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P R O G R E S S   R E P O R T

for the  
Quarter ended 30th September, 1959.

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APPENDIX - FINANCIAL STATEMENT

# G E N E R A L R E V I E W

## A. FINANCIAL

Expenditure on Development Projects for the quarter ended 30th September, 1959 amounted to \$5.6 mn., which together with the expenditure of \$7.6 mn. during the first half of the year brought expenditure for the year to \$13.2 mn. The expenditure under the 1956-60 Programme to the end of September was \$72 mn.

Details of expenditure during the year to the end of September are given in the Appendix to this Progress Report. Drainage and Irrigation (\$5.6 mn.), Public Works (\$2.6 mn.), Post Office Telecommunications (\$1.7 mn.), Transport and Harbours (\$0.9 mn.), Housing (\$0.7 mn.), Geological Surveys (\$0.4 mn.), Agriculture (\$0.3 mn.), Land Development (\$0.2 mn.) and Education (\$0.2 mn.) accounted for \$12.6 mn. of the total expenditure of \$13.2 mn. for the period 1st January to 30th September, 1959.

The table below shows the rate of expenditure for the three quarters in 1959 with the corresponding figures for 1957 and 1958.

<u>Quarter</u>	<u>1957</u>	<u>1958</u>	<u>1959</u>
	\$mn.	\$mn.	\$mn.
January - March	2.7	3.1	2.4
April - June	4.5	5.2	5.2
July - September	4.3	5.1	5.6
Total (9 months)	11.5	13.4	13.2

## B. WORK PROGRESS

Agriculture: The main expenditure during the quarter went on Soil Surveys (\$36,192), Ebini Livestock Station (\$25,044), St. Ignatius Livestock Station (\$16,794) and Cocoa Trials (\$18,175). Work at the Hosororo Experimental Station continued.

By the end of the quarter 137,953 coconuts were purchased for Coconut Development and 19,874 seedlings sold. The fish ponds at Onverwagt were all completed during the quarter after the kokers were installed and they were being stocked with fry and fingerlings.

Cocoa Development continued with propagation, weeding, pruning, digging of drains and general maintenance at all stations. During the quarter 33,732 cuttings were propagated, 20,825 plants basketed, 8,391 distributed, 1,508 used for extension of nurseries and 24,695 were on the hardening floor on 30th September, 1959.

The Ebini planted pasture reached 1,000 acres in extent of which 13 were of Molasses grass, 6 of Pensacola Bahia and the remainder Pangola. At the Livestock Station St. Ignatius the pasturage included 60 acres of Pangola. Five acres of Locuntu grass were planted during the quarter at the Hosororo Experiment Station, where much progress was made on the development of citrus and new crops such as onions, eschallots, ginger and potatoes were planted.

At Ebini experiments in comparing liveweight changes and reproductive performances of cows under different systems of management continued. These animals were grazed on Pangola grass. There were 46 cattle live-births and 11 still-births during the quarter. At St. Ignatius there were 40 live-births.

The soil survey of the Vergenoegen Land Settlement Scheme was completed and a report published, that of Cane Grove was almost completed. The experiment on blast infected areas continued.

Civil Aviation: A reconnaissance survey of the Kaitaur area was started for the purpose of establishing an airstrip 2000/3000 feet in length capable of extension to 5,500 feet to accommodate the

D33 (Dakota) aircraft of British Guiana Airways Ltd.

The radio beacon removed from Wichabai was being overhauled and serviced before being installed at Orinduik.

Drainage and Irrigation: Work continued on the Black Bush Polder scheme. All three of the main sluices were in operation during the quarter. Good progress was made on excavation works at Lesbeholden, Mibikuri, Joanna and Yakusari. The number of labourers employed by the contractors and sub-contractors totalled 1,200 at the end of the quarter as against 1,010 in the previous quarter.

At the end of the quarter all earthworks and structures on the Mair Crown Dam of the Boerasirie Extension Project were completed. Good progress was made on the distributaries' works and only three earthworks and structures remained to be completed.

In the Minor Drainage and Irrigation Programme, all structures were completed at Craig, East Bank Demerara, and excavation work was in progress. Excavation of a pit for replacing the Park Sluice was also in progress. The reconditioning of the Burma drain was completed, the facade work from Hyde Park to Abary and a survey in the Buxton-Friendship area were in progress. The construction of dams in the La Jalousie-Windsor Forest area was completed and clearing of dams and trenches were being done at Den Amstel. In Essequibo emergency repairs were carried out to the Chinese lock and wire fence erected in the Devonshire Castle/McNabb area. The Seawell Sea Sluice in Berbice was completed and work on grading and remetalling of the roadway started at Rosehall.

The topographical surveys of the Mahaicony/Abary/Berbice area continued.

Education: A report has not been received from this Department.

Finance: Loans made and repayments received by the Credit Corporation during the quarter totalled \$524,245 and \$366,123 respectively. Disbursements on loans totalled \$18,457 and at the end of the quarter \$13,036 was recovered.

Forests: At Barabara 176.8 acres of the greenheart regeneration plot received silvicultural treatment and the improvement work at Moraballi was continued. An aggregate of 2,422 man days was worked.

At the Central Timber Mill the new Wadkin F.D.86 Planer commenced operations. Man hours worked totalled 41,756 <sup>3</sup>/<sub>4</sub> at the end of the quarter.

Geological Surveys: Ten survey parties were in the field mostly in the North West District during the quarter. Some of the areas covered had not been surveyed before. The new block of flats for officers' quarters in New Market Street was completed and work on the new laboratory continued.

Sixteen analyses and indentifications, seventy-six heavy mineral separations and sieve analyses etc., one hundred and eighty-six thin sections and one hundred preparations, analyses etc. for other Government Departments and members of the public were carried out during the quarter. 776 books were catalogued, 194 new accessions received and 229 books were loaned to members of the staff.

Health: At the end of the quarter the frame of the quarters, mortuary and kitchen for the Mahaicony Hospital were completed and work was in progress on those at Leonora and Leguan. Three mortuaries were completed and the construction of nine health centres was in progress.

Housing: The development of the 61 commercial sites at Campbellville, La Penitence and Ruimveldt was completed during the quarter. The

/housing .....

housing programme was completed except for 11 houses at Reliance, Essequibo which were 95% completed.

Revenue collected from rents, hire purchase payments and sales of land totalled \$183,895.

Land Development: On the Essequibo estates five trenches were dug and over ten acres of land cleared during the quarter. A soil survey at Vergenoegen was completed and one was in progress at Cane Grove. Work on the market at Charity proceeded. At Vergenoegen approximately 100 acres of land were cleared. The metalling of streets continued.

