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BUSINESS PLAN

2009-2013

FINAL

FIER WATER SUPPLY AND SEWERAGE COMPANY



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1 INTRODUCTION TO FIER WATER SUPPLY AND SEWERAGE COMPANY

1.1 Background on the Company

Fier Water Supply and Sewerage Company provides retail water supply and sewerage services to its registered customers within the administrative boundary of the Municipality of Fier, as well as to the Communes of Frakull, Roskovec, Topoje, Seman, Dermenas, Levan, Qendër, and Kuman, all of which represents its licensed service area.

Based on the Council of Ministers Decision No 660 dated 12.09.2007, the Fier Water Supply and Sewerage Company was formally transferred to the local governments within its service area, effective on 1 January 2008.

The problems faced by the Fier Water Supply and Sewerage Company are both unique and yet similar to the problems faced by other water supply and sewerage utilities across Albania. These problems have to do with poor water demand management, resulting in high rates of “non-revenue water”; poor continuity of service, resulting in intermittent supply periods during the day, in a number of significant parts of the service area; low bill collection rates, with sizeable past due payments; lack of adequate cost recovery from tariffs; over staffing and lack of professional, experienced technicians; old technology; and a need to increase service coverage within its defined service area.

Although some of the issues will require capital investment to remedy the situation and improve performance, all of them require a more focused, results oriented management philosophy that approaches the water utility as a commercial activity that complies with sound market behavior principals.

Fier Water Supply and Sewerage Company was one of the first water supply and sewerage companies in Albania to be selected to be part of a Private Sector Participation Program. The overall development objective of the Ministry of Public Works, Transport and Telecommunications, under that Program, and with the financial support of The World Bank, was to introduce an incentive based, multi-city “management contract” approach to improve water supply and sewerage services, and achieve financial viability in the participating water utilities of Durrës, Fier, Lezhe and Saranda.

A five-year Management Contract was signed with the Private Operator - Berlinwasser GmbH in August, 2003. At that time, the Management Contractor assumed full responsibility for the management and administration of the four water utilities.

The following were the key objectives of the Management Contract implemented by the Berlinwasser:

- Improve the standard and efficiency of the water supply and wastewater services of the Water Companies, with particular regard to improving the duration, reliability, and disinfection quality of the water supply services;
- Increase consumer willingness to pay for water supply and wastewater services through a higher quality and more consumer responsive service;
- Improve the financial performance of the Water Companies and achieve a financially sustainable operation;

- Train and develop the staff of the four Water Companies to enable the improvements achieved by the Private Operator in management, operation and financial performance to be sustained beyond the term of the Contract;
- Procure operations and maintenance equipment, and repair and rehabilitate the infrastructure of the Water Companies, under an Operation Investment Fund Program; prepare and maintain investment plans for the application of capital funds during the term of the contract; and assess the longer term investment needs of each of the Water Companies.

The Management Contractor directed the major operation, maintenance and management activities of the four Water Companies. Computerized billing and collection, and financial and accounting systems were installed, and made operational. The computerized accounting information system also contains a fixed asset register model, but transfer of the old, hand written data available from the utilities produced a problem, since the old data either did not contain detailed background information, or none of the necessary information existed. Hence, only the detailed information on the new assets provided under the Management Contract were able to be entered into the asset register.

At the time of the preparation of this Business Plan, the management contract had ended and the Company was under the full management of its employees, with a new Director having been appointed in June 2008.

It can be stated that there have been some noticeable improvements in the provision of the water supply and sewerage services, since the start of the Management Contract. However, there still remain some serious concerns, particularly as they relate to the financial and operational sustainability of the Company.

Significant investments were made in the area of water production facilities with the drilling of new wells at the Kafaraj Well Field. This investment has led to increased availability of water supply to be distributed to the customers. However, the Private Operator failed to complete the execution of all of the works for the rehabilitation of the Kafaraj Well Field, and its pump station, on time, and it was agreed that the Central Government, through the General Directorate of Water Supply and Sewerage, would continue to fund and complete these improvement measures.

At this point in time, there is a significant lack of metering throughout the system, therefore, no meaningful water balance records have been maintained to determine, with any accuracy, the amount of non-revenue or lost water, which occurs in the system. Based on the estimated water produced, and the estimated water billed, the estimated percent of non-revenue water would appear to be 76% of the volume of water produced. This is an unacceptably high rate of non-revenue water (NRW).

The activities of the utility in financial administration and revenue generation have been improved significantly, whilst the capacity of the Company, with regard to customer relations and technical administration, has not experienced significant improvement.

1.2 Recent Statistics and Performance Measures

To provide a more quantified description of the Fier Water Supply and Sewerage Company, and its service area, recent statistics and performance measures have been summarized and are presented in Table 1-1.

**Table 1-1
Served Population and Water Use Data for 2008**

Statistics/Indicators	Average Values and Indicators
Total Population in the Service Area	127,000
Estimated Served Population	96,300
% of Population Served in Service Area (coverage)	76%
Number of Registered Connections:	
Household	21,400
Private Entities	2,130
Budgetary Institutions	76
Industry	2
Total	23,608
Estimated Annual Volume of Water Produced (cubic meters)	15,373,800
Estimated Annual Volume of Water Billed (cubic meters)	3,637,654
Estimated Percent Non-Revenue Water (Produced but Not Billed)	76%

Since accurate population data are not available, the served population presented in Table 1-1 was determined by taking the number of registered household connections, and applying a constant of 4.5 people per household connection, as published by the Institute for Statistics (INSTAT) for the Fier Region.

Based on a recent analysis carried out by the senior management of the Fier utility, it became very obvious that the Company is under-billing its registered household customers. Since there are very few customer meters installed to determine the volume of water consumed, the Company bills its household customers applying a consumption norm of 4.5 cubic meters per month, per person residing in a given household.

Significant under reporting of household occupancy, due to previous mismanagement, has resulted in an average calculated occupancy, based on Company records, of 2.2 people per household connection. By applying the INSTAT value for household occupancy of 4.5 people per household connection, as an average, it is obvious that the Company could be billing over twice as much water as it currently bills to its household customers.

The tariff approval history for the Company is as shown in the Tables 1-2 below.

**Table 1-2
Regulator Approved Water and Sewerage Tariff Structure**

WATER			
Category	2006	2007	2008
Households	30 Lek/m3	35 Lek/m3	35 Lek/m3
Budgetary Institutions	80 Lek/m3	90 Lek/m3	90 Lek/m3
Private Enterprises	60 Lek/m3	70 Lek/m3	70 Lek/m3

SEWERAGE			
Category	2006	2007	2008
Households	6 Lek/m3	6 Lek/m3	6 Lek/m3
Budgetary Institutions	13 Lek/m3	13 Lek/m3	13 Lek/m3
Private Enterprises	11 Lek/m3	11 Lek/m3	11 Lek/m3

The financial performance of the Company is summarized in the Table 1-3 for the Years 2005-2007.

**Table 1-3
Summary of Income, Expenses and Subsidies (2005-2007)**

Types of Revenue/Expense	2005	2006	2007
Revenues from Main Service Activities	137,953,093	211,687,673	205,445,590
Revenues from Other Services	5,769,260	8,994,027	9,647,840
Other Revenues (Operation and Investment Subsidies)	138,508,891	169,688,319	81,489,791
Financial Revenues	313,801	88,427	26,616
Total Revenues	282,545,045	390,458,446	296,609,837
Purchases and Materials	152,233,014	129,732,286	135,798,514
Personnel Expenses	74,589,610	78,307,304	80,516,642
Other Operating Expenses	1,220,079	112,848,300	44,066
Total Expenses	228,042,703	320,887,890	216,359,222
Profit/Loss before Depreciation	54,502,342	69,570,556	80,250,615
Depreciation and Other Provisions	54,328,010	61,845,598	72,214,866
Profit Loss before Tax	174,332	7,724,958	8,035,749
Profit Tax	40,096	1,544,991	1,607,149
Net Profit	134,236	6,179,967	6,428,600

As presented in Table 1-3, the Company is showing positive results for the years 2005-2007, but there is still a continuing problem in terms of the Company's ability to achieve full cost coverage and financial sustainability from revenues derived from its main activities. As shown in Table 1-3, the Company's financial viability is dependent on subsidies from Central Government.

