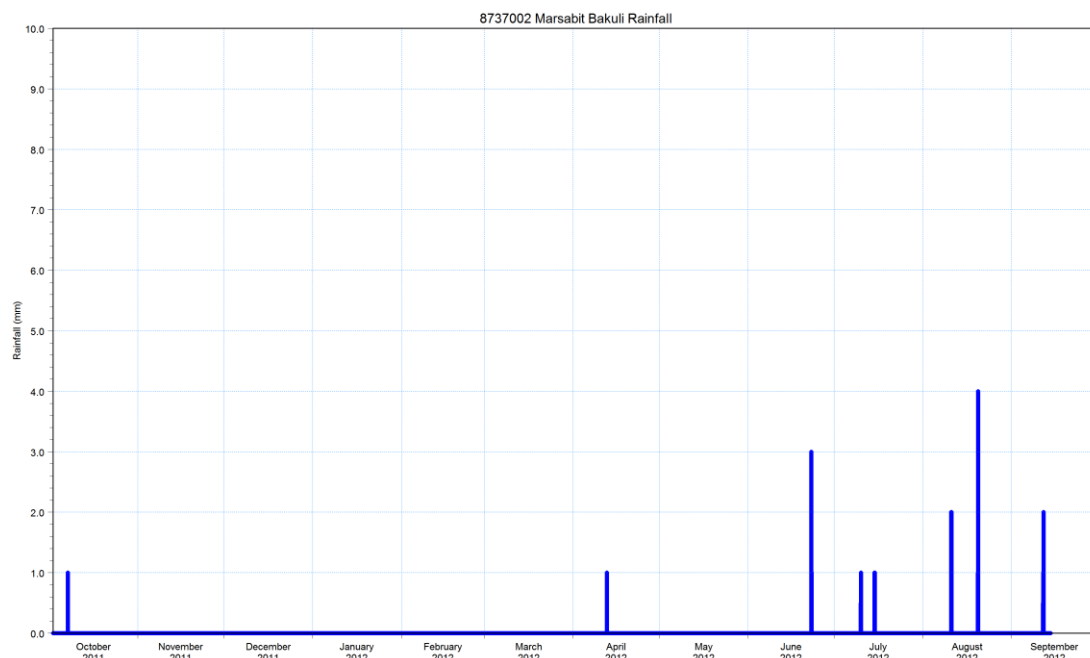


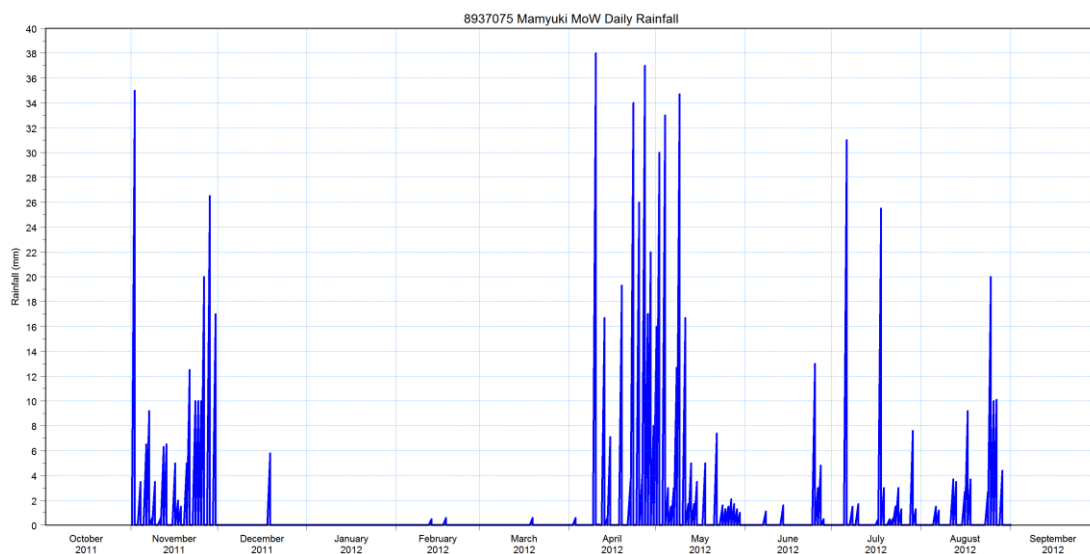
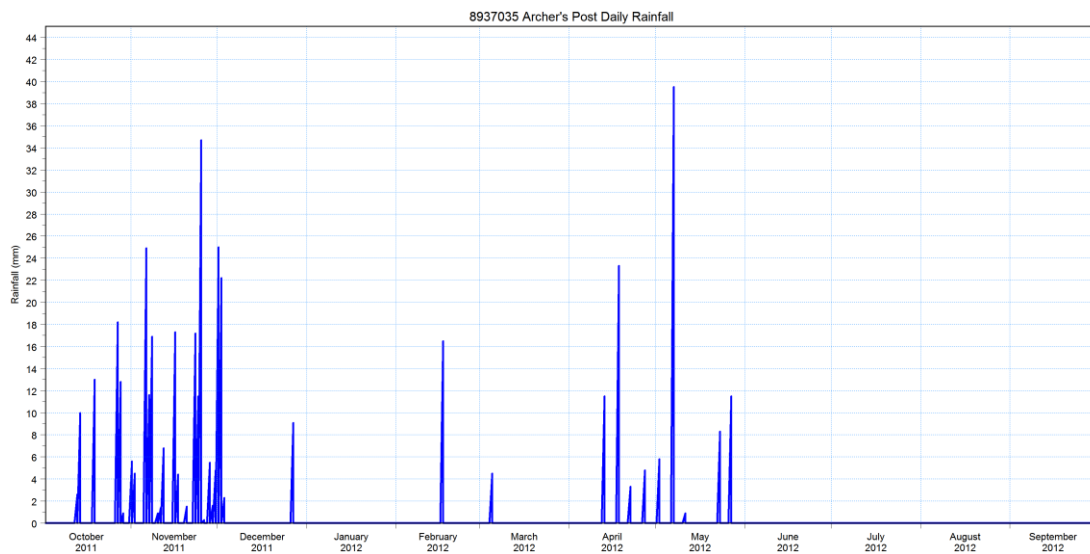
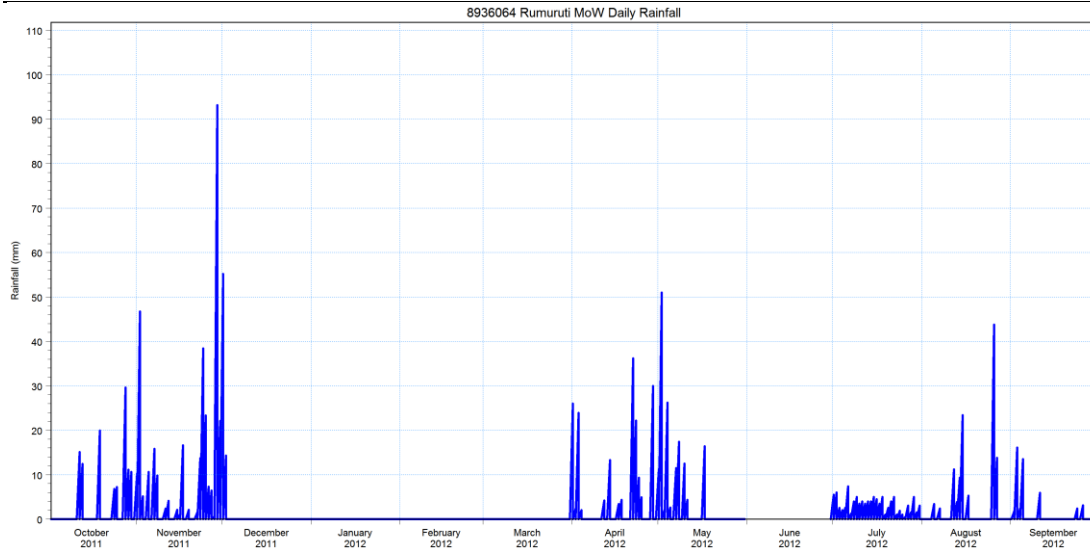
TSID 500000070 - 8939000 MUDDO GASHI POLICE POST - Rainfall	—
TSID 500000071 - 8940003 LIBOI POLICE POST - Rainfall	—
TSID 500000073 - 9036135 NYANDARUA AGRI. RES. STATION - Rainfall	—
TSID 500000074 - 9036237 NGOBIT ESERIAN FARM - Rainfall	—
TSID 500000076 - 9036297 ARK GATE ABERDARE PARK - Rainfall	—
TSID 500000077 - 9036298 WANDARE GATE ABERDARE PARK - Rainfall	—
TSID 500000078 - 9036300 NGOBIT POLICE POST - Rainfall	—
TSID 500000079 - 9036311 OL PEJETA RANCH LTD. LOIDIENI - Rainfall	—
TSID 500000080 - 9036312 CHAMATA GATE - Rainfall	—
TSID 500000081 - 9036340 RHINO GATE A NATINAL PARK - Rainfall	—
TSID 500000082 - 9037060 KANGAITA FOREST STATION - Rainfall	—
TSID 500000083 - 9037097 GATHIRU FOREST STATION - Rainfall	—
TSID 500000084 - 9037125 BURGURET FOREST GUARD POST - Rainfall	—
TSID 500000085 - 9037149 NARO MORU GATE - Rainfall	—
TSID 500000086 - 9037155 SIRIMON GATE MT.KENYA PARK - Rainfall	—
TSID 500000087 - 9037156 NANYUKI FOREST STATION - Rainfall	—
TSID 500000088 - 9037217 MET. STATION LODGE - Rainfall	—

