

Land Acquisition Resettlement Closure Report

August 2012

Fiji: Suva-Nausori Water Supply and Sewerage Project

Prepared by Water Authority of Fiji for the Government of Fiji and the Asian Development Bank

This land acquisition resettlement closure report is a document of the borrower. The views expressed herein do not necessarily represent those of ADB's Board of Directors, Management, or staff, and may be preliminary in nature.

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FIJI: Suva/Nausori Sewerage Project

**Asian Development Bank Loan Number: 2055/2603
(FIJ)**

Land Acquisition Resettlement Project 5A, 5B, 5C, 5D & 5E (lower portion) Closure Report

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Table of Contents

EXECUTIVE SUMMARY	1
A. INTRODUCTION	1
B. PROJECT DESCRIPTION.....	1
C. SCOPE OF LAND ACQUISITION AND RESETTLEMENT	4
D. RESETTLEMENT AND LAND ACQUISITION PRINCIPLES	4
E. ASSESSMENTS	5
F. CONSULTATIONS AND GRIEVANCE PROCEDURES	8
G. RESOURCES AND FINANCING	8
H. IMPLEMENTATION AND SCHEDULE	8
I. MONITORING AND EVALUATION	13

EXECUTIVE SUMMARY

This resettlement and land acquisition completion report has been prepared in accordance with laws of the Government of Republic of the Fiji Islands and the regulations and related policies of the Asian Development Bank (**hereafter referred to as (ADB)**). The project was done to improve the standard of living of the project area with understanding of minimizing the resettlement of affected households (**hereafter referred to as AH**) within the project area. This report provides the final compilation of compensation for AHs affected by land acquisition to accommodate the physical works of water supply components of the Suva/Nausori Water Supply and Sewerage Project. This comprises packages 5A, 5B, 5C, 5D and 5E lower portion packages. This report shall be updated as the land requirements for the ongoing sewerage components of the Project (5E upper portion, 5F and 5G) have yet to be fully completed.

A. INTRODUCTION

1. The original Resettlement Plan (RP) for this project was prepared in 2005 and updated in 2009 for the water supply components of the project. There will be no need for further updating of this RP. This report instead constitutes the completion of works with the water supply component documenting land acquisition to date. An updated report of ongoing components will follow for the remaining sewerage components of the project. In January 2010 the Ministry of Works, Transport and Public Utilities separated into separate entities and the entire Suva- Nausori Sewerage and Water Supply Project Package 5 was transferred to the administration of the newly created Water Authority of Fiji (WAF).

2. It is important to note that community consultations although undertaken were not documented during these initial stages in addition to formally establishing a grievance redress mechanism. However it is agreed that for ongoing components and future projects, consultations with AHs and other relevant stakeholders such as the Suva City Council, the Ministry of Health and the two major religious congregations, the Methodist Church and the Roman Catholic Church located within the project area will be documented, and that a formal grievance redress mechanism is established.

B. PROJECT DESCRIPTION

3. *Project 5A – Upgrade of Existing Sewage Pump Station:*

The Government of the Republic of the Fiji Islands, Ministry of Works, Transport and Public Utilities (MoWTPU), intended to rehabilitate the five major sewerage pump stations along the Suva - Nausori corridor as part of the Suva - Nausori Sewerage and Water Supply Upgrade Project (Package 5A). Erasito Beca Consultant Limited' (EBCL) was appointed to undertake the investigation, design, tender process, construction and monitoring for Package 5A. The project was done to improve the standard capacity of the existing sewer pumps minimizing the response time to attend to pump blockages as scad systems were installed.

4. A consultancy services contract was made between MoWTPU and EBCL through a letter of acceptance dated 5th April, 2004. The Contract involved consultancy services for the design; documentation and contractual supervision for the augmentation and rehabilitation of Package 5A (Contract No CSC 10/03). Package 5A Contract was then awarded to J.S Hill & Associates Limited (JSHAL). They were tasked with the refurbishment and rehabilitation of the five sewerage pump stations. This project component did not involve land acquisition as it was concerned solely with the upgrading of the following pump station which had existing valid land leases:

- a) The Robertson Road pump station in Suva CBD
- b) The Walu Bay pump station in the Suva Industrial area.

- c) The Victoria pump station in Suva CBD
- d) The Nabua pump station on the northern boarder of Suva City and the Nasinu Town Council.

5. The Contract commenced on 8th December, 2008 with the date of Practical Completion scheduled for 03 August, 2009. Civil works involved the installation of pumps and by-pass valves. The Contractor exposed the rising mains in preparation for the installation of the by-pass valves. Tyco Water (Australian based sub-contractor engaged by JSHAL), completed the installation of the by-pass valves on the 5 sites. The Contractor also fabricated and assembled the stainless steel switchboard (carried out by Top Energy-JSHAL's electrical sub- contractor). All communication was between the Contractor's Project Manager (Dick Elder), Contractor's site Engineer (Aaron Larking) and the Engineer's Representatives (Mike Diviwelagi and Paul Briones).

