

SOLOMON ISLANDS GOVERNMENT

**WATER RESOURCES DIVISION**  
**ANNUAL REPORT 2010**

**Richard Molea**

April 2010

Internal Report 01/10

**WATER RESOURCES DIVISION**

MINISTRY OF MINES, ENERGY & RURAL ELECTRIFICATION  
P.O. BOX G37  
HONIARA  
SOLOMON ISLANDS

Tel: (677) 21521 Fax: (677) 25811

## TABLE OF CONTENT

<b>SUMMARY</b> .....	4
<b>VISION</b> .....	6
<b>MISSION</b> .....	6
<b>POLICY OBJECTIVES</b> .....	6
<b>SECTION ONE: FUNCTIONS OF THE DIVISION</b> .....	7
1.0 Introduction.....	7
2.0 Aims of the division.....	7
3.0 Functions of the division .....	8
<b>SECTION TWO: ORGANISATION AND STAFFING</b> .....	11
1.0 Organisation Composition.....	11
2.0 Provision of Progression.....	11
3.0 Provision of Training.....	12
4.0 Recruitment .....	13
5.0 Manpower .....	13
<b>SECTION THREE: ACTIVITIES AND ACHIEVEMENTS FOR 2009</b> .....	16
1.0 Introduction.....	16
2.0 Activities .....	16
3.0 Directorate Activities.....	18
4.0 Integrated Water Resources Management Project Report. ....	23
5.0 Key priority areas in Water Sector.....	28
6.0 Projects to assist Solomon Islands Water Authority (SIWA).....	30
<b>SECTION FOUR: FINANCIAL INFORMATION</b> .....	31
1.0 Budget Allocation.....	31
2.0 Disbursement.....	32

3.0 Constraints and Limitation.....	33
<b>CONCLUSION.....</b>	<b>33</b>

**LIST OF FIGURES AND TABLES**

**LIST OF FIGURES**

Figure 1.0 Establishment chart for Water Resources Division.....	13
--	----

**LIST OF TABLES**

Table 1.0	Trainings/Workshops.....	12
Table 2.0	Staffing for Water Resources Division.....	14
Table 3.0	Staff annual leave.....	15
Table 4.0	Provinces and their hydrological target areas.....	17
Table 5.0	Directorate activities.....	18
Table 6.0	Summary of major activities and achievements.....	19
Table 7.0	Summary of hydrological monitoring activities.....	22
Table 8.0	Summary of rain gauge installation.....	22
Table 9.0	Summary of request for water resources assessment.....	22
Table 10.0	Re-current expenditure for 2010.....	31

## **SUMMARY**

Solomon Islands are rich and blessed with over abundance of water resources, however, water resources is critical and variable element in sustainable development. This is because water resources is not equally plentiful in all places, nor is water equally available at all times. Some areas, particularly small islands, have very limited water and some areas are drier than others. Drought was experienced from time to time as well. Meanwhile, the demand for water is increasing and becoming more complex. At the same time water must also be available for agricultural, commercial and industrial enterprises, mining and tourism, to promote the growth of the economy.

The Water Resources Division is charged with the responsibility to providing a comprehensive assessment or evaluation of the nation's water resources available for domestic, agricultural and industrial uses, and provision of energy development. The division through national hydrological monitoring programs carries out such assessments. These programs involve monitoring of rivers and streams catchments identified for potential developments.

The program involves river flow and rainfall data collection, processing, storage, retrieval and publication of hydrological data. Publication covers quantity and quality for both surface water and groundwater. These data and related information are used in the planning and operation of water resources and other development projects. In addition these data forms the foundation upon which provincial and national plans can be made for the use of water resources for public supply, power generation, engineering designs, agricultural developments and flood frequency and hazard studies.

Hydrological and rainfall data collection are the most important component of water resources assessment however, insufficient funding allocation from the government, limited equipment available to collect data due to lack of spares and backup services, limited appropriate expertise, vandalism, little co-ordination among water related organisation, lack of workable policies and legislation and, access difficulty to customary lands for resource activities often made it difficult to maintain the activities.

The adoption of Ministry's Corporate Plan 2010 - 2015 and Annual Work Plan 2010 and the intention of the government, through appropriate legal framework that resources such as water is protected from pollution and that the resource is developed for the benefit of the people of Solomon Islands was seen as right step towards effective implementation of work plans for the division. These two documents should provide the basis for proper budgetary and other logistic supports from the government in implementing water resources programs in Solomon Islands.

## **VISION**

Hydrological services are provided for proper management and utilisation of water resources of Solomon Islands to enhance social and economic development and the protection of population and property from natural hydrological hazards.

## **MISSION**

To provide the basis for the appropriate promotion, development, conservation and management of our natural non-living resources for social and economic betterment and enhancement, and through the understanding of natural systems, vulnerability to natural related hazards are reduced for the people of Solomon Islands.

## **POLICY OBJECTIVES**

- Establish and upgrade national capacity in hydrology, hydrogeology, water governance and water resources assessment for improved water related services to rural and urban communities
- Establish a framework for assessment and management of national water resources
- Develop capacity for well founded technical advice to people of Solomon Islands on water resources and related natural hazards
- Establish legal framework in management and administration of water resources in Solomon Islands.

## **CHAPTER ONE**

### **FUNCTIONS OF THE DIVISION**

#### **1.0 INTRODUCTION**

The Water Resources Management Division of the Ministry of Mines, Energy and Rural Electrification plays an important role in many aspects of the development of Solomon Islands. The division has duties and obligations in the field of management, assessment, exploitation and conservation of water resources, in the identification and mitigation against natural hazards such as floods, and in the establishment of a legal framework for the sound management and administration of water resources in the country.

#### **2.0 AIMS OF THE DIVISION**

In order to fulfil its duties and obligations, the division aims to:-

- a) establish and upgrade national capacity in hydrology water resources assessment to improve and provide water related services that are adequate and efficient services to rural and urban communities;
- b) establish a framework for assessment and management of national water resources in the country;
- c) develop capacity for well-founded technical advice to government and the people of Solomon Islands on water resources issues and related natural hazards; and
- d) establish a legal framework in the management and administration of water resources in Solomon Islands.