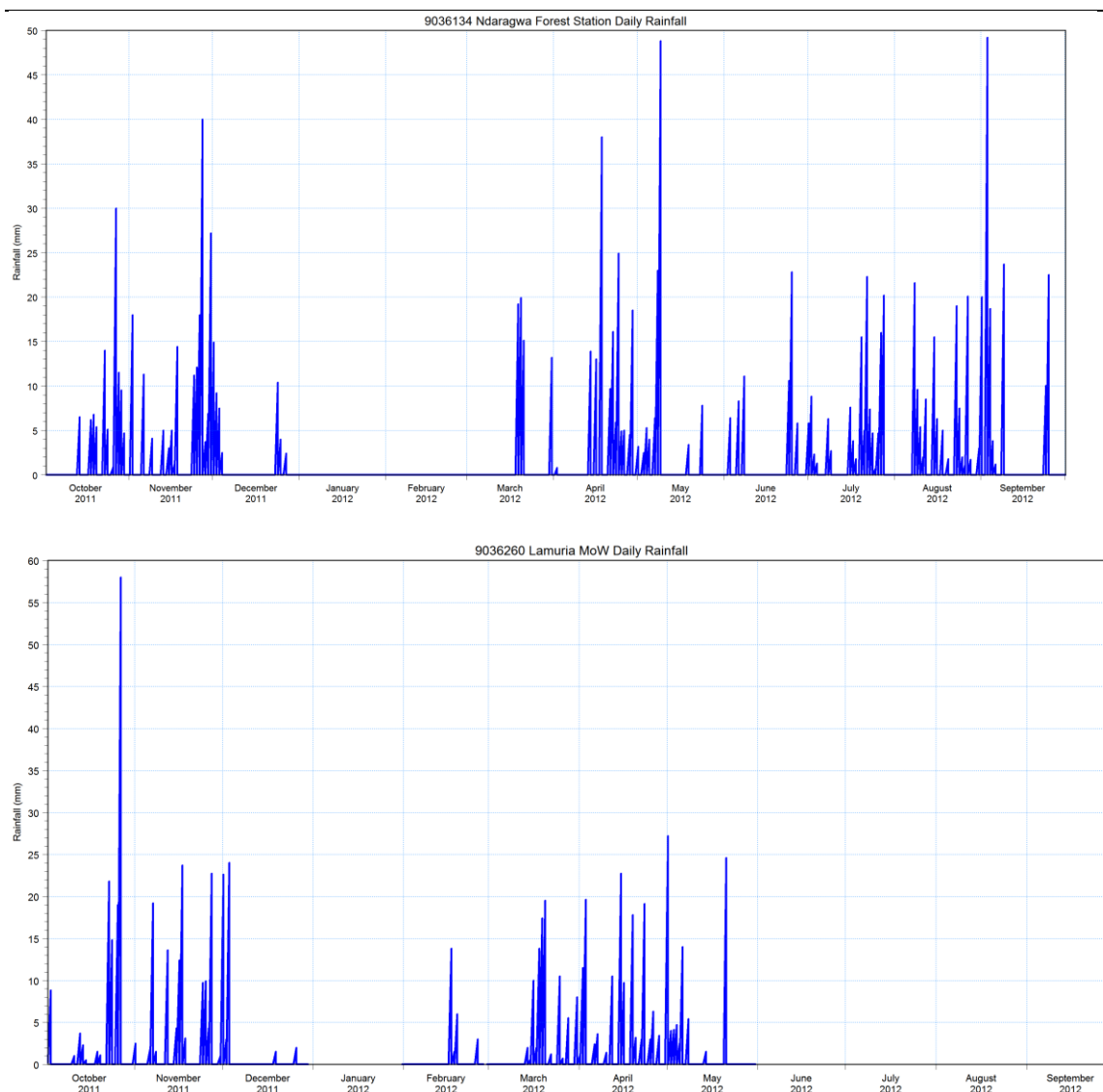
Data Coverage



7.3.1 Rainfall Charts from selected stations (October 2011- September 2012)







7.3.2 Rainfall Statistics for Selected Rainfall Stations

Minimum and Maximum daily rainfall for the period 02/10/11 - 01/10/12

	Min value [mm]	Max [mm]	Total [mm]
8737002 Marsabit Bakuli Water Intake	0	4	27
8903068 Ams Nyahururu	0	65.5	900.1
8936064 Rumuruti Ministry Of Works	0	93.2	1,118.5
8937035 Archers'post Isiolo	0	39.5	437.2
8937075 Nanyuki M.O.W.	0	38	792.1
9036134 Ndaragwa Forest Station	0	49.2	1,140.8
9036260 Lamuria M.O.W.	0	58	656.9

