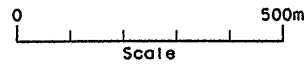
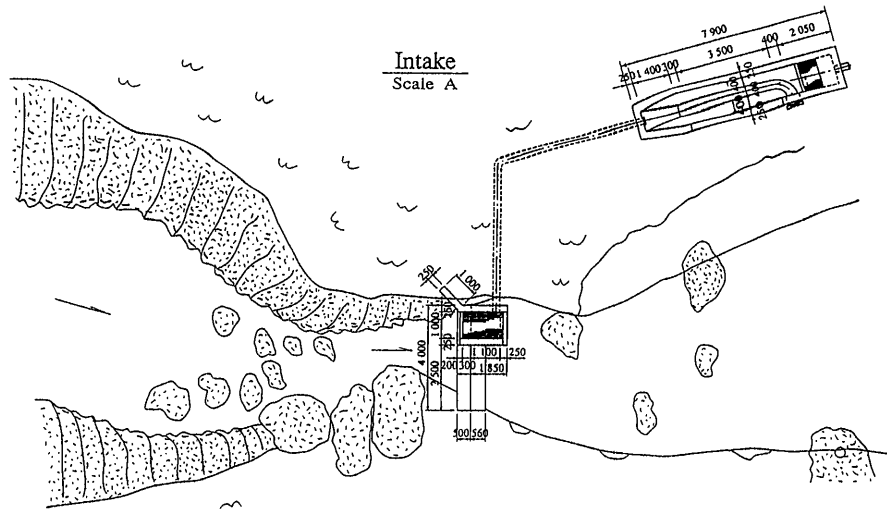
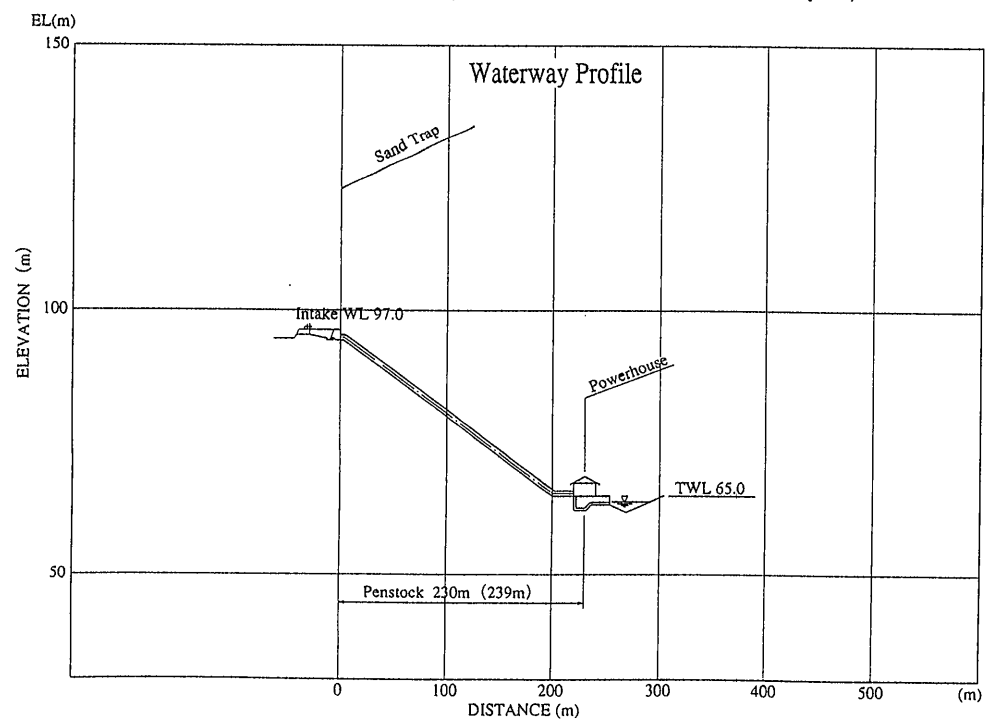
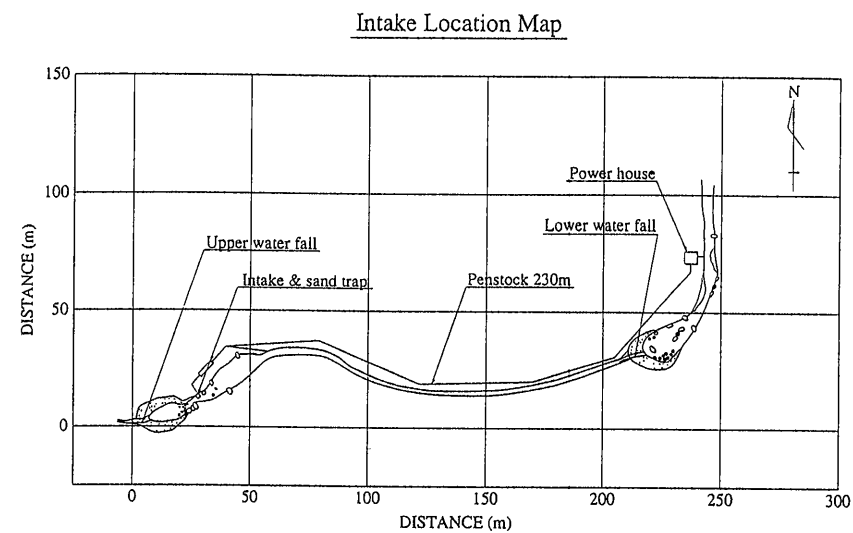
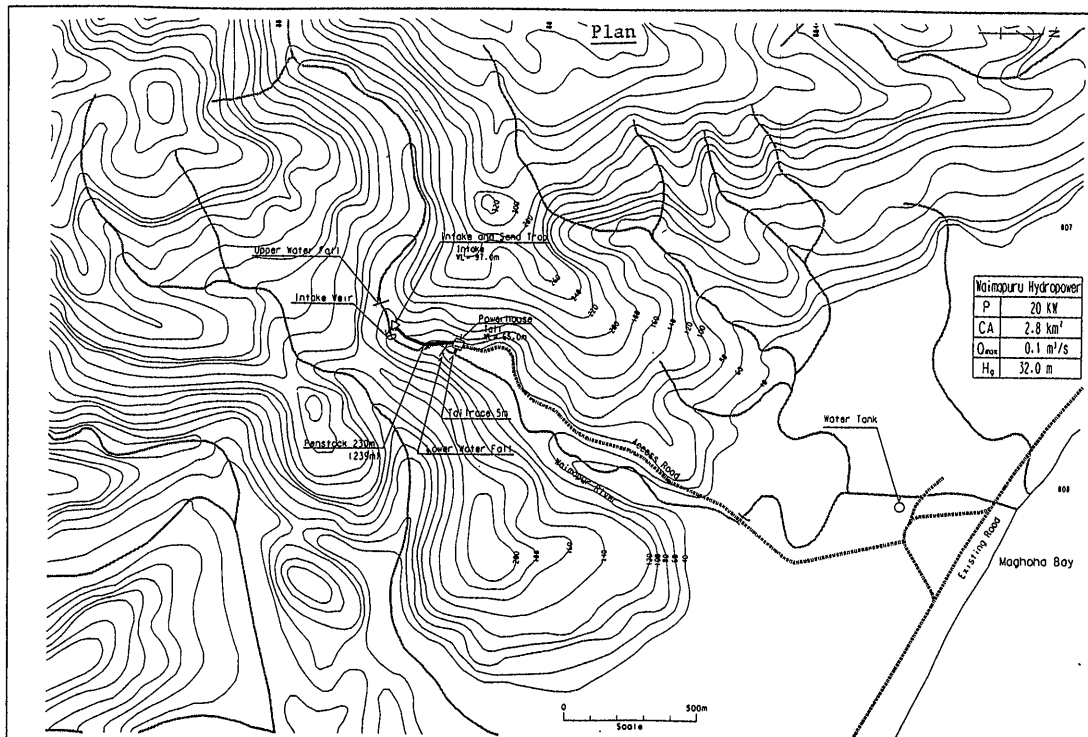


Waimapuru Hydropower	
P	20 KW
CA	2.8 km ²
Q _{max}	0.1 m ³ /s
H _g	32.0 m

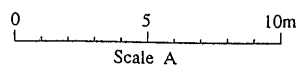
Legend	
Intake Weir	
Intake and Sand Trap	
Tunnel	
Headrace and Penstock	
Head Tank	
Powerhouse	
Existing Road	
Access Road	



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Waimapuru Hydropower Project	Fig. 5-7-32 (1)
Plan View	

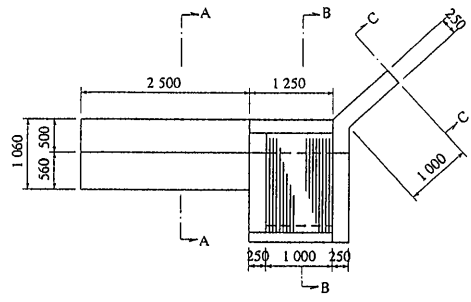


Note
 1. Elevation indicated is approximate only.
 2. Figure in "()" shows slope distance.

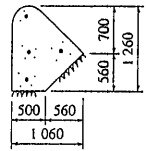


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MASTER PLAN STUDY OF POWER DEVELOPMENT SOLOMON ISLANDS	
JAPAN INTERNATIONAL COOPERATION AGENCY	
Waimapuru Hydropower Project Plan View, Intake	Fig. 5-7-32 (2)

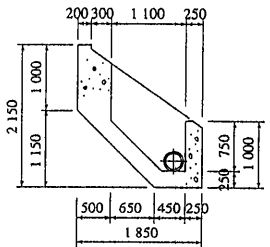
Intake
Scale A



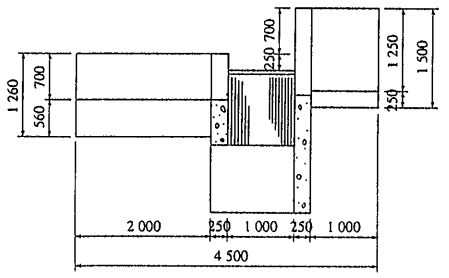
Section A-A
Scale A



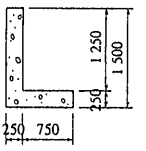
Section B-B
Scale A



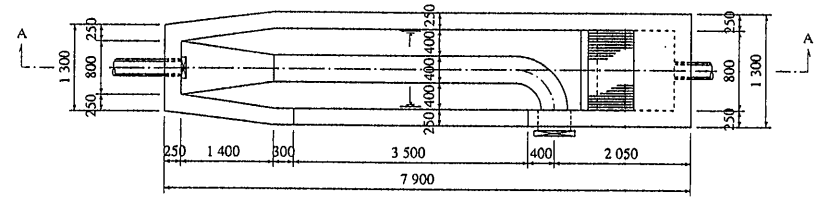
Downstream Section
Scale A



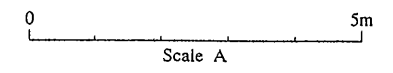
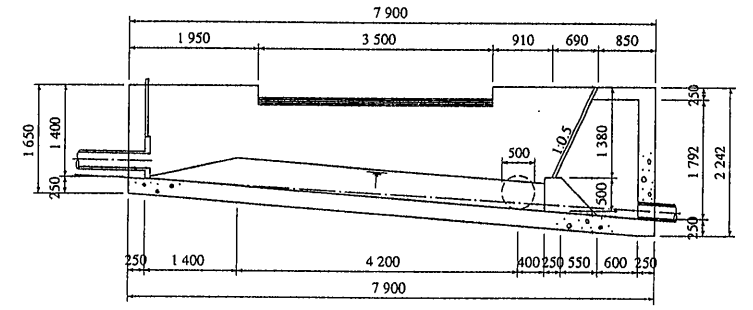
Section C-C
Scale A