6. *Project 5 B&C – CCTV:*

The Suva Nausori Sewerage Upgrade Project 5B &5C generally included the supply of new CCTV pipeline inspection equipment, water jet cleaning equipment, water trucks, and transportation devices for all above equipment. It generally comprised the purchase and operation of rotating CCTV cameras mounted on 100mm, 150mm, 250mm or 600mm high rubber wheels. A high roof Hi-ace Toyota minivan is employed as an operation room with flat screen monitors. The CCTV has the capability to operate within a distance of 500metres from the point of entry into the sewer line. This has led to ongoing comprehensive CCTV inspection and cleaning (light cleaning and heavy cleaning) of existing sewer pipelines in the Suva and Nausori area, training of staff in such work and hand over of all equipment upon completion of the project in the greater Suva area.

7. These two packages did not have any need for household resettlement. In more detail, package work included (but not necessarily limited to):

- o Documentation and supply of new (only) CCTV equipment, vehicles, and all other things necessary for complete setup of a CCTV operating unit.
- o Training of local staff in all things necessary to carry out CCTV inspection and enable maintenance of CCTV equipment.
- o Water jet cleaning (light cleaning and heavy cleaning as required) of the required sections of sewer pipelines and manholes.
- o CCTV inspection of defects and condition log reporting.

8. *Project 5D – Tacirua Trunk:*

This involved the design, construction and extension by 1.2km of the existing Tacirua Trunk. The existing Tacirua Trunk Sewer extends from the Namadi/Tacirua Trunk Main on Cunningham Road, along the Wainitarawau Creek to Namako Place. From Namako Place, a branch runs up another creek parallel to Nacagilevu Crescent. The Tacirua Heights sewer extension is intended to convey sewage from the Tacirua Heights subdivision. It is also intended that the sewer extension can convey additional flows from a potential new subdivision in the vicinity of the route. Project 5D land requirement for land acquisition was 6000 square metres. A total of 7 AHs (Crown Leased Land leaseholders) had land acquired for this component of the Project with one house hold resettlement required.

9. In more detail, there is an existing sewer reticulation system in Tacirua Heights that discharged to a communal septic tank located below the subdivision, next to a creek. The communal septic tank was demolished as part of Package 5D and after completion of construction, the Tacirua Heights sewer extension now runs from the existing manhole immediately upstream of the communal septic tank to connect to the existing Tacirua Trunk Sewer at Namako Place. The trunk sewer route then commences to the south of Tacirua Heights subdivision, immediately upstream of the communal septic tank at an existing manhole.

10. The route is positioned on the true right bank of the creek that starts between Tacirua Road and Khalsa Road (referred to as Tacirua Creek in this report). The sewer gradient is relatively shallow for the first 130 meters (minimum gradient 1 in 140) and then it generally steepens as it runs down the ridge to its end. The pipe then drops steeply off the end of the ridge then crosses Wainamako Creek (Creek Crossing 1). At this point the trunk discharges to a pump station, and the remainder of the alignment is a rising main. The route continues around a bend in the creek, on the true right bank of Wainamako Creek, and up and over a ridge that extends from Rokosawa Road. The drop from this ridge is steep at nearly 45 degrees over a length of approximately 20 meters. Two further crossings of the Wainamako Creek (Creek Crossings 2 and 3) are then required to avoid the steep side slope that lies between the end of Rokosawa Road and Wainamako Creek. The pipeline falls continuously from the ridge to a second low point.

11. The route then travels above the true right side of Wainamako Creek to a creek that flows between Rokosawa Road and Nacagilevu Crescent (Creek Crossing 4). This creek is a tributary of Wainamako Creek. The second low point in the pipeline route is positioned upstream of Creek Crossing 4. The pipeline rises continuously from the second low point to the end of the rising main section. After Creek Crossing 4, another ridge is negotiated on the true right side of Wainamako Creek, off the end of Nacagilevu Crescent, before crossing another tributary of Wainamako Creek at Creek Crossing 5. A high point in the pipeline has been designed to minimize hydraulic transients by extending the new pipeline to a point above the existing, downstream trunk sewer, then returning back down to end at the existing manhole near Namako Place.

12. *Project 5E Lower Portion:*

The Suva Nausori Sewerage Upgrade Project 5E includes the construction of the Tamavua trunk main from Tamavua village down to the main road, Suva Nausori Kings Road. The sewer project included the laying of 3.5 kilometres of 600mm trunk main. The original Resettlement Plan was prepared in 2008 based on the feasibility study and the original design and this was updated in 2009. The original design was made to ensure that majority of the system operates on gravity flow to minimize land acquisition and resettlement as much as possible. The total area of land required for land acquisition was 1.547Ha with a total of 1 iTaukei land owner, 3 freehold land owners and 1 Crown Leased Land leaseholder affected. No household resettlement was required.