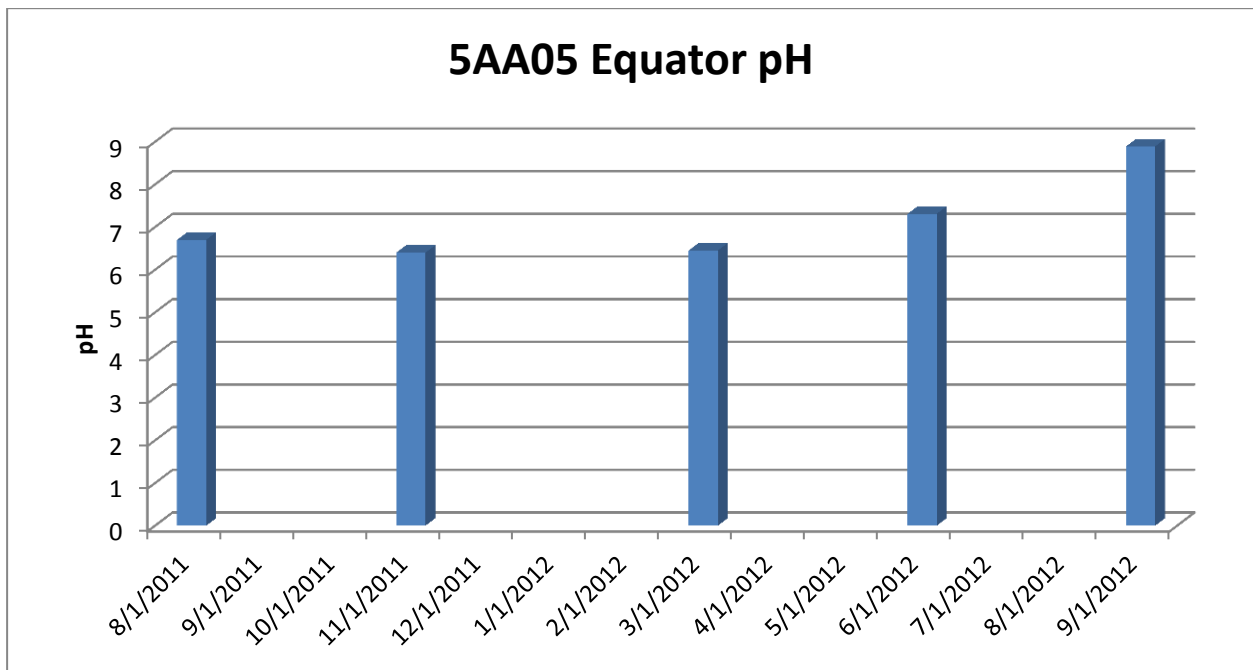
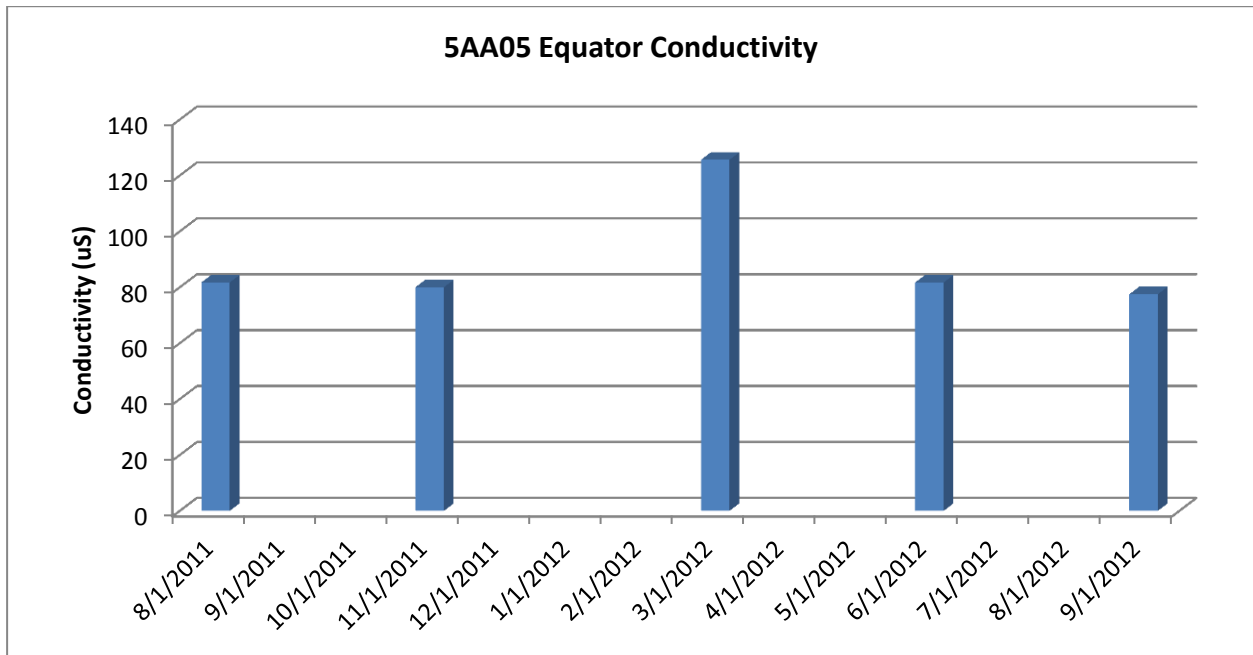
The map displays the Southern Highlands District divided into various administrative areas, each color-coded and labeled with a code (e.g., 5JA, 5EC, 5EB, 5GB, 5GA, 5EA, 5FB, 5FA, 5SC, 5CB, 5CA, 5AC, 5DC, 5DB, 5DA, 5SA, 5AB, 5BD, 5BA). Groundwater monitoring stations are indicated by red triangles, and secondary towns are marked with black squares. A network of roads is shown as thin grey lines. A north arrow is located in the upper right corner, and a scale bar at the bottom indicates distances from 0 to 280 Kilometers.