The training policy of the division must aim at establishing and upgrading national capacity to improve technical skills and efficiency levels. These have been pursued and in-corporate into the divisional objectives under the division's staff development plan. In order to provide adequate and efficient services, the division undertakes to establish an organisational structure that will reflect the roles and functions of the division according to government policies and priorities.

### **3.0 FUNCTIONS OF THE DIVISION**

The general requirement for water resources assessment in the country is to undertake a comprehensive evaluation of its potential water resources. This will ensure proper hydrological services is provided in the country to enhance social and economic developments and through appropriate legislation and policies benefits from utilisation of the resource can be maximised.

Under the CNURA government policy translation and implementation framework, key expected outcomes in the water resources sector include (i) protection of water resources from all forms of pollution; (ii) ensure Solomon Islanders have access to clean and safe water supplies and (iii) review of SOEs (SIWA) to improve service delivery.

The specific functions of the division to achieve its objectives are:-

- a) to administer water related acts of parliament such as the River Water Act;
- b) to locate and assess groundwater resources available for exploitation and to provide adequate surface water resources information, both for purposes of domestic, industrial water supplies and irrigation;
- c) to evaluate stream flows suitable for potential hydroelectric power generation development;
- d) to assess flood flows and their frequency occurrences for various bridging, roading, river control projects; prevention and mitigation against water related natural hazards;
- e) to draft appropriate legislation and policy for proper management and administration of water resources in the country;
- f) to carry out hydrological investigation country wide;
- g) to implement Integrated Water Resources Management in Solomon Islands;
- h) to identify potential energy sources for development to meet the increasing industry energy needs;
- i) to undertake community awareness and disseminate information and data to organisations, government ministries, companies and individuals for water development purposes.



The division comprises of the following sections:-

1. Directorate;
2. Hydrology;
3. Hydrogeology;
4. Policy and Management.

### **3.1 DIRECTORATE**

The function of the Directorate is of an organisational, administrative and managerial nature dealing directly with the objectives of the division, in the establishment of policy, the review of legislative documents and in co-ordination of divisional duties with efforts of other divisions, departments, ministries, regional and international organisations. It also deals with planning, establishment and recruitment. In addition, the Directorate also prepares divisional budget and support other line ministries with other water related projects. The directorate office deals with the overall administration and management of the water resources management division. Furthermore, the office is responsible to the permanent secretary.

### **3.2 HYDROLOGY**

The function of the Hydrology Section is to deal with the assessment of surface water for human consumption, energy generation, agricultural and industrial development and the mitigation of water related natural hazards in the country. The section also carry out water supply investigation and assessments, spot checks and advice on catchment hydrology, installation of hydrological loggers for water level, flow measurements and archiving of data. Provide information on river assessment for hydropower.

The section aim to provide information on suitability and availability of water sources for water supply services, carry out water related studies for infrastructure for development. Provide and carry out data collection for damages and development purposes on rivers and streams.

### **3.3 HYDROGEOLOGY**

The function of the Hydrogeology Section is to deal with the investigation, monitoring and assessment of potential groundwater for human consumption, agricultural and industrial development. The section also gives advice on ground groundwater development and management to other institutions and the public. The section also undertakes groundwater extraction and geophysical survey of groundwater. The section also works cooperatively and closely with the hydrological section on other hydrological activities around the country.

Generally, the hydrogeological section provides for the proper management of groundwater resources and utilization of groundwater resources in Solomon Islands and provides data to interested organization, students and individuals in the country.

### **3.4 POLICY & MANAGEMENT**

The function of the Policy and Management Section is to deal with drafting of water resources policy and legislation. It also co-ordinate nation-wide water resource assessment and development projects with the co-operation of international and regional organizations in water resources activities. The section also facilitates consultation and community awareness to promote water rights, water policy and legislation with provincial governments and rural communities.

The aim of the policy and management section is to provide and establish a legal framework in the management and administration of water resources, to implement Integrated Water Resource and Wastewater Management in Solomon Islands, to establish a framework for assessment and management of national water resources and to administer Water Resources Acts of Parliaments.

## **CHAPTER TWO**

### **ORGANISATION AND STAFFING**

#### **1.0 ORGANISATION COMPOSITION**

In order to provide effective hydrological services in the country, the division must be developed with sufficient manpower and relevant technical skills and knowledge in the field of water resources. This is to ensure sound technical advice is provided in the assessment, management and utilisation of water resources in the country. In order to provide for the effective assessment, administration and management of water resources in the country the following are priority issues for the division to address:-

1. To upgrade the division in terms of manpower technical capacity and skills to provide adequate and efficient hydrological and hydro-geological services in the country; and
2. To strengthen national capacity to establish appropriate legislation and policy for the proper management and efficient administration of the country's water resources.

The division is continually reviewing the organisation to ensure it is service oriented. The activities of the division are controlled by the Director who is accountable to the Permanent Secretary for the Ministry of Mines, Energy and Rural Electrification. Manpower requirement is essential to actively and efficiently pursue and deliver the services and the functions of the division.

#### **2.0 PROVISION OF PROGRESSION**

Promotion within the division will be based on merit, qualifications, satisfactory service and the successful completion of probation or trial periods in the present post. However, over the past years there was no promotion but submissions were made for the 2011.

### 3.0 PROVISION OF TRAINING

There is on-the-job training but no formal in-service training courses and programs provided for some of the senior staff of the division. Such training includes short-term, workshops and long-term.

The objectives of these training are to improve the performance of personnel in their present grades, to prepare them for advancement to higher grades and to enable them to enjoy a career in the service. Training in the tertiary level has been based on the key areas of the water resources and its related sciences.

Trainings have been undertaken by serving officers in accordance with the training program of the division. In addition to hydrological related courses, all supervisory officers have been earmarked to attend Public Service courses offered at IPAM to acquaint themselves with the proper procedures in the service and administrative and managerial skills.