The quarters for the clerk at Garden of Eden was completed and the construction of a re-inforced concrete bridge was in progress. Clearing of land was done in the North and South Ma Retraite areas and 100 acres were levelled at Schepmoed. Drainage and Irrigation works were carried out in the Mara and Germani areas. Pure water supply was also extended to these areas.

Post Office: In Georgetown 90% of the cable was laid and 55% jointed. The erection, cabling and wiring of the exchange were completed. The Automatic Exchange building at Cove and John was completed except for painting and at Bartica all equipment were installed and the external plant completed. The building at Mon Repos was under construction.

Public Works: On the East Bank Demerara, 1,500 feet of surfacing at Coverden and 4 timber revetments in the Hope/Friendship area were completed. Approximately 2.5 miles of the Bartica/Potaro Road were surfaced and about 10 miles widened. 197½ miles of survey and 39¾ miles flagging of the Potaro/Lethem road location work were completed.

In the Sea and River Defences Programme, good progress was made on all works, and in Berbice works were completed on the new Sea Dam at No.2 and No.3, the re-inforced concrete wall - Stanleytown to Islington, reconditioning the dam from Industry to Borlam and sealing the koker and clearing the channel, North Zorg-en-hoop and Ithaca.

The construction of the new office for the District Commissioner, Vreed-en-Hoop, the extension of the Forest Department, Georgetown, and the Magistrate's Court and Office, New Amsterdam were completed during the quarter. One house for Public Officers was completed while three were under construction.

The sinking of a well at Cullen, Essequibo Coast and the construction of an overhead tank at Vergenoegen, West Coast Demerara were completed. 2.55 miles of pipe were laid in the Bagotville/La Grange area, West Bank Demerara, 1.42 at Mahaica, East Coast Demerara and .95 mile at Danielstown, Essequibo Coast.

Transport and Harbours: Work on installing new engines on the M.V. Barima continued. At the Vreed-en-Hoop Harbour Depot, a 3 k.w. generator was installed. Alterations were carried out to the temporary sites being used for the terminals of the Georgetown ferry. An order was placed with Messrs. Sprostons Ltd. for the construction of two pile driving barges.

Work on repairing the Abary Bridge was completed and was well under way on painting the Mahaica and Mahaicony and strengthening and welding the Greenfield Bridges. The alterations and improvements to the sanitary amenities at Mahaica, Lichfield and Fort Wellington Stations were in progress and were expected to be completed before the end of the year.

Social Welfare: At Mocha the villagers completed their self-help irrigation scheme.

I. AGRICULTURE

1. STAFF TRAINING:

There are now 16 students at the Eastern Caribbean Farm Institute. Eight of them will be completing the 1958 - 60 course and the others starting the 1959 - 61 course.

2. STATIONS:

2. Central Agricultural Station - The half mile roadway in the Compound and internal roads in the stock farm were surfaced with granite siftings and the main road extending from the public road to the stock farm repaired. A separate bridge was being built to enable all machinery to cross the side line since the use of the main entrance results in damage to the road.

Equipment on order included two Ferguson tractors D.65, a pick up baler, a forage harvester, an overhead irrigation system and a market garden tractor. Most of these items are replacements. Extensive fencing was being carried out to reduce the incidence of praedial larceny which ruined many of the experiments.

3. Hosororo Experiment Station - Seven interlot drains 30 rods in length and 3' x 2' were dug and a dam 3' x 1' built around the field as a protection against the river and the creek. A road, which extends across the cocoa fields to the swamp was cleared. Essential equipment were purchased and a Ferguson tractor was tried out on pegasse swamp.

Rice: A fertiliser trial of two varieties Nos. 79 and D. 110 grew well and will be harvested in the next quarter.

Grass: Five acres of Locuntu grass and a small area of Pangola were planted.

Cocoa: 2,200 cuttings were propagated, 1,484 plants basketed, 1,508 planted, 2,030 distributed and at the end of the quarter 3,780 were on the hardening floor. 1,723 pods were harvested, which yielded 260 lbs. of cured beans. 4½ acres of Imperial College Selection cocoa clones were planted.

Coffee: Three acres of land were prepared for planting with black eye peas as a cover crop.

Citrus: 88 orange, 3 lime and 2 dancy all budded plants were distributed and 232 stocks budded. Sour orange and grapefruit stocks were planted. Trees were pruned and fertilised and weeding done. 550 oranges and 2,610 grapefruit were sold from the crop. Ten acres of citrus were planted using black eye and Bengal peas as cover crops.

Other: Onions, eschallots, ginger and potatoes were planted. Pineapple suckers and pear and coconut trees were fertilised. 912 Montserrat pineapple suckers and 331 Sugar Leaf suckers were planted and a fertiliser trial conducted. Pears were sown for stock and grafted.

Poultry: At the end of the quarter 29 of the 34 laying hens remained and 1,801 eggs were obtained. Some of the eggs were used in the incubator and 89 chickens were reared for the 3 week-old stage. The twenty-four white leghorns produced 217 eggs and the 88 birds of the deep litter demonstration unit 975. 37 cocks were sold during the quarter.

Livestock: Two large white gilts and a large white boar were received at the station. These will serve as foundation stock.

/ Buildings....

Buildings: Poultry arks, units, sunshades and sand boxes were constructed, adjustments made to the deep litter pen, poultry runs fenced, cow and pig pens completed, the fertiliser bond repaired and the calf paddock fenced.

4. Livestock Station - Ebini - The near completion of adequate planted pastures and the settling of a large portion of the cattle on them enabled the Station to concentrate on experimental work.

Pasture Development: The weather was favourable for planting grass. There were 1,000 acres planted to the end of the quarter. Pangola was chiefly used but there were small areas of other types - thirteen acres of Molasses and six of Pensacola Bahia, both of which were imported seeds. Germination was very good and the pastures appeared satisfactory. The bahia grass was used for grazing, and the molasses had almost a suitable stage for such use. A nursery area of half an acre of coastal Bermuda was established. The renovation of the older pastures continued and shade trees were planted. However the progress made was somewhat slow.

Four varieties of Alfalfa were sown, each in an area one-tenth of an acre without inoculum which was not supplied with the seed and given different fertiliser levels. The trial site is situated on Bullet Tree Island in an area where the soil fertility is above average. Germination of the seed was good.

Experiments in Planted Pastures: The experiment comparing the liveweight changes and reproductive performance of the two herds of Santa Gertrudis - 177 and 200 respectively - under different systems of management continued. At the end of the quarter the mean liveweight of one herd of 47 steers was 808.6 lbs. and of the other herd of 64 steers 544.2 lbs. All the steers were grazed on Pangola grass. There was, however, great variations individually, as the smaller ones did not grow well whereas the medium sized ones gained around 170 lbs. Two possible causes for the poor growth of smaller animals were the inadequate water supply and the slower start in life. It was proved that in two years steers could be produced to the point where they could be slaughtered.