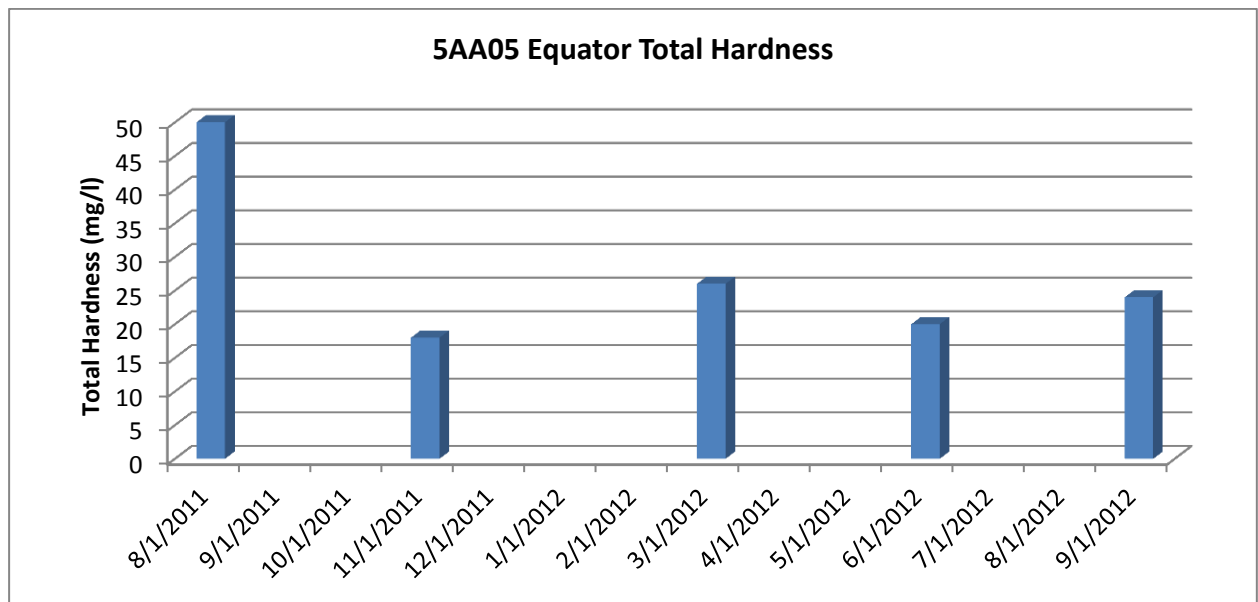
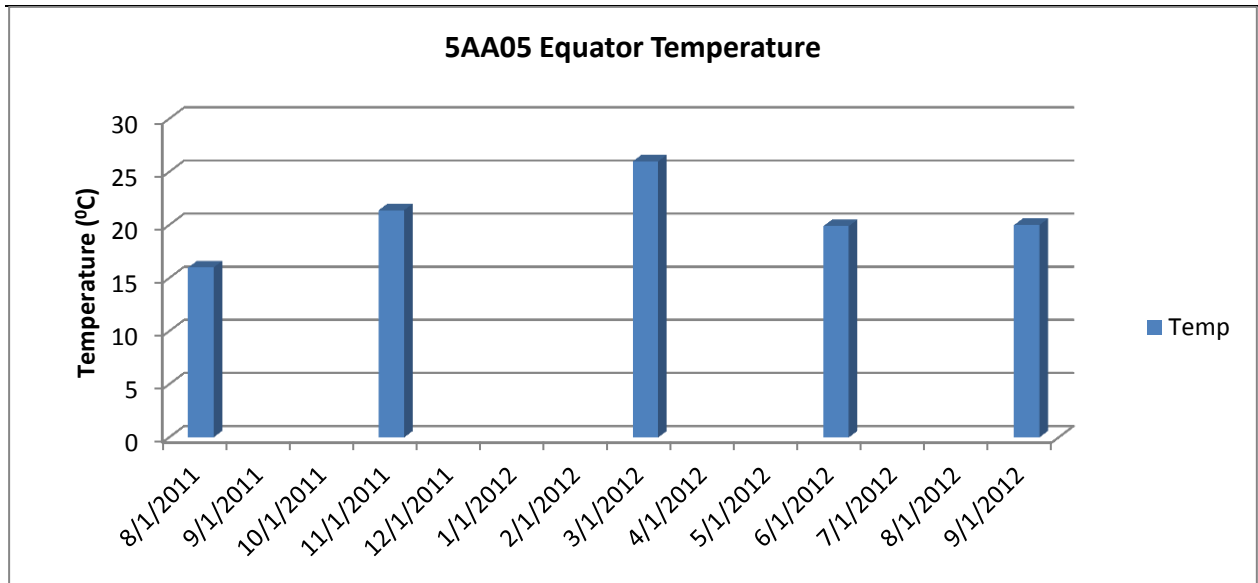
Legend

