





**S-4-2-5 Lungga River (Refer to B1. 3.2.(e))**

Survey Location of water flow and Quality of LUNGGA River

Lungga-1

	
<p>NO.1 Middle reach of Lungga river (Existed Dam planning location) <u>Survey Date: June.2005</u> <b>Q=16.587m<sup>3</sup>/s</b> Width B=35.00m Maximum depth H =0.820m</p>	<p>NO.1 Middle reach of Lungga river <u>Survey Date: December.2005</u> <b>Q=23.568m<sup>3</sup>/s</b> Width B=53.00m Maximum depth H =0.920m Maximum velocity V=1.100m/sec</p>
	
<p>NO.2 Downstream of Lungga River <u>Survey Date: June.2005</u> <b>Q=16.686m<sup>3</sup>/s</b> B=37.50m h =0.730m Maximum velocity V=1.230m/sec</p>	<p>NO.2 Downstream of Lungga River <u>Survey Date: December.2005</u> <b>Q=29.589m<sup>3</sup>/s</b> Width B=50.00m Maximum depth H =0.860m Maximum velocity V=1.080m/sec</p>

**S-4-2-6 Noro (Refer to C1. 1.(3).(a))**



Noro water resources

Noro-1

	
<p>No.1 Zaita river Upstream of the intake facility <u>Survey Date: June.2005</u> <b>Q=0.127m<sup>3</sup>/s</b> Width B=3.40m Maximum depth H=0.230m</p>	<p>No.1 Zaita river <u>Survey Date:December.2005</u> <b>Q=0.107m<sup>3</sup>/s</b> Width B=4.00m Maximum depth H =0.400m Maximum velocity V=0.135m/sec</p>
	
<p>No.2 Zaita river Downstream of the intake facility <u>Survey Date: June.2005</u> <b>Q=0.105m<sup>3</sup>/s</b> Width B=3.50m Maximum depth H=0.160m Maximum velocity V=0.270m/sec</p>	<p>No.2 Zaita river <u>Survey Date:December.2005</u> <b>Q=0.088m<sup>3</sup>/s</b> Width B=4.20m Maximum depth H =0.410m Maximum velocity V=0.099m/sec</p>

SIWA Intake Facility of Noro

Noro-2

 A photograph showing a concrete intake structure with a V-shaped opening, situated in a river or stream. The water is dark and reflects the surrounding greenery. The structure is built on a concrete foundation and is surrounded by dense vegetation on the banks.	 A photograph of an outdoor pump station. The station is enclosed by a chain-link fence and contains several large pipes and electrical equipment. The area is surrounded by trees and vegetation, with a dirt path leading to the station.
<p>Intake facility of Noro</p>	<p>Pump station</p>

**S-4-2-7 Auki (Refer to C2. 1.(3).(a))**



Water survey point of Auki

Auki-1

	
<p>NO.1 Lebagnali Water Resources  <u>Survey Date:June.2005</u>  <b>Q=0.0042m<sup>3</sup>/s</b>                  Immediate Down stream of Lebagnali water Resources Point</p>	<p>NO.1 Lebagnali Water Resorces  <u>Survey Date:June.2005</u>  <b>Q=0.0085m<sup>3</sup>/s</b>                  Width B=m                  Maximum depth H =m                  Maximum velocity V=m/sec</p>
	
<p>No.2 Outlet of Tributary leading to Lebagnali water resources Outlet of Tributary  <u>Survey Date:June.2005</u>  <b>Q=0.039m<sup>3</sup>/s</b>                  Width B=2.40m                  Maximum depthH=0.320m                  Maximam velocity=0.120m/sec</p>	<p>No.2 Outlet of Tributary leading to Lebagnali water resources Outlet of Tributary  <u>Survey Date:Nov.2005</u>  <b>Q=0.054m<sup>3</sup>/s</b>                  Width B=3.40m                  Maximum depthH=0.312m                  Maximam velocity=0.172m/sec</p>