Calf-Crop: 38 calves were born during the quarter. There were eight abortions of which one died. Calves were assembled for a trace element experiment which will begin in the next quarter. Further work was carried out on zinc deficiency, the results of all of which will be published.

Miscellaneous: The condition of a section of the trail and of the bridges on the trail deteriorated which slowed down the transport of materials from the river.

5. Livestock Station - St. Ignatius - The construction of a cattle dipping tank was begun. The harvesting of the corn crop began at the end of the quarter. An average yield is expected.

Grass: A further 21 acres of Pangola (*D. decumbens*) were planted during the quarter. This brought the total area of Pangola to 60 acres at three separate sites. However, since August this grass while still green ceased growing. In this circumstance it is doubtful whether this grass would be of economic value in the Rupununi. More trials will be necessary before a conclusion can be reached concerning the use of Pangola grass in this district.

Livestock: During the quarter 18 cattle died from various causes of which tick fever was the chief. The infected cattle were sprayed and removed from the paddock to a clean one. An outbreak last year in the same paddock had been checked by similar treatment. Of 40 calves born during the quarter 21 were Santa Gertrudis and

15 Brahman. The number of Santa Gertrudis on the Station was 11.

The Veterinary Officer selected 8 cows and 4 calves from which monthly blood samples were taken. These animals were placed in a separate paddock and received no mineral supplements.

A report of an outbreak of foot and mouth disease in the Rio Branco area of Brazil led to immediate precautions being taken to prevent the spread of the disease to British Guiana. The border was closed to all livestock from Brazil, the buffer fence repaired, all cattle moved behind the fence and all persons coming from Brazil were disinfected. As an additional precaution two isolation paddocks were constructed within the buffer zone.

3. SOIL SURVEYS:

6. During the quarter a report of the survey of the Vergenoegen Land Settlement was issued. Eight soil types were found which were grouped as follows:

ORGANIC SERIES

<u>Soil Types</u>	<u>Acreage</u>	
Shallow Pegasse	540.7	) Toxic Soils
Medium Pegasse	48.8	
Shallow Pegassey Clay	583.6	
Shallow baked pegasse	316.8	
Pegasse clay with buried pegasse	<u>93.8</u> - 1,583.7)	

CLAY SERIES

Clay	729.3	) Non- Toxic Soils
Silty Clay loam	426.6	
Silty Clay	<u>594.6</u> - <u>1,750.5</u> )	
	<u>3,334.2</u>	

The soils of the organic series are toxic in respect to exchangeable aluminium and are extremely acid and high in sulphate content. About 47% of the total area surveyed is occupied by these types, which were found mostly south of the existing crown dam. Most of these areas are abandoned or used as pastures. Rice is not recommended for these soils in their present state, since if grown therein heavy fertiliser applications would be necessary to maintain good yields.

The clay series are on the whole much more fertile and are regarded as being suitable for rice. The types mentioned occur mainly north of the existing crown dam and are at present largely used for rice cultivation. According to chemical analyses, silty clay loam and silty clay are much better supplied with plant nutrients than the clay type and would therefore appear more fertile. In order to maintain the present state of fertility and good yields, fertilisers should be used. Fertilisation of the rice crop on these soils was recommended.

The shortage of power and repairs to the laboratory held up the work of analyses of samples of the survey of the Cane Grove Land Settlement. Preparatory work prior to field operations was carried out for the Tapakuma Project area.

7. Employment of a Soil Scientist - Experiments continued in the Blast infected area on the East Bank Demerara. A site of two acres which had been used for spring crops experiments was used for a fertiliser trial. Land preparation was difficult and the

first sowing with pre-germinated seeds of a blast resistant variety (Dima) from Dutch Guiana failed. The land was re-cultivated and re-sown partly with Dima and with No. 79. Pre-germinated seeds was again used. Germination was poor and the No. 79 failed on the drier portion of the field. The remaining area of this variety suffered very early from blast; was overcome by weeds and was finally abandoned. Dima grew better and was not affected by the disease. Fertiliser treatments involved the residual effect of lime which had been applied to the spring crop, the re-application of potassium and the application of manganese and iron before sowing. The harvest is expected by the end of November.

At the Mahaicony/Abary Rice Development Scheme the micro-nutrients experiment grew well but no growth differences were noticeable. There was strong response in growth due to N.P.K. and to a lesser extent from the residual effects of lime applied last year. Plastic waste: was used as nitrogenous fertiliser and, compared to sulphate of ammonia, did not produce any outstanding differences in growth. It appeared that growth was as good as on the plots treated with ammonium sulphate and this suggested that the plants made use of nitrogen supplied in this form. It was assumed that plastic waste would give a slow and a uniform supply of nitrogen throughout the season.

Seven of the forty experiments laid down on farmers' lands were lost, two due to water shortage, one to the outbreak of water weevils (*Lissozophotrus* sp.) and damage by caterpillars, and four through neglect by the farmers e.g. damage by animals or loss of markings used. The remaining experiments progressed satisfactorily and the growth improved noticeably in most areas treated with lime. The harvest began during the quarter.

#### 4. CROPS:

8. Cocoa Trials - The propagation of clonal plants continued at all the stations. Weeding, pruning, digging of drains and general maintenance work were also carried out.

At Providence and La Belle Alliance considerable numbers of cuttings were lost due to an increase in the salt content of the water used. At La Belle Alliance older plants in the fields also showed signs of damage which appeared to be the result of toxicity. These conditions were probably brought about by the prolonged dry weather. Remedial remedies were taken in the nursery and conditions improved rapidly. Four acres were planted with Imperial College Selection clones and 14 $\frac{1}{2}$  acres of forest lands cleared at Hosororo for planting. An outbreak of cushion fall disease was reported at Providence and all stricken trees were cut down and replaced. The disease was also reported in cultivations where planting materials had been obtained from this station.

At Providence 4,032 pods harvested yielded 260 lbs. of dried cocoa and at Hosororo 1,723 pods yielded 260 lbs. At Atkinson 350 lbs. of beans were harvested. Seventy-one pounds of mixed clonal beans were shipped to Messrs. Rowntrees Limited for a report on their quality.

During the quarter, 33,732 cuttings were propagated, 20,825 plants basketed, 8,391 distributed, 1,508 used to extend nurseries and 24,695 were on the hardening floor on 30th September.

9. Jute Investigations - Fencing was carried out during the quarter.

10. Coconut Development - During the quarter 37,200 nuts were purchased bringing the total of nuts brought to date to 137,953 of which 5,000 were sent to the Essequibo nursery and the remainder sown at the Central Agricultural Station. 19,874 seedlings were

/ sold .....



sold to the end of September - 7,900 in Essequibo, 6,020 in Berbice and 5,954 in Demerara.