13. The original design for the new trunk sewer commenced from the roundabout at Bhimji Street as a gravity line; it then changed into a rising main at the junction of Bhimji Street and Naranji Street; rising through Naranji Street and Wailoku Road before crossing Princess Road. It then became a gravity main around the outskirts of Tamavua Village (Nabua side). This was also part of the construction works to allow for the connection of the Tamavua Village Reticulation system. After Tamavua Village, the pipeline reverts back to gravity lines which run straight through to the Lower Ragg Avenue, terminating in front of the Army Camp on Cunningham Road.

14. Due to inaccessibility by the Contractor to the pipeline alignment reserves through the Tamavua Village and Lot 1 on DP6012, the then Ministry of Works Transport and Public Utilities had to delete the first section of the pipeline (that is, from Chainage 0.0m to Chainage 2,011.6m) effectively reducing the project in value by 52%. EBCL was appointed to undertake the investigation, design, tender process and construction monitoring for Package 5E. The construction contract was awarded to Western Builders Limited (WBL) on 20th November, 2008. WBL were given possession of the Construction Site on 8th December, 2008 and given 39 weeks from 9th January, 2009 to complete the Project. Despite delays, the Contractor maintained the rate of construction enabling the lower portion of the pipeline to be completed by late May 2010.

C. Scope of Land Acquisition and Resettlement

15 Initially Land acquisition in the Republic of Fiji is governed by the "Crown Acquisition of lands," Laws of Fiji, Chapter 135. This law describes Government policy and powers, institutional framework, processes and procedures, including valuation and compensation for Government acquisition of land. A written procedure on land acquisition is also available and being used by the Director of Lands (**hereafter referred to as DOL**) and the Water Authority of Fiji (**hereafter referred to as WAF**) as a guide to acquire land. The said Law, however, does not provide for resettlement, only cash compensation arrangements. Employment opportunities as well as community requested infrastructure such as play ground, water supply and foot paths are often provided to landowners in exchange for acquiring land.

16 In Fiji there are three types of land; iTaukei land, Freehold land, and State land. The majority of land in Fiji is iTaukei land under the administration of the iTaukei Land Trust Board (**hereafter referred to as TLTB**).

17. Under the current framework, WAF has the right to enter land and construct easements, access roads or pipelines for the public good. Under the Water Authority Promulgation 2010, WAF can enact compulsory acquisition of land but this is not used unless absolutely necessary. Negotiation with landowners is the main operational procedure. with WAF rarely resorting to compulsory acquisition. This has only applied where consultation and negotiation have been unsuccessful. Compulsory acquisition is also estimated to take 7 years or more to complete and is thus seen to be counterproductive.

18. There is no legislation covering water rights in Fiji. While the State officially owns water resources and is able to extract water without compensation, public and customary rights to water resources are still maintained. These rights were assumed by WAF in drawing preparations of locations for infrastructure and its requirements such as the width of easements and site areas required for pump stations. These drawings were lodged with DOL for action, resulting in outright purchase or leasing of land for over 99 years. In practice, Crown and iTaukei land are usually leased whilst Freehold land are purchased outright.

19. DOL's statutory section prepares plans, carries out title searches, identifies properties, and verifies landowners. WAF's land management unit section then undertook negotiations with landowners. The TLTB was involved in negotiations when the land to be acquired or leased was iTaukei land. Acquisition payments (premiums) were paid by WAF directly to landowners, except in the case of native land where the money was passed to TLTB for distribution to landowners.

20. WAF, with the assistance of TLTB, obtained initial written consent from traditional Landowners prior to submission of land acquisition drawings to DOL. WAF occasionally carried out direct negotiation with owners of private land however, the final negotiations were undertaken by DOL as DOL is the only Government institution with the authority to purchase land for the State. The Water Authority of Fiji Promulgation 2010 however has also given WAF the authority to acquire land for public purposes. State land (Crown Land) was also leased from the Government through the DOL.

21. After payment for lease or purchase of the land, a full survey was undertaken after title was transferred to WAF and registered in the titles office. Sewerage is problematic as pipeline alignments through private or non-reserve land are often required. In the case of land acquired for easements, no permanent structures can be subsequently constructed over the easement.

D. Resettlement and Land Acquisition Principles

22. The main principles of the Project's resettlement and land acquisition are:

- i. Any adverse impacts on existing human settlements, land, buildings, and other assets and livelihoods, will be minimized if not avoided to the greatest extent possible; and
- ii. In the case of any adverse impact, persons so affected will be compensated and assisted so that they may be able to maintain, if not improve their standard of living, access to basic services and infrastructure, production levels, and income earning capacity.

