SEWERAGE BOARD OF LIMASSOL - AMATHUS

PROGRESS REPORT FOR THE EXTENSION OF THE SEWERAGE AND DRAINAGE SYSTEM (PHASE B2) IN THE LIMASSOL – AMATHUS AREA

LIMASSOL SEWERAGE III: FI 81.801

Progress Report No 11
As at 31 December 2018

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1. INTRODUCTION

This progress report prepared by the Sewerage Board of Limassol – Amathus (SBLA) for the Extension of the Sewerage and Drainage System in the Limassol - Amathus Area gives the status of all services, works, financial data and other important issues of project implementation for the Limassol Sewerage III (FI 81.801). This report covers the period to 31 December 2018.

The SBLA is the owner and competent authority for the implementation of the Project and co-ordinates the various parties and authorities involved in the preparation of Phase B2 of the Project.

In general, the parties involved in this Project include the following:

1. SBLA as the owner and implementation authority
2. The Ministry of Interior as the Ministry responsible for local authorities and Sewerage Boards
3. The Ministry of Finance which is responsible for loan approvals, Government Guarantees and other financial issues.
4. The Water Development Department, the Environmental Agency and other Departments of the Ministry of Agriculture, Rural Development and Environment
5. The Local Authorities which participate in the Board of Management of SBLA
6. The Auditor General of the Republic who audits the financial affairs of SBLA
7. Other authorities and utilities such as Communities and Improvement Boards, Land and Survey Department etc.

2.ORGANISATION AND STAFFING OF SBLA

2.1 The Board, its composition and objectives

The Sewerage Board of Limassol – Amathus is a public utility organisation established by the Council of Ministers Order 248/80 on 5 September 1980 in accordance with the provisions of the Sewerage Systems Law 1971 - 2017.

The cornerstone of its mission is the construction, operation and maintenance of the central sewerage system for the collection and treatment of municipal wastewater of the Greater Limassol area, as well as the construction and maintenance of the main infrastructure of the storm water drainage system.

The Board of Management consists of 37 members as follows

(a) The Mayor of Limassol - Chairman

(b) All the Councillors of the Municipality of Limassol (26 members)

(c) The Mayor of Yermasoyia

(d) The Mayor of Mesa Yitonia

(e) The Mayor of Ayios Athanasios

(f) The Mayor of Kato Polemidia

(g) The representative of the District Office of Limassol

(h) The Presidents of the Community Boards of Pyrgos, Moni, Parekklisia, Pano Polemidia and Ayios Tychonas.

Staff

At the moment, the Sewerage Board of Limassol – Amathus employs 65 persons. Mr. Iacovos Papaiacovou is the General Manager, Mrs Ioanna Christou is the Financial Controller, Mr Michalis Vryonides is the Chief Engineer and Mrs Hara Panera is the Head of the Secretarial Department.