Sand Trap
Scale A



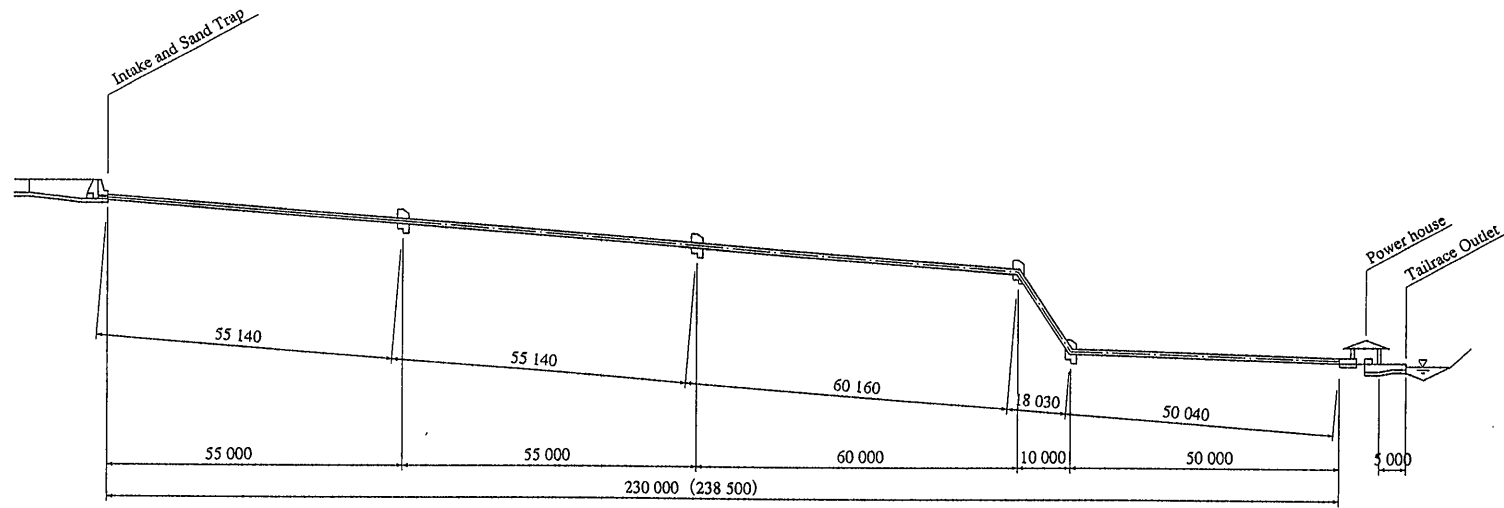
Section A-A
Scale A



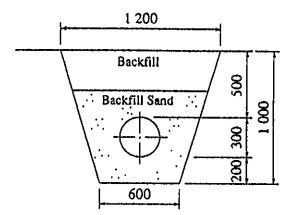
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JAPAN INTERNATIONAL COOPERATION AGENCY	
Waimapuru Hydropower Project Intake and Sand Trap	Fig. 5-7-32 (3)

EL(m)
100
50
0
ELEVATION

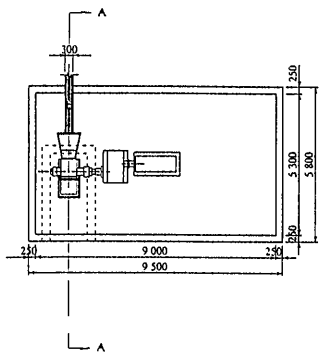
Penstock Profile
Scale C



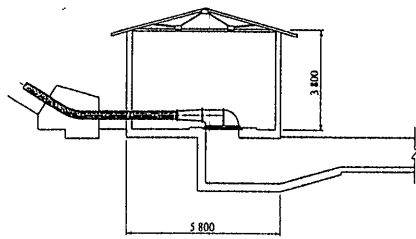
Typical Cross Section (D=300mm)
Scale A



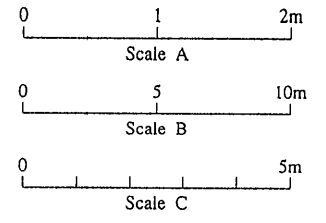
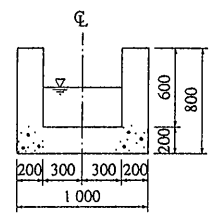
Powerhouse
Scale B



Section A-A
Scale B



Tailrace
Scale A



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Waimapuru Hydropower Project
Penstock, Powerhouse
and Tailrace

Fig. 5-7-32
(4)

Note
1. Elevation indicated is approximate only.
2. Figure in "()" shows slope distance.

Station : Kirakira

Island : San Cristbal (Makira)

Data : 1965-1997

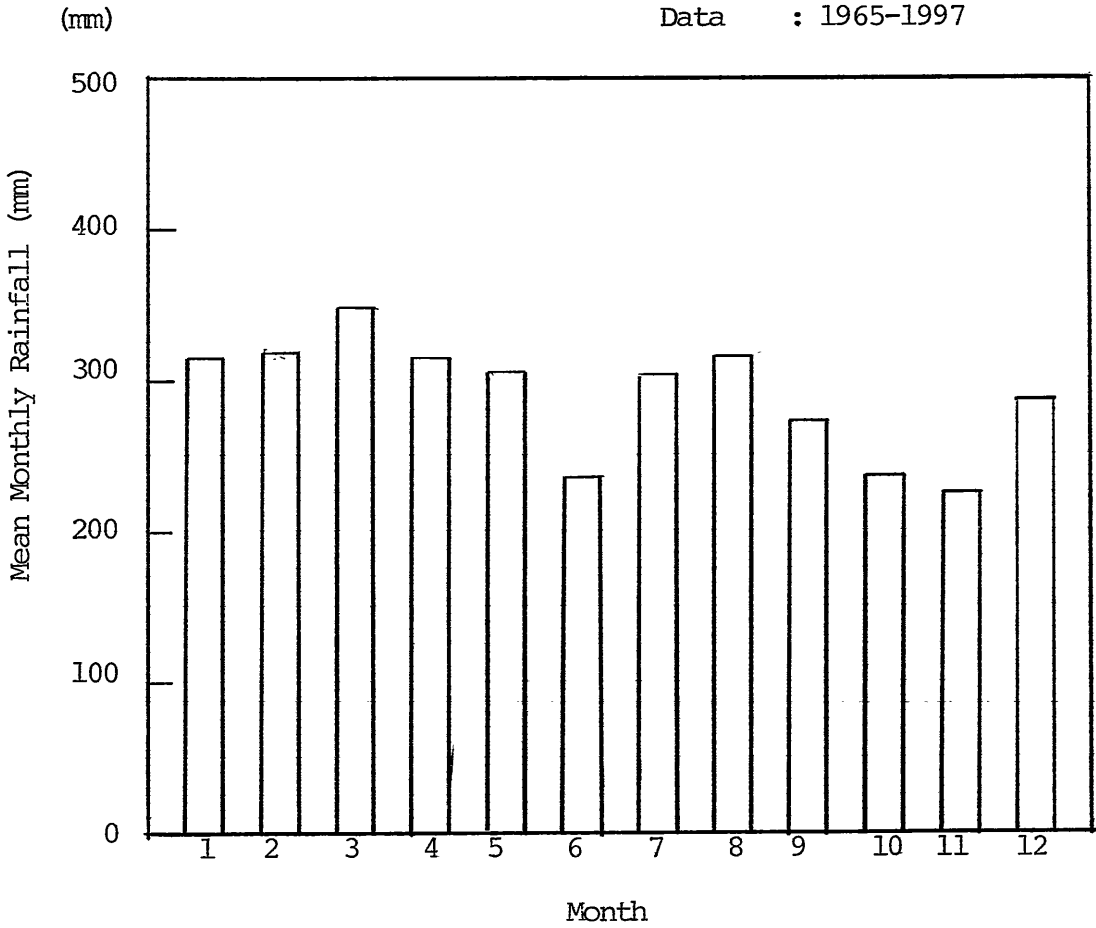
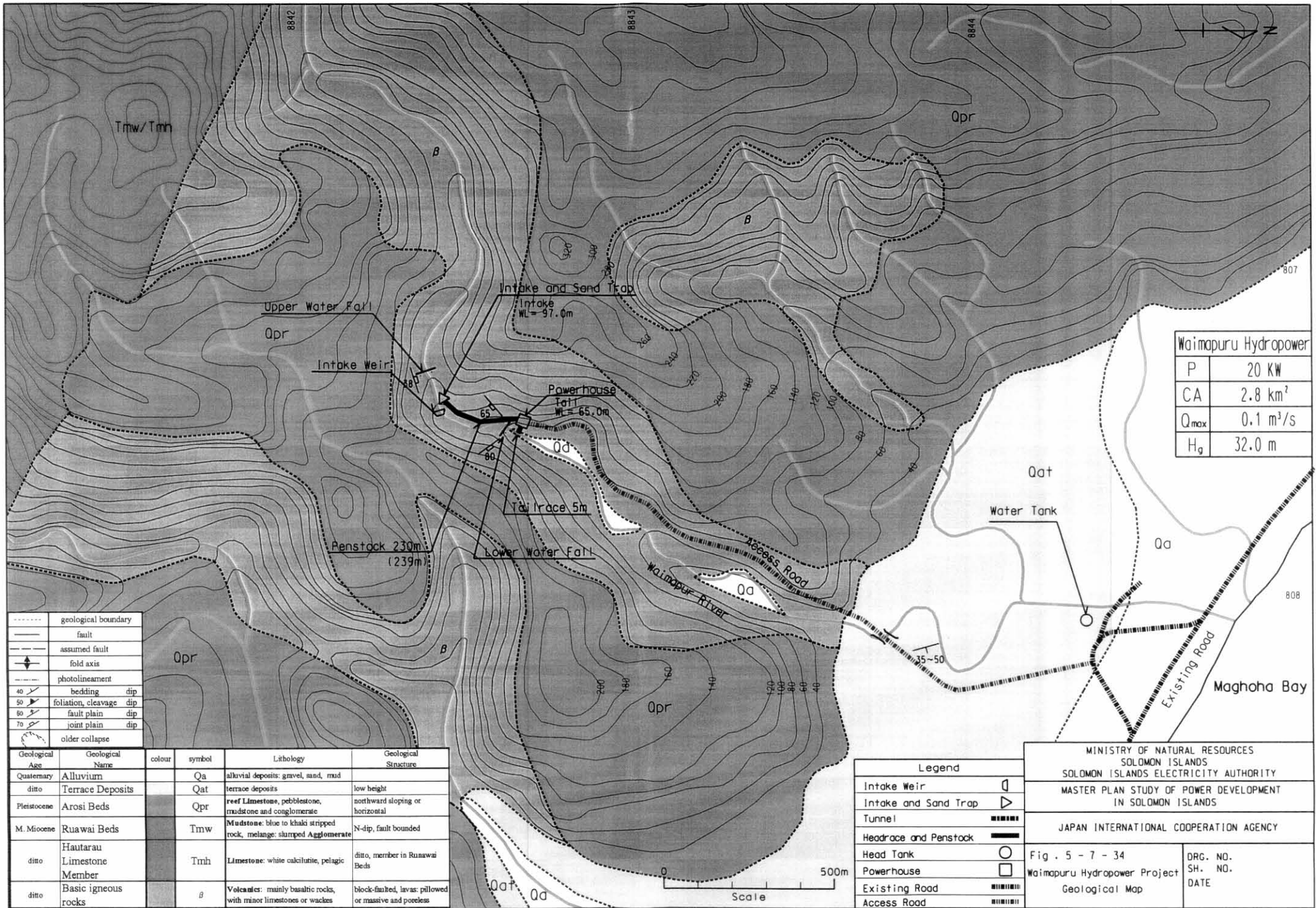


Fig. 5-7- 33 Mean Monthly Rainfall in Kirakira

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Waimapuru Hydropower	
P	20 KW
CA	2.8 km ²
Q _{max}	0.1 m ³ /s
H _g	32.0 m

-----	geological boundary
---	fault
- - -	assumed fault
↕	fold axis
----	photolineament
40 ↘	bedding dip
50 ↘	foliation, cleavage dip
60 ↘	fault plain dip
70 ↘	joint plain dip
○	older collapse

Geological Age	Geological Name	colour	symbol	Lithology	Geological Structure
Quaternary	Alluvium		Qa	alluvial deposits: gravel, sand, mud	
ditto	Terrace Deposits		Qat	terrace deposits	low height
Pleistocene	Arosi Beds		Qpr	reef Limestone, pebblestone, mudstone and conglomerate	northward sloping or horizontal
M. Miocene	Ruawai Beds		Tmw	Mudstone: blue to khaki striped rock, melange: striped Agglomerate	N-dip, fault bounded
ditto	Hautarau Limestone Member		Tmh	Limestone: white calcitute, pelagic	ditto, member in Ruawai Beds
ditto	Basic igneous rocks		B	Volcanics: mainly basaltic rocks, with minor limestones or wackes	block-faulted, lavas: pillowed or massive and poreless