E. Assessments

23. Government policy is to pay market value for all land, trees, other cultivations, and other assets, either purchased or displaced. In the case of iTaukei land, TLTB is responsible for negotiation on behalf of the traditional Landowners.

24. Compensation for loss of rents and profits are also provided in the Lands Acquisition Act. This is conducted between the actual period of legal acquisition and actual payment by acquiring authority. Under the current system for crop compensation, WAF staff pays compensation directly to farmers according to a schedule published by the Ministry of Agriculture Extension department. The schedule is comprehensive and covers mature and immature plants by type of plant and tree. The schedule is updated every year by DPI. There are four types of people eligible for compensation; landowners, lessees, sub-lessees, and squatters (persons occupying or using land without a formal legally binding title or customary rites).

25. There was no household resettlement required for project 5A, B & C as per table below.

Table 1 - Summary of Project Impacts 5A,B & C (Water Supply & Sewerage Component)

Type of Loss	Total Affected Households											
	Total Affected Clans						Total Affected Households*					
	Temporary -Long Term Lease (99 yrs)			Temporary - Short Term (During Project Construction)			Temporary -Long Term Lease (99 yrs)			Temporary - Short Term (During Project Construction)		
	<10%	>10%	Total	<10%	>10%	Total	<10%	>10%	Total	<10%	>10%	Total
Loss of Land												
• Native land					-	-						
• Native Lease	-	Nil	Nil	-	Nil	Nil				-	-	
	-			-	-	-	-	0	0		0	0
• Crown Land								0	0		0	0
Loss of Structure							-					
• Residential	-	-	-	-	-	-		0	0	-	0	0
• Commercial	-	-	-	-	-	-	-	-	-	-	-	-
• Ancillary structures	-	-	-	-	-	-	-	0	0	-	-	-
Loss of Income, Crops and Trees	-			-				0	0		-	-
• Customary land owners				-	-	-	-	-	-	-	-	-
• Sharecroppers	-	-	-	-	-	-					-	-
• Agricultural labourers	-	-	-	-	-	-	-	-	-	-	-	-
• Tenants	-	Nil	-	-	-	-	-	-	-	-	-	-
TOTAL				0	0	0	0	0	0	0	0	0

Note: * Resettlement impacts include acquisition of service easements accommodating a sewer with a maximum width of 3m and, in most cases, located on the rear property boundary and compensation for damage to property and loss of trees and crops.

26. A matrix showing the entitlements of people eligible for compensation on the basis of resettlement or land acquisition is presented in Table 2. It should be noted that no household

or land tenure was affected by Packages 5A,B &C as the former was for existing pump station sites already leased to WAF and the latter comprised only the supply of and training on the use of CCTV pipeline inspection equipment.

Table 2 - Resettlement Budget for Projects 5A, B & C

Year	Total F\$	2012 F\$
Resettlement of squatters		0
Permanent Land acquisition (conversion of title to Crown Land).	0	0
Easement acquisition (99 year lease)	0	0
Crop and Tree Compensation	0	0
TOTAL	0	

27. The total land area that was required for land acquisition in Package 5D was 7.98Ha. In this context, a total of 97 freehold land owners, and 133 Crown Leased Land leaseholders were affected by land acquisition for the Project (Table 3). There was no household resettlement required.

28. The matrix of entitlements for people that were eligible for compensation on the basis of resettlement or land acquisition in Project 5D is presented in Table 4.

Table 3 - Summary of Project 5D Impacts (Water Supply & Sewerage Component)

Total Affected Households												
Type of Loss	Total Affected Clans						Total Affected Households*					
	Temporary -Long Term Lease (99 yrs)			Temporary - Short Term (During Project Construction)			Temporary -Long Term Lease (99 yrs)			Temporary - Short Term (During Project Construction)		
	<10%	>10%	Total	<10%	>10%	Total	<10%	>10%	Total	<10%	>10%	Total
Loss of Land												
• Native land					-	-						
• Native Lease	-	Nil	Nil	-	Nil	Nil				-	-	
•	-			-	-	-	-	310 ¹	310 ¹		570	570
• Crown Land								75	75		48	48
Loss of Structure							-					
• Residential	-	-	-	-	-	-		385	385	-	618	618
• Commercial	-	-	-	-	-	-	-	-	-	-	-	-
• Ancillary structures	-	-	-	-	-	-	-	280	280	-	-	-
Loss of Income, Crops and Trees	-			-				385	385		-	-
• Customary land owners				-	-	-	-	-	-	-	-	-
• Sharecroppers	-	-	-	-	-	-					-	-
• Agricultural labourers	-	-	-	-	-	-	-	-	-	-	-	-
• Tenants	-	Nil	-	-	-	-	-	-	-	-	-	-
TOTAL				0	0	0	0	1,435	1,435	0	1,236	1,236

Note: ¹ Resettlement impacts include acquisition of service easements accommodating a sewer with a maximum width of 3m and, in most cases, located on the rear property boundary and compensation for damage to property and loss of trees and crops.