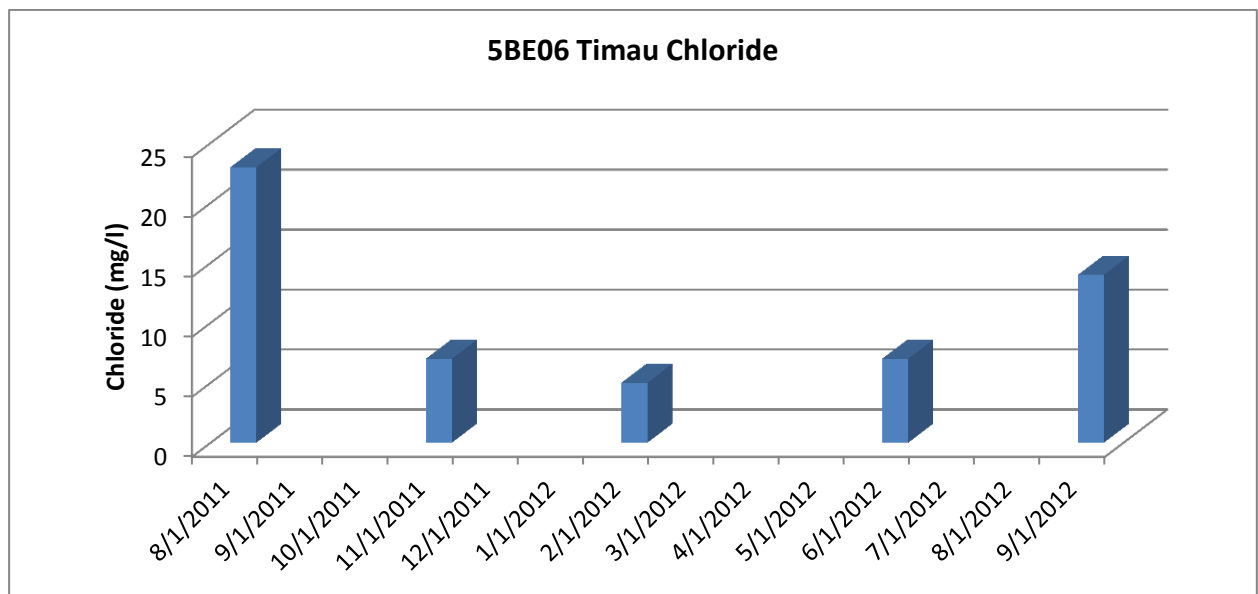
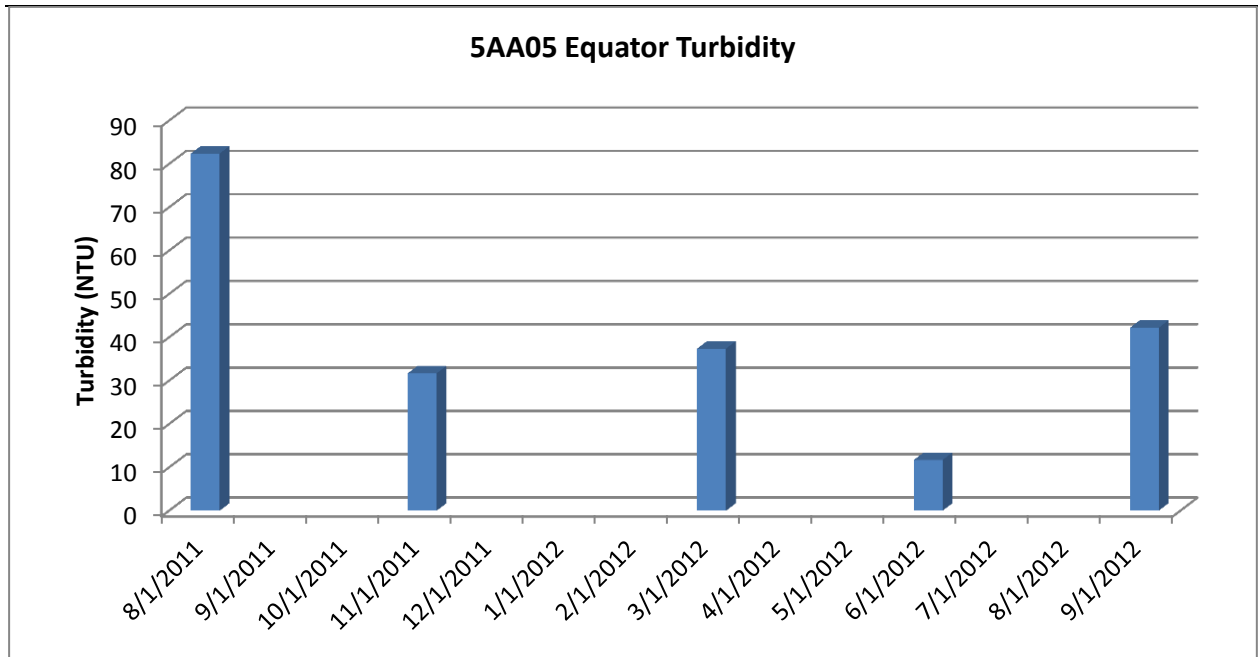
- ▲ Groundwater Monitoring Stations
- Secondary Towns
- Roads