5. FISHERIES:

11. Onverwagt - The kokers for the remaining ponds were completed and the ponds stocked with fry and fingerlings. Batis was cleared from the ponds. The successful cultivation of fish at the station has resulted in the establishment of farm ponds in the district and at the end of the quarter there were 200 ponds in the West Berbice area stocked with tilapia and other brackishwater fish.

Work to be completed include the construction of an all-weather access road, fencing, conversion of an old house into a laboratory and residence, and the erection of the foreman's house and two store rooms.

II. CIVIL AVIATION

A reconnaissance survey of the Kaitaur area was begun for an airstrip 2,000/3,000 feet in length, which would be capable of extension to 5,500 feet to accommodate a DC 3 Dakota aircraft.

Equipment costing approximately \$4,000 was lost in the fire which destroyed the Atkinson Airport Terminal Building on August 5th, and replacements were ordered. The radio beacon removed from Wichabai was being overhauled and serviced in Georgetown after which it will be installed at Orinduik.

III. DRAINAGE AND IRRIGATION

1. BLACK BUSH POLDER:

Progress of Work - All three of the Main Sluices operated intermittently during the quarter. Some work remained to be done to the one at Lesbeholden.

Good progress was made on all excavation works at Lesbeholden, Mibikuri, Joanna and Yakusari.

Main Canal - Work continued on the shaping of the banks.

Pumping Station - The station was almost completed. The pumps were tested and two fuel tanks completed.

Bridges - Five bridges were completed in the Mibikuri section.

Roads - Fair progress was made in the Lesbeholden and Joppa sections.

Contractors' Labour - At the end of the quarter 1,200 Guianese were employed by Messrs. Pauling & Company and their sub-contractors as compared with 1,010 at the end of the preceding quarter.

2. BOERASIRIE EXTENSION PROJECT:

Headworks

Earthworks - At the end of the quarter all earthworks on the Main Crown Dam were completed. There were still several sections not up to full design level due to excessive settlement having taken place after construction. This will be remedied with material obtained from inside the conservancy since there was none

/ on the ....

on the downstream side of the dam. All structures on the Main Crown Dam were completed and in working order.

The Conservancy was successfully tested for 4 days in July to its full supply level, a maximum of 61.6 G.D. being recorded.

#### Distributaries

Earthworks - All earthworks on distributaries were completed except the Ruby/Boerasirie, Georgia Sideline and 800 feet of the Wales/Georgia distributaries.

Structures - Only the earthworks of the Wales Aqueduct, approximately 40 pipe outlets, and a heavy duty bridge over the Meripa/Bonasika distributary remained to be completed. The bridge will be completed shortly by the contractors: the other works by the Department.

#### Drains

Earthworks - The re-excavation of badly dug sections in the "A" line Main drain and the closing of tidal outlets in the West Bank, Demerara area were the only works outstanding.

Structures - Further excavation of the outfall channels of Strik-en-heuvel and Ruby Road Bridge sluices remained to be done. A heavy duty bridge across Strik-en-heuvel/Chantilly facade drain was under construction. Work continued on the placing of drainage boxes in the East Bank, Essequibo area.

#### General

Routine maintenance was carried out during the quarter. Rainfall for the quarter was 24.7 inches and the average Conservancy level 61.0 G.D. Most intakes in the Canals Polder and West Coast Demerara areas drew water continuously during the quarter.

Employees, inclusive of supervisory staff totalled 412, of whom 265 are employed by the contractors and the remainder by the Department.

### 3. MINOR DRAINAGE AND IRRIGATION WORKS:

Berbice - Work on reconditioning the Seawell Sea Sluice was completed and grading and remetalling of the roadway at Rosehall was begun. Preliminary work was started on the Gibraltar Sea Sluice by the contractor.

East Demerara - All structures were completed at Craig and excavation work and the reconditioning of Park Sluice was begun. A survey to ascertain the extent of reconditioning of drains in the Buxton/Friendship area was in progress. Reconditioning of the Burma drain was completed and the Hyde Park /Abary facade work begun. Plans for the Friendship East side line were prepared.

West Demerara - The building of the dams was completed from the Conservancy to the Windsor Forest/La Jalousie cross dam, approximately 300 rods, and on the southern side of the Windsor Forest/La Jalousie cross canal from Middle Walk La Jalousie to the East Side Line. Materials were ordered and a contract awarded for the construction of the R.C. panel in the La Jalousie middle walk. Clearing of dams and trenches at Den Amstel and the digging of the Fellowship Middle Walk from the cross dam to the Conservancy were in progress. In the Pouderoyen area the intake at Klien was completed except for minor adjustments and only 4% of the works at North Klien was not completed.

Essequibo - Emergency repairs to the Chinese lock and  
/improvement ....

improvement works to the Northern Distributary between Lima and Sparta were carried out. A box koker was being erected to relieve the secondary Conservancy between causeway and Mainstay. In the Devonshire Castle/McNabb area wire fence was erected on the Western Lamaha dam. The Columbia panel was completed and work on the Affiance one was in progress. At Rosehall work on grading and remetalling of the roadway began.

#### 4. SURVEYS FOR DRAINAGE AND IRRIGATION PROJECTS:

Topographical surveys continued in the Mahaicony/Abary/Berbice area. There were four parties in the field, as compared with six previously.

#### 5. HYDROGRAPHIC AND HYDROLOGICAL SURVEYS:

New stage recorders and rainfall recorders are being operated in the upper reaches of the Mahaicony, Abary and Mahaica Rivers, where stations were established during the quarter.

### IV. EDUCATION

A Report has not been received from this Department.

### V. FINANCE

Credit Corporation - Loans made and repayments received by the Credit Corporation during the quarter were as follows:-

	No.	LOANS	REPAYMENTS
		Amount(\$)	Amount(\$)
AGRICULTURE	47	170,440	39,535
HOUSING-PUBLIC OFFICERS	20	112,872	89,887
-OTHERS	74	117,401	157,637
INDUSTRY	9	81,146	57,922
FISHING	-	-	2,847
LOGGING	-	-	460
FOOD PRODUCTION	15	42,386	13,983
LOCAL AUTHORITY	-	-	3,852
	165	524,245	366,123

At the end of the quarter Sundry Disbursements totalled \$18,451 with repayments of \$13,036.

### VI. FORESTS

1. Staff Training - Three Forest Guards spent two months at the Forest Department in Trinidad studying all phases of the work done there.

2. Timber Appraisals - The Divisional Officer, Demerara continued the preparation of his report of the enumeration survey carried out of the area south of the Great Falls, Demerara River.