Legend	
Intake Weir	◩
Intake and Sand Trap	◩
Tunnel	▬▬▬▬
Headrace and Penstock	▬▬▬▬
Head Tank	○
Powerhouse	◻
Existing Road	▬▬▬▬
Access Road	▬▬▬▬

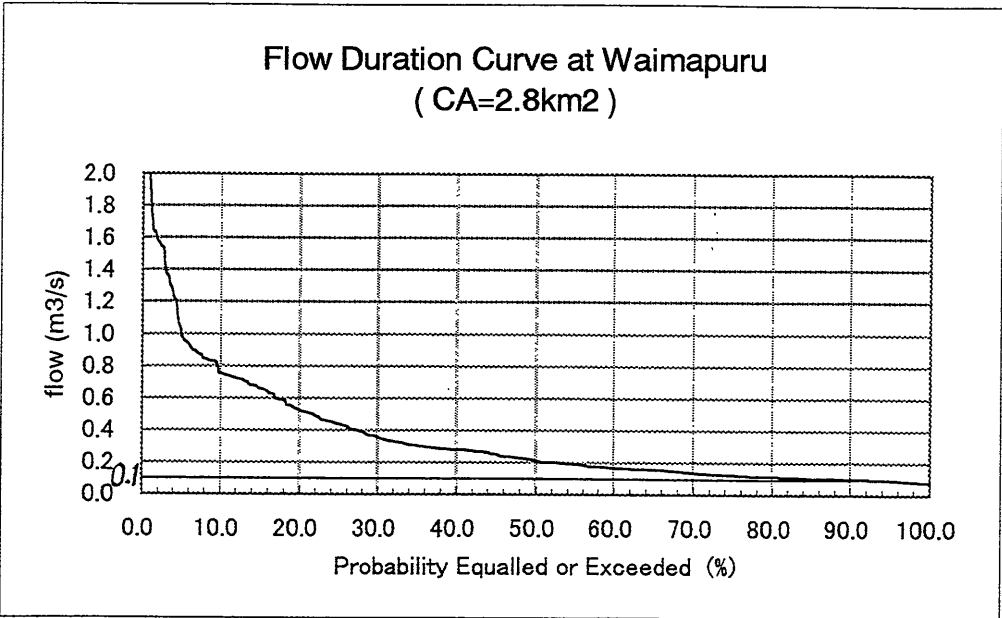
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JAPAN INTERNATIONAL COOPERATION AGENCY

Fig. 5 - 7 - 34
Waimapuru Hydropower Project
Geological Map

DRG. NO.
SH. NO.
DATE



Station: HuroRiver at Waitete Villeg, San Cristobal, CA=3.5km²
 Data: May 1994-April 1995
 Maximum discharge=0.1m³/s, FUF=0.96
 Sources: Ministry of Natural Resouces

Fig.5-7-35. Flow Duration Curve at Wain.apuru

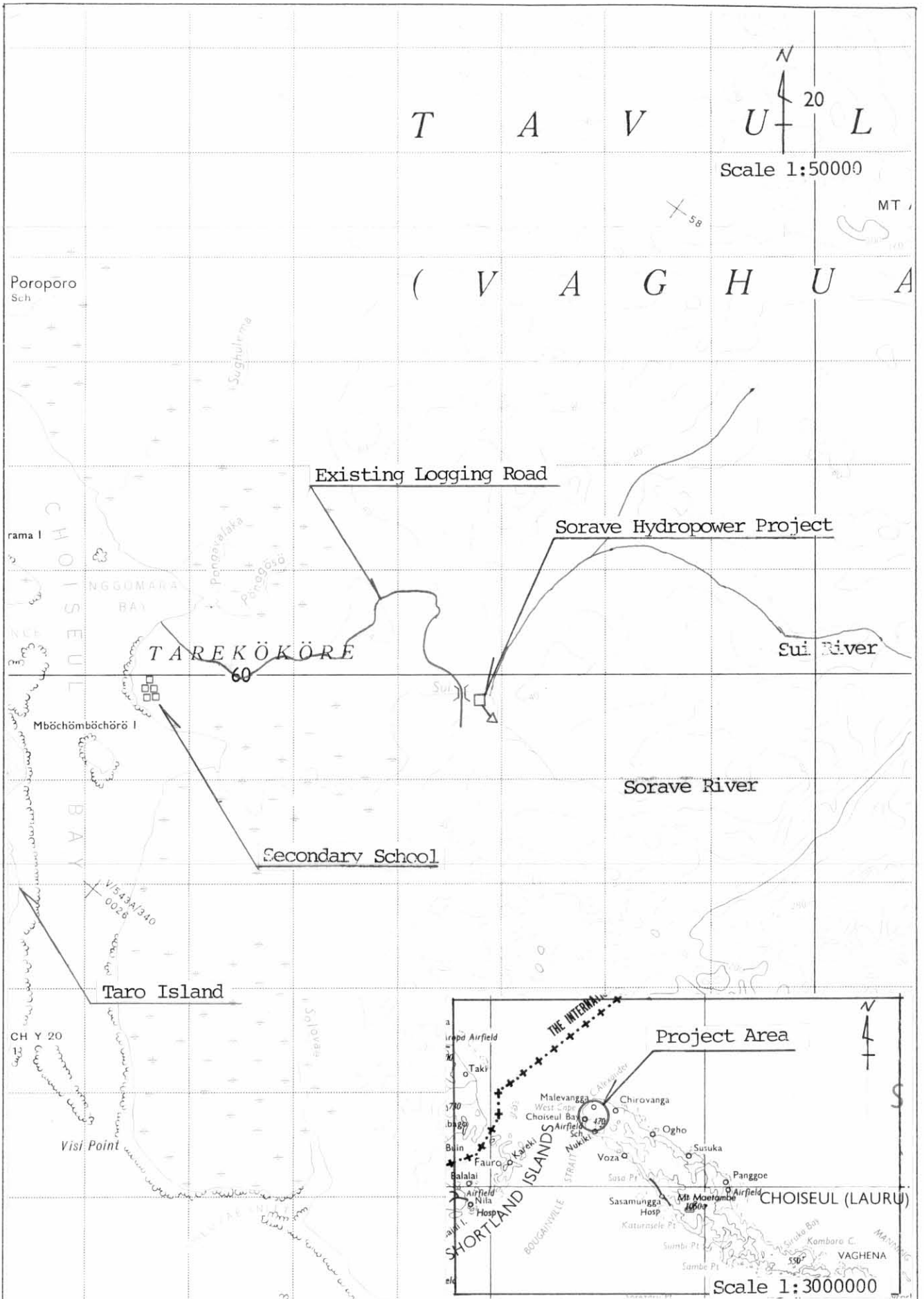
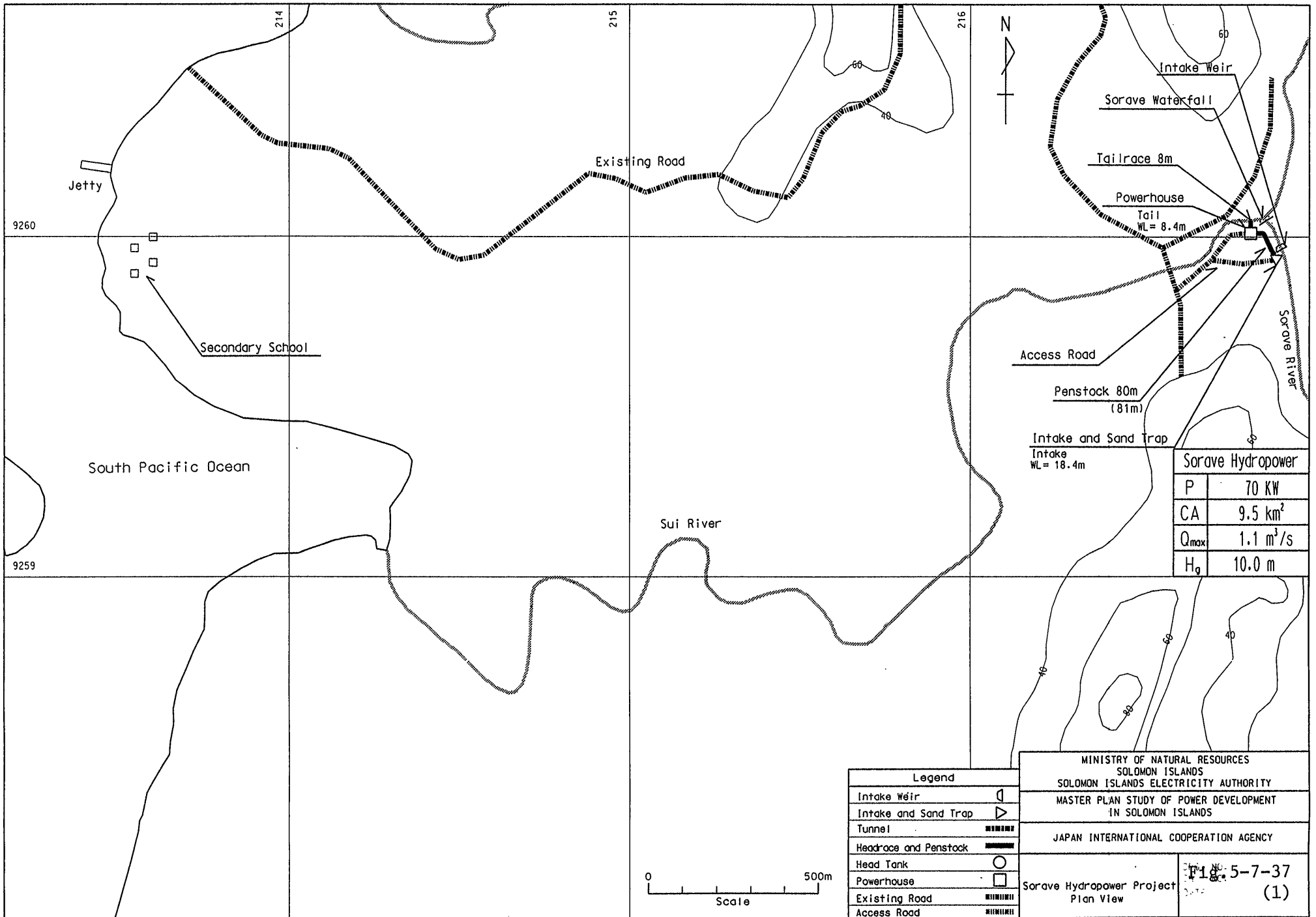
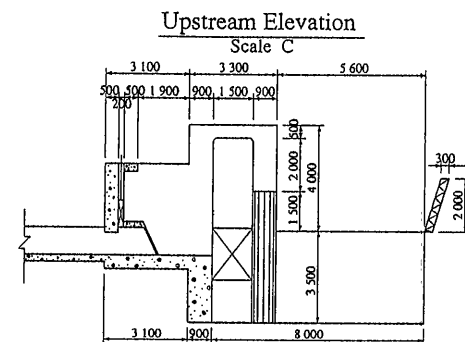
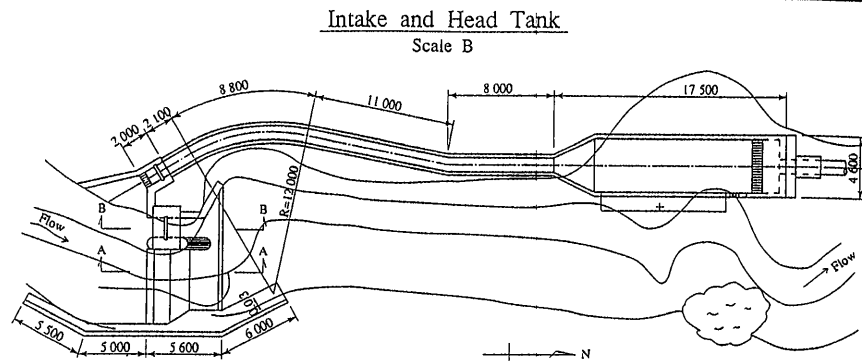
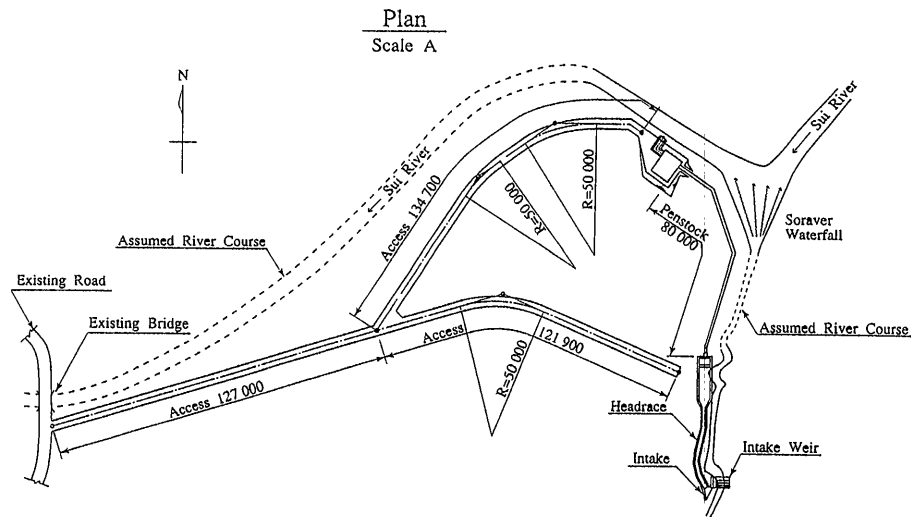