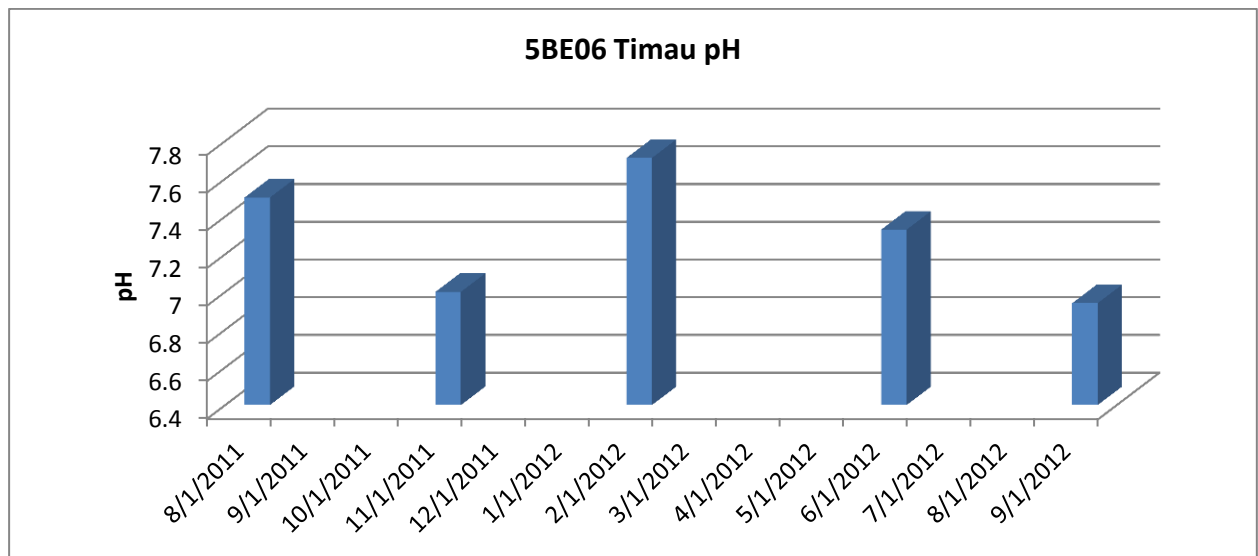
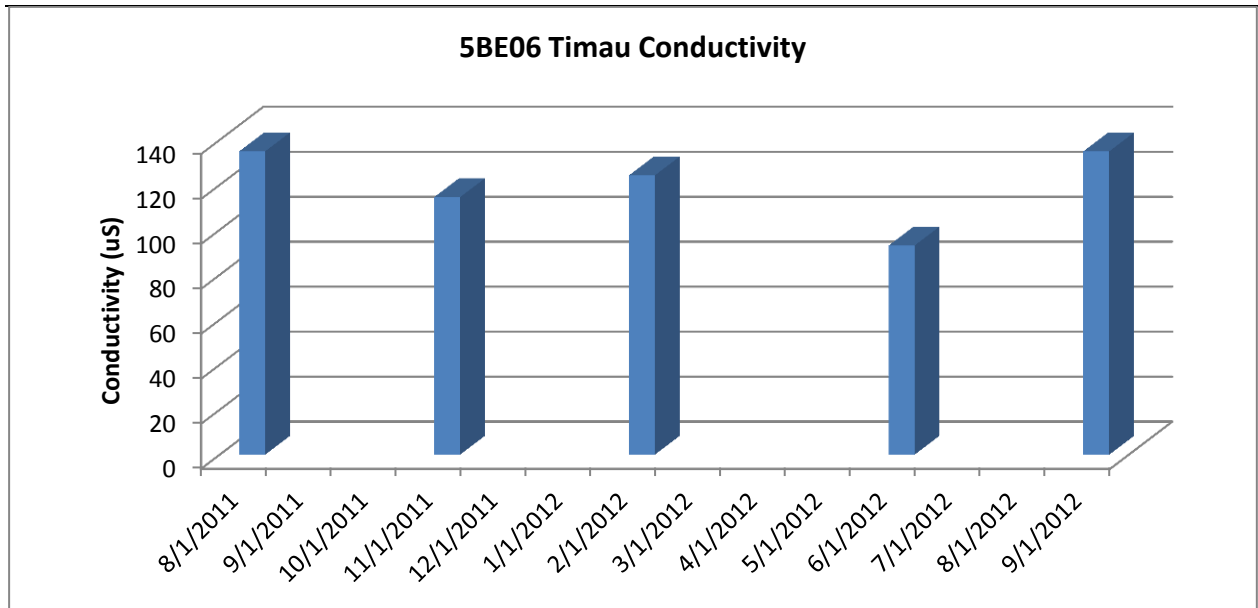
Groundwater monitoring network