This Business Plan is the first step in attempting to address the overall performance efficiency of the Company to become financially self-sustaining, and to generate sufficient revenues for funding the necessary capital repair and replacements needed to maintain the system in a cost-effective manner, at a reliable level of performance.

The development and implementation of the Business Plan will have a significant, positive impact on the Municipality of Fier and the surrounding communes within the service areas of the Company, in their role as the Owner of the Company.

With the Business Plan, the Local Governments will be able to better understand, and follow more closely, the performance of the Company, and therefore realistically plan local investments for performance improvement.

2 MISSION STATEMENT

The Fier Water Supply and Sewerage Company has defined its Mission Statement to be the following:

- To strategically provide a reliable and secure supply of high quality drinking water to its currently connected and future urban and rural customers, in sufficient quantity and in compliance with the laws applicable in the Republic of Albania, at a reasonable price, and in an environmentally responsible manner.
- To provide quality sewage collection, treatment and disposal services to safeguard public health and in compliance with standards to protect public health and the environment.
- To train and maintain a qualified, productive workforce, and to maintain a workplace environment, where diversity and excellence are valued and where creativity, teamwork and open communication are actively encouraged.
- To provide prompt, courteous and responsive customer service.
- To ensure that sound, responsible financial management practices are observed in the conduct of the Company's business.

3 SENIOR MANAGEMENT OVERVIEW OF BUSINESS PLAN

The Fier Water Supply and Sewerage Company is a joint stock company that is owned by the Municipality of Fier and the surrounding communes that are within the service area of the Company. The Senior Management believes that the business plan will bring a greater transparency to the planning and decision making process of the Company so that the surrounding communities can better respond the need for water supply and sewerage services in their area. The Senior Management of the Fier Water Supply and Sewerage Company has been very dynamic and serious in taking this opportunity to prepare its first Five-Year Business Plan, for the period 2009-2013.

Although, Fier Water Supply and Sewerage Company operated for 5 years under a Management Contract funded by the World Bank, the Senior Management of the Company realizes that the Management Contract has not achieved its main objective of transforming the Utility into a self-financing entity that provides continuous and sufficient water supply at an affordable cost and a safe quality for their customers. Significant investments into production facilities (still not finished) have led to increased availability of water to be distributed to the customers. However, the excessive rates of non-revenue water remained very high and nearly unchanged.

The Business Plan 2009-2013 addresses also the subsidy requests or applications for grants to the Central Government/Donors for new capital investments, as well as a requirement of the Water Utility Regulatory Commission for application for tariff adjustments. The Senior Management is highly motivated to conduct an annual Business Plan update and to keep its Business Plan current.

In addition, the Senior Management is determined to capitalize upon the efforts made towards building staff capacity through continued training to optimize the operation of the Billing and Collection, and Finance/Accounting computerized management systems, which were procured and installed during the management contract.

During the Business Planning Process, the Senior Management Staff maintained very cooperative relations with the municipal official, including the Office of the Mayor of Fier, who have been very supportive, interested and committed to support the Business Planning Process. In addition, the members of the Supervisory Council of the Company have been fully informed regarding the key areas of the Business Plan, and have expressed their initiatives to undertake further actions to monitor the implementation of the Business Plan, and the Performance Improvement Program to meet the specified targets.

The Company recognizes the need, as a result of the business planning process, to place a greater emphasis on moving toward total cost recovery in its financial performance, and thereby ensure that it is addressing the asset management needs of the systems in a timely and responsible fashion. Therefore, the Business Plan has set quantified, annual targets for making cash contributions, from free cash flow, to capital funds in its revenue needs budgeting. This will largely have to come from a more realistic increase in fee and tariff structures, which are presented in the Business Plan.

3.1 Focus on Priority Issues

The Senior Management of the Fier Water Supply and Sewerage Company fully understands the importance of addressing both the commercial and technical challenges that the Water Company faces in moving toward being a financially self-sustaining utility that is credit worthy (e.g., can assume debt from banks or commercial lenders).

The critical issues for the Fier Water Supply and Sewerage Company, going forward, relative to its water supply operations, and which are addressed in this Business Plan (2009-2013) can be stated as follows:

- Implement water demand management strategies, so as to reduce the percent non-revenue water, in relation to produced water.
- Optimize the use of pumps to reduce the number of pumps in service, increase their reliability and efficiency, and improve the overall continuity of supply to the customers.
- Accurately bill all customers that receive services from the Fier Water Supply and Sewerage Company, and increasingly do so on a volumetrically metered basis.
- Collect the revenues billed to customers to improve the bill collection rate.

Regardless of the minor interventions made during the Management Contract to eliminate the illegal connections and reduce water losses, water supply remains an issue of concern in the areas of increasing investment in the water supply network and implementing an adequate customer metering program. The Company staff is very committed to achieve the target of 100% metered customers by the end of 2013.

The planning process used by the Senior Management to prepare this Business Plan was a valuable experience that helped management better understand the factors that impact the commercial success of the Company. The historical analysis of the performance data, the forecasting methods used to predict future sales, and the impact of decisions for cost reductions allowed the Senior Management team to focus on the priority issues and to take a position on each.

3.2 Disciplined Monitoring, Reporting and Corrective Actions

This Business Plan describes a series of stated Strategic Objectives and Actions Plans (Performance Improvement Plans) that have been defined to achieve the financial objectives reflected in the Five-Year Cost Budget Forecast, and are required by the Company to sustain its operations. However, the senior management recognizes that the success of this Business Plan will be the result of regular monitoring of progress against the Business Plan, and corrective actions by the Senior Management, when the desired performance is not being achieved.

To insure that the Company, through its staff, is progressing to make the necessary improvements in its operations, the Senior Management team will meet monthly, after the preceding month's financial, operational, and customer service data is available, in proper report formats, to review the Company's performance compared with the Strategic Objectives of the Business Plan.

4 WATER DEMAND MANAGEMENT ANALYSIS AND FORECAST

Water demand management, within the Fier water supply system, has always been a priority issue, since the supply system has been historically based on well supply sources. Therefore, all water supplied to the system must be pumped from the well supply up to the storage tanks to supply both urban and rural zones. This need to rely on a total well-based supply source makes energy a significant cost consideration for the Company.

At this time, the Fier service area is supplied with water from a single well field supply source known as the Kafaraj Well Field, which consists of ten individual wells, each of them with a capacity ranging from 80–135 liters /sec, and with a total estimated safe yield capacity of 790 liters/sec.

Each of the wells in the Kafaraj Well Field pumps to two suction tanks at the main pump station, also located at the site of the well field, which have a storage capacity of 600 cubic meters each. The main pump station at the well field is equipped with six (6) 680 KW pumps, pumping water into two transmission mains as follows:

- Ductile cast iron (DCI) pipe (ND 800 mm), with a total length of 10.5 km, and which supplies three, elevated storage reservoirs within the City of Fier on Koshovica hill. Two of the reservoirs have a capacity 4,200 cubic meters each, and one reservoir has a capacity of 5,000 cubic meters.
- Steel pipe (ND 529 mm), with a total length of 5.5 km, which supplies water to the Commune of Frakull , which has six villages, and to the Commune of Levan, which has three villages.

From the storage reservoirs in the City of Fier, the water flows by gravity into two main distribution pipelines supplying the following major networks:

- Industrial Zone (TEC and the refinery) in a steel pipe constructed in 1971.
- City of Fier in a DCI 800 pipeline 3 km in length constructed in 2004.

