

Terms of Reference for the Capacity Building and Private Public Partnership Support Team (CBP Team)

1.0 BACKGROUND

1. Kathmandu Valley is currently suffering from chronic water shortages and inefficient service delivery. To improve the present conditions of water supply and wastewater services in Kathmandu Valley, the Government of Nepal (GoN), with the assistance of several development partners, has embarked on a two-pronged improvement strategy that includes capital investments for infrastructure development, i.e, supply augmentation and system improvement and institutional reforms. In order to assist GoN in this endeavor, Asian Development Bank (ADB) has provided three loans¹ covering both infrastructure investment and institutional reforms. Other external development partners, such as the Japan Bank for International Cooperation (JBIC), the Nordic Development Fund, etc, are also assisting GoN in this endeavor.

2. The GoN has recently achieved substantial progress in institutional reforms in the water services sector of Kathmandu Valley, albeit slowly, including the separation of asset ownership from management, establishment of an independent regulatory commission for regulating the water tariffs, and setting up an autonomous water operator company under the Company Act. Three key entities, namely: (i) the Kathmandu Valley Water Supply Management Board (KVWSMB), asset owner of water and wastewater systems within the Kathmandu Valley; (ii) the Water Supply Tariff Fixation Commission (WSTFC) responsible for the economic regulation of the sector; and (iii) the Kathmandu Upatyaka Khanepani Limited (KUKL) in charge of operating the assets under lease and license from KVWSMB, have been established. Relevant laws² have been amended or enacted to allow the implementation of these institutional reforms.

3. KUKL has been set up with a Public Private Partnership (PPP) model under the Companies Act, where 15% of its share ownership lies with the private sector representatives and the remaining is shared between the municipalities, who have the majority share ownership, the government and the employees trust. KVWSMB is a public statutory entity, which, as the asset owner is also responsible for developing and overseeing service policies, and providing license to service provider, KUKL for the operation and management of service system in Kathmandu Valley. All the three entities have been established and are currently fully functional, however are in need of start-up operational and capacity enhancement support.

4. KUKL has fully taken over the operations of Kathmandu Valley water services since 13 February 2008 from the previous public water utility operator Nepal Water Supply

¹ Loans 1820-NEP(SF): *Melamchi Water Supply Project (MWSP)*, for \$120 million, approved on 28 November 2000. infrastructure development, social and environmental support, institutional reform, project implementation support, co-financing with JBIC, JICA, NDF, OFID. Major change in scope and implementation arrangements to the project mainly to (i) split the project into twosubprojects, (ii) re-allocate the cost reflecting funding gap, and (iii) extension of loan closing date to 2013, was approved on 7 February 2008.

Loans 2058/2059-NEP(SF): *Kathmandu Valley Water Services Sector Development Program (SDP)*, for \$5 million and \$10 million, respectively, approved on 18 December 2003, institutional reforms for water services sector in Nepal. Major change in scope and implementation arrangements to the project, mainly to change the modality of management support to KUKL, was approved on 7 February 2008.

² The Water Supply Management Board Act, the Water Supply Tariff Fixation Commission Act and the Amendment to the (existing) Nepal Water Supply Corporation Act.

Corporation (NWSC). In order to provide management support to KUKL a capacity-building and public-private partnership support team (the CBP team) will be engaged by KUKL, who will focus on long-term capacity building and strengthening of KUKL's management and operational resources. In order to provide management support until the CBP team is engaged, three interim management advisors to KUKL have been engaged for an initial 1.5 years of its start-up operational period, through a technical assistance TA 7007-NEP: Supporting Capacity Development for Water Services Operations and Public-Private Partnership in Kathmandu Valley, who joined KUKL in March-April 2008. This TA is also assisting the other two new entities, KVWSMB and WSTFC, in their initial capacity enhancement. Few short-term advisors and experts are also being engaged under this TA to provide specialized support to KUKL on various matters during the first 1.5 years of its start-up.

2. OVERALL SCOPE OF WORKS

5. To assist in the initial management and capacity building of KUKL, and ensure that KUKL can operate the Kathmandu Valley water supply and wastewater services in an efficient and financially and technically sustainable manner, the CBP team will be engaged for 4 years. The CBP team will be selected and engaged in accordance with the *Guidelines on the Use of Consultants* (2007, as amended from time to time) of the Asian Development Bank (ADB). The CBP team must be qualified with utility operation experience rather than consulting experience.

6. The core of the CBP team will consist of a general manager, an operational and technical manager, and a finance manager. They will act as line managers of KUKL during KUKL's initial 4 years of operation, as permitted under the Shareholders' Agreement and Articles of Association of KUKL (2008). It is expected that they will work closely with and develop the capacity of, the deputy managers of KUKL, who would have already been engaged by KUKL using competitive recruitment procedures from the market or chosen from existing operational staff. The core of CBP team will train and hand over management responsibilities of KUKL to the deputy managers at the end of their term.

