

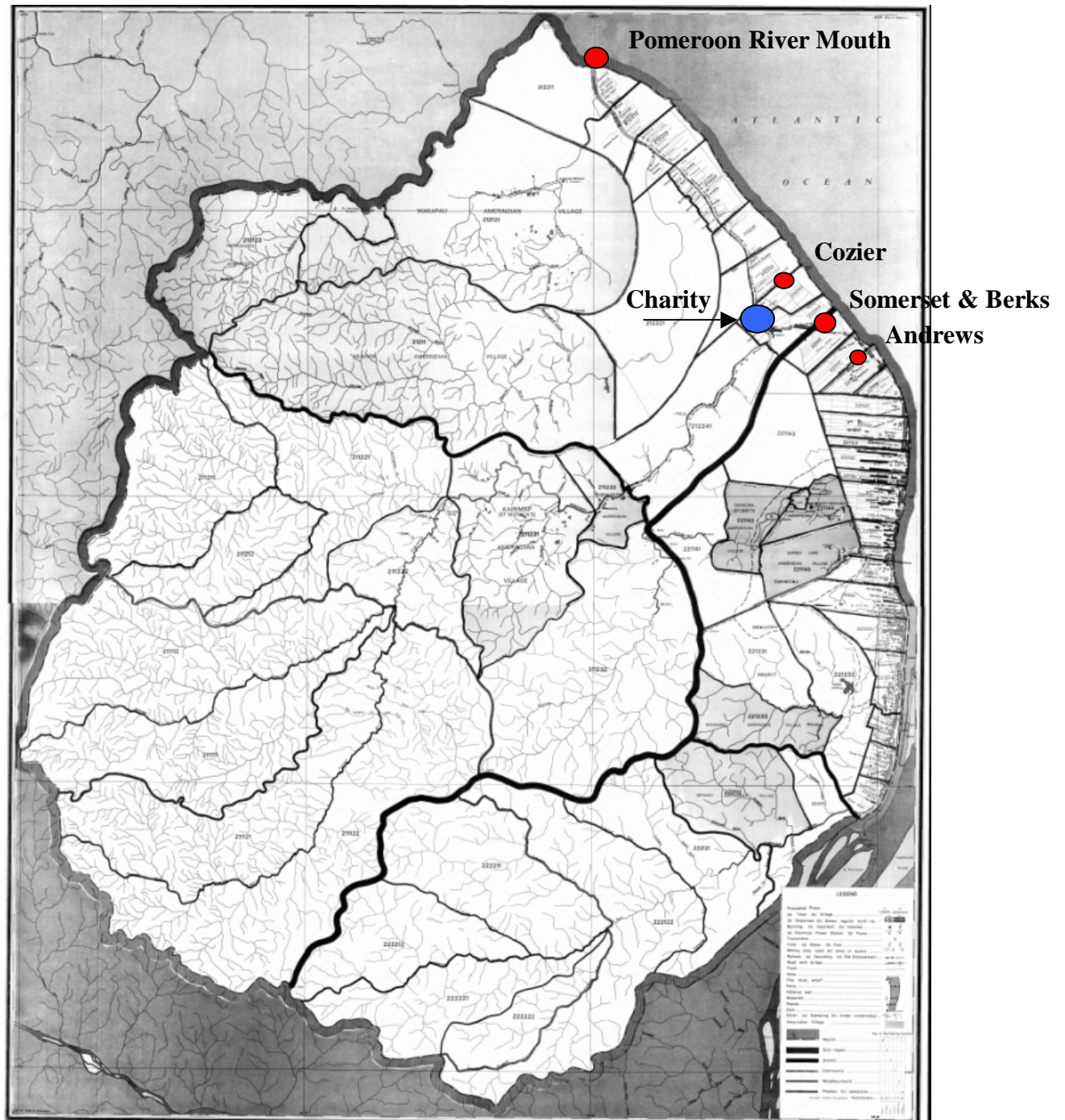


Engineering Assessment of 2006 Floods February 2006

APPENDIX 2 SITE VISITS

Region 2, February 11th

On February 11th the Engineering Team, together with Mr. Ravi Narine of the Ministry of Agriculture and another small team visited Region 2. The site visit was done both by car and boat.