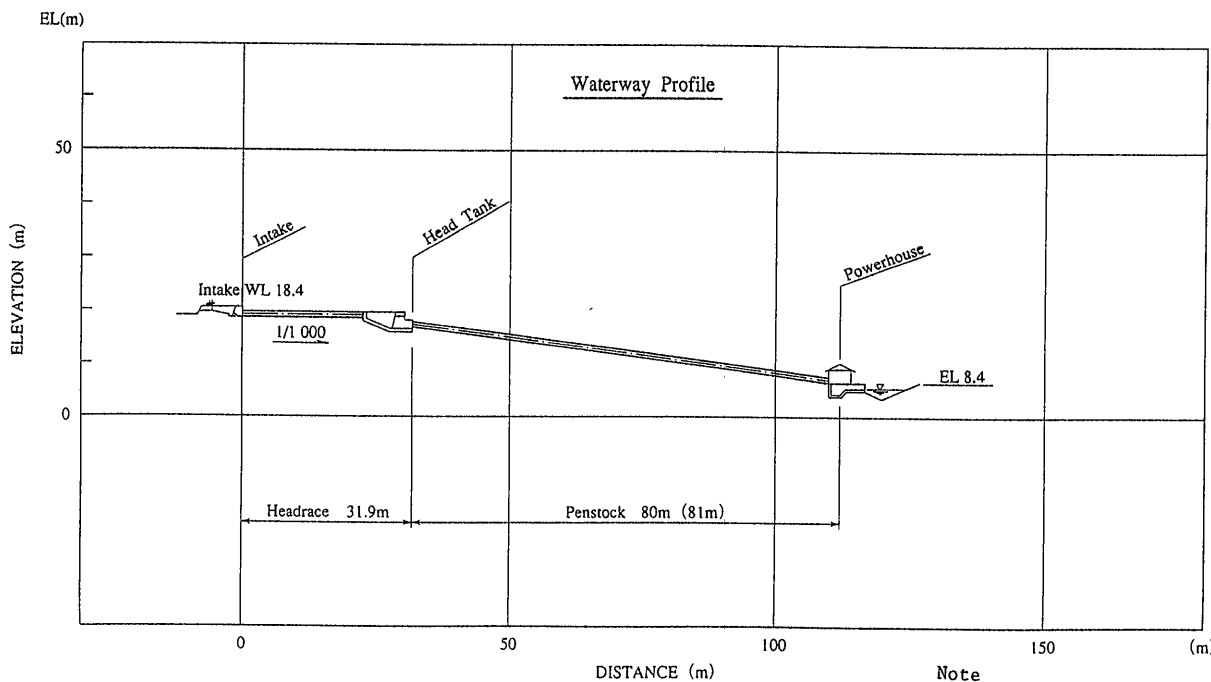
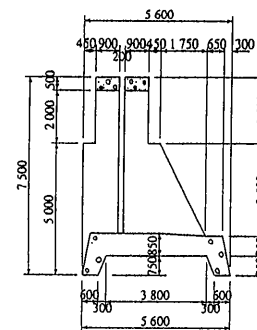
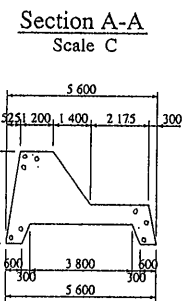
Fig. 5-7-36 Location Map of Sorave Hydropower

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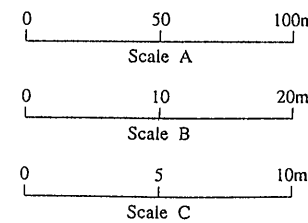




Section B-B Scale C



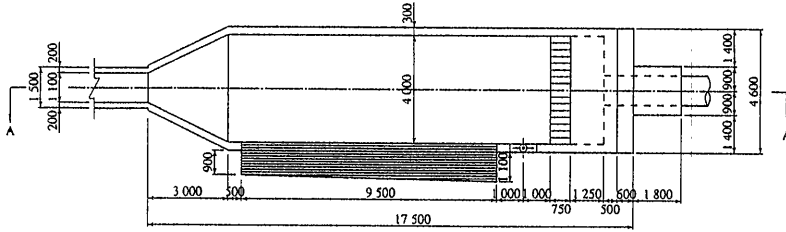
Note
 1. Elevation indicated is approximate only.
 2. Figure in "()" shows slope distance.



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Sorave Hydropower Project Plan View, Intake	Fig. 5-7-37 (2)

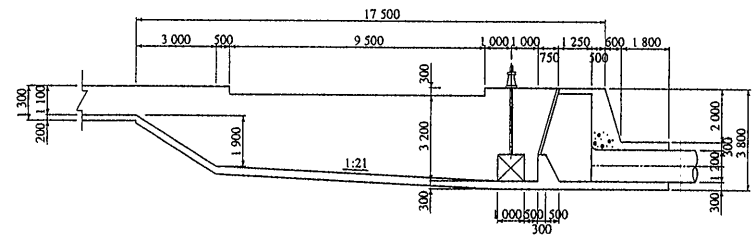
Head Tank

Scale A



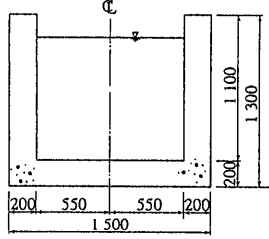
A - A Section

Scale A



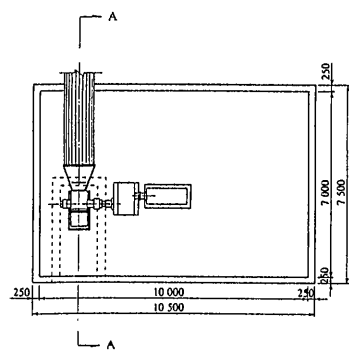
Headrace and Tailrace

Scale B



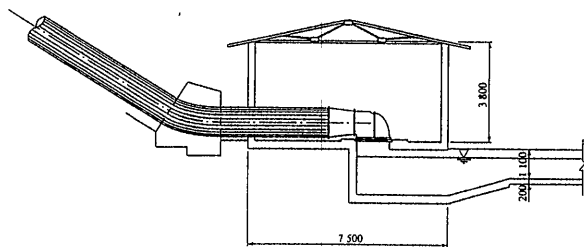
Powerhouse

Scale A



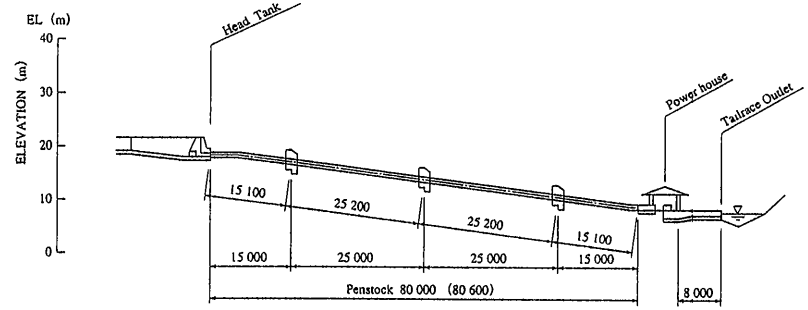
Section A-A

Scale A



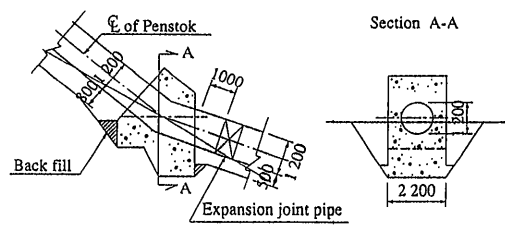
Penstock Profile

Scale C

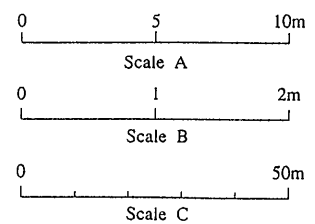


Typical Section of Anchor Block

Scale B



- Note
1. Elevation indicated is approximate only.
 2. Figure in "()" shows slope distance.



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Sorave Hydropower Project Headrace, Head Tank, Penstock and Powerhouse and Tailrace	Fig. 5-7-37 (3)