7. The remaining members of the CBP team will act as advisors to KUKL. They will assist with capacity building, day-to-day operations and management of water supply and wastewater services in Kathmandu Valley for KUKL. The CBP team will prepare procurement of the various consultants, equipment, and civil works packages, and will carry out all capital investment works funded by ADB. The CBP team, in particular the financial manager and the procurement advisors, will assist the project management unit (PMU) with contract management, accounting, and other activities related to the subproject 2 of Melamchi Water Supply Project and the SDP (see footnote 1).

8. The CBP team will assist KUKL to:

- a. Build the capacity of the KUKL staff and set up procedures and corporate structures within KUKL to enable KUKL to manage and maintain water supply and wastewater services within the Kathmandu Valley on a long-term, sustainable basis.
- b. Identify and reduce technical and financial losses from the system;
- c. Design and implement the capital investment and asset management program for the project period of subproject 2 of MWSP.
- d. Optimize water supply sources within the Kathmandu Valley and improve the quantity and quality of water supplied.
- e. Extend water services to cover low-income households and slums;

- f. Operate the water and wastewater facilities within the service area of KUKL for four year period, pursuant to the terms and conditions as stipulated in the license and lease agreement between KUKL and the KVWSMB. The operations include but are not limited to the following:
 - Collection of raw water from the source,
 - Pumping and transportation of water to treatment facilities,
 - Treatment of water,
 - Distribution and supply of drinking water to customers located within KUKL's service area,
 - Collection of wastewater,
 - Pumping and transportation of untreated wastewater to treatment facilities,
 - Treatment of wastewater, and
 - Transportation of wastewater into discharge points.
- g. Maintain water and wastewater facilities, carry out maintenance programs for the facilities, and rehabilitate and repair the facilities.
- h. Identify needs for KUKL's human resource development and design and manage programs to advance the skills of KUKL staff.
- i. Achieve a fully functional computerized customer database, geographic information system, and management information system for KUKL
- j. Carry out all other obligations of KUKL under KUKL's license and lease to provide water and wastewater services in the service area

3. SPECIFIC SCOPE OF WORK

3.1 Review, Updating and Preparation of Plans, Programs, Reports under KUKL's License

9. The CBP Team shall review the following plan, program and policy documents prepared by KUKL as per its license requirements³ and revise or prepare new document as necessary:

- (a) Capital Investment Asset Management Plan (CIAMP);
- (b) Connection Policy;
- (c) Network Extension Policy.
- (d) Illegal Connections Policy;
- (e) Low Income Consumer Support Unit (LICSU) Plan;
- (f) Emergency Response Plan;
- (g) Water and Wastewater Quality Sampling and Testing Program;
- (h) Operations and Maintenance Manuals;
- (i) Energy Management Plan;

³ License provided by KVWSMB to KUKL can be provided on request for further details on the documents listed. Most of these reports would have either been prepared or initiated by the Interim Managers of KUKL and their consultants.

- (j) Water Sources and Treatment Report;
- (k) Community Tap Improvement Plan;
- (l) Low Income Priority Area (LIPA) Plan;
- (m) Tanker Services Plan;
- (n) Procurement Policy;
- (o) Maintenance Management Program;
- (p) Unaccounted for Water Reduction Strategy;
- (q) Facilities Database;
- (r) Tariff adjustment proposal policy;
- (s) Customer Complaint Policy; and
- (t) Public Information Program.

3.2 Review, Updating and/or Preparation of Other Plans

3.2.1. Conceptual Business Plan

(2) The CBP Team shall prepare a conceptual business plan (the “Conceptual Business Plan”).

- (3) The Conceptual Business Plan shall include,
- (a) an overview of how the CBP Team intends to proceed in carrying out the Services over the term of the Contract; and
 - (b) a concise overview of the tentative approach and strategy, based on the CBP Team’s information and understanding, relating to the contents of each of the plans, programs, reports, surveys or guidelines listed in the earlier section.

3.2.2 Strategic Business Plan

(4) The CBP Team shall prepare an annual strategic business plan in respect of the KUKL’s water and wastewater services (the “Strategic Business Plan”) in accordance with the preparation and submission schedule and format established by the KUKL .

(5) The purpose of the Strategic Business Plan is to present in a concise manner the indicative performance objectives and targets, challenges, strategies, and activities proposed by the CBP Team for the KUKL over the subsequent Year and to show, among other things, how each of the plans, programs, reports, surveys, and guidelines listed above will be worked on during the applicable Year is included in the CBP Team’s overall strategy.