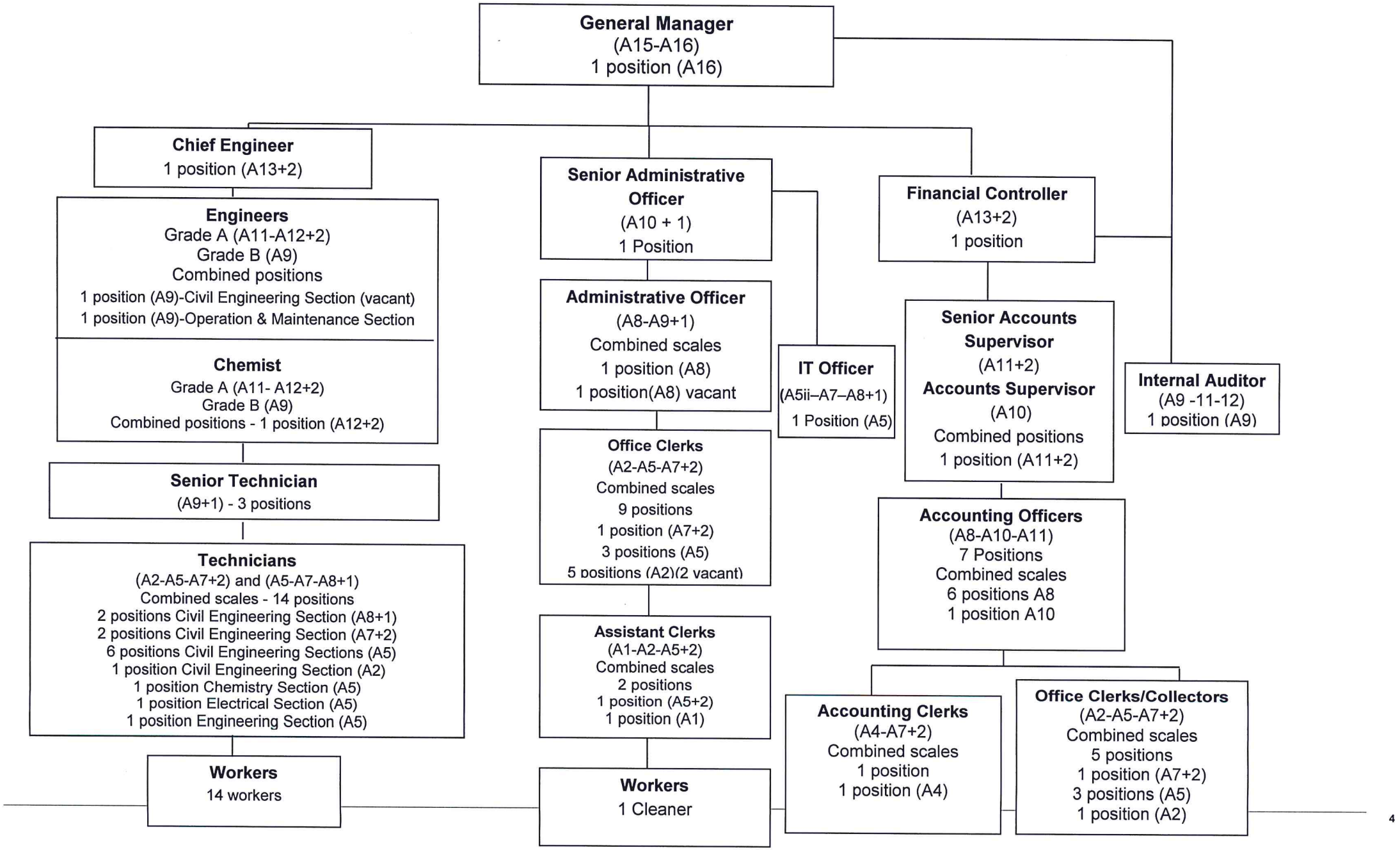
Vacant positions

As at 31 March 2019 the following positions of permanent staff are vacant:

a) Civil Engineer as from 1 December 2017.
b) Two Office Clerks as from 1 January 2018 and 4 August 2018.

The Organisation chart of the Board is shown overleaf.

2. ORGANISATION AND STAFFING OF SBLA FOR 2018



3. PROJECT IMPLEMENTATION STATUS

3.1 Introduction

The sewerage and drainage project is constructed in phases and covers the entire urban Greater Limassol (Lemesos) Area, which falls within the jurisdiction of the Sewerage Board of Limassol Amathus (SBLA), as defined by the Council of Ministers decrees. The construction works of the first phase of the sewerage and drainage system began in 1992 and were completed in 1995, while the works of the first stage of phase two (Phase B1) which began in 1999, were completed in 2004.

Since 1992, when the staged construction of the sewerage and drainage system began and up until 2017, over 338 million euro has been invested in the project. The works covered about 85% of the SBLA residential area and about 71.000 premises (flats, houses etc) representing a total of about 26.100 house connections have been connected to the sewerage system, providing service to about 149.500 people.

On completion of the current Phase B2 of the project, around 2022, it is expected that over 90.000 premises (flats, houses etc) will be connected to the sewerage system, with around 170.000 people being served, nearly consisting the entire of the existing population, including tourists, of Lemesos Greater Area.

Currently, Phase B2 is being implemented and construction works continue to be carried out. Our initial objective focused on the expansion and completion of the works up to 2014-2015. However, in view of the economic crisis, the delays experienced in the construction of the West WWTP and the delays experienced in the award of other contracts, the project completion date was extended beyond these dates.

According to the Amendment Deed dated 23 May 2017, the implementation deadline and the final availability date for Limassol Sewerage III were extended to 31 December 2020 and 31 July 2019 respectively. For Limassol Sewerage II, a project completion report has already been submitted to the Bank in October 2018.

The works of the current phase began in August of 2006 with the extension works of the Waste Wastewater Treatment Plant (WWTP) in Moni area. The above works have been completed in September 2008 and the new plant started to operate with a wastewater treatment capacity of 40.000 m^3/day, compared to 20.000 m^3/day treatment capacity prior to the expansion.