Table 4 - Resettlement Budget for Project 5D

Year	Total F\$	2012 F\$
Resettlement of squatters		0
Permanent Land acquisition (conversion of title to Crown Land).	0	0
Easement acquisition (99 year lease)	800,000	0
Crop and Tree Compensation	170,000	0
TOTAL	970,000	

29. The total land area required for land acquisition in Project 5E lower portion was 1.547Ha. This constituted a total of 3 freehold land owners, 1 itaukei land owner and 1 Crown Leased Land leaseholders whom were affected by land acquisition for the Project. There was no household required resettlement. A matrix showing the entitlements of people eligible for compensation on the basis of resettlement or land acquisition is presented in Table 6.

Table 5 - Summary of Project 5E lower portion Impacts (Water Supply & Sewerage Component)

Type of Loss	Total Affected Households											
	Total Affected Clans						Total Affected Households*					
	Temporary - Long Term Lease (99 yrs)			Temporary - Short Term (During Project Construction)			Temporary - Long Term Lease (99 yrs)			Temporary - Short Term (During Project Construction)		
	<10 %	>10%	Total	<10%	>10%	Total	<10%	>10%	Total	<10%	>10%	Total
Loss of Land												
• Native land					-	-						
• Native Lease	-	Nil	Nil	-	Nil	Nil				-	-	
• Crown Land	-			-	-	-	-	310 ¹	310 ¹		310	310
Loss of Structure							-					
• Residential	-	-	-	-	-	-	-	-	-	-	5	5
• Commercial	-	-	-	-	-	-	-	-	-	-	-	-
• Ancillary structures	-	-	-	-	-	-	-	-	-	-	-	-
Loss of Income, Crops and Trees	-			-				310	310		-	-
• Customary land owners				-	-	-	-	-	-	-	-	-
• Sharecroppers	-	-	-	-	-	-					-	-
• Agricultural labourers	-	-	-	-	-	-	-	-	-	-	-	-
• Tenants	-	Nil	-	-	-	-	-	-	-	-	-	-
TOTAL				0	0	0	0	611	611	0	316	316

Note: ¹ Resettlement impacts include acquisition of service easements accommodating a sewer with a maximum width of 3m and, in most cases, located on the rear property boundary and compensation for damage to property and loss of trees and crops.

Table 6 - Resettlement Budget for Project 5E lower portion

Year	Total F\$	2012 F\$
Resettlement of squatters		0
Permanent Land acquisition (conversion of title to Crown Land).	0	0
Easement acquisition (99 year lease)	400,000	0
Crop and Tree Compensation	100,000	0
TOTAL	500,000	

F. Consultation and Grievance Procedures

30. All consultations with customary land owners are undertaken in the Fijian vernacular by WAF's Land Acquisition Team in conjunction with other representatives from other relevant stakeholders to outline the land acquisition requirements and timing of proposed land acquisition and construction activities. Consultation with lessees of Indian or other non-Fijian ethnic backgrounds is generally undertaken in English, however, where difficulties in communication are encountered (which is rare), an interpreter from WAF is provided. Important to note for the purposes of this document, that none of these consultations were officially documented. For ongoing components however this will be made a priority.

31. Project protocols to acquire iTaukei ('Mataqali' or clan) land constitutes WAF and DOL convening meetings with members of respective Mataqali in their villages to explain project intent, answer questions and get consensus and consent to acquiring land from Traditional Landowners. WAF and DOL will then proceed to meet with lessees individually (if any) to obtain their consent. On freehold land, the DOL Valuation Section prepares a Sale and Purchase Agreement and approaches the landowner to explain and execute the document after obtaining the landowner's agreement. WAF and DOL begin these consultations with landowners at least six months prior to project implementation.

32. In the case of dispute, landowners can take the Government to court to obtain an injunction and stop the land acquisition. Although such instances have been very rare, the procedures are nevertheless well established. In the case of compulsory acquisition, WAF needs to apply to the Solicitor General's Office for approval whether to compulsory acquire land.

33. Land issues for water and sewerage facilities can be complicated and time consuming in Fiji, as many landowners are affected. As above, land is also very significant to native landowners and the project must ensure that there is no disturbance to sacred sites such as burial grounds, and house sites of ancestors. Consultation with native landowners is essential to ensure there is no conflict about the location of water and sewerage infrastructure. Several meetings with landowners may be required but this is not a new process in Fiji and there are many precedents for such land transactions.