**Table 1.0 – Trainings/Workshops attended by Water Resources Division Staff**

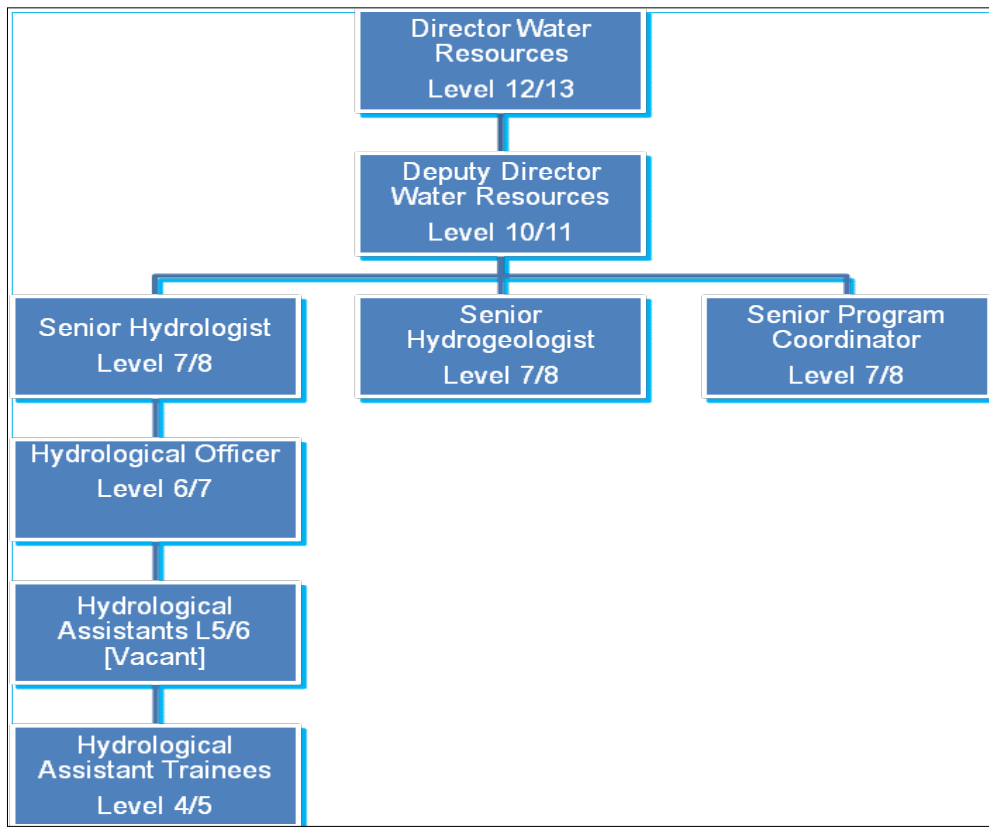
<b>Staff</b>	<b>Training/Qualification</b>	<b>Institution</b>	<b>Dates</b>
Director of Water Resources	Project meetings and workshops	Honiara	2010
Deputy Director of Water Resources	GEF Pacific IWRM Project 2 <sup>nd</sup> Regional Steering Committee Meeting. IWRM Management Project Meeting.	Koror, Palau	18-25 <sup>th</sup> July
		Saint Lucia	20 – 30 <sup>th</sup> October
Senior Hydrologist	In country meetings and workshops	Honiara	2010
Senior Hydrogeologist	Training on measurement and computation of discharge for RA V	Bandung, Indonesia	18 – 22 <sup>nd</sup> October
Senior Program Coordinator	Post Graduate IWRM Capacity Building Workshop/Training	Koror, Palau	25-31 <sup>st</sup> July
Hydrological Officer	Induction – Knowing your Public Service	IPAM-Honiara	14-25 <sup>th</sup> June
Hydrological Assistant Trainee	Induction – Knowing your Public Service	IPAM- Honiara	14-25 <sup>th</sup> June

#### 4.0 RECRUITMENT

A staff replacement due to retirement was completed during this period. Following advice from Administration support services a direct recruitment process was made from applicants or previous vacancies to Water Resources Division. Deputy Director short-listed individuals and the successful one was notified to proceed with medical and police clearances. The vacant position is that of a Hydrological Assistant, L5/6. Submission made to the Public Service Division and waiting placement to be made.

#### 5.0 MANPOWER

Establishment organisational structure for the division is presented in the chart. The approved 2010 establishment chart is provided in Figure 1.0.



**Figure 1.0 - Establishment chart for Water Resources Division for 2010**

The summary of staffing for the Water Resources Management division in 2010 is provided in Table 2.0 below. There were no new recruitments in 2010 even though the post of Hydrological Assistant was vacant in the division. There were total of eight (8) positions with seven (7) filled and one (1) vacant in the division in 2010. The vacant position is very important for the division to assist and administer hydrological activities.

Necessary recruitment data for the post was prepared and recruitment was expected in 2010 but not eventuated therefore the division will ensure recruitment for the position is done as soon as possible, preferably second or third quarter of 2011. The division need some more qualified staff in order to effectively implement the mandated programs of the division now and in the near future. The Staffing for water resources division for 2010 is in table 2.0 below. The annual leave movement is provided in Table 3.0.

**Table 2.0 – Staffing for Water Resources Division for 2010**

<b>No of Post</b>	<b>Divisional Section</b>	<b>Establishment Post</b>	<b>Manpower Name</b>	<b>Grade Level</b>
1	<b>Directorate</b>	Director	C. Bepapa	12/13
1		Deputy Director	I. Lekelalau	10/11
1	<b>Hydrology</b>	Senior Hydrologist	M. Maehaka	7/8
1		Hydrological Officer	A. Gilbert	6/7
1		Hydrological Assistant	Vacant	5/6
1		Hydrological Assistant Trainees	S. Bata Junior	4/5
1	<b>Hydrogeology</b>	Senior Hydrogeologist	J. Kaobata	7/8
1	<b>Policy &amp; Management</b>	Senior Program Coordinator	R. Molea	7/8

Table 2.0 shows a missing link through the line of command. There are no Chief and Principal Officers posts. This means the division need to create the said jobs and recruit officers to fill the created job to improve the capacity building in the division. Furthermore, this will show effectiveness, efficiency and cohesion in the implementation of the activities undertaken within the division.