	
<p>NO.3 Main stream of immediate upstream of confluence <u>Survey Date:June.2005</u> <b>Q=0.151m<sup>3</sup>/s</b> Width B=2.10m Maximum depth H=0.250m Maximum velocity = 0.640m/sec</p>	<p>NO.3 Main stream of immediate upstream of confluence <u>Survey Date:June.2005</u> <b>Q=0.313m<sup>3</sup>/s</b> Width B=9.0m Maximum depth H=0.641m Maximum velocity = 0.128m/sec</p>
	
<p>No.4 Middle reach of the river <u>Survey Date:June.2005</u> <b>Q=0.101m<sup>3</sup>/s</b> Width B=0.80m Maximum depth H=0.440m Maximum velocity = 0.420m/sec</p>	<p>No.4 Middle reach of the river <u>Survey Date:Nov.2005</u> <b>Q=0.439m<sup>3</sup>/s</b> Width B=4.60m Maximum depth H=0.450m Maximum velocity = 0.501m/sec</p>



	
<p>NO.5                  Down stream of Kawaibala River near to                  River Crossing Structure of water pipe                  Kawaibala SIWA water Resources  <u>Survey Date:June.2005</u>  <b>Q=0.247m<sup>3</sup>/s</b>                  Width B=10.00m                  Maximum depth H=0.008m                  Maximum velocity =0.730 m/sec</p>	<p>NO.5                  Down stream of Kawaibala River near to                  River Crossing Structure of water pipe                  Kawaibala SIWA water Resources  <u>Survey Date:Nov.2005</u>  <b>Q=0.509m<sup>3</sup>/s</b>                  Width B=12.60m                  Maximum depth H=0.500m                  Maximum velocity = 0.179m/sec</p>

**S-4-2-8 Tulagi (Refer to C3. 1.(3).(a))**

Kawaibala Water Resources(Spring water)

	
<p>Kawaibala Water Resources Yield Volume = 12ℓ/sec</p>	<p>Kawaibala Spring water pond</p>
	
<p>Kawaibara spring water Point</p>	<p>Outlet of Kawaibala Spring Water Point No outflow can be seen.</p>


# Survey point of Tulagi





Tulagi-1

	
<p>No.1 SIWA water resources <u>Survey Date: June.2005</u> <b>Q=0.022m<sup>3</sup>/s</b> Width B=0.25m Maximum depth H =0.14m Maximum velocity V=0.25m/sec</p>	<p>No.1 SIWA water resources (upstream of survey point of June) <u>Survey Date: December.2005</u> <b>Q=0.107m<sup>3</sup>/s</b> Width B=3.60m Maximum depth H =0.42m Maximum velocity V=0.25m/sec</p>
	
<p>No.2 middle reach of the river <u>Survey Date: June.2005</u> <b>Q=0.005m<sup>3</sup>/s</b> Width B=0.6m Maximum depth H=0.060m Maximum velocity V=0.26m/sec</p>	<p>No.2 middle reach of the river <u>Survey Date: December.2005</u> <b>Q=0.062m<sup>3</sup>/s</b> Width B=2.60m Maximum depth H =0.185m Maximum velocity V=0.25m/sec</p>

**S-4-3 Photo of Field Water Quality Survey at  
Outfall (Refer to B1.3.4.(7))**

Survey point of Outfall at sea

	
<p><b>Rove Outfall</b> <u>Survey date: 11.2005</u> Water temperature: 30.8°C pH:7.8 Turbidity:21 mg/L DO: 6.4 mg/L COD: 0 mg/L</p>	<p><u>Survey date:12.2005</u> Water temperature: 30.4°C pH:7.9 Turbidity:2 mg/L DO: 5.63 mg/L COD: 2 mg/L</p>
	
<p><b>Point Cruiz Outfall</b> <u>Survey date: 11.2005</u> Water temperature: 30.0°C pH:7.9 Turbidity:27 mg/L DO: 2.54 mg/L COD: 2 mg/L</p>	<p><u>Survey date: 12.2005</u> Water temperature: 30.5°C pH:7.7 Turbidity:5 mg/L DO: 6.09 mg/L COD: 1 mg/L</p>