Station : Taro

Island : Choiseul

Data : 1976-1997

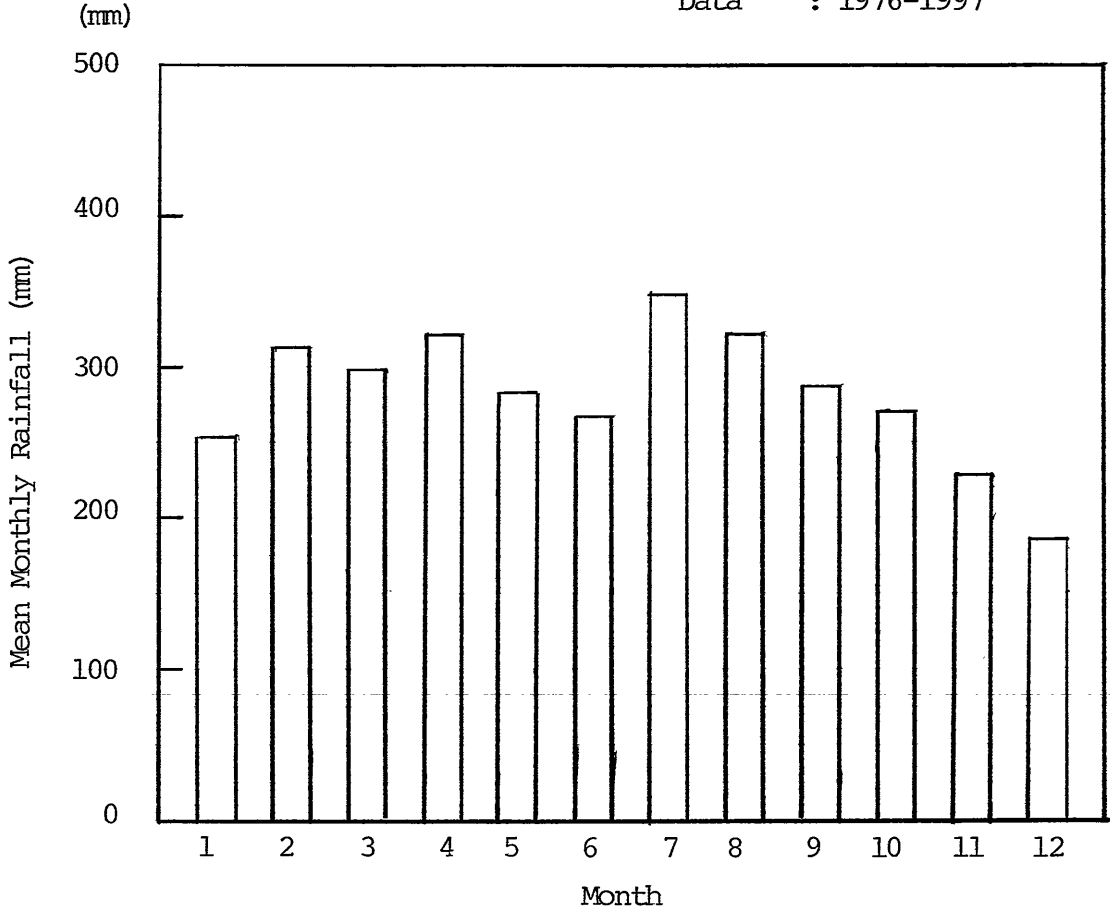
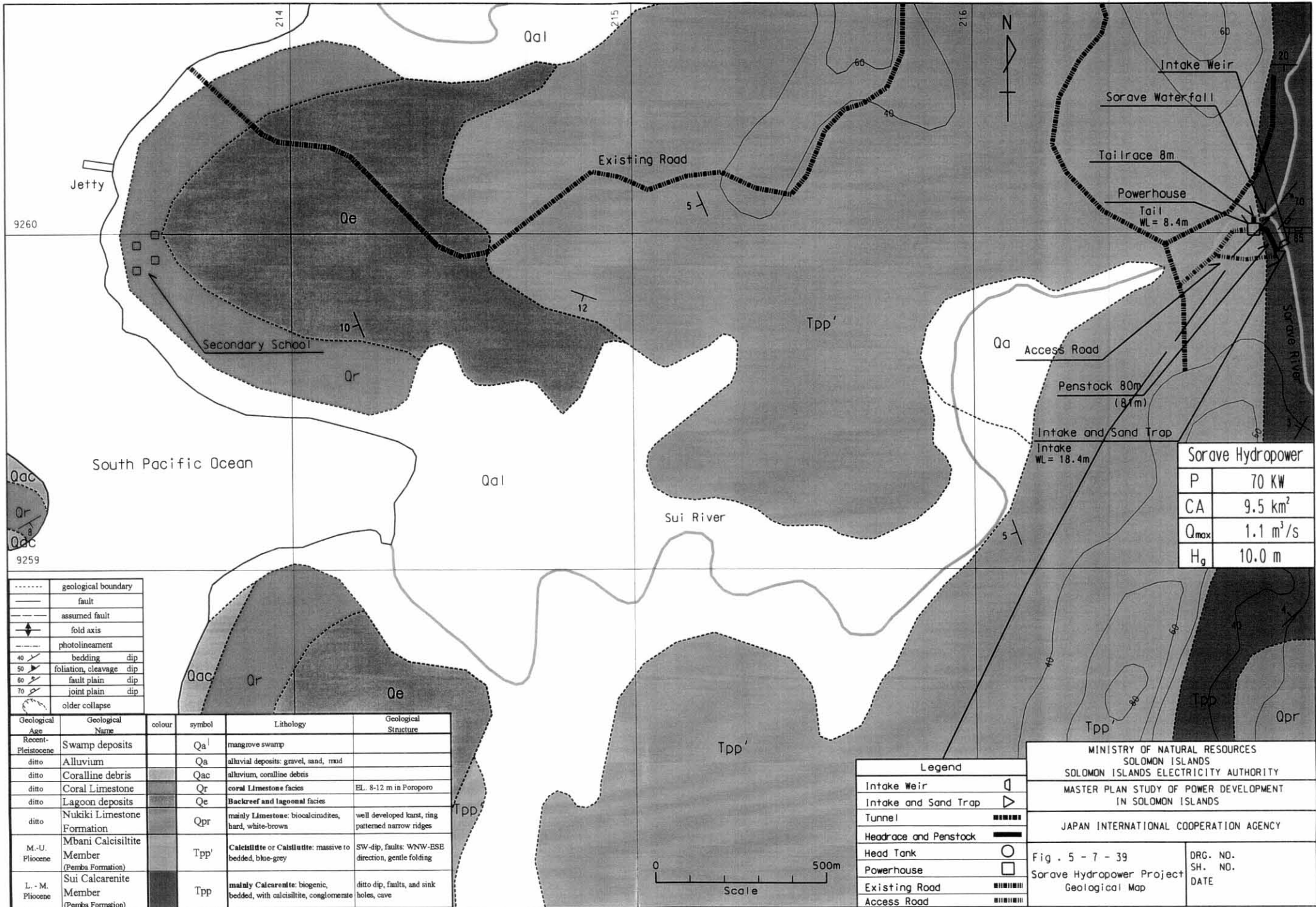


Fig. 5-7- 38 Mean Monthly Rainfall in Taro

199
20



Sorave Hydropower	
P	70 KW
CA	9.5 km ²
Q _{max}	1.1 m ³ /s
H _g	10.0 m

-----	geological boundary
---	fault
- - - -	assumed fault
+	fold axis
-----	photolineament
40 /	bedding dip
50 /	foliation, cleavage dip
60 /	fault plain dip
70 /	joint plain dip
○	older collapse

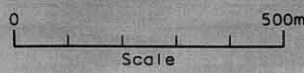
Geological Age	Geological Name	colour	symbol	Lithology	Geological Structure
Recent-Pleistocene	Swamp deposits		Qa ¹	mangrove swamp	
ditto	Alluvium		Qa	alluvial deposits: gravel, sand, mud	
ditto	Coralline debris		Qac	aluvium, coralline debris	
ditto	Coral Limestone		Qr	coral Limestone facies	EL. 8-12 m in Poroporo
ditto	Lagoon deposits		Qe	Backreef and lagoonal facies	
ditto	Nukiki Limestone Formation		Qpr	mainly Limestone: biocalcinidites, hard, white-brown	well developed kurst, ring patterned narrow ridges
M.-U. Pliocene	Mbani Calcisiltite Member (Pemba Formation)		Tpp'	Calcisiltite or Calcisiltite: massive to bedded, blue-grey	SW-dip, faults: WNW-ESE direction, gentle folding
L. - M. Pliocene	Sui Calcarenite Member (Pemba Formation)		Tpp	mainly Calcarenite: biogenic, bedded, with calcisiltite, conglomente	ditto dip, faults, and sink holes, cave

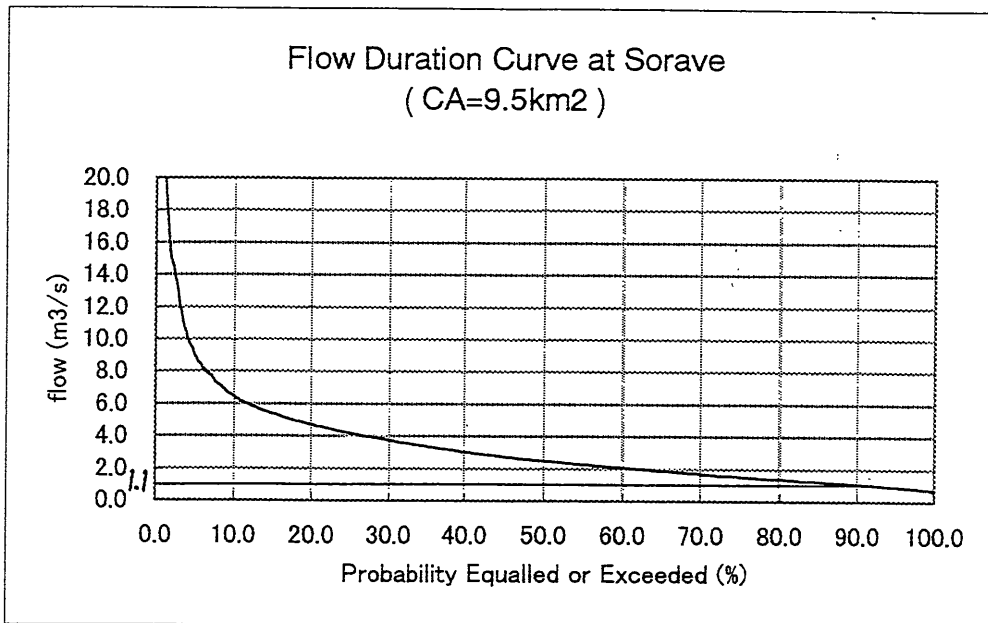
Legend	
Intake Weir	◻
Intake and Sand Trap	◻
Tunnel	▬▬▬▬
Headrace and Penstock	▬▬▬▬
Head Tank	○
Powerhouse	◻
Existing Road	▬▬▬▬
Access Road	▬▬▬▬

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Fig. 5 - 7 - 39
Sorave Hydropower Project
Geological Map

ORG. NO.
SH. NO.
DATE





Station: Lungga Bridge, Guadalcanal, CA=377km²
 Data: 1966-'68, '71, '77-'79, '86-'89, '96
 Maximum discharge=1.1m³/s, FUF=0.96
 Sources: Ministry of Natural Resources

Fig.5-7-40. Flow Duration Curve at Sorave

196
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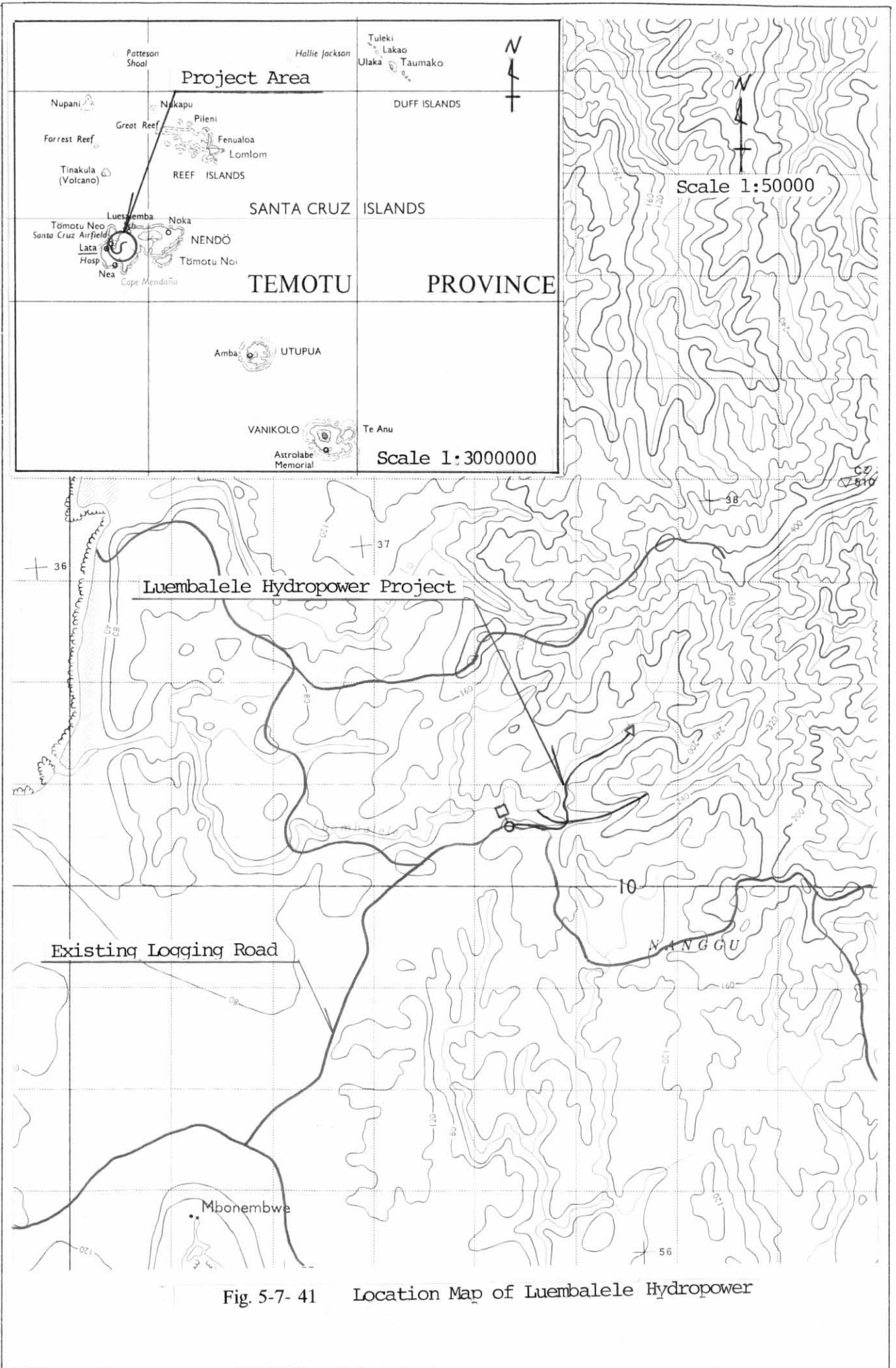
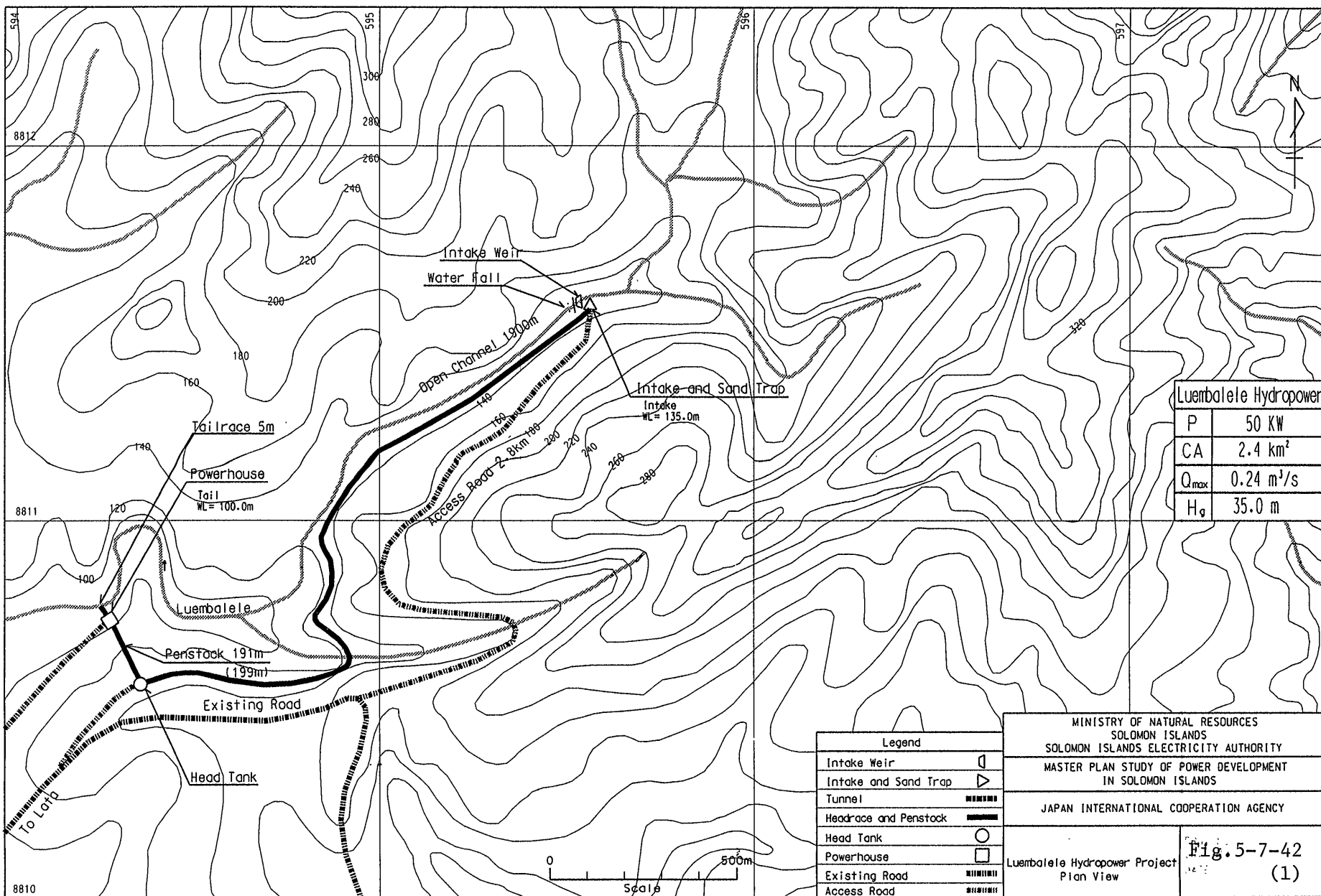