**Table 1.0: Staffing annual leave for 2010**

<b>Posts</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>
Director												
Deputy Director												
Senior Hydrologist												
Senior Hydro-geologist												
Senior Program Coordinator												
Hydrological Officer												
Hydrological Assistant												
Hydrological Assistant Trainee												

## **CHAPTER THREE**

### **ACTIVITIES AND ACHIEVEMENTS FOR 2010**

#### **1.0 INTRODUCTION**

There were improvements in the ministerial and divisional activities in 2010 compared to previous years partly due to improvement in manpower, adequate equipments and economic situation in the country.

The increased of budgetary allocations for the ministry allowed some implementation of divisional programs and projects to certain extents. The division's annual budget was adequate to implement the planned work programs for 2010 however there were constrains in securing necessary funds to implement planned activities according to the work plan. However, because of the improvement divisional targets were achieved compared to other previous years.

#### **2.0 ACTIVITIES**

The Water Resources Division has responsibilities in the assessment, administration, management and planning of water resources in Solomon Islands. Such responsibilities are addressed through existing legislations, government and departmental policies and departmental work plans such as:

- Administering the River Water Act (1969);
- Ensure our water sources are protected from all forms of pollution;
- Carry out a comprehensive assessment of surface water resources in the Solomon Islands;
- Carry out a comprehensive assessment of groundwater resources in the country;
- Carryout hydrological investigation country wide;
- Assist in the review of SIWA to improve service delivery;
- Finalize Water Resources Legislation for parliament enactment;
- Advocate other government institutions in water resources awareness;



- Groundwater Assessment and Pursue Kongulai Water Catchment a protected area;
- Implementing Integrated Water Resources and Wastewater Management in Solomon Islands;
- Work with regional bodies in relation to water and water-related projects.
- Identifying potential energy sources for development to meet the increasing industry energy needs; and

In line with the Governments National Plans as set out in the Government of Coalition for National Unity and Rural Advancement (CNURA) Policy Statement and Policy Translation and Implementation Framework, Departmental Corporate Plan 2010 – 2015 and Water Resource Division Work Plan for 2010 certain activities were undertaken within the provisions of budget allocation for 2010. These activities are summarised in Tables 4.0 and 5.0 below.

In achieving the aims and function of the division, development of certain areas of hydrological interest in relation to hydropower, water supply and other water related infrastructure development are targeted. The table 4.0 below shows the provinces and their interest areas.

**Table 4.0 Provinces and their hydrological targeted areas**

<b>Province</b>	<b>Hydrological Target Area</b>
Honiara	Hydropower, water supply and infrastructure development
Choiseul	Hydropower and water supply services
Western	Water supply assessment
Malaita	Mainly hydropower, water supply and Infrastructure development.
Isabel	Hydropower, water supply, infrastructure development and mining
Makira	Hydropower and water supply
Temotu	Hydropower and water supply
Guadalcanal	Hydropower development, Water supply, infrastructure and Mining

### 3.0 DIRECTORATE

**Table 5.0 – Directorate Section Activities and Achievements for 2010**

<b>Activities</b>	<b>Action/Targets</b>	<b>Remarks</b>
<b>General Administration and Management</b>	Organise, administer and coordinate of divisional activities and objectives, involved with NDMO for Disaster Plan, support other line ministries with other water related projects.  Budget preparation and manpower establishment submission for 2011, management of 2010 budget of the division.	Deal with the day to day administration of the division.  On-going. General administration and management of the division.
<b>Solomon Islands Water Governance Program</b>	Assist Policy Section in undertaking awareness through Provincial Consultation for Temotu Province, facilitates the EU IWRM Planning Program for 2011 activities through stakeholder meeting with SOPAC Officials,  Support to NCRA Government on water resources policy implementation for NCRA Policy Translation and Implementation Framework.	This program is jointly implemented with SIWA and Environment Health Rural Water Supply & Sanitation to review the proposed water legislation.
<b>GEF Integrated Water Resources Management (IWRM) Project</b>	Finalise Employment Contract for Project Officers, Appointment of national Project Coordinator, Project implementation in Solomon Islands	This is a 5 years program and appointment of the project office paves way for the implementation.
<b>National Adaptation Program of Action (NAPA)</b>	Assist in the preparation of Pacific Islands Forms (PIF) for National Adaption Program of Action for Solomon Islands  Consultation with World Bank and ADB for climate changes related projects for Solomon Islands	This project is facilitate by the Ministry of Environment, Conservation and Meteorology climate change division with all related stakeholders
<b>Honiara Water Supply Project</b>	Support SIWA and Lands for land acquisition, engagement of Consultant for design of access roads improvement works, tender and award of contract for access roads improvement works, finalise project with JICA Team and SIWA for project adjustment to carter for land acquisition delays by some land owners	The project will upgrade and replace existing water supply infrastructures. JICA project with SIWA (expected start date 2009) will address groundwater resources within Honiara City boundary for Honiara City water supply with projections for year 2010-2015.
<b>Strengthening Community Based Disaster Risk Management Project in SI</b>	Finalise project through stakeholder seminars and workshops, signing of Minutes of Discussion for the implementation of the project	This is a JICA and NDMO project for community disaster management.
<b>LDCF – Water Sector Adaptation</b>	Liaise with Regional Climate Change Advisor from UNDP Samoa for development of project proposal for the water sector for SI to qualify us to secure funding from GEF, initial meeting with UNDP Honiara Office for the formation of Project Team in Solomon Islands for formulate project proposal for SI with assistant from Expertise from SPREP	This project will focus on water sector and climate changes.