- (6) The Strategic Business Plan shall include,
- a brief review of progress over the previous year(s) towards meeting the goals with respect to the improvements in the operational performance of the KUKL and the quality of service offered by the KUKL to its Customers;

- a definition of the priorities that will be adopted by the CBP Team over the subsequent two years in seeking to improve operational performance and quality of Services;
- identification of the priorities for capital expenditures to be implemented by the KUKL out of resources provided by the KVWSMB, Donors or other sources;
- financial projections for the current year and at least two years into the future underpinning the annual operational budget proposed by the CBP Team and the projected budget for capital expenditures including revenues and expenditures, cash flows, financing requirements and any other relevant financial information;
- a strategy to improve the financial performance of the KUKL ;
- broad details of the program of training and other activities designed to enhance the capabilities and performance of the Operational Staff at all levels; and
- identification of issues that might delay or complicate the achievement of the goals of the CBP Team and the implementation of the program of infrastructure improvement and extension agreed with the KVWSMB.

3.2.3 Information Systems Strategy

(7) The CBP Team shall review the information systems strategy (the "Information Systems Strategy"). The revised Information Systems Strategy shall describe the CBP Team's approach to:

- completing the computerisation of billing and revenue collection activities including development of a computerised central accounting system;
- completing Hydraulic network model (HNM) of the water distribution network;
- completing the GIS including digital mapping of the primary and secondary elements of the water distribution and sewerage networks,
- developing/ completing a Computerized Maintenance Management System;
- developing a computerized pipeline repair database that is linked to the GIS; and
- updating the Customer complaint management system.

3.2.4 Water and Wastewater Operations and Maintenance Procurement Policy

(8) The CBP Team shall review and revise the procurement policy (the "Procurement Policy") of KUKL as required with the approval of KUKL board.

3.2.5 Emergency Response Plan

(9) The CBP Team shall develop/revise plans in respect of responses to pollution, contamination, spills, accidents, natural disasters or other similar emergencies (the "Emergency Response Plan").

- (10) The CBP Team shall include in the Emergency Response Plan,
- a contingency plan for emergencies, including fire, explosion, release of noxious gases, flood, sabotage and water quality emergencies or problems;
 - a description of all emergency procedures;
 - identification of Operations Staff responsibilities in an emergency;
 - the identification of appropriate emergency response centres for the coordination of all activities during an emergency; and
 - the equipment and other resources that shall be required to implement the Emergency Response Plan.

3.2.6 Staff Training and Development Program

- (11) The CBP Team shall,
- carry out a skills assessment of the Operations Staff; and
 - develop and manage comprehensive training and development programs for the KUKL Staff including training for Staff who deal directly with Customers.

3.3 Day to Day Management, Operations and Maintenance

3.3.1 Procurement

(12) The CBP Team shall manage the following types of purchasing by and on behalf of the KUKL :

- the procurement of goods, works, and services financed by the KUKL's Operations and Maintenance Budget for the operation and maintenance of the Services in the Service Area,
- the procurement of goods, works and services financed by the KVWSMB under either the CIAMP or the terms of the KUKL's Asset Lease, and
- the procurement of goods, works and services financed by other sources and
- in accordance with the Procurement Policy of KUKL and in accordance with applicable Annual Operations and Maintenance Budgets.

3.3.2 Service Area Expansion

The CBP Team shall manage all changes to the Service Area as per provision in the license issued to KUKL by KVWSMB..

3.3.3 Tariff Advice and Assistance

(13) The CBP Team shall provide advice and assistance to the KUKL in respect of all matters related to the establishment of tariffs and other submissions concerning regulatory matters to be made to the KVWSMB or the WSTFC

(14) The CBP Team's advice and assistance shall include,

- providing assistance to the KUKL in all negotiations with and applications for changes to the tariffs and other regulatory matters; and
- providing general advice and recommendations with respect to tariff setting, including advice on international trends and approaches in respect of tariffs.

(15) The CBP Team's advice and assistance shall not include the kinds of expert advice related to tariff policy and related investigations and research, such as formal willingness to pay studies, normally provided by specialized consultants.

3.3.4 Financial, Administrative and Regulatory Management

(16) The CBP Team shall manage all general day to day financial, administrative and regulatory matters of the KUKL including,

- keeping separate and proper accounts to international accounting standards and local accounting standards on behalf of KUKL;
- day to day information systems management;
- day to day procurement management;
- preparation of reports required by water regulators and discussions and communications with regulators;
- management of all permits and licences required by the KUKL;
- the provision of assistance and advice to the KUKL with respect to cash management, cash flow, external financing, sources of external financing, methods to reduce financing charges and the negotiation of loans, overdrafts and other similar financing instruments;
- the preparation of all regulatory submissions to KVWSMB and WSTFC; and
- the provision of assistance and advice to the KUKL in its negotiations with the regulators.