The relative age of the distribution network in the City of Fier can be summarized as follows:

- 30% constructed around 1940 as cast iron pipe with a ND 100-200 mm
- 50% constructed between 1970-1985 mainly as steel pipe with a ND 100-400 mm
- 20% constructed between 2004-2006 mainly as DCI pipe

This most recent investment in the distribution network was designed to create four pressure rings, within the City, with diameters ranging from ND 250-400 mm. With this more recent investment, a pressure of 0.5 atmospheres can be maintained in the four pressure rings. This allows the Company to provide a continuous (24-hour) water supply to approximately 70% of the City. The remainder of the City network is supplied on a schedule, twice a day as follows: 05:00-07:00 hours in the morning and 14:00-20:00 hours in the evening.

With no flow meters at the each of the wells, at the inlet or outlet of the well field pump station, or at the storage reservoirs, the volume of water actually produced and supplied to

the system can only be estimated, at this time, based on the hours of operation of the pumps.

Likewise, the low level of metered customer connections does not allow for a determination of individual and aggregate customer demand, at the point of use.

4.1 Methodology for Determining Water Demand

A spreadsheet based workbook has been developed, as a part of this Business Plan, to support the calculations needing to be performed in determining water demand. This workbook is attached to this Business Plan as Annex B.

The methodology used in this Business Plan to determine water demand was based on establishing a demand norm per capita for the served population and relating that to data that was available for the served population. The demand norm per capita, as applied in this methodology, is not the actual consumption need of an individual person, but rather a value reflecting the total consumption needed for all water uses in the service area, divided by the number of people actually served.

4.2 Service Area Population and Served Population

The first step in preparing the water demand forecast was to determine the “total” and “served” population within the defined service area of the Fier Water Supply and Sewerage Company, and the “water demand per capita per day”, since these are the only variables used in applying this methodology.

The Company management considered two primary sources for the population data in the service area, which were the respective local governments in the service area, and the data available from the Institute for Statistics (INSTAT). The approach taken to attempt to accurately estimate the “served population” was to consider the customer records of the Company.

The population within the service area of the Fier Water Supply and Sewerage Company that was decided to be used by the Company’s management is 127,000 people. The data from INSTAT states that a household in the Fier service area has an average occupancy of 4.5 people. Applying this value to the total number of registered household connections recorded by the Company would suggest a served population of 96,300 or service coverage of 76 % for the base year 2008, as shown in the Table 4-1.

**Table 4-1
Population in the Service Area and Served Population
Base Year 2008**

Description	Value
Population in the Service Area	127,000
Population Served Based on Registered Connections	96,300
Unserved Population	30,700
% of Population Provided with Water Supply Service	76%

The Company management is undertaking a program during 2009 to expand the service area in the communal areas of Kuman, Roskovec, and Frakull, which are reported to have

a total population of 28,000 and 809 registered household connections. Applying the same value for occupancy per household of 4.5 people to the total number of registered household connections, after the expansion of the service area, will suggest in a served population of 105,400, or a service coverage of 68 % for the year 2009, as shown in Table 4-2. In light of this program of expansion, the Year 2009 (post expansion) population in the service area and the number of registered household connections will be those as defined by the Company, to serve as input data to the model in the Business Plan.

**Table 4-2
Population in the Service Area and Served Population
Year 2009**

Description	Value
Population in the Service Area	155,000
Population Served Based on Registered Connections	105,400
Unserved Population	49,600
% of Population Provided with Water Supply Service	68%

The Company management, when addressing the served population, has considered the registered household connections, both with or without consumption during the year. This creates a condition where the system is sized to serve the connected population, but not all of that population is using this service throughout the year. Therefore, based on the number of households considered to be connections with consumption, as determined by the Company, the formula in the Workbook calculates the number of household connections without consumption for the given year. Table 4-3 presents these figures for the Base Year 2008.

**Table 4-3
Registered Household Connections
With Consumption and Without Consumption
Base Year 2008**

Population	Value
Registered Household Connections	21,400
Registered Household Connections with Consumption	16,692
Registered Household Connections without Consumption	4,078
% of Registered Household Connections with Consumption	78%

In preparing the forecast, the Company has chosen a percentage annual population growth rate to be applied to the year 2009 population, which reflects a realistic overall growth rate for the service area. In addition, it has also chosen growth rates for customer connections in each of the other customer categories. The growth rates selected by the Company management and used in the workbook model are presented in Table 4-4.

**Table 4-4
Customer Category Annual Growth Rates
Applied in Water Demand Model**

Description	Value
Population	0.5%
Private Entity Connections	3%
Budgetary Institution Connections	0%
Industrial Connections	0%

One of the targets for the Company is to achieve 90% water supply service coverage by the Year 2013. Based on the assumptions made by the management of the Company, the workbook in Annex B generates the served population for each of the five years of the Business Plan. Any changes in the percentage of population to be provided water supply service (service coverage ratio) is automatically reflected in the value for the served population.

The Company management has been intentionally conservative in its population estimates, since this value, along with the assumed per capita water demand value, drives estimated water sales, which then directly impacts the estimated revenues of the Company in its budget forecast.

Another important analysis that will affect investment decisions is the number of metered connections by customer category. Entering this data into the workbook model allows for a calculation of percent metered connections as shown in Table 4-5.

**Table 4-5
Metered Connections by Customer Category
Base Year 2008**

Customer Category	Total Connections	Metered Connections	% Metered Connections
Household	21,400	6,200	29%
Private Entity	2,130	770	36%
Budgetary Institution	76	46	61%
Industrial*	2	2	100%

The Company is committed to making the necessary investments to increased percent metered connections over the five year period of the Business Plan, so as to reach 100% metered connections for the household category and 100% metered connections for the private entity, budgetary institution and industrial categories, in the Fier service area, by the end of Year 2013.

With this stated objective, the Business Plan Model in Annex B calculates the number of meters needing to be installed, for each year, by category of customer. This calculation currently establishes a need for a total of 25,425 household water meters to be purchased and installed, plus 1,699 private entity meters, 30 budgetary institution meters, within the five year period of the Business Plan, starting at the beginning of the year 2009.

The actual meters installed in a given year will be entered in the Business Plan Model, at the end of a Business Plan year, to revise the data and generate new metered connection ratios.

4.3 Current Water Demand and Projected Water Demand per Capita

Most urban water demand forecasting approaches use a statistical appraisal of per capita (or per customer) water use rates, based on actual metered consumption data. In light of the fact that a large percentage of the Company's service area has no metered consumption history, the methodology applied by the Company is based on establishing a demand norm per capita in the served population, and relating that demand norm to data that is available for the served population.

To support the determination for the Base Year 2008 water demand per capita, the Company utilized the volume of water sales for both metered and non-metered connections.

Given the water sales by customer category, and using the served population, and total population in the service area, the Business Plan Model calculates an apparent demand per capita (liters/capita/day) for each category of customer.

For the household per capita demand, the Model uses the total household demand divided by the number of Household Connections with Consumption multiplied with the occupancy rate for households billed. This occupancy rate varies between 2.2 and 4.3 during the five years of the Business Plan period, with the base year occupancy rate being 2.2 people. This variation is a result of previous mismanagement in verifying the actual number of occupants in at a particular registered household connection. The current utility management is determined to work toward properly billing all customers based on the water demand norms and an "in-field" verified occupancy rate in the projected years of the Business Plan.

The Company Management will work to change this situation, within the five years, with the expectation that the verification program will cause the average occupancy rate, as used on the Model, to become more realistic, with the real value of this fixed variable trending upward to reach 4.3 people per household in the Year 2013.

For the other three categories of customers, the Model uses the number of Household Connections with Consumption multiplied by the number of households billed for a house decided by the company management for each year of the business plan plus the Non-Served Population, as presented in Table 4-6.

**Table 4-6
Current Water Demand per Capita**

Customer Category	Current Water Demand (l/c/d)	Norms Applicable to Albania (l/c/d)
Household	149	80-110
Private Entity	5	15-25
Budgetary Institution	4	5-10
Industrial	58	15-30
Total	216	115-175

In considering the Water Demand Forecast, the Company's Management decided on demand per capita norms (liters per capita per day) for each of the three consumer

categories (household, private entities and budgetary institutions), for each of the five years of the Business Plan Years, that reflected an estimate of water usage by customer category.