**Table 6.0 - Summary of major Activities and Achievements for 2010**

January - March	April - June	July - September	October - December
<b>Hydrology Section</b>			
<p>The National Hydrological Monitoring Network in the country. To date only four river flow monitoring stations are in operation: Sorave (Choiseul), Kubolota (Isabel), Rori (Malaita) and Rove (Honiara).</p> <p>Kubulota hydrological station was visited on February to download data, gauging to collect flow measurement and general maintenance.</p> <p>Rori station was not visited during the first quarter of the year due to delay of special Imprest.</p> <p>Mt. Austin rainfall site was visited on the 28 January to download data and inspect the rainfall recorder.</p> <p>Tetere rainfall site was inspected and data downloaded. This is a new rainfall installation site</p>	<p>The Pacific HYCOS Project installed rainfall recorder at Tetere Police station was inspected and data downloaded. The recorder is functioning well</p> <p>Rate community high school rainfall recorder was visited on the 28 June. Data downloaded.</p> <p>Rori hydrological station trip and Rualae visit. Data downloaded from the water level and stored in the archive. Water assessment carried out at Rualae.</p> <p>Sorave hydrological station was visited and data were downloaded from the logger. General cleaning up and maintenance</p>	<p>Inspection and downloading of data from the newly installed rainfall sites at Tetere, Rate School and Mt. Austine.</p> <p>Forth nightly downloading at Mt. Austin rainfall logger and Rove water level continues</p> <p>Weekly gauging and downloading of data from Rove botanical garden water level site.</p> <p>Tanavasa water resources assessment and survey</p> <p>Due to lack of funding the quarterly hydrological visits to the four main rivers flow monitoring stations are halted. However, monitoring and downloading of data within Honiara continue as normal.</p>	<p>Up-dating of records especially data archiving from all hydrological field station visits</p> <p>Inspection and downloading of data from the newly installed rainfall sites at Tetere, Rate School and Mt. Austin.</p> <p>Rove water level data downloading and Tetere rainfall data recording</p> <p>All data downloaded and collected during the years fieldtrips have been updated and stored in the division's archive database.</p>

January - March	April - June	July - September	October - December
<b>Hydrogeology Section</b>			
<p>Draw up sections Workplan for 2010.</p> <p>Assist NDMO with groundwater assessment at Aruligo under the UNDP funded project.</p> <p>Assist the hydrology section with data downloading from the different sites in Honiara</p> <p>Kubulota hydrological station was visited to download data, gauging to collect flow measurement and general maintenance.</p> <p>Senior hydro-geologist and the Hydrological Officer tour Belaga Village in Small Gela to do groundwater and surface water assessment for water development Report compiled and submitted.</p>	<p>Sorave hydrological station was visited and data were downloaded from the logger. General cleaning up and maintenance</p> <p>Kovi site selection for water level logger installation.</p> <p>Senior Hydro-geologist assist the IWRM Project Office for installation of Kovi water level station with SIWA &amp; Water Resources Division;</p> <p>The section also carry out the hydrological monitoring for Kongulai (SIWA) intake for this period</p>	<p>Due to lack of funding the quarterly hydrological visits to the four main rivers flow monitoring stations are halted.</p> <p>However, monitoring and downloading of data within Honiara continue as normal.</p> <p>Installation rainfall recorder with Water Resources &amp; Landowners</p> <p>Assist the hydrological section to undertake monthly visits to Tetere, Rate, Mt. Austen and Rove rainfall &amp; water level sites</p>	<p>Assist the hydrological section in monitoring and downloading of date from rain gauge and gauging at various Honiara hydrological stations such a Rove.</p> <p>Senior Hydro-geologist accompany the Ministry of Marine Resources on their tour to Ontong Java to undertake the assessment of ground water quality</p> <p>Weekly field trips to Kongulai/Kovi water source to carry out stream-flow measurements by Senior hydro-geologist and Assistant Hydrological Trainee officer and a landowner</p> <p>Hydrological monitoring reporting of the Kongulai/Kovi water source for the Water Authority (SIWA); completed December</p>

January – March	April – June	July - September	October – December
<b>Policy and Management Section</b>			
<p>Work on section's 2010 work plan and prepare research information for students</p> <p>Assist Mines, RWSS and Environment officers to assess tailings dam monitoring process prior to dewatering of the dam into nearby rivers</p> <p>Assist with installation of a new logger at Betikama hydrological station</p> <p>Draft and compiled water governance consultation brochure to be used during provincial consultations</p> <p>Assist Project Coordinator preparing documents and attend first GEF IWRM inception workshop at SIBC</p> <p>NIWCC cabinet paper pending cabinet approval for the committee to carry out its responsibilities</p>	<p>Compiled and complete first GEF IWRM inception meeting minutes</p> <p>Conduct first GEF IWRM radio program on what is IWRM concepts and approaches</p> <p>Lata water governance consultation tour. Meet with MPA and discussed the proposed water legislation and bill. Fieldtrip to proposed hydro site</p> <p>Compiled water resources division 2009 annual report and submit it to the Undersecretary.</p> <p>Attend IWRM meeting on 14 may and compile minute</p> <p>Prepare documents, arrange &amp; organised women consultation workshop on water and women.</p> <p>Draft quarterly IWRM newsletter</p> <p>Prepare documents and arrange for IWRM landowner consultation workshop</p> <p>Received application for post graduate study in IWRM</p>	<p>Attend consultation meeting with Kongulai/kovi landowners for access permission to install rain gauge and water level at Kovi sinkhole at the upper Kongulai catchment.</p> <p>Attend IWRM post graduate training workshop in Palau. This is a capacity building training for water resources management.</p> <p>Post graduate courses undertaken and assignments rolling. Courses undertaken includes: Project Management and Science of Water.</p> <p>Draft the Integrated Water Resources Management Communication Strategy paper for the pilot project as a tool and strategy for education awareness</p> <p>Work on other office related tasks and attend to others duties as directed by the Director &amp; Deputy</p>	<p>Prepare document and attend NDPCC meeting. Meeting focus on reporting of IWRM project activities</p> <p>Water summit at SIBC and EU IWRM meeting at RWSS. SOPAC advisers: Marc Wilson and Dave attend the meeting</p> <p>Draft &amp; submit GEF/EU IWRM report &amp; minutes of meeting</p> <p>Final assignments due</p> <p>Draft WUE strategy paper</p> <p>On leave as of 10 December</p>