The expanded WWTP has contributed significantly in the enhancement of services provided and the satisfaction of the increasing needs of Greater Limassol Area and it will eventually relieve the area from the nuisance of disposal of domestic wastewater at the adjacent disposal site of "Vati", which causes unpleasant odours and sewage overflows, with high environmental and health risks.

The storm water drainage works are also of a great importance and have to a great extent reduced the flooding problems in the Greater Limassol Area. During the stage of Phase B2, storm water drainage works of about 50 km in total length, were initially scheduled to be constructed, expanding also to new areas, the cost of which was estimated to approximately 50 million euro. However, as a result of the economic crisis in 2013 and the difficulties faced by Government to finance its contribution in these drainage works, most of these works were postponed for execution to 2019. Government approved in 2017 the construction of storm water drainage and anti flooding works of about 25.5 million euro with a government contribution of about 16 million euro.

Apart from these works, the SBLA has prepared detailed designs and studies for the flood prevention and storm water drainage works of the new link road of Limassol new port (vertical road) with an expected cost of around 30 million euro, the entire cost of which will be borne by the Government. Four of these contracts, including the contracts for the construction of the box culvert and the retention pond in the area, have already been completed. The last contract has also been awarded and construction works started in April 2017. The whole project is expected to be completed by the end of May 2019.

3.2 Objectives of Phase B2 of the project (Limassol Sewerage II)

The objectives that have been set by the Sewerage Board of Limassol-Amathus for Phase B2 of the sewage and drainage works are:

- the expansion of the main sewers and laterals to cover the entire built-up area to the north and west of Greater Limassol (Lemesos),
- the upgrading of the main infrastructure of the system such as main collectors, pumping stations and the wastewater treatment capacity, and
- the expansion of the storm water drainage works to eliminate flooding in SBLA area.

3.3 Wastewater sewerage works (Limassol Sewerage II)

According to the Master Plan of 2005, the main wastewater sewerage works planned in the period between 2006-2013 are:

a) Expansion and upgrading of the Main Collector Sewers (including gravity and pressure sewers).

b) Expansion of the lateral (secondary) sewage network. The network has been expanded by about 400 kilometres so as to cover the entire built-up area within the project area of the Sewerage Board of Limassol-Amathus and has included all problematic areas in the west and north part of Lemesos municipality, such as the areas north and south of the Lemesos-Lefkosia motorway, the areas north of Makarios avenue, on both sides of Spiros Kyprianou avenue, the centre of Ayia Fyla, the Ekali area and the areas of Ayios Athanasios municipality, Kato Polemidia municipality and the communities of Pano Polemidia, Mutayiaga and Ayios Tyhonas. It also includes the sewerage network connections to all government housing estates, situated in the urban area of Greater Lemesos and the construction of the sewerage system that connects the Limassol New Hospital to the system.

c) Upgrading of the Waste Water Treatment Plant in Moni. The plant's maximum capacity has increased to 40.000m^3/day. Construction works for the expansion of the plant began in August 2006 and were completed in September 2008.Initially it was considered that a further upgrade of the Moni WWTP to 49.000m3/day would have been necessary. This was abandoned following the results of the 2009 Master Plan Update. This study revealed that a new WWTP to be constructed in the West would better serve the West SBLA area and apart from the enhanced reliability of the system, it would also provide significant savings in the operation costs of the system, mainly due to savings in the pumping costs (more details are given in paragraph 3.6 which follows).

d) Construction of one at least new pumping station and upgrading of the six existing ones in order to accommodate the increased wastewater flow from the new areas to be connected to the system.

3.4 Stormwater drainage works (Limassol Sewerage II)

The main storm water drainage works planned for phase B2 include the following:

a) Construction of flood prevention works in the west of Lemesos for elimination of flooding occurring in areas such as Zakaki, the first Industrial Area of Limassol including the Araouzou, Adas, Ilission and Marinou Gerolanou streets, as well as in other areas of Kato Polemidia Municipality.
b) Construction of water retaining reservoirs, as part of the antiflooding measures in the West Limassol.
c) Construction of a stormwater drainage network in the densely populated area of Lemesos such as the area of the "Panayidis Foundation" north of Makarios Avenue, the area adjacent to Polemidia round-about, south of the motorway– east of "Tsirion" Stadium, the Kapsalos Government Housing Estate and other works in the area of Nea Ekali and in Ayia Fyla.

Details of the project components completed under **Sewerage II** have been included in the Completion Report as at 30 September 2018 already submitted to you.