The Management selected the water demand norms used in this Business Plan based on the calculated per capita demands in the Base Year 2007, and water demand norms shown in Table 4-5, which are applicable to Albania and applied in other countries, with populations and conditions similar to those in Albania.

In the case of the Fier water supply service area, where the Household category will be 80% metered by the end of 2012, and it is expected that the water demand for this category will decrease as a measured quantity. On the other hand, the demands for the Private Entity category have been trended upward in the beginning of 2010, to approximate what can be expected as the area develops and the economy starts to grow.

Table 4-7 presents how these demand norms have been applied to the Business Plan Model for the Company.

**Table 4-7
Projected Water Demand
(liters/capita/day)**

Consumer Category	2009	2010	2011	2012	2013
Household	149	145	140	93	90
Private Entity	5	6	7	9	10
Budgetary Institution	3	3	3	3	3
Industrial	45	42	42	44	45
Total	202	196	192	149	148

Based on the demand values in Table 4-7 for each customer category, the Model calculates the total annual water sales (demand) forecast (metered and non-metered connections) for the each of the five years of the Business Plan, for each of the consumer categories, which result in the values shown in Table 4-8.

**Table 4-8
Water Sales by Consumer Category
(average cubic meters per year)**

Total Water Sales	2009	2010	2011	2012	2013
Total Household	2,537,445	3,462,645	4,759,942	4,264,943	4,418,523
Total Private Entity	175,669	245,626	297,996	454,085	502,490
Total Budgetary Institutions	105,401	122,813	127,713	151,362	150,747
Total Industrial	1,581,022	1,719,382	1,787,978	2,219,969	2,261,205
Total Water Sales	4,399,538	5,550,466	6,973,630	7,090,358	7,332,965
Occupancy Rate for Households Billed	2.4	3.0	3.5	4.3	4.3

4.4 Non-Revenue Water or Apparent Lost Water

The total volume of water delivered to the Fier water supply system (produced water) in the Base Year was an average of 42,120 cubic meters per day, based on the records of the Company. Table 4-9 presents the well source that supplies the service area of the Company.

**Table 4-9
Kafaraj Wellfield Capacity**

Source of Supply	Safe Yield Capacity	
	liters/sec	cubic meters per day
Kafaraj Wells	790	68,256

The Company currently does not supply (sell) bulk water outside its service area, and does not purchase bulk water from other suppliers outside its service area.

Given the volume of water that was delivered to the system in the Base Year 2008, and the retail water demand for all uses, it can be determined that the “Non-Revenue Water”, water produced but not sold, is about 76% of the amount of water produced.

A Strategic Goal of the Company, which will be discussed in greater detail later in the Business Plan, is to reduce Non-Revenue Water from 76% in the Base Year 2008 to 30% by the end of the Year 2013, which it expects to do by metering 100% of the connected customers, and by eliminating all illegal connections to the system.

Table 4-10 shows the impact of the reduction in Percent Non-Revenue Water, starting in the Base Year and over the period of the Business Plan for the water supply service area, while also showing the forecasted water sales, based on the forecasted per capita demand rates, and the reduced total production based on the more rationalized demand for water, and the anticipated reduction in real water losses.

**Table 4-10
Forecasted Reduction in Non-Revenue Water
(volumes in cubic meters per day)**

Description	2008	2009	2010	2011	2012	2013
Total Retail Water Demand (Sold)	9,966	12,054	15,207	17,816	18,041	19,199
Total Produced Water (Input to System)	42,120	40,178	43,448	44,540	30,069	27,427
Non-Revenue Water	32,154	28,125	28,241	26,724	12,027	8,228
% Non-Revenue Water	76%	70%	65%	60%	40%	30%

5 STRATEGIC GOALS ADDRESSED IN THE BUSINESS PLAN

The Fier Water Supply and Sewerage Company, in developing this Business Plan for the Years 2009-2013, has identified specific Strategic Goals that establish the priorities for action by the Company, and the basis for the allocation of resources and necessary investments.

In identifying and selecting these Strategic Goals, the management team of the Company has been careful to insure that the defined Strategic Goals are specific, quantified, and time bound in terms of assessing their achievement.

These Strategic Goals are as follows:

- Reduce Non-Revenue Water as a percentage of the volume of water produced and input to the systems from 76% in 2008 to 30% in 2013, with the interim goals of achieving 70% non revenue water by the end of 2009, 65% in 2010, 60% by the end of 2011 and 40% by the end of 2012.
- Increase bill collection rate:
 - a) On current bills from a weighted average of 71.4 % in 2008 to a weighted average of 95.7% in 2013 for different groups of customers based on the following structure:

Households		Private Entities		Budget Institutions		Industry	
Year	Collection Rate	Year	Collection Rate	Year	Collection Rate	Year	Collection Rate
2009	61%	2009	68%	2009	100%	2009	100%
2010	70%	2010	78%	2010	100%	2010	100%
2011	75%	2011	88%	2011	100%	2011	100%
2012	85%	2012	96%	2012	100%	2012	100%
2013	92.5%	2013	100%	2013	100%	2013	100%

- b) The bill collection amounts by year on the total past due amounts, based on the following structure, with an assumed bad debt of 20% per year:

Year Incurred	Amount Incurred	Amount Collected by Year				
		2009	2010	2011	2012	2013
2006-2008	96,932,954	38,773,182	33,926,534	24,233,238		
2009	44,729,080		17,891,632	15,655,178	11,182,270	
2010	49,426,568			19,770,627	17,299,299	12,356,642
2011	52,166,703				20,866,681	18,258,346
2012	29,431,716					11,772,686
Total		38,773,182	51,818,166	59,659,044	49,348,250	42,387,675

6 PERFORMANCE IMPROVEMENT PROGRAM

This section of the Business Plan addresses specific actions that the management of the Fier Water Supply and Sewerage Company is committed to implement, that support the Strategic Goals previously stated, and reflect the use of investment capital and internal resources of the Company.

The specific, individual Performance Improvement Program Action Plans are briefly summarized below and are presented in greater detail in Annex A of this Business Plan.

a) Increase Amount of Billed Water as Percentage of Total Water Produced Resulting in a Corresponding Reduction in the Percentage of Non-Revenue Water

To address this goal, the Company is committed to a system that will be accurately metered, both in production and transmission, as well as in the quantities delivered to each customer, by assuring that 100% of the customers are served with metered connections.

In addition the Company is committed to conduct an in-field, physical inventory of all registered household connections to verify the occupancy rate (number of people/connection), based on existing cadastral maps, and update/revise the computerized customer database based on the survey findings.

A program for identifying and legalizing illegal connections will be an essential part of addressing this goal. Once all forms of administrative loss have been addressed, the Company will focus on technical losses from the system due to leakages.

b) Increase Bill Collection Rate on Total Monthly Amount Billed to Customers

To increase the bill collection rate on the amount billed to customers, it is essential to have a balanced program between public education of customers to build an awareness and responsibility on the part of the customers, as well as to have a clear service termination policy that is free from any outside interference. The Company will make such a program a key part of its Customer Service activities.

c) Improve Total Revenues Collected to Cover Operations and Maintenance Costs and to Make Contributions to Capital Renewal and Capital Reserve Funds

A combination of actions will be implemented to achieve these financial sustainability objectives consisting of increased water sales, controlled operations and maintenance costs, and improved collection rates on amounts billed. Along with these improvements in overall operational and administrative efficiency, the Company will propose an incremental increase in both the fixed and volume based tariffs for water supply and sewerage services, to the Supervisory Council, that will provide for a calculated rate of contribution to the capital reserve funds from free cash flow.

d) Increase Staff Capacity and Effectiveness through Regular Training

It is an accepted rule that an investment in the training of staff will always have a multiplier effect in saving money in operations and maintenance, as well as

improve the overall efficiency and effectiveness of the staff in the performance of their responsibilities. This action plan will focus on the development and implementation of a sustained, regular staff training program that will address the training needs of every member of the work force in the Company.

e) Increase Water Supply Service Coverage, as a Percentage of the Total Population within the Service Area of the Company

The Company will make annual investments in extending the water distribution network piping into unserved parts of the existing water supply service area, by drawing on capital, which will be contributed to the New Capital Investment reserve fund from the free cash flow of improved performance.