Fig. 5-7- 41 Location Map of Luembalele Hydropower

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Lumbalele Hydropower	
P	50 KW
CA	2.4 km ²
Q _{max}	0.24 m ³ /s
H _a	35.0 m

Legend	
Intake Weir	□
Intake and Sand Trap	▷
Tunnel	▬▬▬▬▬▬
Headrace and Penstock	▬▬▬▬▬▬
Head Tank	○
Powerhouse	□
Existing Road	▬▬▬▬▬▬
Access Road	▬▬▬▬▬▬

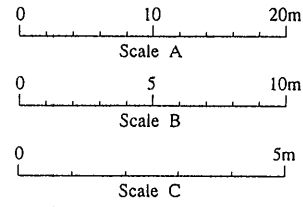
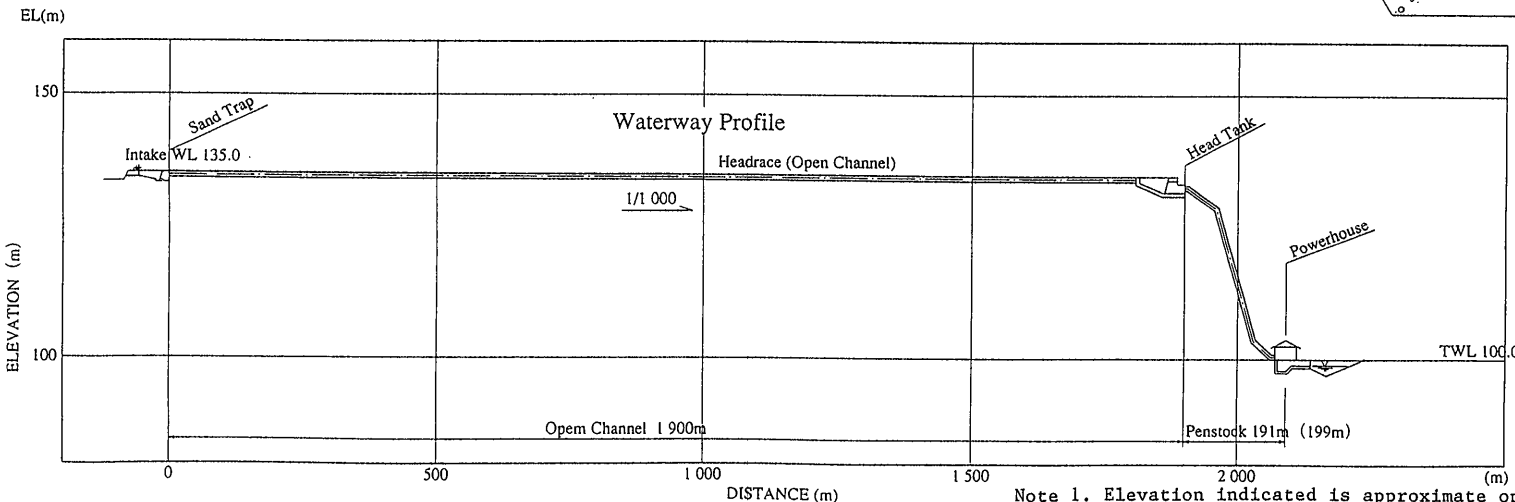
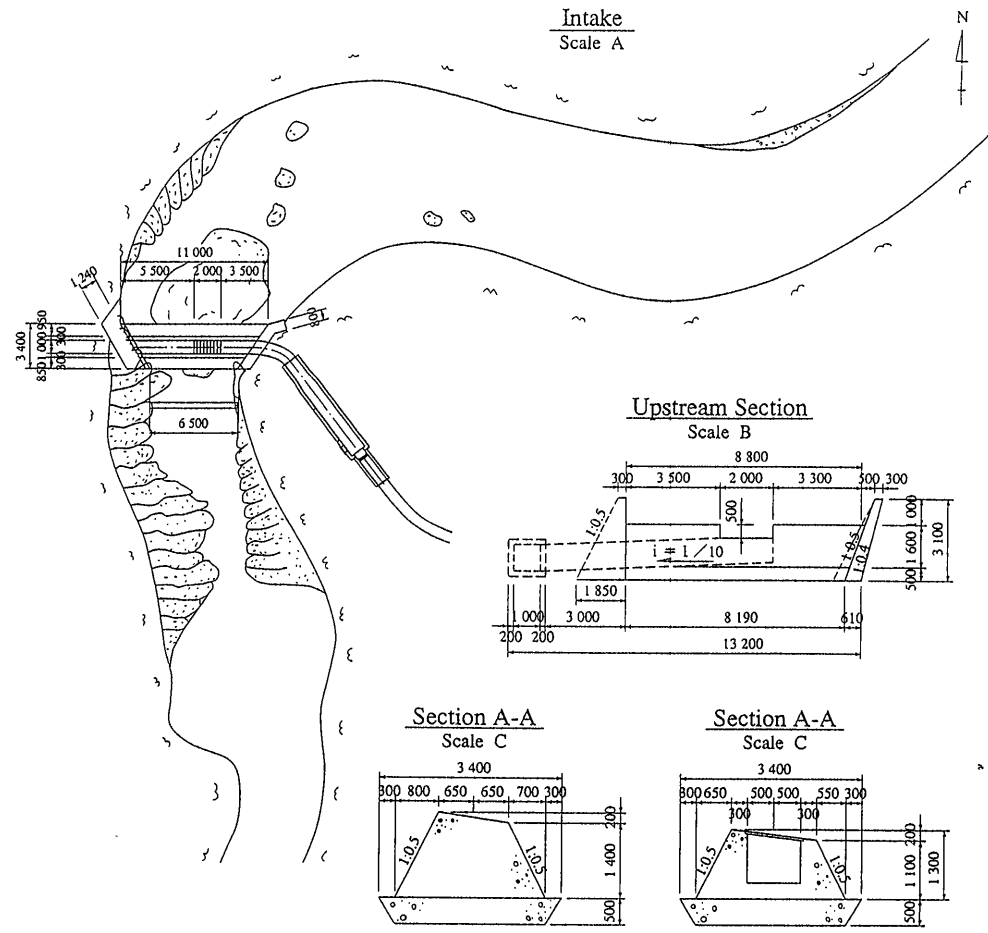
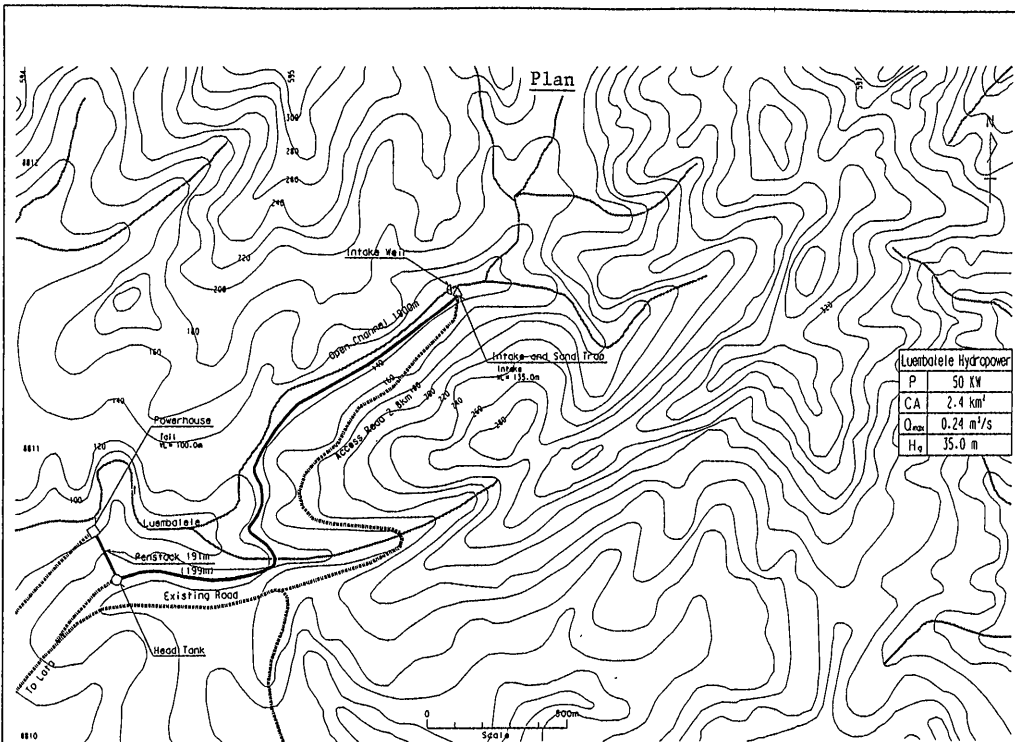
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Lumbalele Hydropower Project
Plan View