3. Silviculture - During the quarter a further 176.8 of the 251.1 acres of the greenheart regeneration area at Barabara received silvicultural treatment. Re-enumeration of sample quadrats was also carried out.

At Moraballi a further extension to the improvement work was undertaken during the quarter, but due to heavy rainfall progress was slower than previously.

/ Early.....

Early in the quarter filling up work was carried out in approximately 20 acres of plantation at 5 Miles, Potaro Road. A 10' x 12' storeroom was constructed at the Bartica pine nurseries.

The total number of man days on the works aggregated 2,422.

4. Central Timber Manufacturing Plant - The new Wadkin F.D. 86 planer was put into operation early in the quarter. The roller conveyor system was installed. At the end of the quarter purchases of 183,667 F.B.M. and sales of 222,855 F.B.M. costing \$31,261.11 and \$54,573.45 respectively were made. Production for the next quarter is expected to be very high.

Total man hours worked was 41,756.

## VII. GEOLOGICAL SURVEYS

Study Courses - Two Class II Clerks who were awarded four year scholarships in 1955 secured their B.Sc.(Hons.) degree in Geology. One of them will assume duty with the Department shortly; the other was granted a further year to take a post-graduate course in applied geophysics.

A temporary Field and Office Assistant was awarded a four year Conditional Scholarship in Geology at Glasgow University.

Buildings - Work on the new laboratory continued and the building should be completed by the end of the year. Other work to be done included the demolition of the old chemistry and assay laboratories and servants quarters, the construction of a building for a rock store, garage and workshop; and the paving of roads and parking grounds.

The new block of flats for officers' quarters in New Market Street was completed.

Field Survey - During the quarter a senior geologist and a geologist carried out reconnaissance surveys for bauxite on the Pakaraima plateau, principally in the Upper Potaro River basin. The object of this survey was to estimate the tenor and probable ore reserves in the area. Results obtained appeared to be favourable.

In the North West District an assistant geologist was engaged on a tour of the goldfields to examine the gold mining industry there and to assess the potentialities of the region.

A potentially important mining area is the Puruni River Basin. An assistant geologist carried out an extensive geological reconnaissance in this valley upstream from Peters Mine in areas that had never been visited by geologists before. A senior geologist carried out similar work in the area north and north-east of Mount Roraima in extension of other surveys made by the Department.

Surveys were also carried out in the Barama valley around Towakaima by a geologist and an assistant geologist, the aim being to examine certain areas for the purpose of elucidating further the stratigraphy and geological structure of the North West District. Similar surveys were also carried out by a geologist in the Barima Valley to the north of Towakaima. The Barima and Barama valleys are important areas, from a mining point of view, especially as manganese will be exported soon from there. It is most important that more regional mapping should be carried out in the North West District to ascertain the geological structure.

A senior geologist and a geologist carried out mapping surveys and regional reconnaissance in the Cuyuni region. Previous

/ surveys .....

surveys noted a passage from the rocks of the Guynui River to others that are similar to the magniferous rocks of the North West District and it is important to study the geological relationship between the two regions.

Reconnaissance surveys were carried out by a geologist over a very wide area between Kurupukari, Essequibo River and the Courantyne River. There was aerial photo coverage of the area, and this greatly simplified the reconnaissance over an extensive area. This survey also provided excellent opportunity to correlate some geological formations of British Guiana with others in the neighbouring country of Surinam.

An assistant geologist completed a reconnaissance mapping in the area between the Burro-Burro and Siparuni Rivers, thus completing the present programme for that part of the country.

A field observer made a short survey of the coast of the North West District in search for economic deposits of shell on the beaches. There is a ready market for lime in the country.

Laboratory Work. - The work carried out during the quarter included:-

Analyses and identifications	...	...	16
Heavy mineral separations and sieve analyses			76
Thin sections	...	...	186
Preparations, analyses etc. for other Government Departments and members of the public	...	...	100

Drawing Office - The following work was carried out during the quarter:-

Ammonia sunprints	...	327
Photoscopic stencils	...	19
Maps and tracings	...	40

A new system of filing aerial photographs was introduced.

Library - During the quarter 776 books were catalogued, 194 new accessions made and 227 books were loaned to officers. The number of publications cyclostyled and distributed by sale or free exchange was:-

	<u>Cyclostyled</u>	<u>Distributed</u>
Bulletins	94	299
Annual Reports	-	499
Mineral Resources Pamphlets	496	300
Airborne scintillometers	75	-
Maps	-	23
Publication Lists	100	-
Others	-	40

53 serial publications and other books were sent away to be bound. A card index for the library of all technical information was begun.

2. Fifth Inter-Guiana Conference - During the quarter preparatory work was done for the Conference to be held later in the year. This work included the drafting of a new geological map of the colony on a scale 1:500,000.

VIII. HEALTH

Cottage Hospitals - The position at the end of the quarter was:-

/1. Leonora.....

1. Leonora ... 15% completed.
2. Leguan ... Foundations completed and block work in progress.
3. Mahaicony ... Frame of quarters, mortuary, kitchen and first floor of other buildings completed.
4. Health Centres ... Excavation work was carried out at Windsor Forest and Vergenoegen on the West Demerara and at Handsome Tree, Mahaica River. At Good Intent and Sisters foundation work was completed and block work, concrete floors and window fittings in progress. 15% of the work at Clonbrook, East Demerara was completed and concrete foundations laid. All carpentry work was completed and painting in progress at both Craig and Soesdyke. In Berbice work proceeded at Bohemia, Fryish and Reliance.
5. Mortuaries ... Work was completed in Berbice at Lichfield and in Demerara at Providence and Bagotville. The work at La Bonne Mere was almost completed with minor plumbing ~~only~~ to be done.
6. Settlement of Ex-patients, Mahaica .. Arrangements were made to level the sites for the ex-patients settlements, to erect a culvert and to remove the fence and iron posts.

#### IX. HOUSING

Construction of Houses - The housing programme was almost completed. Only eleven of the aided self-help houses at Reliance in Essequibo remained and these were 95% completed at the end of the quarter.

The last 18 houses (No. 38 Craig) were handed over during the quarter.

The development of the 61 commercial sites at Campbellville, La Penitence and Ruimveldt housing estates was completed and tenders approved. No applications were received for sites for the cinema and petrol filling stations.

Seven lots for sale at Ruimveldt and La Penitence were allocated to applicants.

Aided Self-Help - During the quarter 25 houses were completed at Wismar. This leaves only 11 at Reliance to be finished.

Drawing Office - Work was carried out on a new design-type 201 - two bedroom expandable house for use in any future programme and a revision made of type 111.

Revenue collected during the quarter amounted to \$183,895.66 including rents, hire purchase instalments on houses and sale of land.