7.5 Water quality data

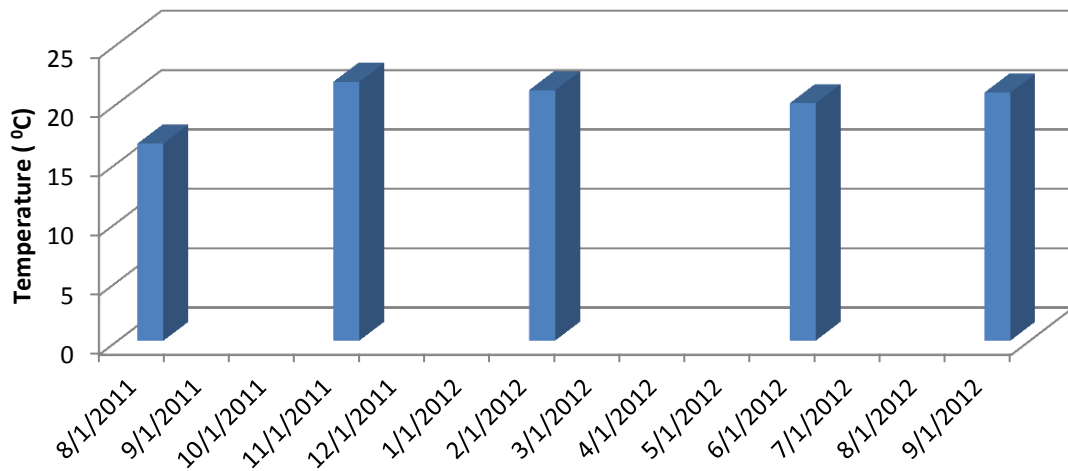




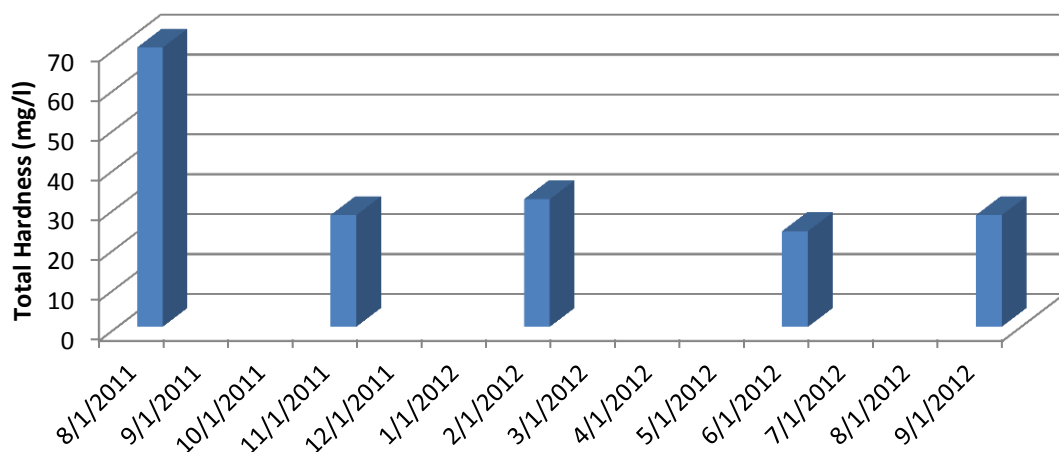


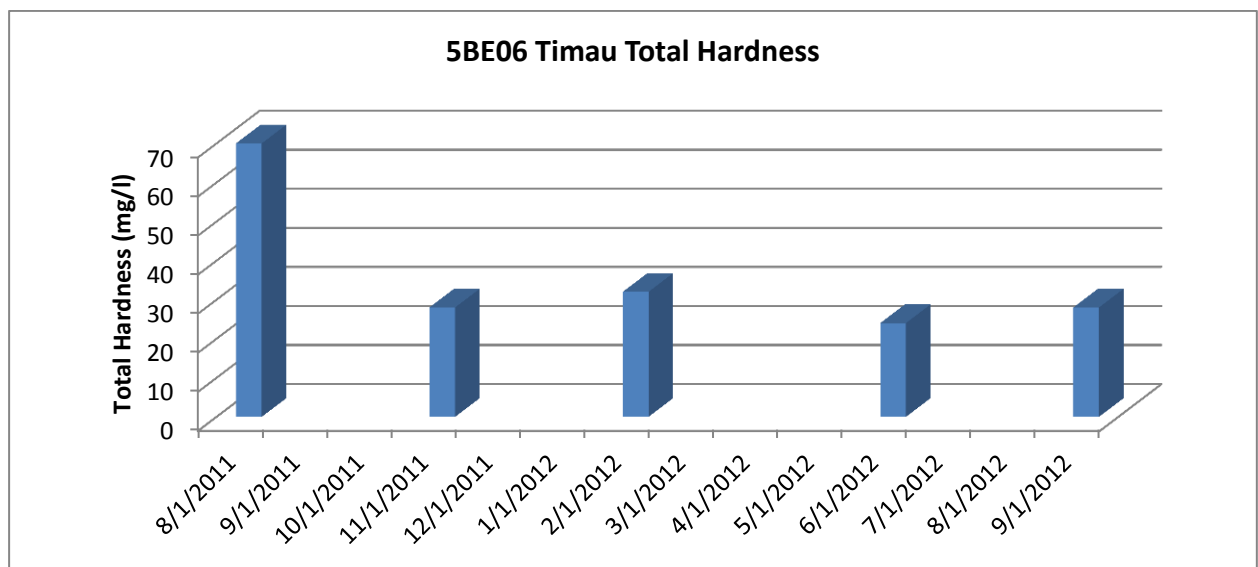
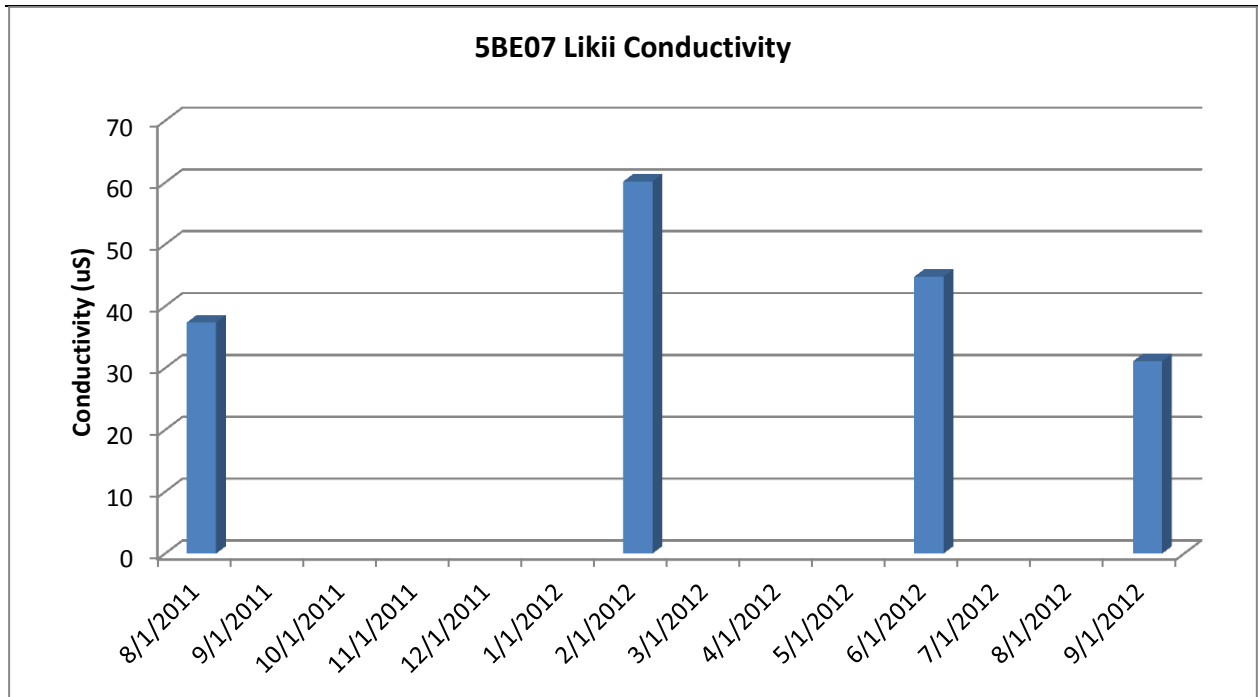