7 FIVE-YEAR CAPITAL INVESTMENT PROGRAM

The Business Plan has been prepared at a time when the Company is implementing the last capital investment measures, which were not completed during the Management Contract, and which are currently being financed by Government of Albania funds. The major capital investments implemented under the World Bank, through the 4-Cities Management Contract with the contracted Private Operator, Berlinwasser, were focused on the following tasks:

- Rehabilitation of wells at the Kafaraj Well Field
- Construction of a New Pumping Station
- Installation of Water Meters in Fier Municipality (partial)
- Installation of the Bulk Water Meters
- Installation of Computerized Billing and Collection, and Finance/Accounting Software Systems
- Training and staff capacity building

Even with this combination of international financial institutions and the Albanian Government capital investment program, which was focused on rehabilitation of the water supply system within the Municipality of Fier and surrounding villages, the Company will also need to make additional major capital investments to address capital needs that were not completed or covered by the prior capital investment program described above.

With the consent of the Supervisory Council, the Senior Management of the Fier Water Supply and Sewerage Company, represented by the Director, is making every effort to enter into negotiations with the German Development Bank (KfW) for a loan application of approximately 10 million Euro, to be provided for three years of capital investment implementation measures (2011-2013). Once approved, these added investment capital will have a significant impact in meeting the Strategic Goals set in the Business Plan.

The capital investment priorities that are proposed in this Business Plan for a 5-year period are therefore focused largely on the first and the last Strategic Goals, as well as other investments to improve the management, and the operational responsiveness and efficiency of the Fier Water Supply and Sewerage Company.

Table 7-1
Capital Investments (in '000 Lek)

Item	Unit Cost (000' Lek)	Qty.	Total Cost (000'Lek)	2009	2010	2011	2012	2013
Bulk and zone meters	500	30	15,000		7,500	7,500		
Household meters (existing conn.)	15	17,222	258,330	8,880	13,185	21,000	131,355	83,910
Repair/replace leaks in system	9,000	25	225,000				200,000	225,000
Engineering Design Support	LS	LS	9,000		9,000			
System Extension with Meters	40	8,202	328,080		32,360	74,440	75,160	146,160
Total				8,800	62,045	102,940	481,675	455,070

In developing this capital investment forecast, a cost assumption has been made for the cost of one new connection, to include the pipeline laid in the street, the service connection

to the property, and the installation of a water meter, which is 40,000 Lek for a total of 8,202 new connections.

In addition, the Company is budgeting specific capital expenditures for an annual, planned replacement (renewal) of highly amortized sections of the water distribution network. These additional capital expenditures are presented in Table 7-2

Table 7-2
Annual Contributions to Capital Funds
(‘000 Lek)

Capital Fund	2010	2011	2012	2013
Capital Renewal	28,400	31,700	39,100	42,100
Capital Repair and Replacement	39,000	46,000	59,000	75,000
New Capital Investment	0	22,000	39,000	44,000
Total	67,400	99,700	137,100	161,100

8 ORGANIZATIONAL STRUCTURE AND STAFFING PLAN

This section of the Business Plan addresses the organizational structure of the Company, the chain of command and lines of reporting, and the staffing levels by position/function in the Company. The Senior Management of the Fier Water Supply and Sewerage Company believes that a workforce that is motivated, energized and directed is essential to a flexible, creative organization.

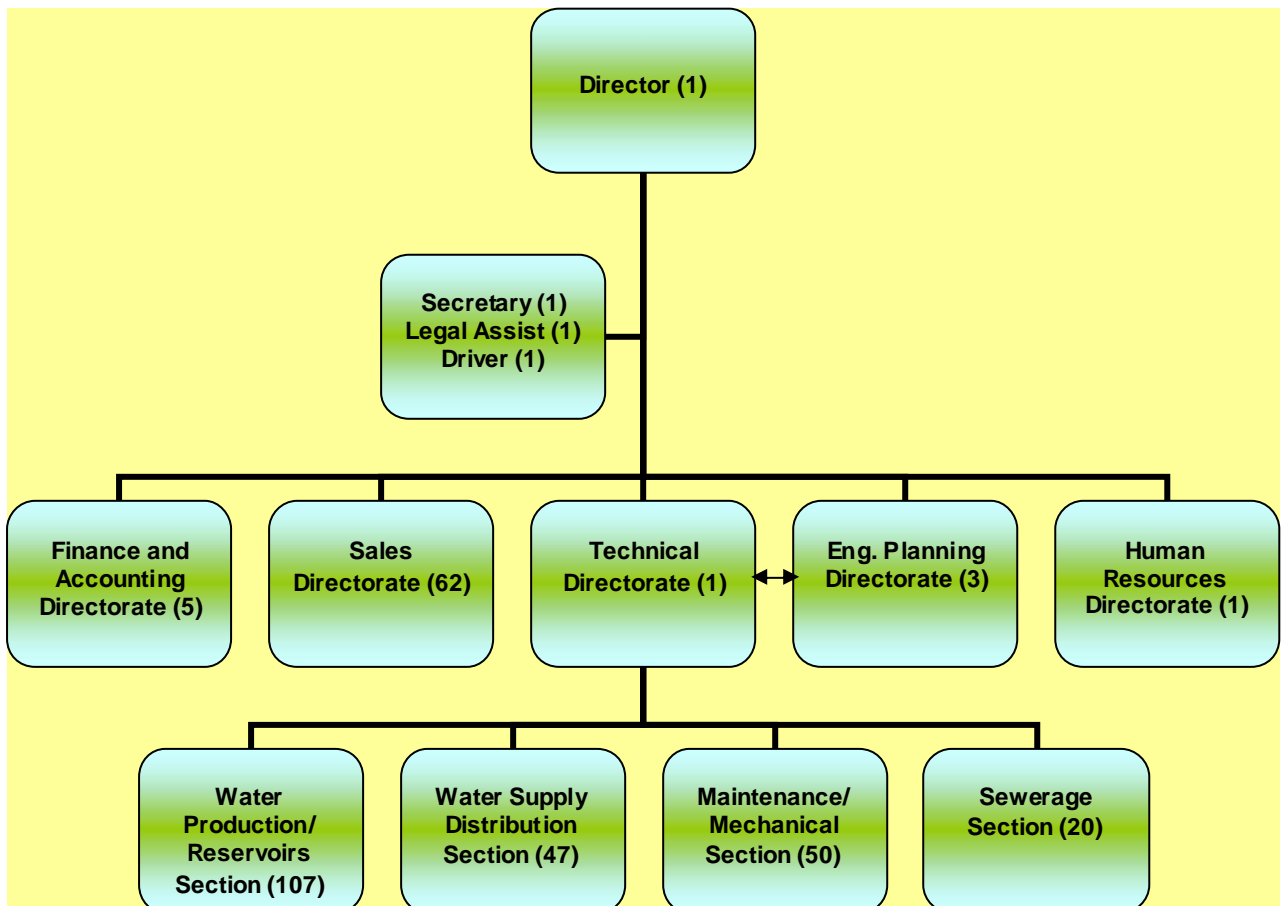
One of the primary benefits that employees value is training that will help them improve the skills they use in their current jobs, or to move up their career ladder. The staff development and training programs, as contained in the Strategic Goals of this Business Plan, will enhance the Company's attractiveness to prospective employees.

Because funding for training is usually not considered in a normal budget, the Senior Management of the Company made a determined effort to provide an expenditure allowance for personnel training, throughout the Business Planning period and beyond.

8.1 Organizational Structure

The current organizational structure and staffing of the Fier Water Supply and Sewerage Company is illustrated in Figure 8-1. The Company is currently organized into four major divisions (Technical Division, Finance/Accounting Division, Sales Division, and Human Resources Division), all of which report to the Director.

