

**MINISTRY OF LOCAL GOVERNMENT, HOUSING,
SQUATTER SETTLEMENT & ENVIRONMENT
GOVERNMENT OF FIJI**

**NABORO LANDFILL
CONTRACT NO. WSC 18/05
OPERATION OF LANDFILL**

In April 2005 H.G. Leach & Co. Ltd was invited along with other prospective international tenderers to submit a tender to The Ministry of Local Government, Housing, Squatter Settlement & Environment; Government of Fiji for the operation of the Naboro Landfill, Suva.

The Conditions of Tendering was New Zealand Standard NZS 3910:2003 - Conditions of Contract for Building and Civil Engineering Construction, with the tender evaluation based on the Lowest Price Conforming Method. The attributes to be considered were:

- | | |
|-------------------------|-----------------------|
| (a) Relative Experience | (d) Management Skills |
| (b) Performance Record | (e) Methodology |
| (c) Technical Skills | (f) Price |

The evaluation was carried out using a two envelope system. The first envelope contained the whole of the tender submission except for pricing information or information relating to the Tender Price. The second envelope contained the Form of Tender, the Schedule of Prices. The tender evaluation was conducted using a two stage system. The first stage consisted of opening the envelopes containing the non-price information and each tender was evaluated on the basis of the non-price attributes described in the tender submission. Each attribute was scored on a pass/fail basis. Following that consideration of the non-price attributes, the price envelopes of the tenders still under consideration were then opened.

The outcome of this process was that the contract for the Operation of the Naboro Landfill was awarded to H.G. Leach & Company Limited in July 2005.

Background

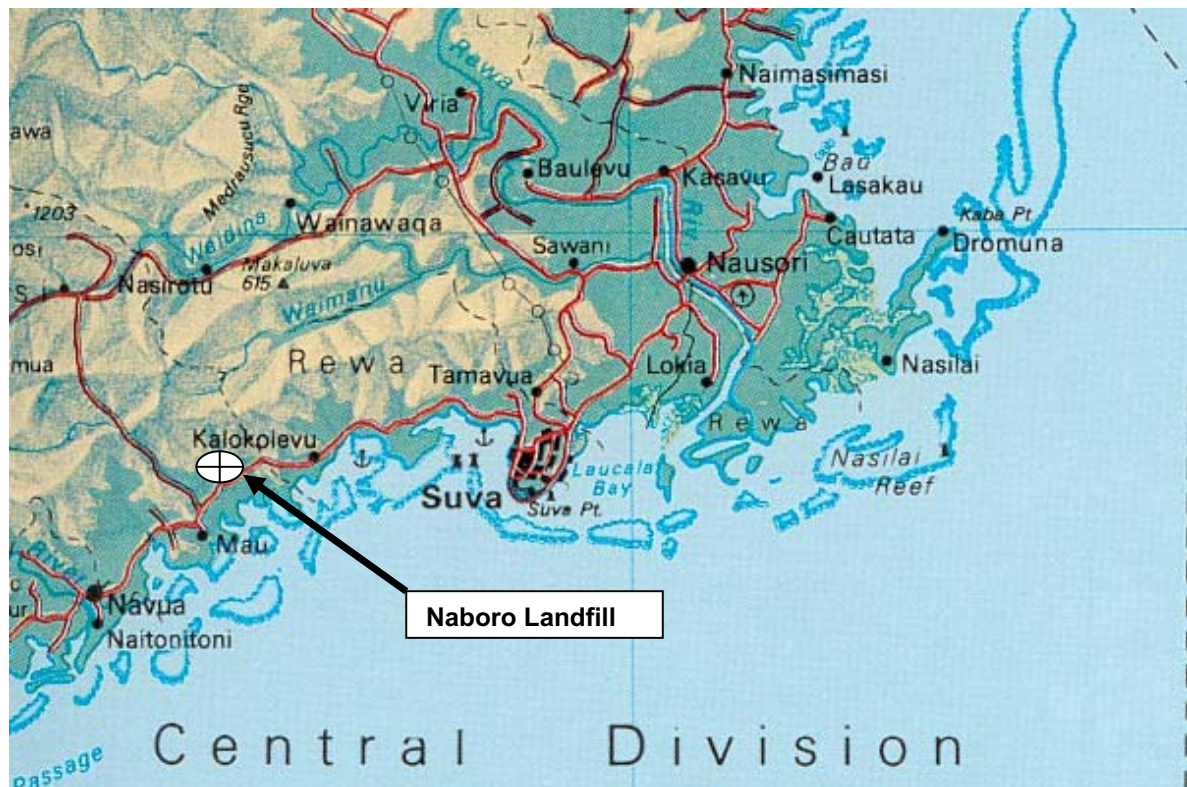
The Naboro Landfill is a project of the Fiji Government, funded by the European Union and the Government of Republic of The Fiji Islands. The site was officially opened by The Prime Minister of Fiji, Hon. Laisenia Qarase and His Excellency Dr. Roberto Ridolfi from the Delegation for the European Union for the South Pacific on the 2nd of August, 2005. The site is operated by HG Leach (Fiji) Limited, as wholly owned subsidiary of H.G. Leach & Co. Ltd, Waste managers, Quarrymen and Contractors of New Zealand.



The Naboro Landfill is a new landfill constructed to modern day standards and designed to accept municipal waste from the Municipal Councils of Suva, Nausori, Nasinu and Lami, the Suva and Navua Rural Local Authorities, the town of Navua and Pacific Harbour. The site infrastructure comprises: gate office, weighbridge, administration block, workshop and main access roads along with the first stage clay liner and associated leachate drainage and stormwater control systems. The current liner occupies an area of approximately 2.3ha. Naboro is expected to become the only landfill in the Greater Suva area where waste may be deposited; over the Contract period it is envisaged that the average annual waste stream will be of the order of 100,000 tonnes.