G. Resources and Financing

34. Funds for land acquisition (purchase or leasing), compensation, and resettlement are appropriated in the annual budget of WAF. In the case of freehold purchased and leased land, payment is made by DOL. In the case of native land payment is processed by TLTB. Contingencies are also provided in accordance with annual budgetary appropriations.

35. Resettlement where required is planned by the Project Management Unit – Land Management Unit with WAF responsible for land acquisition and resettlement of AHs. WAF has a commitment to provide funding where resettlement is required.

H. Implementation and Schedule

36. The following tables summarise WAF's budget for resettlement, land acquisition and crop compensation for the completed components of the respective Projects.

Table 7 – Project 5A, B & C Entitlement Matrix

Type of Loss	Entitled Persons	Compensation and Rehabilitation Measures	Implementation Issues
1 Loss of Land			
A. Temporarily Affected Agricultural, Residential, or Commercial Land	Legal owners or occupants identified during census.	No compensation rendered	
B. Permanently Affected Agricultural, Residential, or Commercial Land	Legal owners, tenants, or occupants identified during census.	No compensation rendered	No valuation applied
Loss of Houses and other Structures			
Affected houses and structures	Owners identified during census. Tenants renting houses/structures.	No compensation rendered	No relocation
Loss of Crops and Trees			
Crops and Trees	Owner or person with customary usage rights	No compensation rendered	No valuation undertaken

Table 8 – Project 5D Entitlement Matrix

Type of Loss	Entitled Persons	Compensation and Rehabilitation Measures	Implementation Issues
1 Loss of Land			
A. Temporarily Affected Agricultural, Residential, or Commercial Land	Legal owners or occupants identified during census.	Cash compensation for loss of income, standing crops and trees, and the cost of soil restoration and damaged infrastructure during construction.	
B. Permanently Affected Agricultural, Residential, or Commercial Land	Legal owners, tenants, or occupants identified during census.	Cash compensation for affected houses and structures at replacement cost without deduction for depreciation or salvageable materials.	Valuation may be required by independent registered valuer to determine appropriate value of land. Crop value is to be determined with staff input.
Loss of Houses and other Structures			
Affected houses and structures	Owners identified during census. Tenants renting houses/structures.	As a priority, tenants and owners will be provided adequate notice to relocate property. Financial compensation and other forms of assistance shall be provided to guarantee entitled persons a suitable alternative site (with legal title); dismantling, transportation, and reconstruction of property. Assistance for relocation of squatters or persons occupying land with lapsed iTaukei Land leases (such as at the Wainibuku Reservoir Site) is coordinated by TTLB. Where alternate suitable sites cannot be obtained or where the TLTB is unable to assist with resettlement, cash compensation equivalent to the replacement cost without depreciation or salvageable materials is offered.	Competitive bidding must be used to appoint builders for relocation assistance. Registered quantity surveyor must provide valuation of building and materials.
Loss of Crops and Trees			
Crops and Trees	Owner or person with customary usage rights	Cash compensation is offered for full replacement cost at current market value.	Appropriate staff assist in determining market value.

Table 9 – Project 5E lower portion-Entitlement Matrix

Type of Loss	Entitled Persons	Compensation and Rehabilitation Measures	Implementation Issues
1 Loss of Land			
A. Temporarily Affected Agricultural, Residential, or Commercial Land	Legal owners or occupants identified during census.	Cash compensation for loss of income, standing crops and trees, and the cost of soil restoration and damaged infrastructure during construction.	
B. Permanently Affected Agricultural, Residential, or Commercial Land	Legal owners, tenants, or occupants identified during census.	Cash compensation for affected houses and structures at replacement cost without deduction for depreciation or salvageable materials.	Valuation may be required by independent registered valuer to determine appropriate value of land. Crop value is to be determined with staff input.
Loss of Houses and other Structures			
Affected houses and structures	Owners identified during census. Tenants renting houses/structures.	As a priority tenants and owners will be provided adequate notice to relocate property. Financial compensation and other forms of assistance is provided to guarantee a suitable alternative site (with legal title); dismantling, transportation, and reconstruction of property. Assistance for relocation of squatters or persons occupying land with lapsed iTaukei Land leases (such as at the Wainibuku Reservoir Site) is coordinated by TTLB. Where alternate suitable sites cannot be obtained or where the TLTB is unable to assist with resettlement, cash compensation equivalent to the replacement cost without depreciation or salvageable materials is offered.	Competitive bidding must be used to appoint builders for relocation assistance. Registered quantity surveyor must provide valuation of building and materials.
Loss of Crops and Trees			
Crops and Trees	Owner or person with customary usage rights	Cash compensation is offered for full replacement cost at current market value.	Appropriate staff assist in determining market value.