XI. LAND DEVELOPMENT

1. IMPROVEMENT AND EXPANSION OF EXISTING LAND DEVELOPMENT SCHEMES:

Essequibo - Two new drainage and two irrigation trenches were dug and ten acres of land cleared. Two sections in the Reliance area were amalgamated and a portion of a drainage trench was re-dug. In the Anna Regina Housing area low spots were filled up and levelled. The survey of the Cotton Field area lay-out was completed and drains were dug. The survey of the farm lands to be used for growing provisions began. A drainage trench was dug and bush was cleared in preparation for the excavation of another.

Charity Amazon - The market compound was built up and levelled. Preliminary works were underway for the building of the shed. The casting of the re-inforced concrete floor began.

Vergenoegen - Approximately 100 acres of land in the Savannah area were cleared and a start made on the communal grazing area. The metalling of streets proceeded and the digging of a canal through Greenwich Park was begun.

3. GARDEN OF EDEN:

The quarters for the clerk and the plumbing and sanitary amenities at the Office were completed. The Office and Superintendent compounds were built up and drained. The river dam was strengthened and the construction of a re-inforced concrete bridge to give access to the north section was begun. Work on the roadway in the South section continued. One sixth of an acre on each of the twenty farmsteads were cleared for house building.

4. MARA CUM ANNEXIS:

The Clearing of the area of North and South Ma Retraite was completed. This brought the acreage cleared in the section to 1,000. In the Schepmoed area 100 acres were levelled for rice cultivation. 35 more farmsteads of 15 acres each were ready to be occupied. A further 100 rods of roadway in the New Ma Retraite area were completed.

A cross drainage trench was completed in the Germania area and improvement works were carried out to the drainage and irrigation facilities in the Mara and Germania areas. Pure water was also extended to these areas.

5. ONVERWAGT:

A complete scheme for comprehensive drainage and irrigation and for full utilization and occupation of the area was put up.

6. PURCHASE OF LAND:

\$45,000 remained to be paid for Plantation Mara. The payment of this sum is dependent on the determination of the exact acreage to be cleared which is the area purchased.

XII. POST OFFICE

Unit Automatic Exchanges - The Exchange Building at Cove and John was completed except for painting. Painting and flooring were completed at Wales and the building at Mon Repos was under construction. A site was obtained for the building at Skeldon.

Rural Automatic Exchange - At Bartica the exchange equipment was installed and the external plant completed. Two subscribers' radio links between Bartica and H.M.P.S. were commissioned

/ and .....

and one temporarily between Bartica and Georgetown.

Radio Buildings - The building at Mon Repos was under construction.

Underground Duct and Cable System - During the quarter 90% of the cable were laid, 55% jointed and 90% of the planning completed in Georgetown. In New Amsterdam plans for the duct scheme were checked with the New Amsterdam Authority and measurements made. The carrier route to the radio station at Mackenzie was completed and polythene cable erected to Retrieve and the New Demerara Bauxite Company's Plant.

Exchange Equipment - Erection, cabling, wiring and 80% testing were completed during the quarter.

Subscribers Apparatus - At the end of the quarter 75% of internal wiring of new subscribers' premises, 66% inspection and rewiring of existing premises and 66% of the conversion of subscribers' P.B.Xs were completed.

XIII. PUBLIC WORKS

1. ROADS:

East Coast - Surfacing continued on the experimental strip at Bushy Park with 3" of sand bitumen on the existing embankment.

East Bank - Fair progress was made on the Diamond Bridge. During the quarter delays occurred due to bad weather and difficulties in pile driving. A new stores building was erected at Ruimveldt. Drainage trenches were dug at Eccles and clearing was carried out at Coverden. Good progress was made on base course work and 1,500 feet surfacing completed at Coverden. Four timber revetments were completed in the Hope-Friendship area.

Parika-Bartica - Designs were completed and plans prepared for twenty miles of road from Makouria to Bonasika. The section from Bonasika to Parika was awaiting re-alignment from Parika to Larimakabra, a distance of approximately 8 miles.

Bartica-Potaro - Approximately 2.5 miles of road were constructed with sand-clay surfacing. The road was widened and cleared up to 10 miles. A survey was in progress to determine a better alignment from 10 to 30 miles. Heavy rains during the quarter caused much erosion of the road surface. Workshop facilities on site to carry out repairs were increased, bulldozers overhauled and five lorries received. Major overhaul of equipment proceeded.

Potaro-Lethem - The reconnaissance survey was completed. This covered 197 $\frac{1}{4}$  miles from 118 Miles Potaro to B.G. Beacon No.8. 39 $\frac{3}{4}$  miles of flagging were completed between Toka Village and the Good Hope/Lethem Road.

2. SEA AND RIVER DEFENCES:

The position at the end of the quarter was:-

Essequibo -

- Walls, Essequibo Coast ... Contract awarded for 480 feet at Mocha.
- Walls, Leguan ... Materials ordered.
- Walls, Wakensam ... 417 feet completed at Zeelandia.

/Boulder .....



Boulder Groynes, Wakenaam .. 299 feet completed.

Works, McNabb to Somerset  
& Berks .. 596 feet of R.C. coping and  
306 feet boulder wall were com-  
pleted and 1,986 feet of earth-  
works thrown up.

Earth Dam, Queenstown ... 1,176 feet completed.

Raise Coping, Anna Regina . 961 feet completed.

West Demerara -

Raise wave-screen, DeWillems/  
Zeeburg . Tenders invited.

Casing Uitvlugt Paal-off,  
W.C.D. . 26 sheet piles were driven in  
and boulders crushed.

Underpin R.C. Wall,  
Stanleytown .. 51 feet completed.

River Defences - Anti-  
erosion measures, Wismar/  
Christianburg . Completed.

Underpinning Wall, Meten-  
meerzorg, DeWillems, Zeeburg Sheet piling were transported  
to site.

East Demerara -

Works, Mahaica/Mahaicony .. During the quarter approximately  
1,750 feet of earthworks were  
completed and 4,000 feet cleared  
of bush and trees at Bath.

Works, Nabaclis/Strathspey . Works completed during the quarter  
were 5,900 feet earth dam, 2,270  
feet boulder facing, R.C. coping  
2,820 feet and underpinning 535  
feet.

Boulder Wall, Atkinson  
Field .. Materials ordered.

Berbice -

Works, Springlands/Skeldon,  
New Sea Dam at Nos. 2 & 3 . Completed.

Wall from No. 78 Koker to  
Springlands Stelling .. Approximately 350 feet of wall  
completed.

R.C. Wall, River Defences  
Stanleytown/Islington .. Completed

Reconditioning dam,  
Industry/Borlam .. Completed.