Significant components of **Limassol Sewerage II** include amongst other works, the following;

Extension of the Wastewater Treatment plant (WWTP) in Moni

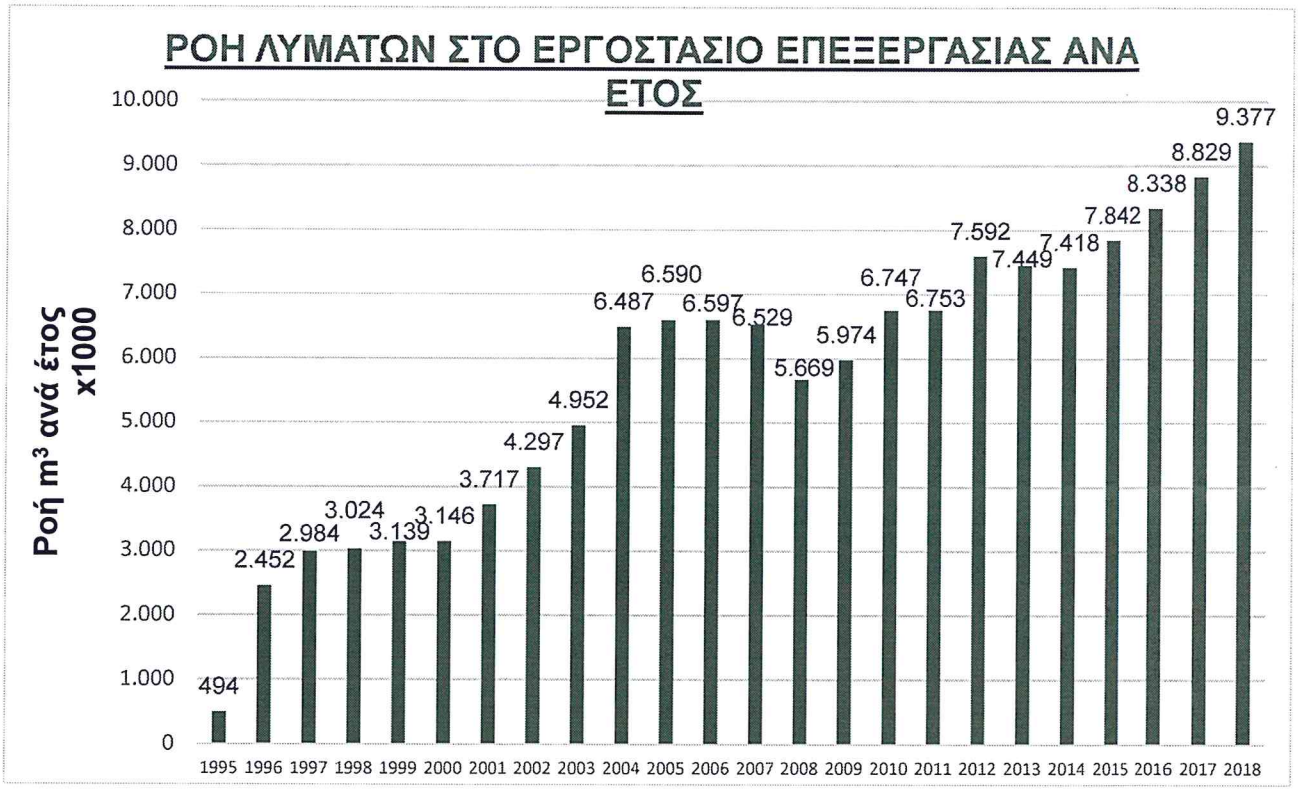
The contract for the extension of the WWTP was signed on 21st June 2006 for €27.510.189 (£16.100.998) including VAT, covering the design and construction cost and €11.429.571 (£6.689.431) covering the operation and maintenance of the WWTP for 6 years starting from 2007 to 2013 with the option for further extension of 5 additional years.

The construction works started in August 2006 and were completed in September 2008. As from 1 October 2007, the contractor took over the operation and maintenance of the entire WWTP. The two parties extended the operation and maintenance contract for the second operation period of 2013 – 2018. In January 2018, SBLA launched an open tender for the operation and maintenance of the WWTP for a further period of 10 years with the option for further extension of 5 additional years. The award of the contract has been delayed as a result of a recourse filed to the Tender Review Authority against the Board's award decision. Consequently, the existing contract has been extended up to 30 September 2019.

In the treatment processes that take place in the WWTP, sludge is produced which is then decomposed in the digesters in order to produce biogas. The biogas produced in the digesters is collected and used in gas generators. The produced heat is used for the heating of the digesters and the produced electricity is currently reused in the WWTP. The total electricity produced from biogas covers about 40% of the total electricity consumption at the WWTP.