3.3.5 Annual Operations and Maintenance Budgets

(17) Each year, the CBP Team shall prepare budgets with respect to each of the KUKL's water and wastewater operations and maintenance costs for the subsequent fiscal year for review and approval by the KUKL board. The KUKL shall determine, in its sole discretion, the preparation and submission schedule and the format of the Annual Operations and Maintenance Budgets.

(18) The Annual Operations and Maintenance Budgets prepared by the CBP Team shall,

- (a) include both reductions and increases that arise as a result of the implementation of capital investment programs; and
- (b) be consistent with the Strategic Business Plan.

(19) The CBP Team shall,

- monitor expenditures under the approved Annual Operations and Maintenance Budgets; and
- report on the status of expenditures under the approved Annual Operations and Maintenance Budgets in the Monthly Reports and Annual Reports.

3.3.6 General Water and Wastewater Operations Improvement Programs

A. Water and Wastewater Quality Sampling and Testing Program

(20) The CBP Team shall review the KUKL's existing water and wastewater quality sampling and testing programs and develop, if applicable, an improved water and wastewater quality sampling and testing program (the "Water and Wastewater Quality Sampling and Testing Program"). The Water and Wastewater Quality Sampling and Testing Program shall include,

- (a) a program for water sampling throughout the water supply system in line with the requirements of the license issued by KVWSMB to KUKL.
- (b) a program to ensure that Water Quality Standards are being met or, if they are not being met, recommend remedial programs or other changes to meet Water Quality Standards;
- (c) a preliminary protocol describing how the CBP Team intends to handle a water quality emergency in the Service Area;
- (d) a wastewater effluent monitoring program; and
- (e) a protocol for immediate notification by the CBP Team to the KUKL of any failure to meet Water Quality Standards.

B. Occupational Health and Safety Program

(21) The CBP Team shall review existing occupational health and safety practices, programs and manuals and develop and implement a comprehensive occupational health and safety program for the protection of KUKL Staff (the "Occupational Health and Safety Program").

(22) The Occupational Health and Safety Program of the CBP Team shall include a description of how the CBP Team will,

- (a) carry out all occupational health and safety responsibilities of the KUKL as required under the Applicable Law;

- (b) provide ongoing occupational health and safety training for the KUKL Staff;
- (c) develop and manage all required occupational health and safety reporting procedures; and
- (d) manage all occupational health and safety claims and assist and advise the KUKL on the settlement of all such claims.

(23) The CBP Team shall regularly inspect the Facilities for safety deficiencies at least once every 90 days and shall notify KUKL of any safety deficiencies that cannot be corrected by the CBP Team using available funds in the Annual Operations and Maintenance Budget.

C. Inventory Management Program

- (24) The CBP Team shall,
- (a) review the existing systems of monitoring the inventory of vehicles, equipment, materials and supplies; and
 - (b) develop and implement an updated and improved computerised program, including software and hardware, for the management and monitoring of the vehicles, equipment, materials and supplies (the "Inventory Management Program").

D. Standard Operating Procedures

(25) The CBP Team shall prepare or, where applicable, update Standard Operating Procedures for the Facilities in accordance with generally accepted techniques used in the water and wastewater industry and professional engineering and consulting standards recognized by international professional bodies (the "Standard Operating Procedures").

(26) The CBP Team shall prepare a version of the approved Standard Operating Procedures in Nepali, provide training to the Staff as to the approved Standard Operating Procedures and ensure that the Standard Operating Procedures are implemented.

(27) The CBP Team shall provide training to the Staff on an on-going basis about the Standard Operating Procedures.

F. Operations and Maintenance Manuals

- (28) The CBP Team shall,
- (a) review existing operations and maintenance manuals and identify parts of the Facilities where existing operations and maintenance manuals are either deficient or missing;
 - (b) prepare a plan for improving deficient manuals and preparing new manuals where none currently exist;
 - (c) implement the plan for improving deficient manuals and preparing new manuals where none currently exist;

- (d) ensure the operations and maintenance manuals for the Facilities are in accordance with generally accepted practice in the water and wastewater industry and appropriate professional engineering and consulting standards recognized by international professional bodies (the "Operations and Maintenance Manuals"); and
- (e) submit the Operations and Maintenance Manuals to the KUKL for transmission to the KVWSMB for review.

(29) The CBP Team shall ensure that the Operations and Maintenance Manuals are developed with respect to all Facilities in the Service Area and all equipment under the CBP Team's control.

(30) The CBP Team shall provide training to KUKL Staff as to the Operations and Maintenance Manuals.

(31) The CBP Team shall ensure that the Operations and Maintenance Manuals are developed with respect to all Facilities and all vehicles and equipment under the CBP Team's control.