Fig. 5-7-42
(1)

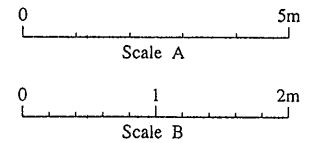
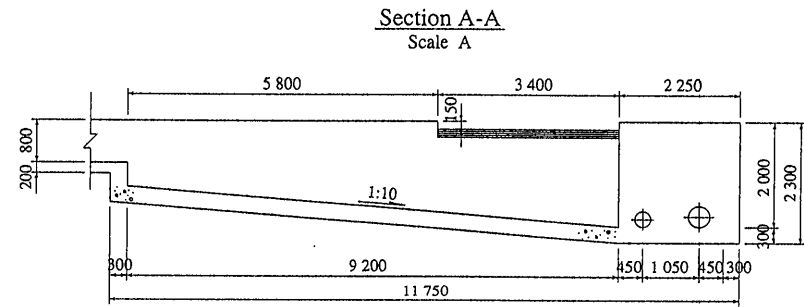
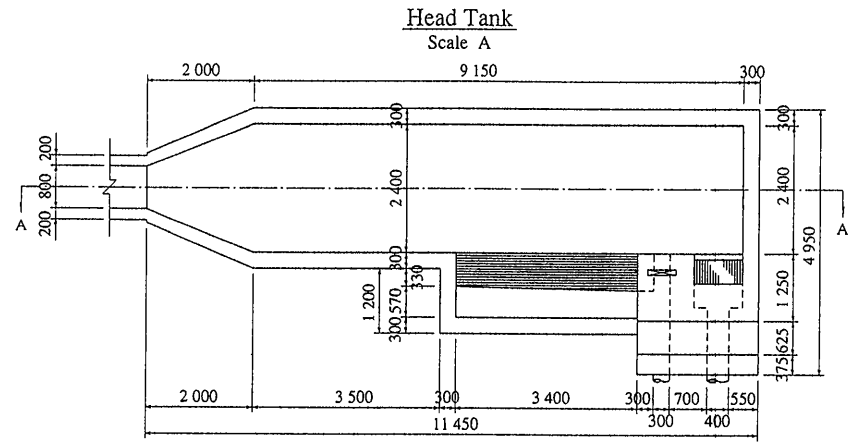
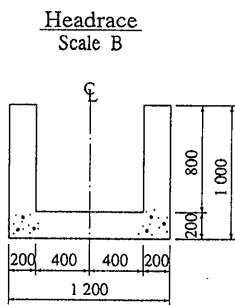
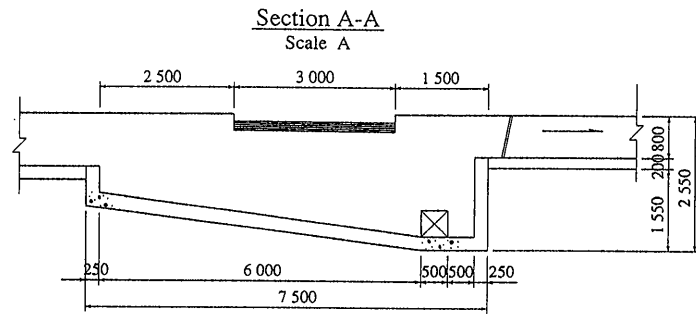
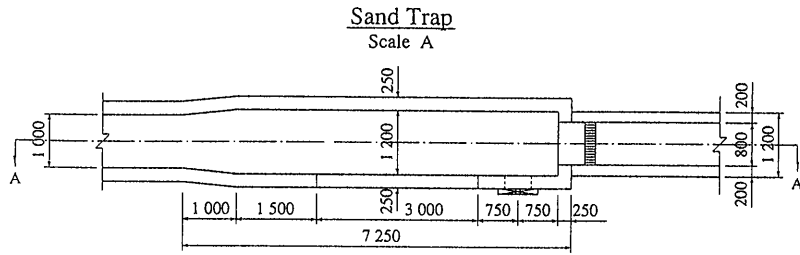
S - 198

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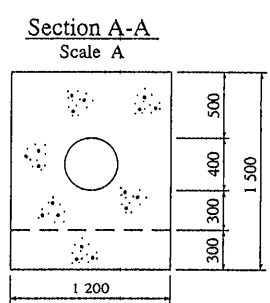
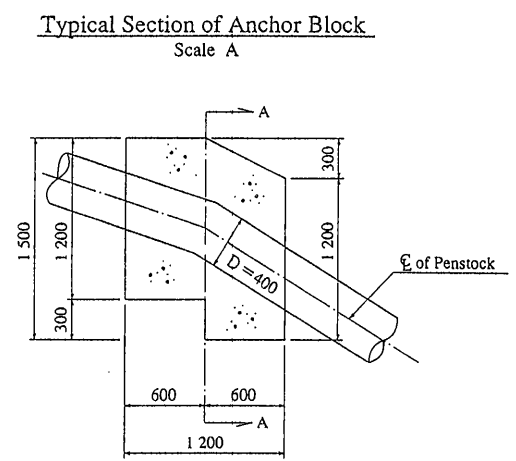
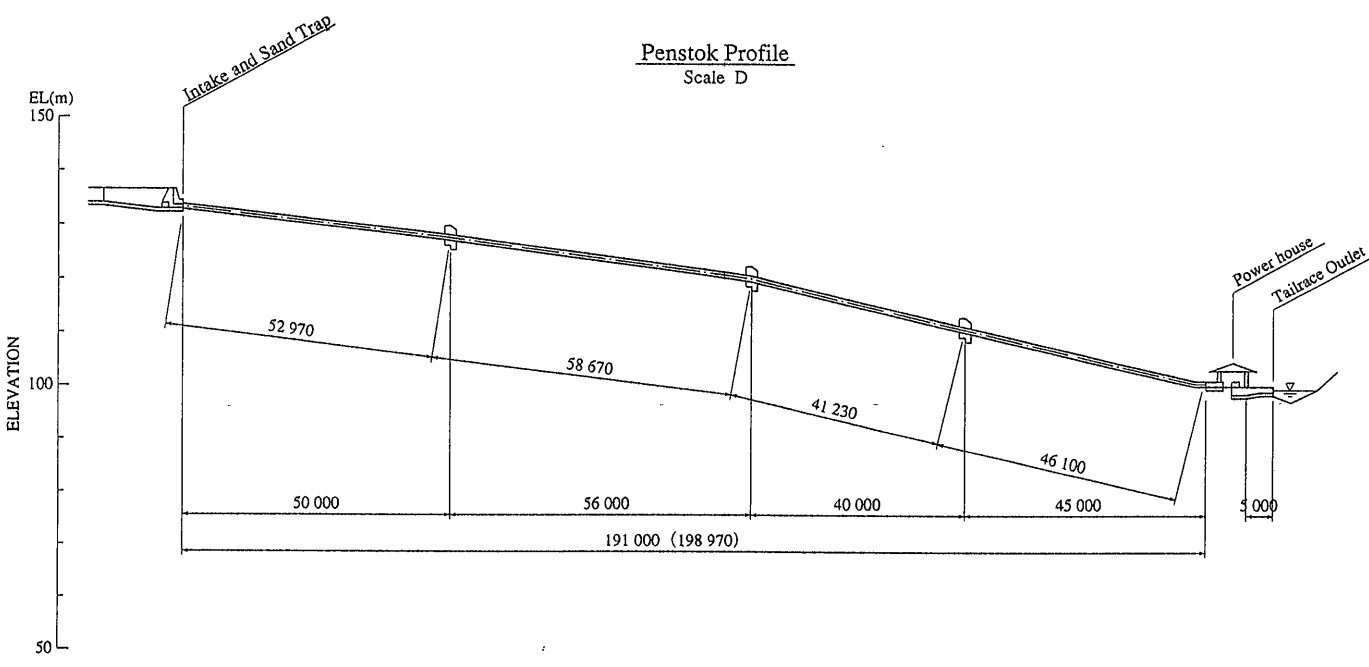


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JAPAN INTERNATIONAL COOPERATION AGENCY	
Luembalele Hydropower Project Plan View, Intake	Fig.5-7-42 (2)

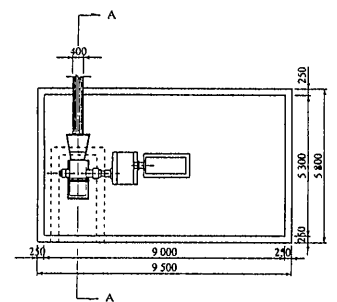
Note 1. Elevation indicated is approximate only.
 2. Figure in "()" shows slope distance.



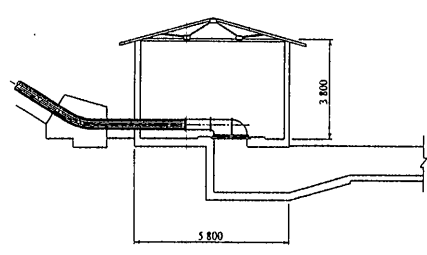
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MASTER PLAN STUDY OF POWER DEVELOPMENT SOLOMON ISLANDS	
JAPAN INTERNATIONAL COOPERATION AGENCY	
Luembale Hydropower Project Sand Trap, Headrace, and Head Tank	Fig. 5-7-42 (3)



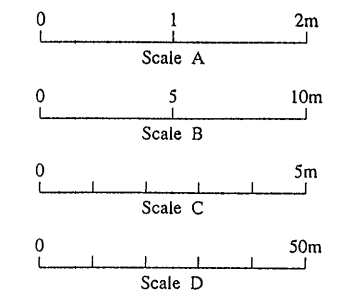
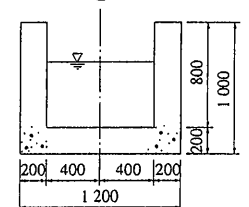
Powerhouse Scale B



Section A-A Scale B



Tailrace Scale A



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Luembalele Hydropower Project Penstock, Powerhouse and Tailrace	Fig. 5-7-42 (4)

Note
 1. Elevation indicated is approximate only.
 2. Figure in "()" shows slope distance.