Figure 8-1
Current Organizational Structure



The Company management is undertaking a program during 2009 to expand the service area that the Company would serve on a "retail" basis, by including two additional communes. These communes are reported to have a total population of 28,000 people. Therefore, for the first year of the Business Plan, the Company has increased the total staffing level by 50 individuals. This new structure was reviewed by the Supervisory Council. The specific staffing by functional title and the average monthly wages by functional title is presented in the Staffing Analysis Worksheet contained as part of the Workbook in Annex B of the Business Plan.

Looking at the Organizational Structure and current staffing levels in greater detail, it is quite clear that the Company is overstaffed. In addition, it lacks transparent lines of reporting, which need to be better clarified in both the diagrammed organizational structure and in its practical application. In addition, it is recognized by the Senior Management that there needs to be clearer delegation of authority and responsibility.

Based on the staffing analysis of the Company's personnel, more than 100 staff personnel are allocated to the operation of the Kafaraj Well Field and pumping station. The current, high staffing level can be explained by the large number of operators that need to be assigned to provide coverage, 24 hours per day/7 days per week (in 4 shifts) at the water supply reservoirs, and at the water supply and sewage pumping stations, for local and manual operation of valves and switchgear.

The Sales Department fulfils the role of billing and collection for the Company, plus some customer service/customer relations functions. Since 2006, a completely computerized billing and collection system (KOMTEL) has been in operation in order to improve the billing and collection efficiency of the Company. The staff of the Sales Department has received a significant amount of training on how to operate the system during the implementation of the Management Contract.

In March 2008 the team of the Finance Department of the Company demonstrated a great personal commitment toward the investment in financial and accounting systems, and became the first of the four companies under the Management Contract to produce computerized financial statements.

In considering the Organizational Structure of the Company during the implementation of the Management Contract, the objective was to reduce staff by 40%. This objective was not achieved under the Management Contract. It was also intended that the structure of the Sales Department would take more of a contemporary form of "customer service department" that addresses all customer related functions to include billing and collection, customer communications, public relations, new customer service and service termination, meter reading, and customer complaints. These objectives were not met completely by the end of 2008, although the Company is continuing to work toward these objectives.

Based on the approved staffing level of 300 personnel for 2009, and a potential connected customer base of 39,458 customers (both water supply and sewerage), the performance indicator for staffing efficiency for the Fier Water Supply and Sewerage Company equals 7.6 employees per 1,000 water supply and sewerage customer connections, which is considered to be a high ratio for a water supply and sewerage company in Albania.

8.2 Revisions to the Staffing Levels

After assessing the needs of the Company and the investment being made in the construction of a new pumping station at the Kafaraj Well Field, which will be operational by the end of 2009, the management has decided that the total number of employees will be reduced to 194 to support the services of water supply and sewerage. This major

action in implementing a phased staff reduction plan will be supplemented by providing a high level of automation for monitoring and controlling the new technology, to include water level sensors at the reservoirs that automatically signal pumps to turn on/off, as well as standby power generation to supply the well field pumps and/or the pump station.

During the Business Plan period, the Company plans to make some specific changes in its organizational structure and staffing to improve the Company's staffing efficiency and lines of reporting. The changes will better distinguish between "line" and "staff" functions; will separate the Technical/Engineering role from that of Technical Operations, and will staff and equip the Technical/Engineering Section be able to better support the overall needs of the Company.

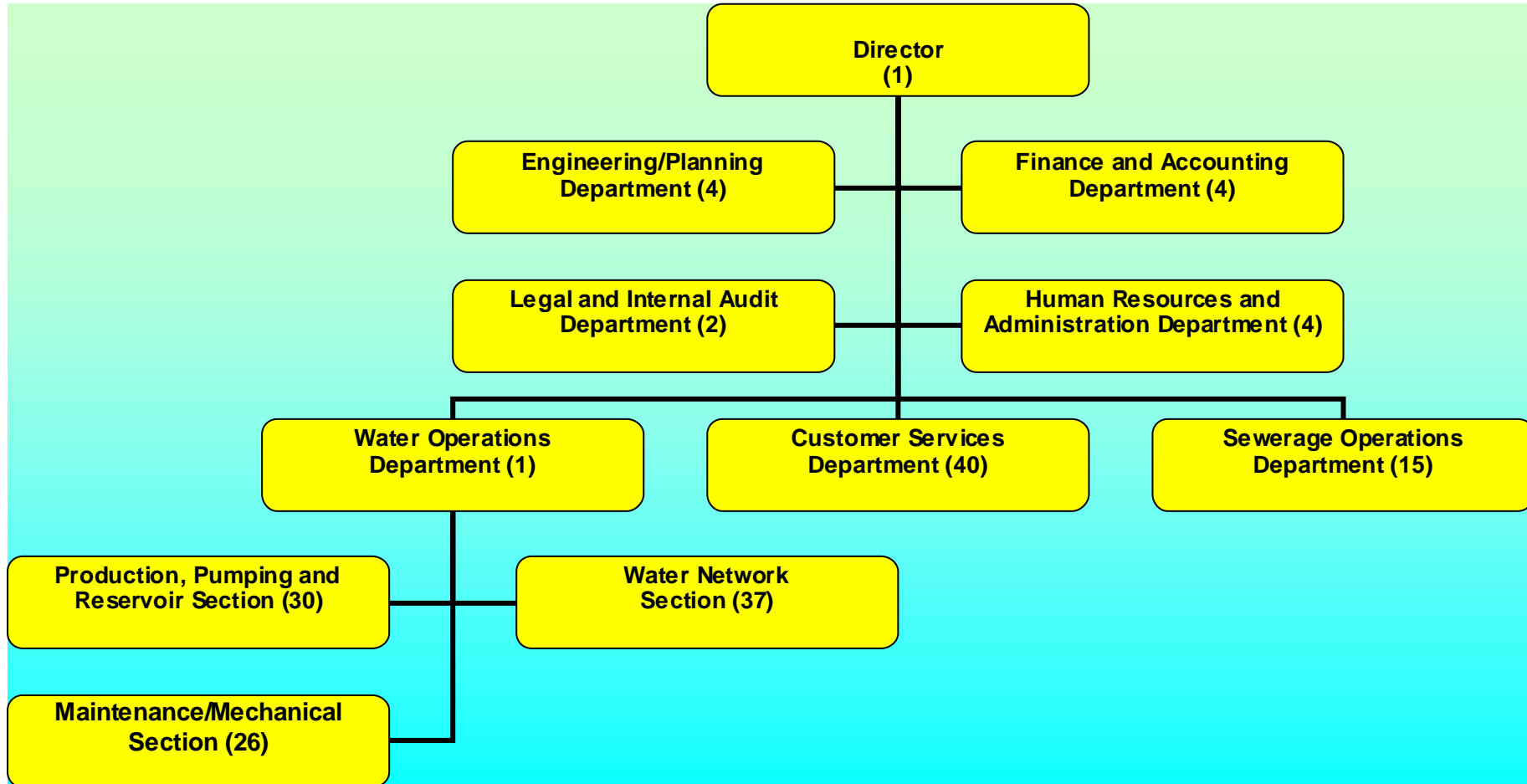
The specific staffing by functional title and the average monthly wages by functional title is presented in the Staffing Analysis Worksheet contained as part of the Workbook in Annex B of the Business Plan. One fact that presents itself in the Staffing Analysis Worksheet is the significant cost impact of having to staff for guards at both water supply sources and the various storage reservoirs, on a 24-hour/7-day basis. This staffing is required by the current laws. The senior management has determined to move toward outsourcing these Security Services and reduce significantly the number of total employees. This policy will have a slight impact on the Company's budget, which will be explained in detail in the Budget Forecast section.

In addition, enhancing worker's ability to perform a greater number of tasks in the technical areas will be essential for the Company to be more efficient and should also improve labor-management relations. Therefore, it is the Company's intention to undertake cross-training of personnel to improve utilization, and to identify staff to be shifted between the various Technical Departments.