	
<p><b>St.Nicholas Outfall</b>  <u>Survey date: 11.2005</u>  Water temperature: 31.1°C  pH:8.1  Turbidity: 1mg/L  DO: 8.27 mg/L  COD: 2 mg/L</p>	<p><u>Survey date: 12.2005</u>  Water temperature: 31.7°C  pH:7.9  Turbidity:5mg/L  DO: 7.4 mg/L  COD: 5 mg/L</p>
	
<p><b>Bahai Outfall</b>  <u>Survey date: 11.2005</u>  Water temperature: 30.1°C  pH:8.0  Turbidity:2 mg/L  DO: 5.06 mg/L  COD: 5 mg/L (Survey time was 8:00AM)</p>	<p><u>Survey date: 12.2005</u>  Water temperature: 30.5°C  pH:7.9  Turbidity:4mg/L  DO: 4.97 mg/L  COD: 1 mg/L(Survey time was 1:00PM)</p>



**Kukum Outfall**

Survey date: 11.2005

Water temperature: 30.9°C

pH:8.0

Turbidity:6 mg/L

DO: 3.63 mg/L

COD: 2 mg/L

Survey date: 12.2005

Water temperature: 31.0°C

pH:7.8

Turbidity:6 mg/L

DO: 3.62 mg/L

COD: 1 mg/L



**Kukum/Mbua Valley Outfall-1**

Survey date: 11.2005

Water temperature: 30.6°C

pH:8.1

Turbidity:7 mg/L

DO: 749 mg/L

COD: 2 mg/L

Survey date: 12.2005

Water temperature: 31.4°C

pH:8.0





Turbidity:7 mg/L

DO: 6.56 mg/L

COD: 1 mg/L



Survey point of Outfall

	
<p><b>Kukum/Mbua Valley Outfall-2</b>  <u>Survey date: 11.2005</u>          Water temperature: 31.8°C          pH:8.2          Turbidity:13 mg/L          DO: 7.75 mg/L          COD: 2 mg/L</p>	<p><u>Survey date: 12.2005</u>          Water temperature: 31.8°C          pH:7.9          Turbidity:0 mg/L          DO: 6.19 mg/L          COD: 1 mg/L</p>
	
<p><b>Naha Outfall</b>  <u>Survey date: 11.2005</u>          Water temperature: 30.8°C          pH:8.2          Turbidity:6 mg/L          DO: 6.99 mg/L          COD: 2 mg/L</p>	<p><u>Survey date: 12.2005</u>          Water temperature: 31.4°C          pH:8.0          Turbidity:7 mg/L          DO: 7.02 mg/L          COD: 1 mg/L</p>



**Vura Outfall**

Survey date: 11.2005

Water temperature: 30.4°C

pH:8.1

Turbidity:4 mg/L

DO: 4.73 mg/L

COD: 2 mg/L

Survey date: 12.2005

Water temperature: 30.9°C

pH:7.9

Turbidity:5 mg/L

DO: 4.59 mg/L

COD: 1 mg/L



**Ranadi Outfall**

Survey date: 11.2005

Water temperature: 30.8°C

pH:8.3

Turbidity:5 mg/L

DO: 7.22 mg/L

COD: 1 mg/L

Survey date: 12.2005

Water temperature: 31.4°C

pH:7.9

Turbidity:5 mg/L

DO: 6.09 mg/L

COD: 2 mg/L



**KGvi School Outfall**

Survey date: 11.2005

Water temperature: 30.7°C

pH:7.8

Turbidity:35 mg/L

DO: 0.29 mg/L

COD: 7 mg/L(Survey time was 5:00PM)



Survey date: 12.2005

Water temperature: 31.8°C

pH:7.6

Turbidity:93 mg/L

DO: 4.43 mg/L

COD: 2 mg/L(Survey time was 6:30AM)