Table 10 - Implementation Schedule for Project 5A (Updated January 2012)

	2004	2005	2006	2007	2008	2009
C. SEWERAGE						
Land						
Detailed Design						
Tendering						
Construction						
D. SUPPORT ACTIVITIES						
Environmental Monitoring						
Community Education and Awareness						
I/I Study						

Table 11 - Implementation Schedule for Project 5B & 5C (Updated January 2012)

	2008	2009	2010	2011	2012	2013
C. SEWERAGE						
Land						
Detailed Design						
Tendering						
Purchase						
D. SUPPORT ACTIVITIES						
Environmental Monitoring						
Community Education and Awareness						
I/I Study						

Table 12 - Implementation Schedule for Project 5D (Updated January 2012)

	2008	2009	2010	2011	2012	2013
C. SEWERAGE						
Land						
Detailed Design						
Tendering						
Construction						
D. SUPPORT ACTIVITIES						
Environmental Monitoring						
Community Education and Awareness						
I/I Study						

Table 13 – Implementation Schedule for Project 5E lower portion (Updated January 2012)

	2005	2006	2007	2008	2009	2010
C. SEWERAGE						
Land						
Detailed Design						
Tendering						
Construction						
D. SUPPORT ACTIVITIES						
Environmental Monitoring						
Community Education and Awareness						
I/I Study						

I. Monitoring and Evaluation

37. The PMU working closely with Project consultants monitored the implementation of the resettlement and compensation plan. This was accomplished in conjunction with quarterly reporting on project implementation progress to Government and ADB.
38. Prior to any construction, the design of works to be implemented is also confirmed with service providers such as FEA and Telecom whom provide information on location of their services.
39. Project work has been completed and this is the closure report for project 5A, 5B, 5C, 5D and 5E lower portion. The Land Acquisition Resettlement Plan is hereby closed.

LAND CLOSURE REPORT - SUVA/NAUSORI

PROJECT WATER

PROJECT 5A,5B&C, 5D & 5E



Photo 1: Sykes pump used to dewater the excavation in preparation for the installation of the by-pass valves at the Walu Bay Pump Station (photo taken on 30th June, 2009).



Photo 2: Installation of a by-pass valve at the Walu Bay Pump Station (photo taken on 30th June, 2009).

LAND CLOSURE REPORT - SUVA/NAUSORI PROJECT WATER PROJECT 5A,5B&C, 5D & 5E



Photo 3: Excavation works at the Nabua Pump Station in preparation for the by-passing operation (photo taken on 30th June, 2009).



Photo 4: By-pass valve installed at the Nabua Pump Station (photo taken on 30th June, 2009).

LAND CLOSURE REPORT - SUVA/NAUSORI PROJECT WATER PROJECT 5A,5B&C, 5D & 5E



Photo 5: Excavation works at the Parade Pump Station in preparation for the by-pass valve installation (photo taken on 29th June, 2009).



Photo 6: By-pass valves installed at the Parade Pump Station (photo taken on 29th June, 2009).

LAND CLOSURE REPORT - SUVA/NAUSORI PROJECT WATER PROJECT 5A,5B&C, 5D & 5E



Photo 7: Wang fitting used for the installation of the by-pass valve at the Robertson Road Pump Station (photo taken on 01st July, 2009).



Photo 8: By-pass valve being installed at the Robertson Road Pump Station (photo taken on 01st July, 2009).