Station : Lata

Island : Santa Cruz

Data : 1970-1997

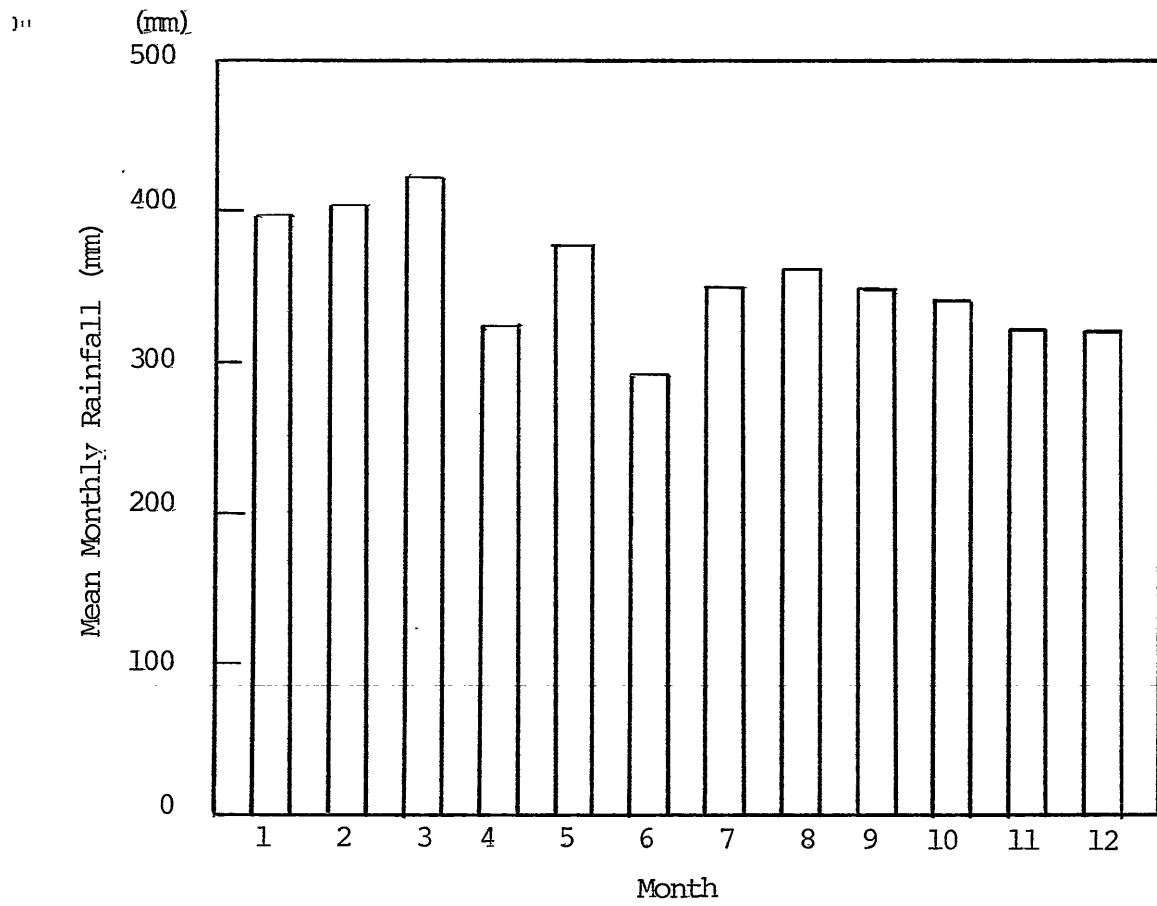
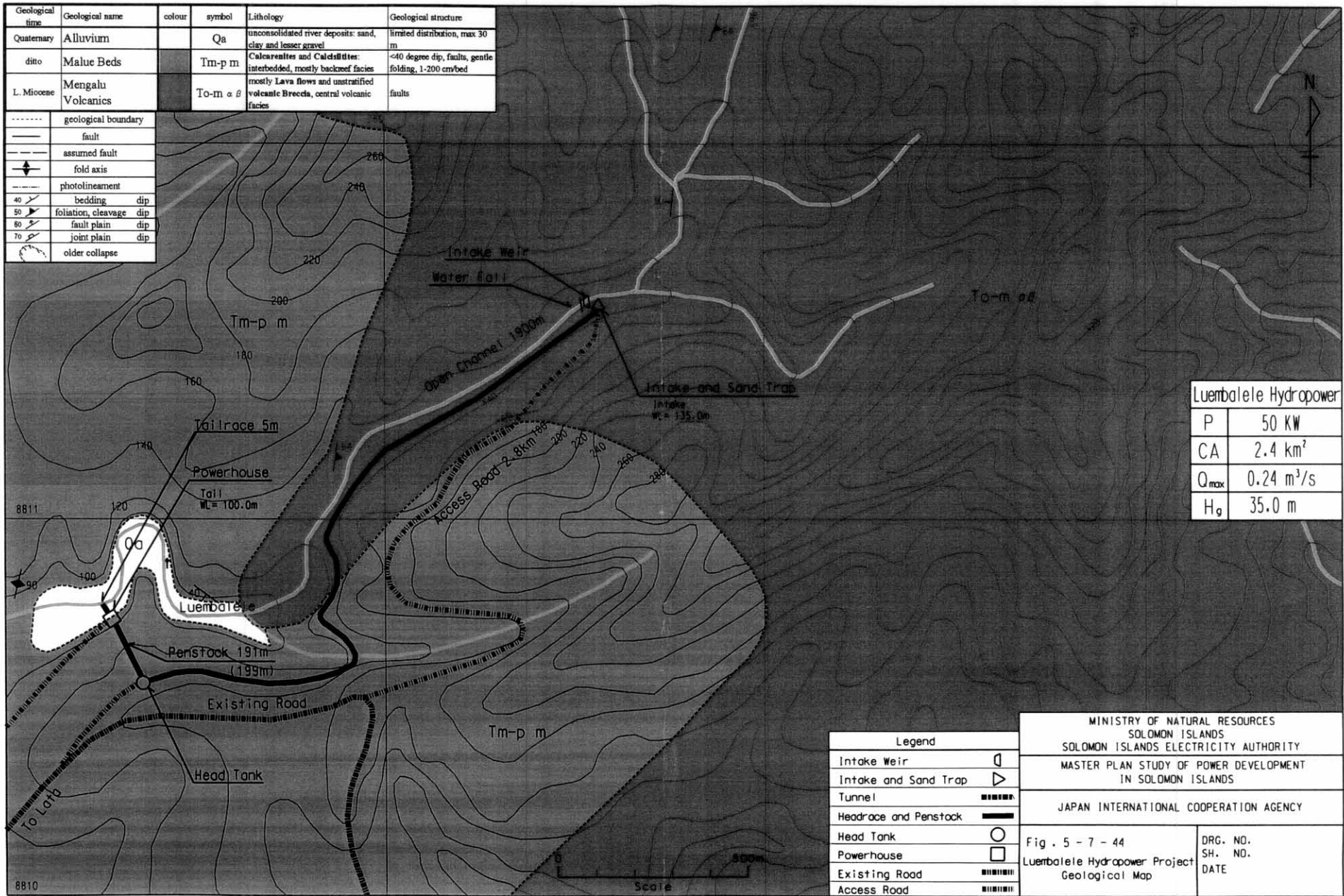


Fig. 5-7- 43 Mean Monthly Rainfall in Lata

Geological time	Geological name	colour	symbol	Lithology	Geological structure
Quaternary	Alluvium		Qa	unconsolidated river deposits: sand, clay and lesser gravel	limited distribution, max 30 m
ditto	Malua Beds		Tm-p m	Calcarenites and Calcarellites: interbedded, mostly backreef facies	<40 degree dip, faults, gentle folding, 1-200 cm bed
L. Miocene	Mengalu Volcanics		To-m α β	mostly Lava flows and unstratified volcanic Breccia, central volcanic facies	faults

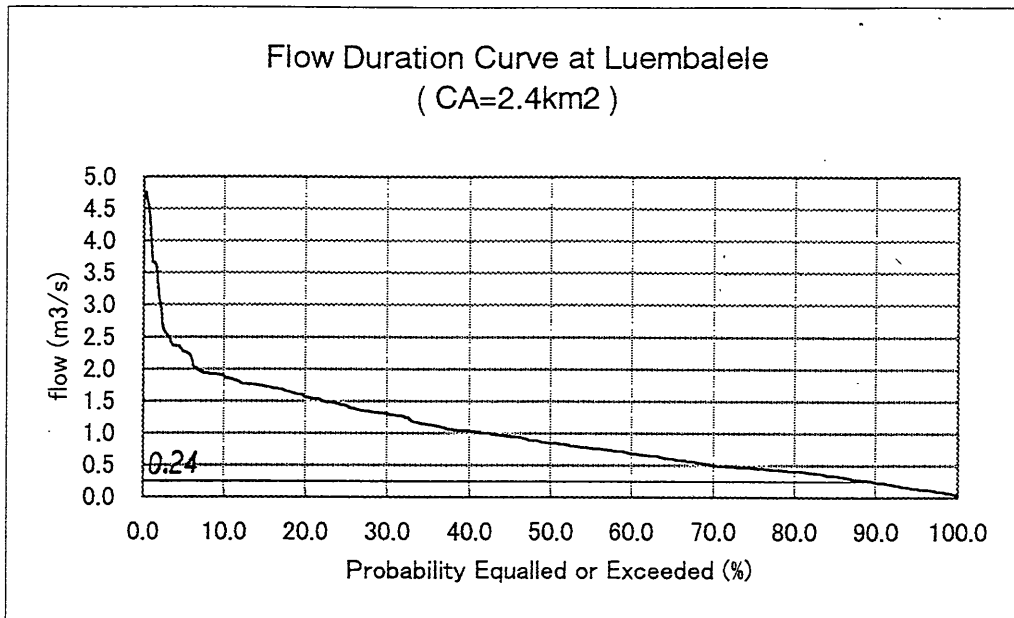
-----	geological boundary
---	fault
- - - -	assumed fault
↕	fold axis
-----	photolineament
40 /	bedding dip
50 /	foliation, cleavage dip
80 /	fault plain dip
70 /	joint plain dip
○	older collapse



Luembalele Hydropower	
P	50 KW
CA	2.4 km ²
Q _{max}	0.24 m ³ /s
H _g	35.0 m

Legend	
Intake Weir	◻
Intake and Sand Trap	◻
Tunnel	▬▬▬▬
Headrace and Penstock	▬▬▬▬
Head Tank	○
Powerhouse	◻
Existing Road	▬▬▬▬
Access Road	▬▬▬▬

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Fig. 5 - 7 - 44 Luembalele Hydropower Project Geological Map	DRG. NO. SH. NO. DATE



Station: Jejevo intake, Santa Isabel, CA=2.1km²
 Data: 1988
 Maximum discharge=0.24m³/s, FUF=0.96
 Sources: Ministry of Natural Resouces

Fig.5-7-45. Flow Duration Curve at Luembalele

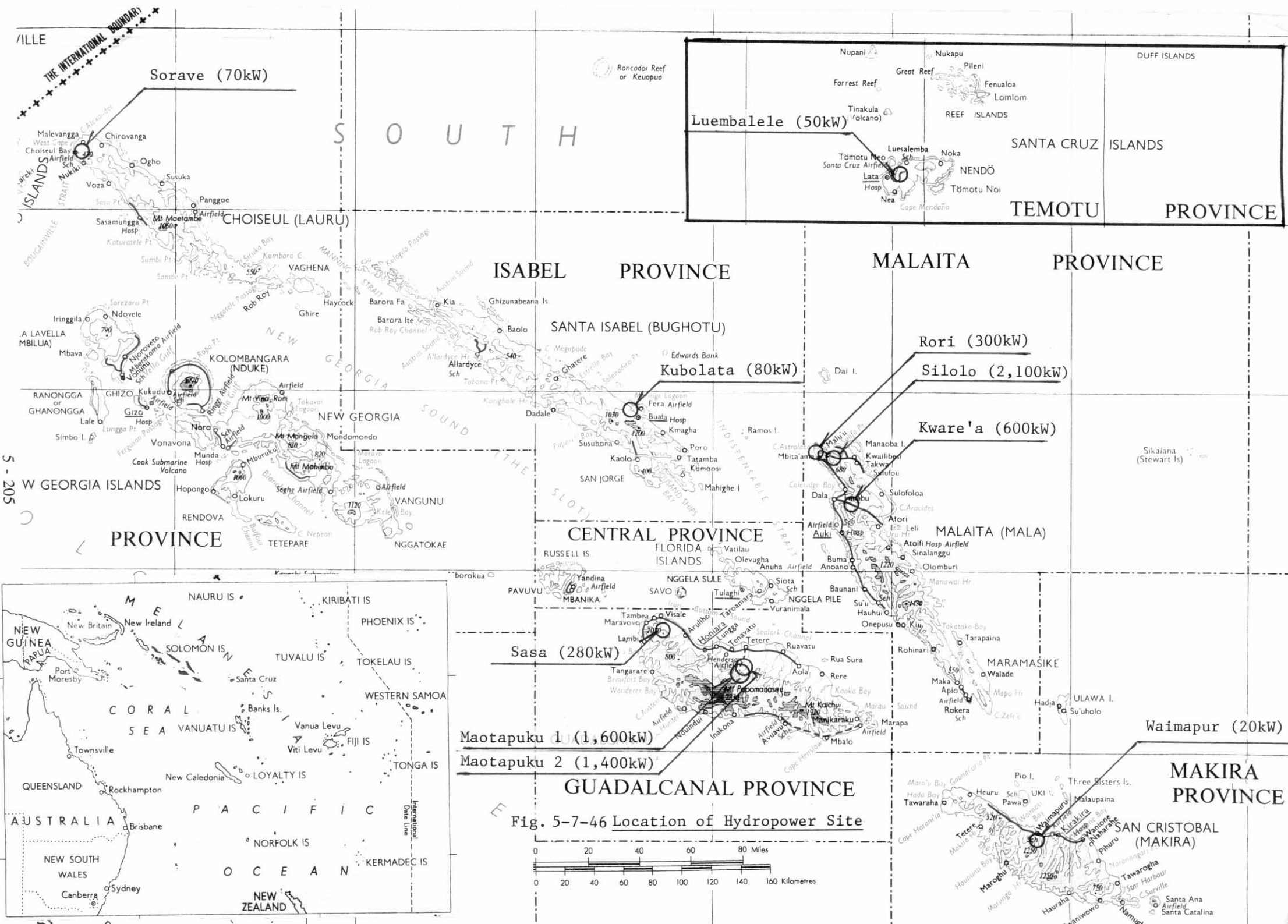


Fig. 5-7-46 Location of Hydropower Site