Map of visited locations

Cozier or Hope & Succes

Proposed projects:

1. Desilting of Cozier outfall at Cozier/Pomeroon (no. 1 of the list)
2. Desilting of drainage canals within Cozier/Pomeroon (no. 2 of the list)
3. Rehabilitation of Cozier Pump station/Pomeroon (no. 4 of the list)
4. Rehabilitation of Cozier/Pomeroon Sea Sluice (no. 13 of the list)

The team visited the Canal Cozier or Hope & Succes.

The Cozier/Pomeroon Sea Sluice is not functioning. The result is that water in this region (approximately 8000 Acres) has to be discharged mainly by the Pomeroon River. In case of excessive rainfall water in this area cannot be discharged quickly enough. This will cause flooding.

The width of the canal is estimated at 50 feet. The depth of the canal varies between 4 feet and 12 feet responding to the tide.



Canal Cozier or Hope & Succes

The small canals in this region are to be regulated by small barrages/sluices. Most of these barrages/sluices are not functioning properly.



Small barrage/sluice

Pomeroon River Mouth

Proposed project:

1. Dredging of the Pomeroon River Mouth (no. 4 of the list with Dredging works)

The team visited the Pomeroon River Mouth.

The width of the Pomeroon river mouth is estimated at 200 m.

There are a lot of mud-banks in front of the river mouth.

During low tide its possible to stand at the mud/sand-banks.



River Mouth with small boat stuck on a sand bank

Pomeroon River

All along the Pomeroon river lands have been flooded for about 4 weeks from the end of December 2005. The water level on the Pomeroon river was the highest one since 1973. Plants and crops were affected, especially cash crops and fruits like coconuts and avocados. Most of the houses are not affected. During overtopping the water level was approximately 30 cm higher than during spring tide.



Some plants died due to high water (Avocado)

Charity

Proposed projects:

1. Construction of Drainage sluice at Charity (no. 15 of the list)
2. Desilting of canal at Charity (no. 16 of the list)

Up to know discharging of water in this region only can be done by using the seawall sluice.

Due to the flooding during January 2006 it seems necessary to enlarge the capacity to build a new sluice making it possible to discharge water in the Pomeroon river.



Proposed location for a new sluice

The other works needed to enlarge the capacity of the system is desilting of a canal at Charity. Siltation and overgrowth decreased the capacity of the canal enormously.



Canal at Charity

Somerset and Berks

Proposed projects:

1. Widening of relief structure at Somerset and Berks (no. 9 of the list)
2. Construction of Timber revetment at Somerset and Berks Outfall (no. 11 of the list)

The relief structure and Outfall itself at Somerset and Berks were not visited.



Canal Somerset and Berks with on the background the relief structure

Andrews Outfall

Proposed projects:

1. Construction of timber revetment at Plantation Andrews Outfall (no. 10 of the list)

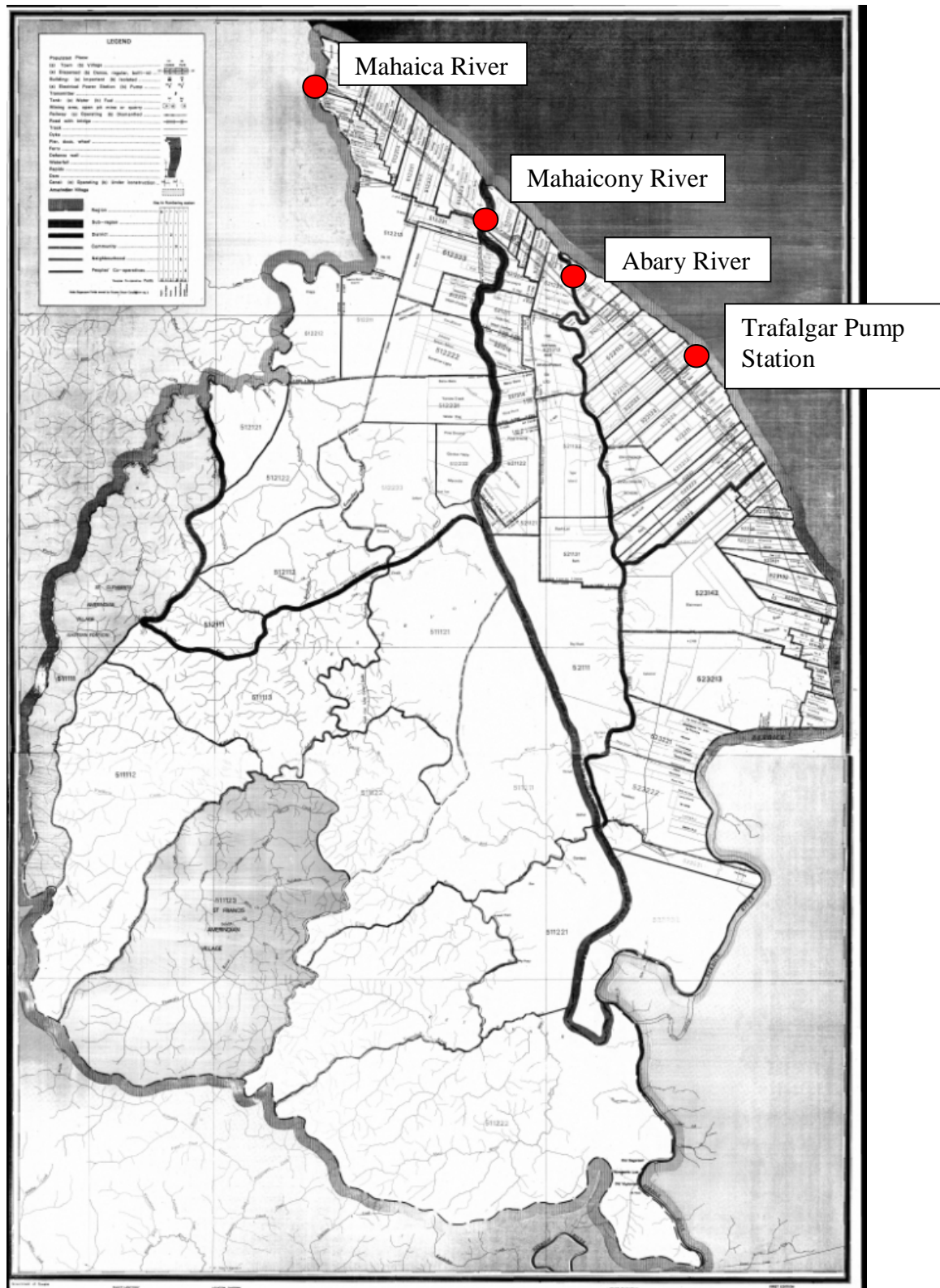
The foreshore at Andrews Outfall has been increasing in the past. At the moment even trees are growing there. At the moment the foreshore is decreasing again. The actual situation prevents a good basis for discharging water. The idea is to narrow the foreshore canal using timber revetment, which will make discharging more easily.



Foreshore canal at Andrews Outfall

Region 5, February 13th

On February 13th the Engineering Team visited Region 5, together with Mr. Ravi Narine and Lionel Wordsworth of the Ministry of Agriculture and Dennis Tahal, Regional Engineer in Region 5. The site visit was done both by car.



Map of visited locations

Bridge over Mahaica River

Proposed projects:

1. Dredging of the Mahaica Creek Mouth (no. 3 of the list of dredging projects)

Estimated width 50 m

Estimated depth 7 m

An old bridge, close up stream of the existing bridge forms an obstacle in the river flow.



Mahaica River, stream down from the bridge

Bridge over Mahaicony River

Proposed projects:

1. Dredging of the Mahaicony Creek Mouth (no. 2 of the list of dredging projects)

Estimated width 45 m

On the down stream side of the existing bridge an old no longer used bridge forms an obstacle in the river flow.



*Mahaicony River, stream up from the bridge
with in front the small bridge which gives access
to town*

Abary River

Proposed projects:

1. Dredging of the Abary Creek Mouth (no. 1 of the list of dredging projects)

Estimated width 30 m

On the up stream side of the existing bridge an old no longer used bridge forms an obstacle in the river flow. A watermark on this old bridge points 5.3



*Abary River, , stream up from the bridge
with in front the old bridge*

Trafalgar Pump station

Proposed projects:

1. Refurbishment of pumps (no. 1 of the MMA list)

At Trafalgar Pump Station the original pumps (35 years old, 700 cusecs) are dilapidated and are not functioning anymore. These pumps are replaced by new pumps but these new pumps only produce 80 cusecs). The mechanical part of the former pumps and the concrete construction seems to be ok. Especially the pipes and mechanic/electrical part of the pump station is dilapidated.



Landside view on Sluice



Former housing of a pump