**Table 7.0 – Summary of hydrological monitoring activities planned for 2010**

Station	Province	Planned Task	Remarks
Betikama	Honiara	Forth nightly monitoring	Equipments stolen
Sorave	Choiseul	Quarterly monitoring & inspection	Station working ok
Rori	Malaita	Quarterly monitoring & inspection	Station working
Kubolota	Isabel	Quarterly monitoring & inspection	Station working
Kovi	Guadalcanal	Quarterly monitoring & inspection	Equipments working

**Table 8.0 – Summary of rain gauge activities planned for 2010**

Station	Province	Task	Remarks
Tetere Police Station	Guadalcanal	Data downloading	Working properly
Rate School	Guadalcanal	Data downloading	Working properly
Henderson Field	Guadalcanal	Data downloading	Working properly
Mount Austin	Guadalcanal	Data downloading	Working properly
Rove	Honiara	Data downloading	Working properly

**Table 9.0 – Summary of requests for water assessment activities in 2010**

Community	Province	Request/Task	Remarks
Tamalupo Kakabona	Guadalcanal	Water supply assessment	Community request, task complete
Hailalue	Guadalcanal	Preliminary assessment of groundwater supply	Task complete
Aruligo	Guadalcanal	Groundwater survey for borehole	Task complete
Munda	Western	Min. of Aviation request, survey for water supply	Task complete
Luelta Resort	Temotu	Assessment of groundwater source	Resort owner request, task complete
Ontong Java	Malaita	Min. of Marine Resources request for assessment of ground water quality	Inter-sectoral undertaking, task complete
Manaoba Island	Malaita	Preliminary assessment of ground and surface water for development	Task complete
Belaga, Small Gela	Central	Groundwater assessment	Task complete

## **4.0 INTEGRATED WATER RESOURCES MANAGEMENT PROJECT**

### **Managing Honiara City Water Supply and Reducing Pollution through IWRM Approaches**

#### **4.1 BACKGROUND**

The Integrated Water Resources Management (IWRM) Project was approved for funding by the Global Environment Facility (GEF) on March 2009. At its PDF phase 14 Pacific Island countries combined efforts for a submission to GEF for a regional funding application; this commenced in 2005/6 and took about 3 years for the process to complete.

During the period from March to September 2009 thirteen countries including Solomon Islands were to complete tasks during this inception period which would be presented in the Projects 1st Regional Steering Committee and Inception Workshop in September in Nadi, Fiji. Report provided.

A second Regional Steering Committee Meeting was held in Koror, Republic of Palau from 19th to 23rd July 2010. The meeting was attended by Project Coordinators and IWRM Focal Points from 13 member countries.

#### **4.2 PROJECT ACTIVITIES FOR 2010**

##### **4.2.1 QUARTER 1**

The highlight for this quarter is the convening of the first IWRM Project Inception Meeting and Workshop at the SIBC Conference Room in which 17 participants took part. The Project Steering Committee to be called the Honiara Demonstration Project Coordination Committee (HDPCC) is established. The Terms of Reference for the Steering Committee was approved and adopted at this meeting.

This was followed by the introduction of the project through awareness programs at SIBC over 13 weeks for 15 minutes every Saturdays at 8pm. A women's workshop on water use efficiency and demand management for one day at the Women's Development Division (WDD), Lawson Tama indicated that wise use of limited water and controlling leakages proved to be major issues at

household level; an attitude change is the only way but through much-needed awareness.

**Below are activities completed for this quarter:-**

- IWRM Project Introductory workshop for SIWA senior management on 12<sup>th</sup> January; briefing completed with staff regarding project activities
- 1<sup>st</sup> Pilot Project Inception and Steering committee meeting on 24<sup>th</sup> & 25<sup>th</sup> March; covered IWRM Project members' TOR, workplan and budget where it was endorsed for this quarter; 17 participants attended
- IWRM Project awareness calendars (100 copies) produced and printed on 24 March; distributions to committee members, Naha and Mbua Vale community high schools
- IWRM Project awareness leaflets produced on 24/3/10; composed of introduction (ridge to reef concept, objectives and goals of pilot project including project location (Honiara)
- Procurement of office equipment included: desktop (1) & laptop (1) computers, laserjet printer (1), photocopier (1), binder (1), water quality equipment (1)
- Awareness programs at SIBC on introduction to IWRM Pilot Project; 13 weeks for 15 minutes each Saturday @8pm
- Formulating the Stakeholder Engagement Framework report for RPC highlighting those who will participate in the project implementation
- Reporting for Q1 2010 sent to SOPAC prior to UNDP submission

This quarter's workplan used unspent funds from quarter 4 of 2009. Funds requested for this quarter was not received because of the unspent amount. Lessons learnt from these activities are noted for improvements in the next quarter. However, the activities that were completed justified the request for funds for the next quarter. The workplan for this quarter was based entirely on the project logframe where each activity was pulled out from the project document and costs follow suit from the logframe.



#### **4.2.2 QUARTER 2**

Based on this quarter's workplan the activities completed accounted for 70% out of the overall tasks that was anticipated. The outstanding tasks are rolled into the next quarter because of delays in on-the-ground consent with resources owners within the project's intervention areas. Lessons learnt from these activities are noted for improvements in the next quarter.

#### **The following activities were completed during this period:-**

- Awareness at SIBC for 13 programs (catchment, WUE & WDM)
- Physiographic assessment for Honiara water catchments (Draft Report presented)
- Installation of Kovi water level station with SIWA & Water Resources Division; hydrological monitoring for Kongulai (SIWA) intake
- Preparatory Workshop for Steering Committee
- Honiara Women's (Leaders) workshop on water use efficiency and demand management for one day at the Women's Development Division (WDD); Lawson Tama indicated that wise use of limited water and controlling leakages proved to be major issues at household level; an attitude change is the only way but through much-needed awareness.
- Kongulai & Kovi Landowners Workshop on Catchment values & resources importance; landowners identified the importance of catchment protection & conservation
- Advertisement for Project vehicle procurement (EOIs)
- Preliminary identification of sites of cultural importance by Kovi/Kongulai landowners; landowners pegged locations of taboo sites, old homes, etc
- Advertisement for mapping of vegetation, land-use changes for Honiara water catchments and sites of cultural importance at Kovi & Kongulai catchments (EOIs)
- Revisit project logframe, time-frame and budget for third time
- Preparation for 2<sup>nd</sup> IWRM Regional Steering Committee Meeting in Koror, Palau,
- Reporting for Q2 2010 sent to SOPAC prior to UNDP submission.