New Sea Dam, Cotton Tree/  
Zee Zicht .. 90% of the area was cleared and  
500 feet of earth dam completed.

Recasing concrete walls  
(Colony wide) .. During the quarter 70 feet were  
completed in the West Demerara  
area and 55 feet at Wakenaam.

/Plant .....

- Plant ... Two draglines and three tractors (2 - D4s., 1 - D6) were received.
- Sluice at Ithaca South Vreede-en-Hoop ... Completed.
- Sea Wall, Zeelandia/Wakenaam ... 47 feet completed.

3. NEW PUBLIC BUILDINGS:

During the quarter buildings completed were the new office for the District Commissioner, Vreede-en-Hoop, the extension to the Forest Department and the Magistrate's Court and Office, New Amsterdam. Only shelving remained for the Sub-Registry Vault, New Amsterdam.

4. HOUSING FOR PUBLIC OFFICERS:

The Field Officer's house at Karasahai was completed while the other at Ishalton was 80% completed. The block of flats, New Market Street and the Technician's house Cove and John were 90% and 98% completed respectively.

5. RURAL WATER SUPPLY (ARTESIAN WELLS):

The drilling of the test well at the Shelter Belt was in progress during the quarter. A test hole 853' - 0" was drilled and 310' - 10" of cores were taken.

At Queenstown, Essequibo a test hole 80' - 0" was drilled. The water was found unsatisfactory. The plant was removed to a site one mile nearer the lake, a test hole was drilled to 44 feet and the sand tested to 20' - 31' - 10". The well at Cullen, Essequibo Coast was completed. This well, which has a depth of 356' - 3" flows at the rate of 5 gallons every 4 seconds at high tide and 5 gallons in 7 seconds at low tide. In the Bagotville - La Grange area 2.55 miles of pipe were laid. The transportation of materials and ditching for the pipe line was begun at Bachelor's Adventure. .30 miles of pipe line were laid at Lancaster and 1.42 miles at Mahaica. Materials were being transported in the Wismar/Christiansburg and Huist'Dieren areas. The overhead tank and sump at Vergenoegen were completed and work was in progress at La Grange.

6. HYDROLOGICAL RESEARCH AND INSTRUMENTS:

The setting up of Water Level Recorders was begun.

XIV. TRANSPORT AND HARBOURS

Steamer Services - Alterations were carried out to the temporary sites selected for the operation of the Ferry Terminals at Georgetown and Vreede-en-Hoop. This work included demolishing of bonds, renewing piling and replacing girders, joists and decking. The construction of driveways, floating ramps and passenger accommodation was completed. Improved lighting was being installed and steel passenger gantries, which will be operated on improvised lifting gear, erected.

At Vreede-en-Hoop the extension of the stelling northwards progressed satisfactorily. 79 greenheart piles 45 to 55 feet were driven in of which 80% of the tenants were cut and half caps fitted. On completion of this work pile driving will be carried on eastwards to a distance of 60' to provide for a depth of 10' M.L.W.S.

/ On . . . . .

On account of the width of the vehicle gantry on the Makouria the 8 feet wide floating ramp was replaced by one 11 feet wide. Messrs. Sprostons Limited have been requested to build two pile driving barges for the Department. The installation of the new engine for the MV. Barima continued.

Harbour Services - A 3 K.W. generator was installed at the Launch Station, Vreed-en-Hoop. All electrical installations were carried out in conduit. At the end of the quarter 80% of the work was completed.

Railway Renewals - The overhauling of the Abary Bridge was completed and painting of the Mahaicony and Mahaica Bridges proceeded. The strengthening and welding repairs of the Greenfield Bridge were completed and painting was in progress. At the stations at Mahaica, Lichfield and Fort Wellington alterations and improvements to sanitary amenities were well underway and should be completed in the next quarter.

#### XVII. SOCIAL WELFARE

Community Development - At Queenstown, Essequibo a Community Education programme was carried out and committees were set up to deal with the priority needs of the Community. A successful "Home, Food and Health Week" was held at Huist'Dieren. At Mocha the villagers completed their self-help irrigation scheme and were waiting on the management of the nearby sugar estate to carry out certain works to enable irrigation water to flow in the Local Authorities' trenches.

#### XX. AMERINDIAN DEVELOPMENT

During the quarter classes were held in the Training Centres at Moruca, Wakapau and the Rupununi. The pre-fabricated aluminium building for Aishalton was received towards the end of the quarter.

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APPENDIX.

Development Programme - Financial Statement.

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Head of Estimate and Project	Total Provision for 1959	Total Expenditure for 1959 (to end of September)
	\$	\$
<b>I. <u>AGRICULTURE:</u></b>		
Staff Training	41,449	8,640
Central Agricultural Station	154,195	14,402
Hosororo Experiment Station	94,500	17,742
Employment of a Soil Scientist	26,856	13,729
Soil Surveys - Coast & Interior	129,652	53,264
Livestock Station - Ebini	60,440	47,967
Livestock Station - St. Ignatius	97,807	34,878
Fisheries	49,770	47,899
Fisheries D. 2555	9,081	2,192
Cocoa Trials	64,703	40,932
Jute Investigations	34,152	14,738
Development of Coconut Industry	40,000	16,922
Botanical Surveys - Intermediate & Interior Savannahs	4,830	1,803
Abattoir & Refrigeration Plant, Lethem	3,000	-
Milk Pasteurisation Plant	1,714	1,714
	812,149	316,922
<b>II. <u>CIVIL AVIATION:</u></b>		
Improvement of Interior Communications	51,409	7,904
Safety and Navigational Aids	29,506	820
Aeronautical Telecommunications and Navigational Aids	11,404	-
	92,319	8,724
<b>III. <u>DRAINAGE &amp; IRRIGATION:</u></b>		
Black Bush Poler	4,076,000	3,907,739
Boerasiric Extension Project	1,443,772	1,162,835
Minor Works	1,235,802	147,570
Surveys for Drainage & Irrigation Projects	143,000	80,265
Hydrographic & Hydrological Surveys	105,800	37,611
Courantyne Schemes	292,000	51,232
Roschall Village District - Permanent Drainage System	15,010	73
Reconditioning Drainage - North Pouderyen	15,796	25,535
Tapakuma - Investigation & Report	368,000	193,953
	7,695,180	5,606,813

/IV. EDUCATION ....

441  
441

APPENDIX (Contd.)