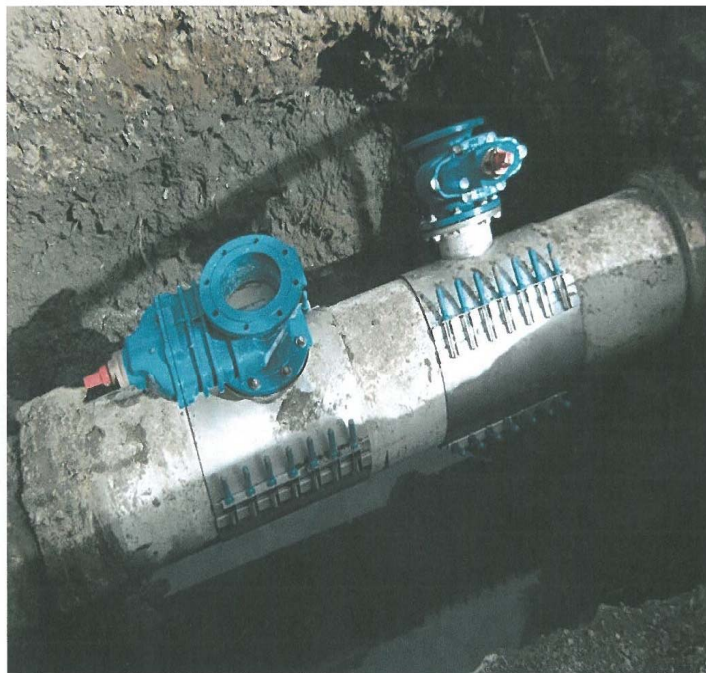
LAND CLOSURE REPORT - SUVA/NAUSORI PROJECT WATER PROJECT 5A,5B&C, 5D & 5E

PHOTOS



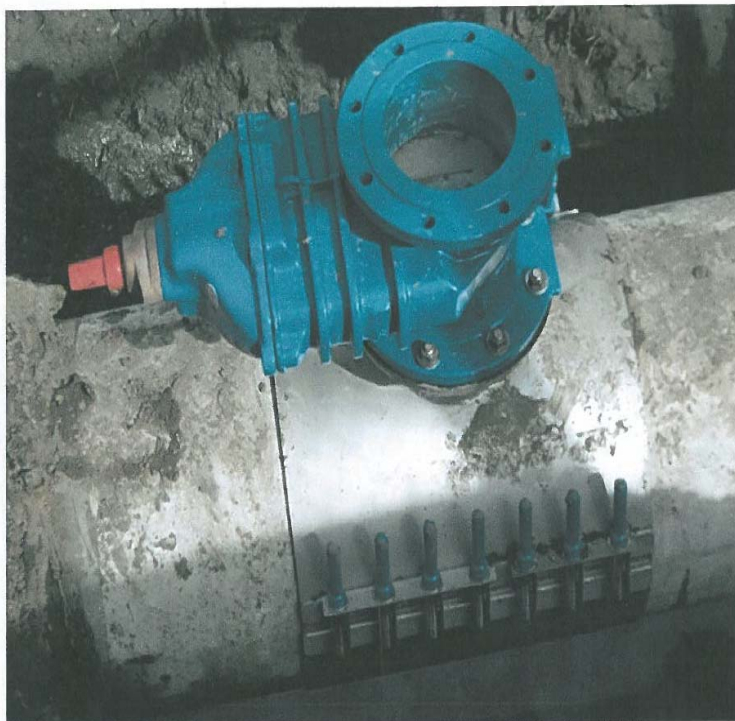
Methodology Testing

Inflating air bags in a pipe with 1½ ton of weight on to simulate back pressure of water

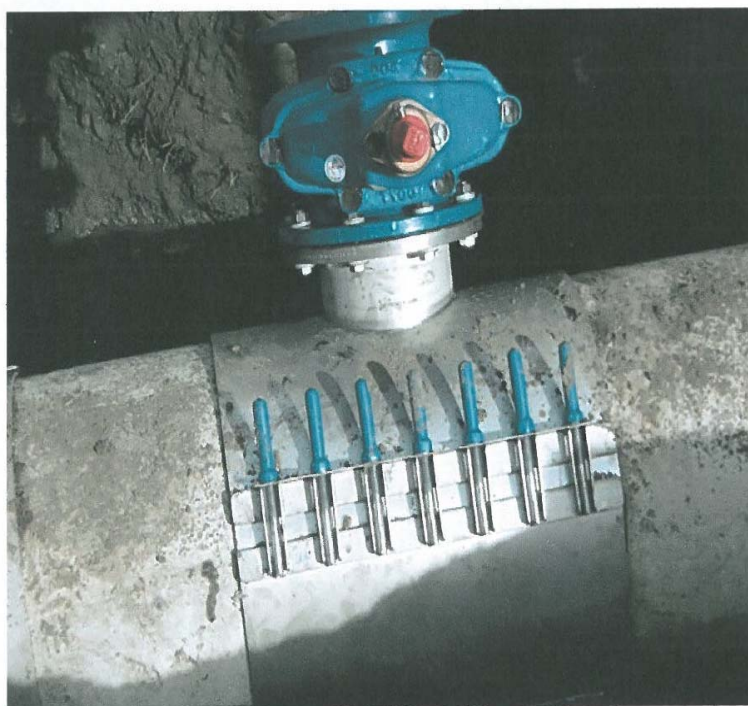


A pair of Wang fittings at Parade site, installed ready for the Bypass phase of the works

**LAND CLOSURE REPORT - SUVA/NAUSORI
PROJECT WATER
PROJECT 5A,5B&C, 5D & 5E**



**Vertical valve installed on a Wang fitting in the rising main for the
insertion of the inflatable plug.**



Angled valve to take the bypass pump

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Photo 1: Gabion Retaining Wall Construction - Final Height for Gabion Wall

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PROJECT WATER
PROJECT 5A,5B&C, 5D & 5E**



Photo 2: Creek Crossing No. 6 – Surface Finish for the Foundation Pad

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Photo 3: Creek Crossing No. 6 - Construction of the Pipeline Support Column



Photo 4: Creek Crossing No. 6