The proposed new organizational structure is illustrated in Figure 8-2 below.

With the assumed population growth for the service area, and therefore an assumed increase in the number of water supply and sewerage connections, the staffing efficiency ratio will be significantly improved from 7.6 staff members per 1,000 water supply and sewerage connections in 2009, to around 3.44 staff members per 1,000 water supply and sewerage connections in 2013.

Figure 8-2
Proposed New Organizational Structure



9 FIVE-YEAR OPERATIONS AND MAINTENANCE BUDGET FORECAST

The Management Team of the Fier Water Supply and Sewerage Company has prepared a five-year operations and maintenance cost budget forecast for the Company to support its Business Plan. The effort to develop the cost budget forecast is based on the analysis of historical data kept by the Finance Department of the Company for the past three years (2006 – 2008), and assumptions made for projected costs.

The forecasts are directly correlated to the Strategic Goals set in the Business Plan and actions to achieve them. The cost budget forecast captures all costs associated with the business, to include routine operations and maintenance costs, labor costs, public relation program allowances, etc.

The detailed budget forecast and supporting calculations are presented in Annex B – Business Plan Workbook.

Table 9-1 summarizes the operations and maintenance cost budget forecast.

**Table 9-1
Operations and Maintenance Cost Budget Forecast (Lek)**

Cost Item	2009	2010	2011	2012	2013
Personnel Salaries	127,936,406	98,303,393	96,762,053	98,739,402	106,966,522
Other Personnel Costs	20,312,192	15,276,171	15,292,135	15,685,506	16,855,120
Contracted Services	1,520,000	7,644,000	7,965,720	8,301,107	8,650,747
Consumables & Other Expenditures	182,927,604	158,475,541	159,103,993	152,308,164	145,980,598
Total O&M Cost	332,696,202	279,699,106	279,123,901	275,034,178	278,452,987

The following describes the detailed budget forecast and factors affecting the cost items presented in Table 9-1.

Salaries

The “Personnel Salaries” category reflects the base salary for the planned staffing level forecast, overtime work; 13th month pay check, special work condition allowances, bonus allowance for incentive programs and the cost of Supervisory Council compensations.

The base salary reflects the labor cost, taking into consideration changes in staffing level and type of personnel needed through the year 2013, and annual anticipated wage increases for all staff personnel. The purpose of the wage increases is to reflect anticipated inflation in the general economy, and to improve the market competitiveness of the wages paid to personnel. In order to develop salaries for each position in the structure; the management has adjusted most of the monthly base salaries in year 2009.

The Company has provided for an allowance for planned overtime compensation in the amount of 2.5% of the annual base salary for the years 2009-2010 and 2.3% for the years 2011-2013.

The management has forecasted a 13th month pay check (year-end compensation) to be given at the end of each year. This amount will be given for the years 2009-2013, and it has been budgeted at the rate of 16.66% of the annual base salary, which represents the value of two monthly base salary payments.

In addition, the management anticipates instituting a Bonus Program to reward good performance and has made an allowance for this future expenditure starting in 2010 at the rate of 2% of total annual Base Salary and continuing at 2.5% for the year 2011, 3% for the year 2012 and 4% for the year 2013.

Lastly, based on the Decision of the Council of Ministers for water companies serving more than one local government, the number of Supervisory Council Members is six (6). The Company calculates the compensation of the Supervisory Council members as a function of the Base Pay of the General Secretary of the Prefecture and has budgeted it with an annual increase of 8% for the years 2009-2013, representing an estimated similar increase in the base pay of General Secretary of the Prefecture.

Other Personnel Costs

The "Other Personnel Costs" category includes the costs for social and health insurance, as well as training costs. The payments to social insurance and health insurance are as established by Law at the rate of 21.7% (20% for social insurance and 1.7% for health insurance) of Base Pay. Based on the Decision of the Council of Ministers for the adjustment of the social security contributions issued in 2009, the social security contributions paid by the employer will be reduced by 5 percentage points starting from May 2009. The change has been reflected in the budget and the total effect in the total social and health security cost is 18.37% of Base Pay for the year 2009 and 16.70% for the years 2010-2013.

To support the Strategic Goal of increasing the capacity of the staff of the Company, a budgeted expenditure to provide training to each employee has been established at the initial rate of 1.4% of total Base Pay in year 2009, 2.4% for the year 2010, 2.8% for the year 2011 and 3% for years 2012-2013.

Contracted Services

The category "Other Contracted Services" consists largely of the contract that the Company has with private firms or individuals, such as expert accountants for annual audits, legal services, and other professional services. This category will experience a significant increase in future years with the decision to outsource the security guard function for the protection of important structures, in compliance with the current Albanian Law. Starting from the year 2010, the Company will contract a security company to provide 21 armed guards at an annual cost of 6,048,000 Lek, and for the future years, a projected allowance for increases has been applied at the rate 4% for the years 2011-2013, reflecting anticipated negotiations of the contract price.

The other contracted services of the Company have been projected with an increase of 1,140,000 Lek for the year 2009, representing mostly information technology (IT) assistance for the maintenance of the accounting and billing system (Komtel) network of the Company, and then continued with an annual increase of 5% for the years 2010-2013.

Consumable Expenditures

The “Consumable Expenditures” category includes the costs for operations and maintenance, electric energy, transport, office and administrative expenses, taxes, public relations campaign, and other supply related items.

One major cost under this category is Maintenance and Materials (spare/replacement parts, small tools, chemical and other consumable items related with operations and maintenance. An annual increase of 10% for the years 2009-2010 and 8% for the years 2011-2013 was applied to reflect the quantitative and pricing variance that the Company can expect to experience over the next five years.

Another major cost item in this category is the cost of energy to operate the pumping systems. The water supply system of Fier is a well-based system with a fully un-metered production and distribution system, and with approximately 77% of household water sales based on norms and not metered values. These costs are highly impacted by the quantity of Non-Revenue Water that is currently being pumped into the system, but not being billed to customers, and which greatly exceeds the water demand needs of the service area.

Based on the recent and planned investment in new well pumps, motors and pumps at the pump station, and future investments for customer water meters, the management has reflected a significant decrease in the use of energy, over time. The management has created an allowance for an annual increase of 8% for the year 2009, followed by annual decreases of 20% for the year 2010, 3% for the year 2011 and 10% for the following two years due to the forecasted positive impact in reducing energy consumptions to be realized by the new pumps being installed in the year 2009 and by the forecasted reduction in the quantity of Non-Revenue Water.

Anticipating a medium upward trend in fuel prices, an annual cost increase of 15% has been applied for the years 2009-2011, and continuing at 10% for years 2011-2013.

In the budget forecast for Office and Administrative costs (computer supplies, paper, printer cartridges, office support utilities telephone, electricity, heating fuels. etc), the management has forecasted an annual increase of 55% for the year 2009, 25% for the year 2010 representing the needs for the additional offices inside the Company and to continue with lesser increases of 5% assumed for the following years of the Business Plan.

Taxes costs have been assumed to remain near the current level with a small annual increase of 1%.

The category of Other Expenditures, based on historical experience, is relevantly small as a percent of the overall budget. This item will remain at the current level with a small annual increase of 3%.

The last expenditure item is an allowance for Public Relations. To achieve the Strategic Goal of increasing the bill collection rate, a clear commitment has been budgeted for a Customer Relations/Education program. The forecasted cost for this expenditure is based on spending, on average, 150 Lek per connection in the form of printed materials, and television and radio communications for years 2012-2013, with interim budgets of 80 Lek for the years 2009-2010 and 100 Lek for the year 2011.

10. REVENUE NEEDS AND TARIFF ANALYSIS

This section of the Business Plan addresses the revenue needs of the Company for each of the five years of the Business Plan. In this regard, it considers the routine, annual operations and maintenance costs that have been previously presented in Section 9, as well as any interest on debt and principal repayment obligations of the Company. In addition, it considers the need to fund capital reserves for capital renewal of buried infrastructure, capital repair and replacement for above ground assets, as well as considerations for new capital investments to be satisfied from the operating revenues of the Company.