Head of Estimate and Project	Total Provision for 1959	Total Expenditure for 1959 (to end of September)
<b>IV. <u>EDUCATION:</u></b>		
Primary Schools - Buildings	400,000	111,609
- Furniture	80,000	64,654
- Sanitation	25,000	13,364
Capital Grants to Aided Secondary Schools	90,000	21,775
Extension and Improvements to Queen's College	32,400	-
Handicraft and Domestic Science Departments	97,000	-
Laboratory and Classroom Equipment - Technical Institute	14,000	10,677
	738,400	222,079
<b>V. <u>FINANCE</u></b>	-	-
<b>VI. <u>FOREST:</u></b>		
Additional Temporary Staff	37,940	19,426
Staff Training	4,500	816
Timber Appraisals	35,424	16,865
Silviculture	50,581	14,944
Central Timber & Manufacturing Plant	46,000	39,526
	174,445	91,577
<b>VII. <u>GEOLOGICAL SURVEYS:</u></b>		
Geological Surveys and Mineral Development - Expansion of Inter-Guiana Conference	549,079	431,099
	3,800	-
	552,879	431,099
<b>VIII. <u>HEALTH:</u></b>		
Purchase of Hospital Equipment	27,156	59,252
Cottage Hospital - Leonora	65,024	21,715
do. - Leguan	71,420	9,993
do. - Mahaicony	62,450	56,809
Health Centres	213,000	42,973
Mortuaries	9,000	6,527
Filaria Control	9,270	9,254
Poliomyelitis Vaccination	86,300	-
Erection of Central Medical Store, etc.	16,078	6,441
Health Museum	604	604
Settlement of Ex-patients, Mahaica	10,000	1,400
	570,302	214,968

/ IX HOUSING.....

APPENDIX (Contd.)

Head of Estimate and Project	Total Provision for 1959	Total Expenditure for 1959 (to end of September)
IX. <u>HOUSING</u> :  Rural and Urban Housing	891,169	754,199
X. <u>LANDS AND MINES</u> :  Topographic Surveys Aerial Photography of British Guiana	22,000 144,000 166,000	7,216 28,686 35,902
XI. <u>LAND DEVELOPMENT</u> :  Improvement and Expansion of Existing Land Settlement Schemes Equipment for and Improvements to Workshops Development of Garden of Eden Development of Pln. Mara Development of Pln. Onverwagt Purchase of Land Preliminary Investigations Erection of Bonds for Pure Line Seed Padi	189,713 12,000 105,698 545,425 100,391 45,000 1,000 9,700 1,008,927	46,436 - 31,655 141,264 - - 229 1,004 220,588
XII. <u>POST OFFICE</u> :  Telecommunications Rehabilitation	1,528,930	1,721,353
XIII. <u>PUBLIC WORKS</u> :  East Coast Demerara Main Road East Bank Demerara Road Parika-Bartica Road Bartica-Potaro Road Potaro-Lethem Road Reconstruction of Berbice Road Sea and River Defences New Public Buildings Housing for Public Officers Rural Water Supply for Artesian Wells Road Making Plant Extension P.W.D. Workshop Hydrological Research and Instruments	850,000 600,000 30,000 200,000 200,000 10,000 1,776,982 100,000 201,044 700,000 32,800 47,000 19,000 4,766,826	245,822 315,825 17,130 119,302 141,061 883 1,319,642 73,178 68,525 248,050 - 43,956 936 2,594,310

/XIV. TRANSPORT .....

APPENDIX (Contd.)

Head of Estimate and Project	Total Provision for 1959	Total Expenditure for 1959 (to end of September)
<b>XIV. <u>TRANSPORT AND HARBOURS:</u></b>  Rehabilitation of Steamer Services Harbour Services - Improvements Railway Renewals	\$  1,941,101 50,000 193,998  2,185,099	\$  788,740 22,220 117,043  928,003
<b>XV. <u>MISCELLANEOUS:</u></b>  New Amsterdam - Improvement of Water Supply Expenses of Issue Government Recording Studio Experiment in Papain Production Improvement Library Facilities - Primary Schools - Secondary Schools Visual Aid Equipment Construction, Atkinson Field Sports Club Extension of Georgetown Pure Water Supply Training in Home Economics Training in Agriculture Medical Research Scheme	120,634 10,000 41,000 1,000  2,400 1,200 1,920  2,400  2,008 1,461 2,150 288  186,461	- - - -  400 931  -  1,820 - - -  5,151
<b>XVI. <u>RURAL SELF-HELP:</u></b>  Rural Self-Help Schemes	300,000	22,404
<b>XVII. <u>SOCIAL WELFARE:</u></b>  Community Organisation, Education and Development Extension - Albouystown Y.M.C.A. Sports Development	26,622 3,550 4,000  34,172	9,101 2,522 3,100  14,723
<b>XVIII. <u>LOCAL GOVERNMENT:</u></b>  Temporary Specialist Staff	59,732	36,756
<b>XIX. <u>RURAL ELECTRIFICATION:</u></b>  Rural Electricity Schemes	36,000	21,796

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APPENDIX (Contd.)

Head of Estimate and Project	Total Provision for 1959	Total Expen- diture for 1959 (to end of September)
	\$	\$
<b>XX. <u>AMERINDIAN DEVELOPMENT:</u></b>		
Rest Shelters	16,500	803
Water Supply - Amerindian Villages	5,000	1,598
Amerindian Training Centres	8,000	715
Trade Stores	6,758	3,027
Wapisiana Fencing Scheme	2,000	-
District Office Orealla	23,750	-
	62,008	6,143
<b>TOTAL: HEADS I - XX</b>	21,860,998	13,253,410



Estimate and Specifications of  
Drainage and Irrigation Works - La Retraite.

Distributaries

1. South distributary

Clearing 750 rods @ \$3.00	\$2250
Shaping dams 1500 rods @ 75¢	1125
Excavation 4' B.W. 11,700 cu. yds at 40¢	4680
G.H. Intake - 2' x 2'	450
G.H. Tail wall - 2' x 2'	450

2. North Distributary

Shaping dams 1500 rods @ 75¢	1125
Excavation 4' B.W. 17850 cu. yds. @ 40¢	7140
G.H. Intake - 2' x 2'	450
G.H. Tail Wall - 2' x 2'	450

3. Supply trench along north and west boundary

Cleaning dams 120 rods @ \$3.00	360
Excavation 6' B.W. 10,200 cu. yds @ 40¢	4080

Drains

1. North Side Line

Clear and redig western portion 4' B.W.	
120 rods @ \$2.50	300
Clearing dam 750 rods @ \$1.00	750

2. Centre Drains

Regrading and clearing northern dam	
750 rods @ \$2.00	1500
Reconditioning 1500 rods @ \$2.00	3000

3. New east facade drain

Excavation 6' B.W. 600 yd. <sup>3</sup> @ 40¢	2400
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2 Control panels one in each distributary 2400

1 Control panel near Toevlugt intake 1200

Compensation 5000

Contingencies say 15% 5890

Total \$45,000