(32) The CBP Team shall update the English and Nepali versions of the Operations and Maintenance Manuals on an ongoing basis to reflect any changes to the Facilities.

(33) The CBP Team shall provide training to KUKL Staff on an on-going basis about the Operations and Maintenance Manuals.

E. Energy Management Plan

(34) The CBP Team shall review and implement an energy management plan designed to reduce the energy costs for operating and maintaining the Facilities (the "Energy Management Plan").

- (35) The Energy Management Plan shall include,
- (a) the identification of possible energy cost savings and the quantification of any associated additional capital and operating costs on a discounted whole-life costing basis;
 - (b) a report on the investigation and identification of alternative energy sources;
 - (c) a report on the investigation of the potential for energy tariff reductions with existing or new energy providers; and
 - (d) advice as to new work practices to reduce energy costs.

F. Connection Policy

(36) The CBP Team shall review the connection policy (the "Connection Policy"), network extension policy and Illegal connection policy of KUKL and recommend revisions as required. .

G. Low Income Consumer Support Unit

(37) The CBP Team shall review the working of Low Income Consumer Support Unit (the "LICSU") established under KUKL with an objective of improving the service provided to low income households. Initially, the low income households will be delivered improved service through community taps but the long term goal is to enable low income households to connect to the distribution network by extending the tertiary distribution system into areas with large numbers of low income households that are not connected to the water supply network. The CBP Team shall supervise and oversee the operation of the LICSU on behalf of KUKL as required under the license and provide administrative support.

H. Geographical Information System

(38) The CBP Team shall manage the Geographical Information System ("GIS") of the KUKL for both water and wastewater systems which shall be integrated with the Facilities Database and shall include, as a minimum,

- (a) primary and secondary distribution mains and all associated bulk meters, valves, hydrants, junction details and details of water supply infrastructure; and
- (b) primary and secondary components of the sewerage system including separate foul and combined foul and stormwater sewers, excluding stormwater drains.

(39) No later than 18 months after the Starting Date, the CBP Team shall ensure completion of the GIS for the primary and secondary water distribution networks including all primary and secondary distribution mains with diameters 50 mm or greater, based upon digital mapping funded by the ongoing JCA project. It should be noted that the GIS and HNM works would already be started and works underway by the time the CBP team is mobilized.

(40) No later than 30 months after the Starting Date, the CBP Team shall ensure that the GIS is extended to record at least 75 percent of all service connections to the water supply distribution network.

(41) No later than 30 months after the Starting Date, the CBP Team shall complete the GIS for the strategic sewer network comprising foul and combined foul and stormwater sewers 200 mm diameter and larger, including digital mapping.

(42) At the request of the KUKL, the CBP Team shall provide to KVWSMB a copy of the GIS capable of running on a stand-alone computer terminal.

I. Repair Database

(43) The CBP Team shall supervise the design, compilation and maintenance of a computerized repair database which shall, as a minimum,

- (a) record data on pipe burst locations and be integrated with the GIS system enabling pipes experiencing high burst rates to be identified; and
- (b) record details of pipe cut outs taken during repair operations including photographs and wall thicknesses taken before and after shot blasting.

J. Network Analysis

(44) The CBP Team shall review and ensure that the existing Strategic Network Model (a hydraulic network model of the distribution network supplying each water supply zone identified in the Supply Schedule) is updated on an annual basis to reflect distribution network improvements.

3.3.7 General Water Operations Services

A. Management of Raw Water Sources

(45) The CBP Team shall manage the operation and maintenance of raw water sources, including the improvement of community and non-KUKL sources where funds are available and the KUKL agrees, in a sustainable and efficient manner and shall ensure that the provision of full metering of raw water sources is achieved.

(46) The CBP Team shall undertake an inspection of all water sources, including abandoned sources and abandoned boreholes, and shall identify in the Water Sources and Treatment Report any deficiencies and recommendations for improvements to the sources which would improve the production and collection of water.

(47) The CBP Team shall manage the implementation of water source improvements where funds are available under the Operations and Maintenance Budget, Demonstration Project, and the CIAMP.

(48) The CBP Team shall assist KUKL to comply with the terms of all formal agreements between the NWSC, including predecessors to the NWSC, and other persons, firms, corporations or government entities for the supply of raw water for specific approved purposes.

B. Pumping, Treatment and Disinfection

(49) The CBP Team shall manage the operation of water treatment Facilities so as to achieve the Water Quality Standards as required under the license and minimise water losses.

(50) The CBP Team shall manage the completion of implementation of water treatment Facilities improvements identified and recommended for implementation following inspection of water treatment facilities.