At this time, the Fier Water Supply and Sewerage Company has only interest expense obligations, as a result of the loans received from The World Bank, which are calculated to be 5,000,000 Lek per year, while the principal repayment will not start until year 2013, with an annual payment of 34,000,000 Lek. The management has also forecasted additional interest payments of 2,275,000 Lek for 2011, 4,225,000 Lek for the year 2012 and 5,850,000 Lek for the year 2013 from a possible loan of 10,000,000 Euro from International Development Banks.

Capital Renewal expenditures, which address the replacement of buried assets, are planned and scheduled annual capital expenditures for largely network piping, and have been budgeted by the management of the Company as shown in Table 10-1 for each of the years of the Business Plan.

**Table 10-1
Capital Renewal Expenditures (Lek)**

Plan Year	Amount (Lek)
2009	0
2010	28,400,000
2011	31,700,000
2012	39,100,000
2013	42,100,000

Capital Repair and Replacement expenditures, which address an accrual for the major repair or replacement of above ground assets, both fixed and moveable, have been budgeted by the management of the Company and presented in Table 10-2 for each of the years of the Business Plan.

**Table 10-2
Capital Repair and Replacement Accrual Expenditures (Lek)**

Plan Year	Amount (Lek)
2009	0
2010	39,000,000
2011	46,000,000
2012	59,000,000
2013	75,000,000

New Capital Investment expenditures, which address an accrual for system extensions of service or technology upgrades to the systems, have been budgeted by the management of the Company and presented in Table 10-3 for each of the years of the Business Plan.

**Table 10-3
New Capital Accrual Expenditures (Lek)**

Plan Year	Amount (Lek)
2009	0
2010	0
2011	22,000,000
2012	39,000,000
2013	44,000,000

These capital expenditures and accruals will be shown separately in the financial reporting of the Company, and will be expended upon approval by the Supervisory Council of the Company.

The final component affecting the Revenue Needs of the Company is the expected Subsidies from the Central Government. These forecasted subsidies have been treated as credits in the calculation of the Revenue Needs. The Company has made an assumption that these subsidies will continue, in a declining amount for the years 2009, and 2010 only.

The Total Revenue Needs have been calculated and shown in Table 10-4.

**Table 10-4
Total Revenue Needs (Lek)**

Description	2009	2010	2011	2012	2013
Operations and Maintenance Cost	332,696,202	279,699,106	279,123,901	275,034,178	278,452,987
Debt Service					
Interest Payment	5,000,000	5,000,000	7,275,000	9,225,000	10,850,000
Principal Repayment	0	0	0	0	34,000,000
Subtotal	5,000,000	5,000,000	7,275,000	9,225,000	44,850,000
Capital Expenditures					
<i>Capital Renewal Expenditures</i>	0	28,400,000	31,700,000	39,100,000	42,100,000
<i>Capital Repair and Replacement Fund</i>	0	39,000,000	46,000,000	59,000,000	75,000,000
<i>New Capital Investment Fund</i>	0	0	22,000,000	39,000,000	44,000,000
Subtotal	0	67,400,000	99,700,000	137,100,000	161,100,000
Subsidies	102,300,000	40,000,000	0	0	0
Subtotal	102,300,000	40,000,000	0	0	0
Total Revenue Needs	235,396,202	312,099,106	386,098,901	421,359,178	484,402,987

Fee and Volumetric Pricing Strategy

Based on the Total Revenue Needs presented in Table 10-4, and the water sales presented in Section 4–Water Demand Analysis and Forecast, of this Business Plan, a combined fixed fee and volumetric pricing strategy has been developed by the Company and is presented in Table 10-5. The prices shown will need to be submitted to the Water Utility Regulatory Agency for approval prior to being applied to the billing system of the Company.

**Table 10-5
Fixed Fee and Volumetric Pricing Strategy**

Description	2009	2010	2011	2012	2013
Monthly Fixed Fee/Connection					
Households	100	100	100	100	100
Private Entity	400	400	400	400	400
Budgetary Institutions	500	500	500	500	500
Industrial	20,000	20,000	20,000	20,000	20,000
Water Tariff (Lek/m3)					
Households	38	38	45	45	50
Private Entity	90	90	110	110	120
Budgetary Institutions	70	70	70	70	70
Industrial	50	50	50	50	50
Sewerage Tariff (Lek/m3)					
Households	7	7	9	9	11
Private Entity	12	12	15	15	18
Budgetary Institutions	14	14	14	14	14
Industrial	0	0	0	0	0
Bulk Water Tariff (Lek/m3)	15	15	15	15	15

The management of the Fier Water Supply and Sewerage Company has decided to apply a combination fixed and variable pricing strategy. Under this pricing strategy, a fixed monthly fee will be applied to each registered customer for all customer categories starting in the second half of the year 2009. This fixed fee represents the “readiness-to-serve” fee that is increasingly common in more developed countries.

The variable prices for water supply and sewerage services (volumetric prices) that have been applied for each customer category in Table 10-5 represent the “consumption” unit price for each customer category.

Table 10-6 presents the revenue generation from billings to meet the revenue needs and the situation in terms of the Total Revenue to be billed based on the proposed fixed fee and pricing strategy, forecasted water sales, and the Total Revenue Need to be equaled or exceeded by those billings.

**Table 10-6
Revenue Generation to Meet Revenue Needs**

Description	2009	2010	2011	2012	2013
Revenues					
Fixed Fee					
Households	14,053,333	29,078,000	31,310,775	33,565,151	37,949,599
Private Entity	5,265,360	10,846,642	11,172,041	11,507,202	11,852,418
Budgetary Institutions	228,000	456,000	456,000	456,000	456,000
Industrial	240,000	480,000	480,000	480,000	480,000
Water					
Households	96,422,894	131,580,494	178,197,840	166,889,081	202,891,362
Private Entity	15,810,223	22,106,342	32,779,603	50,849,857	61,030,165
Budgetary Institutions	7,378,104	8,596,911	8,939,892	10,786,333	10,680,279
Industrial	79,051,116	85,969,107	89,398,916	112,999,681	114,431,559
Sewerage					
Households	14,209,690	19,390,810	28,511,654	26,702,253	35,708,880
Private Entity	1,686,424	2,358,010	3,575,957	5,547,257	7,323,620
Budgetary Institutions	1,180,497	1,375,506	1,430,383	1,725,813	1,708,845
Industrial	0	0	0	0	0
Revenues by Customer Category					
Households	124,685,917	180,049,304	238,020,269	227,156,484	276,549,841
Private Entity	22,762,007	35,310,993	47,527,600	67,904,316	80,206,203
Budgetary Institutions	8,786,601	10,428,416	10,826,274	12,968,147	12,845,123
Industrial	79,291,116	86,449,107	89,878,916	113,479,681	114,911,559
Revenues from Bulk Water Sale	0	0	0	0	0
Total Revenues-Billed (from Tariff)	235,525,640	312,237,821	386,253,059	421,508,628	484,512,726
Total Revenues Needs	235,396,202	312,099,106	386,098,901	421,359,178	484,402,987
Total Profit/Loss of the Year	129,439	138,715	154,158	149,451	109,740

To assess the impact of the proposed fixed fee and volumetric price strategy on an individual household, Table 10-7 has been prepared to reflect the typical monthly water supply and sewerage services bill for Household Customers with different household occupancy levels. These typical household monthly bills are calculated to include VAT.

**Table 10-7
Projected Monthly Bill
Water Supply and Sewerage Services
(Lek including VAT)**

Household Occupancy Level	2009	2010	2011	2012	2013
Household of One Person	354	348	383	295	311
Household of Two Persons	588	575	646	470	501
Household of Three Persons	822	803	909	644	692
Average Household of Four Persons	1,055	1,030	1,172	819	882

ANNEXES

**ANNEX A
PERFORMANCE IMPROVEMENT
PROGRAM**

**ANNEX B
BUSINESS PLAN
SPREADSHEET MODEL**