5BE06 Timau Temperature

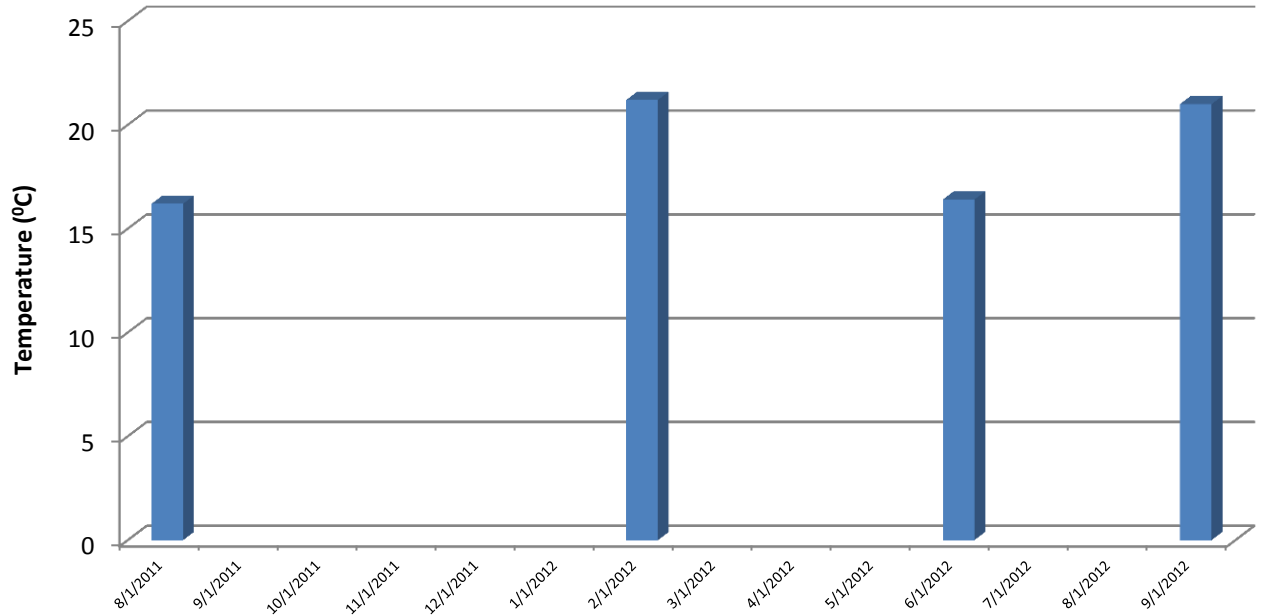


5BE06 Timau Total Hardness

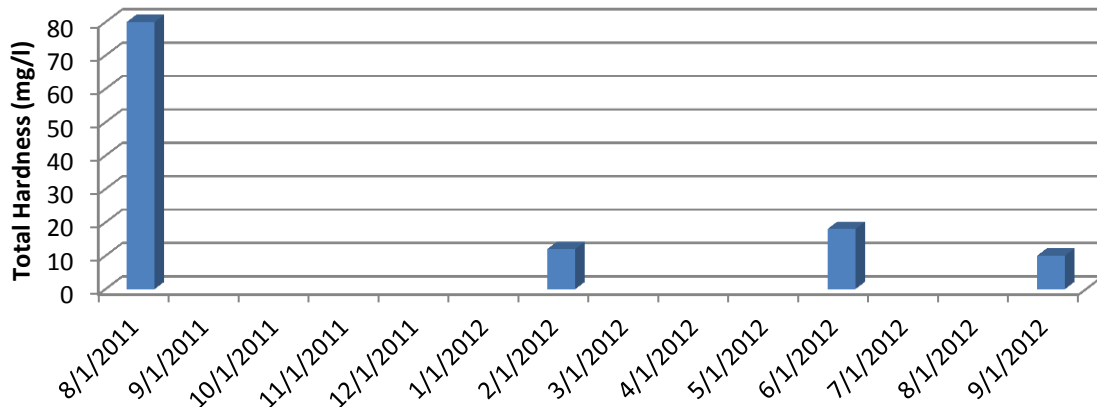




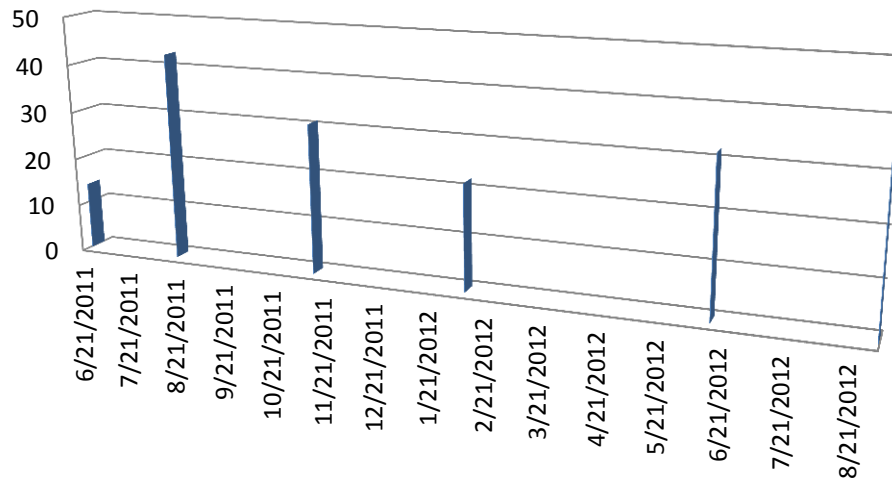
5BE07 Likii Temperature



5BE07 Likii Total Hardness



5BE19 Ngusishi Chloride (mg/l)



5BE19 Ngusishi Conductivity (us)