(51) The CBP Team shall,

- (a) ensure pump operability and functionality;
- (b) ensure the operability and functionality of all booster stations;
- (c) ensure the operability and functionality of the water transmission system;
- (d) ensure that all meters associated with the pumping and transportation of water are accurate and fully operational and functional;
- (e) engage in leak detection monitoring of the pumping and transportation of water;

- (f) carry out all required disinfection of water in the water supply and distribution facilities;
- (g) conduct a water quality testing program in accordance with the Water and Wastewater Quality Sampling and Testing Program; and
- (h) manage all laboratories and laboratory functions of the KUKL .

C. Water Quality Standards

(52) The CBP Team shall ensure treatment of raw water to comply with the water quality standards set by the Nepal Government (the "Water Quality Standards") at the point that treated water enters into the treated water distribution network.

(53) If the CBP Team is unable to achieve the Water Quality Standards at the point that treated water enters into the treated water distribution network due to the lack of appropriate water treatment processes at the water treatment Facilities, the procedures set out in Section 2 of Attachment 1 to the Performance Standards Schedule shall apply.

D. Community Taps

(54) The CBP Team, after consultation with the LICSU, shall regularly review the Community Tap Improvement Plan (the "Community Tap Improvement Plan").

(55) The CBP Team shall take appropriate actions to promote the handover of all public standposts to either municipalities, Water User Groups or private vendors no later than two year after the Starting Date. Handover shall be deemed to have occurred once a Community Tap Connection Agreement has been made between the new operator of the Community Tap and the KUKL. For standposts where an agreement has not been reached within two year of the Starting Date, the CBP Team shall issue a notice of closure for the standpost. If an agreement is not reached within a further 3 months, then the CBP Team shall close the standpost.

E. Extending Water Distribution into Low Income Priority Areas

(56) The CBP Team, after consultation with the LICSU, shall consult with the Advisory Committee and relevant non-governmental organisations as indicated by the Advisory Committee and use studies on the locations of unconnected poor households to identify Low Income Priority Areas ("LIPAs") for extending the water distribution network to supply low income households.

(57) The CBP Team shall submit plans demarcating the proposed LIPAs to the KUKL for transmission to the KVWSMB for review and approval.

(58) Following approval of the LIPA demarcation, the CBP Team shall develop a plan for extending the water distribution network with the objective of providing tertiary distribution mains within 50 metres of all households in the LIPAs (the "LIPA Plan"). The CBP Team shall review and update, in consultation with the Advisory Committee and relevant non-governmental organizations as indicated by the Advisory Committee, no less frequently than once every 2 years.

(59) The CBP Team shall include the works for extending the distribution network into the LIPAs in the CIAMP.

3.3.8 General Wastewater Operations Services

- (60) The CBP Team shall in respect of the wastewater Facilities,
 - (a) manage, operate and maintain all wastewater collectors and interceptors;
 - (b) monitor for and respond to reports of flow blockages;
 - (c) carry out flushing of sewers on an as-needed basis;
 - (d) provide connections to the wastewater collection system in accordance with the Connection Policy;
 - (e) carry out the pumping and transportation of untreated wastewater to the wastewater treatment Facilities;
 - (f) inspect surcharged sewers, identify causes of surcharging, and recommend and take corrective measures
 - (g) manage, operate and maintain all pumps to ensure pump operability and functionality;
 - (h) manage, operate and maintain all wastewater treatment Facilities; and
 - (i) carry out testing of influent and effluent quality on a daily basis and measure effluent quantity on a daily basis in accordance with protocols as set out in the Incentive Fee Appendix.

3.3.9. General Maintenance Improvement Programs

A. Maintenance Management Programs

(61) The CBP Team shall review the existing maintenance practices of the KUKL and shall develop comprehensive maintenance programs for the Facilities, vehicles and equipment (the "Maintenance Management Programs").

(62) The Maintenance Management Programs developed by the CBP Team shall include,

- (a) corrective maintenance programs; and
 - (b) preventive maintenance programs, including,
 - (i) programs for all maintenance activities required to maintain any warranties related to the Facilities, vehicles and equipment;
 - (ii) vehicle and equipment maintenance programs; and
 - (iii) systems of planning, scheduling and recording all maintenance activities.
- (63) The CBP Team shall implement,
- (a) the corrective Maintenance Management Programs immediately; and

- (b) all scheduled preventive maintenance in accordance with the preventive Maintenance Management Programs.

B. Computerised Maintenance Management System

(64) The CBP Team shall submit, or review the existing if applicable, to the KUKL as part of the Information Systems Strategy a review of internationally available Computerized Maintenance Management Systems (the “CMMS”), together with recommendations for a preferred CMMS that meets the needs and circumstances of the KUKL and the Facilities and is cost effective and efficient.

(65) The CMMS shall include,

- (a) a computerised inventory management system that meets, at a minimum, the requirements of SA Section 5.1.3;
- (b) a computerised preventive maintenance management program fulfilling at least the requirements of SA Section 6.1.1(2)(b).