LOCATION OF WORKS

The Naboro Landfill is located on the Queens Road approximately 24km from central Suva. Access to the site is directly off Queens Road.



Suva Region of Viti Levu – Islands of Fiji

SCOPE OF CONTRACT

The contract comprises the commissioning of the new landfill and overall management and operation of the landfill and gate office for a period of 5 years, renewable subject to mutual agreement and satisfactory performance for a further period of 2 years or until the completion of the Stage 1 landfill cell. The following work is included in the Contract:

- Commissioning of the landfill
- Receipt of all acceptable refuse and recording of quantities
- Collection of fees and management of customer accounts
- Operation and maintenance of an active landfill face
- Placement and covering of refuse in the landfill
- Control of nuisances
- Maintenance of existing landfill assets, including access roads and buildings
- Preparation and implementation of the following plans
- Operational Management Plan
- Borrow Management Plan
- Monitoring and Reporting
- Capital works associated with the continued operation of the landfill, comprising extension of the existing leachate treatment system including the construction of additional leachate ponds



METHODOLOGY

OBJECTIVES

The operation of the Naboro Landfill facility is an important aspect in the Ministry's delivery of quality service to its customers. The Contractor places a high degree of emphasis on the quality of service delivery, both as operation Contractor and the Ministry's on site agent. The main objectives of the Contract are:

- A safe operation for both customers and staff.
- An easily accessible, readily available facility for landfill customers.
- A well organised and tidy operation which presents a professional image to landfill customers.
- Maintenance and enhancement of the quality of the environment.
- A well managed operation complying with internationally accepted best practice in landfill management.
- A high degree of refuse compaction, thus prolonging the life of the landfill.
- The means by which these objectives are achieved are a measure of the performance of the Contractor in providing the services required to operate the landfill and include the following:
 - Site security
 - A site specific Health & Safety Plan
 - Operation within predetermined hours
 - Gate office operation and fee collection
 - Customer focused public relations
 - General maintenance of landfill assets
 - Nuisance control
 - A logical cellular approach to the placement and compaction of refuse
 - Provision of all weather access for domestic and commercial vehicles
 - Daily cover to all refuse placed in the landfill
 - Provision for disposal of water & sewage treatment sludge
 - Monitoring of stormwater quality
 - Borrow area management

- The use of suitable plant and operating methods to achieve high compaction
- Emergency procedures and landfill closure.



OPERATIONAL MANAGEMENT PLAN

The Contractor shall prepare an Operational Management Plan (OMP) which fully describes how the landfill will be operated and managed. The methodology statements within the OMP shall address the issues listed above and clearly state how the main objectives will be achieved and how the specification requirements will be met. In particular the OMP shall address the following:

- Staffing and equipment
- Landfill Commissioning
- Fee collection and banking procedures
- Temporary roading and traffic management

- Landfill cell management (e.g. Filling sequence and staging, intermediate cover, leachate and stormwater control)
- Refuse placing and compaction
- Compliance certification
- Emergency contingency plans and landfill closure procedures



Caterpillar 826 G Landfill Compactor Weighing 36 tonnes

HOURS OF OPERATION

The Contractor is required to open the landfill to the public during the following times:

Monday to Friday 7.00am - 5.00pm,

Saturdays, 7.00am - 4.00pm

The landfill shall be closed on Sundays & Public Holidays. The Engineer reserves the right to vary the opening hours. If operating hours are altered the Contractor shall be required to operate the Landfill during these hours. Any change to the existing hours will be a Variation. No public access to the Landfill is to be permitted outside these hours

and the Contractor shall ensure the gates are securely locked whenever the Landfill is closed.



Naboro Landfill Administration Facilities

PUBLIC RELATIONS

The Ministry of Local Government, Housing, Squatter Settlement & Environment places considerable emphasis on its good relationship with members of the public. The Contractor and his staff are required to maintain a very high standard of public relations. All dealings with landfill customers and visitors shall be carried out in a courteous, helpful and professional manner.

HEALTH AND SAFETY REQUIREMENTS

The Contractor shall be responsible for all matters which affect the safety and security of the Site and its employees on the Site and the general public. The Contractor shall recognise its accountability and responsibility for the safety of its staff and the staff of others within the confines of the Site. The Contractor shall observe and comply with all relevant legislative safety precautions including:

- The Health and Safety at Work Act 1996 and its Regulations;
- The requirements of the Principal;
- The Guidelines for the provision of facilities and general safety in the Construction Industry;
- Specified operating procedures;
- Any other conditions which may be agreed to at the Site.

A safety supervisor is employed on the Site as part of the Contractor's Health and Safety Plan. This Plan shall include a site-specific hazard identification schedule. It shall also specify in detail how the Contractor shall advise his employees of those site specific hazards, the means of mitigation, and his method of continual monitoring and recording the employees' knowledge of and protection from such hazards. A copy of the Contractor's Site specific safety plan, including Site related training programs and reporting arrangements, shall be provided to the Principal, and another copy shall be kept on Site at all times for inspection by employees, contractors (if any), the

HYGIENE

The site is an active landfill. As such, putrescible and unsanitary materials are commonplace on the Site and are not necessarily confined to the landfill operating area (for example, contaminated plastic and paper might be blown around the Site). Leachate seepage may occur at points around the Site. Therefore personal hygiene is important. Workers shall wear gloves, and as necessary, dust masks, in areas where direct contact

with potentially contaminated materials is considered possible. Also, all workers shall wash their faces and hands thoroughly prior to meal breaks, and the Contractor shall confirm to the Engineer that specific procedures to ensure this requirement are complied with.



Cat 826 G operating at the tip face with daily cover over the waste