### **4.2.3 QUARTER 3**

Since the reporting period for this quarter was moved a month earlier, the PMU was asked to provide its reports (financial and narrative) up to August 31<sup>st</sup> 2010.

The Regional Project Coordinating (RPC) Office requires earlier acquittal to enable Cash Advance Request (CARs) to UNDP to include Quarter 4 in the September reporting period. As such the activities during this quarter's workplan are anticipated for completion at the end of September 2010.

#### **The activities for this reporting period included the following:-**

- Radio awareness continue (WUE & WDM, Catchment conservation)
- Continue preliminary identification of sites of cultural importance by Kovi/Kongulai landowners
- Mapping of vegetation, land-use changes and cultural sites survey contracted (Draft Report presented); local consultancy (Solrealors)
- Installation rainfall recorder with Water Resources & Landowners
- Project Coordinator attended 2<sup>nd</sup> RSC Meeting in Koror, Palau
- Approval from RPU, SOPAC for vehicle purchase
- Reporting for Q3 2010 in August presented to SOPAC prior to UNDP submission
- Report on status of Kovi stream-flow and water level recorders drafted for SIWA
- Draft Communication Strategy for Pilot Project produced
- Richard Molea (Senior Programme Coordinator) commenced a Graduate Certificate Course in IWRM online; International Water Centre (Brisbane) hosted course in collaboration with other Australian Universities

#### **4.2.4 QUARTER 4**

This quarter is comprised of a continued awareness through radio broadcasts by the IWRM Project Office, Environment & Conservation Division and SIWA. Field work that involved resources owners from Kovi who continued to identify locations of cultural interest at the Kovi source while hydrological staff from the Water Resources Division installed a rain-gauge to monitor rainfall at the Kovi source.

Highlights of this quarter included the identification of some interesting sites/areas by landowners of Kovi regarding cultural sites that may warrant the areas to be an eco-tourist destination if promoted. Additionally, all catchments from which Honiara gets its ground and surface water for its water supplies' have been mapped using GIS-MAPINFO and presented in the report.

#### **The activities for this period included:-**

- 3<sup>rd</sup> Project Steering Committee meeting on 18<sup>th</sup> October; stakeholders were briefed on the previous Workplan and activities (Q3) and noted current activities
- EU-IWRM Planning Consultation Meeting on 29 October; a twin project on the GEF-IWRM Pilot project; a work plan and TOR for the IWRM Plan was drafted afterwards and presented
- GEF-IWRM Water Resources and Supply Meeting on 2<sup>nd</sup> November; a meeting calling on stakeholders and observers on the current water supply situation in Honiara City; a statement on the water issues was formulated at the meeting's conclusion
- Weekly field trips to Kongulai/Kovi water source to carry out stream-flow measurements by 2 hydrology staff and a landowner
- Hydrological monitoring reporting of the Kongulai/Kovi water source for the Water Authority (SIWA); completed December
- Production of Water Use Efficiency (WUE) pamphlets; printed and submitted to SIWA for awareness at the enquiries counter; completed November

- Payments made to Capital Drilling Engineering for drilling of three (3) groundwater monitoring boreholes at Mataniko (Tuvaruhu), Kombito and Panatina well-fields; monitoring bores are required to acquire water levels and water quality on a regular basis and leading to a groundwater study to determine groundwater sustainable yields; Mataniko bore completed December 2010
- Payment for submersible pump to Pidjin Holdings Ltd prior to order; order confirmed in December
- Other payments included: a comprehensive insurance (QBE) for a project vehicle, vehicle parts and maintenance labour charge, incentive allowances for Project Coordinator and Divisional support staff and airfare expenses for Project Coordinator on leave

Based on this quarter's workplan the activities completed accounted for 50% out of the overall tasks that was anticipated. The outstanding tasks are rolled into Quarter 4, 2010. The obvious reason being that end of year saw a winding down/slowing of activities due to employees/staff commencing their holidays. Lessons learnt from these activities are noted for improvements in the next quarter.

## **5.0 KEY PRIORITY AREAS & PROJECTS IN WATER SECTOR**

The Ministry of Mines, Energy and Rural Electrification outlined its strategies under the CNURA Government Policy Translation and Implementation to achieve the key priority areas in the water sector:

1. Honiara City Water Supply Improvement Project – needs upgrading and replacement of existing water supply infrastructures for proper planning and development for future Honiara City expansion through development of additional water sources close to Honiara City. JICA project with SIWA will address groundwater resources within Honiara City boundary for Honiara City water supply with projections for year 2010-2015.
2. Implementing Integrated Water Resources and Wastewater Management (IWRM) in Solomon Islands - Managing Honiara City Water Supply and

Reducing Pollution through IWRM Approaches. IWRM Demonstration project in Solomon Islands will address water resources and wastewater management and pollution issues for Honiara water supply systems. A GEF funded demonstration project for 5 years, commenced 2008/09.