3.3.10 General Maintenance Services

(66) The CBP Team shall carry out all corrective and preventive maintenance programs for the Facilities and the vehicles and equipment in accordance with the Maintenance Management Programs.

3.3.11 Unaccounted for Water Reduction

(67) The CBP Team shall review and if required, recommend revision in the unaccounted for water reduction strategy for both raw water mains and the distribution network (the “Unaccounted for Water Reduction Strategy”). The CBP Team shall implement the Unaccounted for Water Reduction Program.,

(68) The Unaccounted for Water Reduction Strategy shall be updated once each Year, in accordance with a timetable to be determined by the KUKL, to reflect improved information and the revised approaches and strategies for the subsequent Year. The CBP Team shall select the priority approaches and strategies for the subsequent Year based on, among other things, an informed judgment about the ratio of the expected benefits to the expected costs of implementing different methods of reducing unaccounted for water.

3.3.12 Water Meters

(69) The CBP Team shall manage the implementation of a programme for calibration, repair and replacement of water meters and for ensuring that meters are located in suitable locations.

3.3.13 Asset Management Improvement Programs

A. Facilities Database

(70) The CBP Team shall, using the Draft Asset Register as a basis,

- (a) prepare and update a computerized database of all components and major equipment of the Facilities which shall be linked to the GIS of the water distribution network and sewerage system and include an

independent revaluation of the Facilities including the age and capacities of the Facilities (the “Facilities Database”); and

- (b) carry out any physical inspection of the Facilities as may be required to prepare the Facilities Database.

(71) The CBP Team shall prepare and maintain the Facilities Database in such a way as to enable KUKL to plan the optimal renewal and replacement of Facilities on a continuing basis after the initial capital works included in the CIAMP.

B. Final Condition Survey

(72) Prior to the End Date, the CBP Team shall conduct a condition survey of the Facilities (the “Final Condition Survey”) and shall record the results of the Final Condition Survey on the Facilities Database.

3.3.14 Final Transition Plan

(73) The CBP Team shall develop a plan to hand-over the Facilities to a Subsequent Management Team at the end of the term of the Assignment (the “Final Transition Plan”).

- (74) The Final Transition Plan shall include,
 - (a) plans to transfer the management of the Facilities to the KUKL management staff;
 - (b) a proposed process for the transfer of all Records to the KUKL; and
 - (c) plans to transfer operations and maintenance functions to the KUKL management staff.

3.3.15 Capital Investment and Asset Management – CBP Team’s Role

(75) No later than 18 months after the Starting Date, CBP Team, with the assistance from Consultants, shall submit an updated detailed capital investment and asset management program with respect to the Facilities (the “CIAMP”) to KVWSMB for review and approval. The objectives of the updated CIAMP, are, shall include:

- (a) to increase hours of water supply until 24 hour per day water supplies are provided to all Customers;
 - (b) to facilitate the distribution of water from the Melamchi Water Treatment Works to be constructed under the Melamchi Water Supply Project; and
 - (c) to promote appropriate wastewater services, including septic tanks and other forms of on-site sanitation, as appropriate in the circumstances, for all Customers including the provision of sewerage services where it is economic to do so.
- (76) The CIAMP prepared shall include the following activities:
- (a) construction of a bulk distribution system to transfer water from the Melamchi Water Treatment Plant to service reservoirs serving the distribution network sized for 2025 demand;

- (b) construction of service reservoirs sized for phased construction up to 2025;
- (c) rehabilitation of the existing primary and secondary distribution networks, including the replacement of mains where appropriate with mains sized for 2025 demands;
- (d) rehabilitation of the existing tertiary distribution networks, including the replacement of mains where appropriate with mains sized for 2025 demands and fire fighting requirements;
- (e) removals of clusters of small diameter house connections and the provision of new house connections and tertiary distribution mains all designed for 2025 demands and fire fighting requirements where appropriate;
- (f) extension of the water distribution network to supply Low Income Priority Areas;
- (g) pre-Melamchi water supply augmentation, which may include rehabilitation of existing boreholes, new groundwater development, and conjunctive use of surface and groundwater sources;
- (h) rehabilitation of source works, water transmission facilities and water treatment works where required to maintain an appropriate level of service to customers; and
- (i) wastewater system improvements which may include rehabilitation of existing wastewater treatment works, sewers and pumping stations and the construction of new interceptor sewers.

The CBP Team shall manage the implementation of Capital Investment and Asset Management Program.

3.3.16 Information Systems-Billings, Collection and Customer Service

(77) The CBP Team shall review the existing billings and collection system which is being implemented across the KUKL's branches and to make recommendations for modifications and improvements, if any, to the system for review and approval by KUKL in the Information Systems Strategy.

