



# Ngerikiil Watershed Restoration for Improved Water Quality

## Progress Snapshot

### Project Objective

Improve water quality, decrease chemical treatment of water, and establish effective institutional arrangements to protect the Ngerikiil watershed through integrated watershed management practices.

### Process

#### ✓ Increase in proportion of community engaged in water related issues

During the Project Inception phase in 2009 a Palau National Integrated Water Resource Management Demonstration Project Committee was established. In addition to the WSP Committee members, members representing stakeholders such as a representative of

Airai State Government, representatives from community groups and representatives of the Palau Legislature were also invited to join the Palau IWRM Committee.

This coordinated collaborative effort with different agencies in charge of water as well as different stakeholder groups has allowed for the drafting and endorsement of a Water Policy for the Republic of Palau by his Excellency President Johnson Toribiong.

Since project inception not only has there been an increase in awareness and willingness to protect watersheds through consultations for the drafting and finalization of the Water and Wastewater policy but there has also been regular community outreach focused on the importance of water and how best to manage and conserve it.

#### ✓ Sectors actively engaged in formal multilateral communication about water issues

In addition to drafting the Water Policy, increased multi-sectorial engagement has stimulated the need for the establishment of a National Apex Water Body that had not even been considered prior to the work of this project. Sector representatives are now actively engaged on formulating this body including drafting Terms of Reference and list of members.



His Excellency President Johnson Toribiong handing over Presidential Proclamation declaring March 22<sup>nd</sup>, National Water Day and March 22 – April 22, Blue Ribbon Month



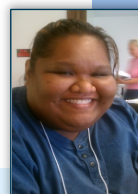
Senators and other participants at the Palau National Water Summit, March 2011

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#### Palau IWRM Demonstration Project Videos

<http://www.pacific-iwrn.org/Palau-video.html>

<http://www.pacific-iwrn.org/Palau2-video.html>

# Stress Reduction

## ✓ Increase in land protected and rehabilitated over catchment

The project, located in the Ngerikiil Watershed of Airai State is making substantial progress toward watershed protection. It focuses on demonstrating practical solutions to reducing stress on water systems and involves Airai State Government, government agencies, NGO's and community members.

These practical demonstrations were instrumental in Airai State issuing a ban on deforestation in the watershed. The stress reduction pilots are also being used to inform management plan development that is being drafted and finalized with input from the community.

Through the joint efforts of the IWRM partners, increased awareness of the importance of this particular watershed has led to \$200,000 being given to Airai State Government as financial support for the management of this important catchment area. Management includes replication and scaling-up of revegetation efforts and invasive species removal pilot activities.

## ✓ Reduction in drinking water source pollution

During the project inception phase a baseline survey on existing and possible pollutant sources was conducted. In addition, the projects goal was to mitigate the impacts of runoffs and sedimentation from the compact road. Regular monitoring of different land uses in Ngerikiil has enabled identification of pollutant sources which have been remediated leading to overall pollutant load entering the Ngerikiil Watershed and near-shore waters and reefs.



Palau High School students after planting native species to reduce erosion and sedimentation



Micronesia's Presidents with EQPB Board Chairman and Airai State Governor tree planting during the Micronesian Chief Executive Summit, 2011

# Water Resource and Environmental Status

## ✓ Increase proportion of population with access to safe drinking water supply

IWRM has undertaken a baseline sanitation and pollutant survey at the Ngerikiil River covering ridge to the Airai Bay. All pollutant sources and land uses along these river banks were mapped and those that could potentially become problems are helped with best management practices as a preemptive measure.

Routine monitoring of river water quality has been strengthened through the project to ensure safety baselines are met and to inform efforts to remediate pollutant source sites. In addition, increased outreach to areas that are more reliant on rainwater has allowed us to increase awareness of how to maintain rainwater catchment systems thereby providing a safe drinking water supply.

The project supported a piggery located in Ngerikiil to put in place an adequate buffer between pigpens and the river and improved the water cistern. Efforts are also being made to trial dry-litter composting of pig waste rather than standard wash down systems that use a lot of freshwater and generate wastewater.

Through engagement in Palau IWRM, a fish farmer operating in the Ngerikiil watershed has put in place an adequate buffer between the aquaculture ponds and Ngerikiil River. IWRM is coordinating routine water quality monitoring to ensure farm effluent does not impact water quality.



Water quality testing in support of IWRM project



Hydrological testing in support of IWRM project