3. Implementing EU Funded Integrated Water Resource Management (IWRM) National Planning Program for Solomon Islands (2008-2011). Need to support Pacific Island Countries to improve the governance and management of their water resources through the development of national water partnerships, IWRM Plans, Water Use Efficiency (WUE) Strategies and other water governance and priority water management issues in each of the 14 PICs. The IWRM Planning Program is based on best practice and demonstration which will include legislation, policies, inter-sectoral coordination committees, watershed partnerships, awareness, consultation, advocacy, expertise exchange, best practice, etc. depending on the needs and situation of Solomon Islands.
4. On-going Water Governance Consultation and Awareness Program involving Provincial and Landowners and other Stakeholders as part of their commitments to formulate a new proposed water resources management legislation and policy.
5. The Pacific-HYCOS project (2008-2010) involves 14 participating Pacific Island countries including Solomon Islands. The Project has been jointly implemented with SOPAC through supervision and facilitation by WMO and with linkages to the Fiji Meteorological Service and UNESCO. The project focuses on six (6) technical components: Water resources assessment in major rivers, Water resources databases, Flood forecasting capability, Drought forecasting, Ground water monitoring and assessment, and Water quality monitoring and assessment. The Project provided technical support and training to augment and strengthen the national capacity in the participating countries

## **6.0 PROJECTS TO ASSIST SOLOMON ISLANDS WATER AUTHORITY (SIWA)**

The division is also implementing projects/programs with objectives to assist the Solomon Islands Water Authority to improve the water supply and wastewater services in the country urban centres. There are two projects:

1. Honiara City Water Supply Improvement Project: – needs upgrading and replacement of existing water supply infrastructures for proper planning and development for future Honiara City expansion through development of additional water sources close to Honiara City. JICA project with SIWA (expected start date 2009) will address groundwater resources within Honiara City boundary for Honiara City water supply with projections for year 2010-2015.
2. Honiara Water Sources Hydrological Investigation (Development Project for 2008-2010). Needs comprehensive assessment of available water resources through hydrological investigation to ensure we have effective planning, management and development of water supplies for Honiara City (implementation commenced June 2008).

The objectives of the project are:

- a) to undertake hydrological investigations of Honiara water resources to determine the extent of potential water resources available for Honiara water supply;
- b) to determine the location and extent of the Honiara surface and groundwater resource to avoid pollution of the resource from land use changes within the catchment and
- c) to provide recommendations to SIWA for alternative water sources to achieve reliable and sustainable water supply services for Honiara city.

The purpose of the project is to identify, assess and monitor available water resources for Honiara City water supply sources and recommend alternative surface water and groundwater resources for Honiara City water supply to achieve reliable and sustainable water supply services for Honiara City.

## CHAPTER FOUR

### FINANCIAL INFORMATION

#### 1.0 BUDGET ALLOCATION

The budget allocation for the division for 2010 was increased and adequate to implement the work plan of the division however other constrains hindered implementation of the division in 2010. One of the main reasons was difficulty and delayed in acquisition of necessary fund from the Ministry of Finance for implementation of work plan, especially the hydrological field works.

The delay in accessing funding mostly affected the implementation of planned activities on time; i.e. the implementation of first quarter work programs was difficult and delayed under such circumstances. The budget allocation for the division for 2010 to implement its work plan is provided in Table 9.0 below.

**Table 9.0 – Re-current Expenditure for Water Resources Division for 2010**

<b>Account Number</b>	<b>Expenditure - Description</b>	<b>2010 Baseline</b>
295-0275-2001	Repair of office Building	\$ 400,000.00
295-0275-2010	Office Expenses	\$ 31,568.00
295-0275-2017	Printing	\$ 6,401.00
295-0275-2050	Fuel	\$ 79,872.00
295-0275-2070	Staff Travel and Transport (Local)	\$ 34,700.00
295-0275-2071	Tours & Travel	\$ 183,240.00
295-0275-2150	Maintenance of Vehicles	\$ 30,000.00
295-0275-3220	Materials and Equipment	\$ 92,950.00
295-0275-6064	Hydrographic Running Cost	\$ 31,154.00
295-0275-6171	Hydrogeological Running Cost	\$ 37,949.00
295-0275-6172	Water Governance Running Cost	\$ 119,916.00
295-0279-1010	Civil Services Salaries	\$ 424,855.00
295-0279-1011	Housing Allowance	\$ 26,118.00
295-0279-1014	Other Allowances	\$ 8,024.00
295-0279-1015	N.P.F. (7.5%)	\$ 29,120.00
0275	Water Resource	\$ 1,047,750.00
0279	Payroll	\$ 488,117.00

There was an improvement in the budget allocation for the Water Resource Management Division for 2010 compared to 2009. The increase has carter for office repair.

## **2.0 DISBURSEMENTS**

The disbursement of funds allocated to the division was mainly divided into the following categories:

### **1. Hydrological and hydrogeological activities**

Hydrological and hydrogeological works covers surface water and groundwater assessments. This covers all field related activities the division undertaken during the year.

### **2. Water Governance**

This covers Provincial community awareness and consultations to promote water policy and legislation before the final drafting of the water resources policy and legislation.

### **3. Materials and equipment**

This covers materials and equipment purchased for the implementation of activities as part of the work plan of the division.

### **4. Travel and transportation**

Travelling and transportation covered expenses for officers on annual leave and officers on official tour to the Provinces.

### **5. Office expenses**

Office expenses covered mostly stationeries and other items required for the daily running of Water Resources Division office.

### **6.0 Repair of office building**

Repair and extension of the current water resources office due to lack of office space and to also carter and house other water related projects.



### **3.0 CONSTRAINTS AND LIMITATIONS**

There are few problems that the division encounter during the year when implementing the division's work plans. Major ones include delayed of fund disbursement allocation, no vehicle, few more equipment and staffing. There are plans in place to address these needs for the next financial year for the effective implementation of work plans of the division to achieve its targets. Cost of travel to collect, investigate and monitor rivers, streams and carry out maintenance is expensive. Water resources have low priority in government and land access is a real problem. Vandalism and lack of appropriate policies and legislation to address water resources issues and the limited understanding of water issues is a real problem.

### **CONCLUSIONS**

Hydrological activities form the major component of the divisions work plan for 2010. The main objective of the division is to provide adequate and effective hydrological services. During past years the division has experienced severe problems in executing its work plans mainly because of insufficient financial support from the government, manpower shortage and equipment shortage in the division. However, the improved situation in the country has enabled the division to implement the hydrological activities in the country for 2010.

The current Officers in the division have dramatically improved the manpower level and also provide flexibility in undertaking field activities to carry our hydrological activities planned for the country. The On-going Water Governance Consultation Program will enable us to establish a legal framework in pursuing proper and effective Water Resources Legislation and Policy.

With improvement in budget allocation and manpower 2011 is expected to be a challenging year for the division in implementing the priority areas and tasks for the division work plan.