(78) Following review of the Information Systems Strategy, the CBP Team shall ensure that necessary modifications and improvements, if any, are made to the billings and collection system and that the computerisation of all branches is completed in accordance with the Information Systems Strategy.

3.3.17 . Customer Service and Financial Management Services

A. Billings

- (79) The CBP Team shall manage to ensure that,
- (a) all Customer meters are read on a monthly basis;
 - (b) all Customer meter readings are registered in the computer database;

- (c) a program is developed and implemented to estimate consumption in circumstances where metering problems exist;
- (d) methods to improve the meter reading process is implemented to ensure greater accuracy and to increase accounted for water;

B. Collections

- (80) The CBP Team shall manage to ensure that,
- (a) all amounts due to the KUKL related to the Services are collected either through direct collection, banks, post offices or cashiers in billing offices or by other means as may be agreed to by the KUKL which may include intermediate collection of bills by NGOs;
 - (b) all outstanding accounts are identified and recorded and all necessary measures to collect outstanding accounts are taken ; and
 - (c) develop a policy for collecting bad debts from Customers which may include as a last resort disconnecting Customers whose bills are unpaid for in excess of 4 months.

C. Customer Complaints

(81) The CBP Team shall review and update the Customer complaints management policy in order to

(82) a) receive and handle all Customer complaints, including complaints related to, i) water and sewerage bills; ii) malfunctioning or inaccurate meters; iii) meter readings; iv) water pressure; v) blockage of water and wastewater pipes; vi) leakage and damaged pipes; and vii) pipes installed on private properties;

b) receive and respond to all requests related to i) a change in meter location; ii) a change in Customer names; and iii) cancellation by Customers; and

c) record as a minimum, i) the frequency and character of complaints received; ii) actions taken in response to complaints; iii) the date and time of all complaints and actions; and iv) a Customer reference number of the complainant.

(83) As part of the Customer complaints management policy the CBP Team, and KVWSMB shall jointly establish,

- (a) a methodology for monitoring the time that it takes the to respond to the various categories of Customer complaints and requests as well as reports of leaks and other faults in the water distribution and sewer networks; and
- (b) a set of targets for either the average time taken to respond or the 90th percentile of the distribution of the time taken to respond to different categories of Customer complaints and reports of leaks and other faults.

D. Public Information Program

- (c) The CBP Team shall review and implement a water and wastewater public information program to educate the public (the “Public Information Program”), which shall be targeted at all sections of the community including, through the LICSU, unconnected and connected poor households

4.0 REPORTING

4.1 Inception Report

The CBP Team will prepare An inception report outlining the team’s work plan and detailed report delivery schedule, including the time frame when drafts of all the abovementioned reports will be prepared, submitted to the relevant parties for review and final reports submitted, within 3 months of their mobilization and submit to KUKL Board of Directors for approval. Once agreed with the Board of Directors, the CBP Team will deliver all the reports as per the agreed schedule.

4.2 Monthly Progress Reports

(84) The CBP Team shall prepare and deliver to the KUKL a brief report (the “Monthly Progress Report”) consisting of approximately 5 pages, excluding any annexes or attachments, in English.

- (85) The Monthly Progress Report shall include a brief description of,
 - (a) major activities carried out by the CBP Team during the last one month and the results obtained;
 - (b) major activities planned for the subsequent months;
 - (c) any problems foreseen; and
 - (d) solutions proposed to deal with the problems cited, including any actions that, in the CBP Team’s opinion, will need to be taken by governmental entities other than KUKL .

4.3 Annual Report and Other reports as per KUKL’s License

The CBP Team shall submit to the KUKL an annual report (the “Annual Report”) in English summarising the activities of the CBP Team in the previous Contract Year in accordance with the format specified by KUKL, and any other information that may reasonably be required by the KUKL .

The CBP Team shall also prepare quarterly operational progress report and other reports to meet KUKL obligations under the license issued by KVWSMB to KUKL , as mentioned above in the scope of works.

5.0 INDICATIVE STAFFING

Professional Staff	Type	Person-Months
Core Team		
General Manager/ Team Leader	International	44

Operations and Technical Manager	International	44
Finance and Administration Manager	International	44
Other Advisors		
Information Systems and Customer Communications Advisor	International	6
Information Systems and Customer Communications Advisor	National	30
Water Supply Distribution Network Advisor	International	10
Low Income Consumer Support Unit Advisor	National	30
Wastewater Services Advisor	International	10
Wastewater Services Advisor	National	30
Human Resource Development Advisor	National	24
Public Relations and Media Advisor	National	30
Procurement Advisor	International	12
Procurement Advisor	National	36
Pool of short term specialists	International	14
Pool of short term specialists	National	76
Total		440