The WWTP is designed for a peak daily flow of 40.000m3/day. According to the operation contract the contractor must meet the following guaranteed final effluent standards:
BOD – 10 mg/l (daily average)
COD – 70 mg/l (daily average)
SS – 10 mg/l (daily average)
TN – 10 mg/l (annual average)
Faecal coli forms – 0
Intestinal Worms – 0

The flow of wastewater to the WWTP since its first year of operation in 1995 in cubic meters is shown below:



Kato Polemidia Retention Pond

Furthermore, the construction of the retention pond at Kato Polemidia constructed by the Public Works Department was completed in August 2016.

3.5 Project Cost for Sewerage II

The works described above consist the initial phase (Phase B2) of the sewage and drainage system construction in Limassol (Lemesos) Greater Area and were carried out in twelve contracts as described in detail in in the Completion Report as at 30 September 2018.

It included the expansion of the wastewater sewage network; the expansion of the Waste Water Treatment Plant in Moni and other scheduled storm water drainage works including the construction of a stormwater reservoir.

The overall project cost was initially estimated at €212 million whilst the current final cost is estimated to reach €255 million. More details can be found in the Completion Report as at 30 September 2018.

3. 6 New extended Phase B2 objectives – Extended scope (Limassol III)

In 2009, the Master Plan of 2005 was updated, and a Risk Analysis and Assessment of Emergency Measures of the Main Collector and Pumping Stations Report was prepared by the Board's Consultants MWH and Ioannou. The objective of this risk analysis was to check the system's reliability and hydraulic condition and to develop a strategy for dealing with emergencies that could result in failure of the foul water sewage systems. The Risk Assessment included a Sensitivity Analysis, with emphasis on pumping stations and the conveyor system. This study revealed the necessity to upgrade and/or expand the existing infrastructure in order to create additional capacity and improve the system's reliability. Based on these findings, additional works were considered necessary as described below.

In addition to the above, certain flood prevention works were considered necessary in order to address the flooding problems that certain areas of Greater Limassol were facing as a result of significant development in these areas.

Such works include amongst others, the construction of additional storm water drains and two retention ponds in Ayios Athanasios and Ayia Phyla.

The results of the 2009 Master Plan Update have shown that some major changes in the project design concept and the implementation approach were necessary. The most important change identified was the need to construct a new WWTP in the West which would better serve the West SBLA Area, improve the overall reliability of the system and provide significant savings in the operation costs of the system, resulting mainly from a reduction in the pumping costs. As a result of these findings, the initial Phase B2 of the Project was extended with new components that became necessary to construct.

The additional objectives that have been set by the Sewerage Board of Limassol – Amathus for the new extended Phase B2 project are:

- Construction of a new wastewater treatment plant (WWTP) to the West part of Limassol of about 20.000 cubic meters per day. As explained below, as a result of objections of the western communities, the capacity of the new WWTP has been reduced to 13.000 cubic meters per day.
- Construction of one additional pumping station PSZ.
- Construction of a new force main and a new pumping station (PS EA) in the Centre/West of the area from PSD to PSZ.
- Construction of a new force main from PSZ to the new WWTP west of the First Industrial Area of Limassol.
- Construction of additional storm water drainage works and two additional retention ponds in Ayia Phyla and Ayios Athanasios.
- Construction of enhanced sludge drying facilities to the Moni WWTP.
- Construction of new offices for the Board.
- Upgrading of existing main collector system. (Force mains and gravity mains)

During the Bank's mission in April 2017, the need to modify the initial scope of the project was discussed as well as the inclusion of additional works in the project scope of Limassol Sewerage III and an amendment deed was subsequently signed dated 23 May 2017.

The new revised scope of the Project to be financed under **Sewerage III** as included in the amendment deed is shown below:

Sewerage and wastewater treatment

- New WwTP West with treatment capacity of up to 13.000 m^3 per day
- Pumping station Ps Z with approximate capacity of 320lt/s
- New force main from the pumping station PsZ to the new WwTP West, D.I.Ø700mm of approximate length of 3.070m and P.E. Ø350mm of approximate length of 3.070m
- Gravity sewers in the vicinity of PsZ, Ø600 – 700mm and small diameter secondary sewers, of approximate length of 1.690m
- Connection pipes to the WwTP West, force main 2xØ700mm of approximate length of 310m; gravity sewer Ø900mm of approximate length 660m
- Connection sewer from pumping station PsD to the pumping station PsE, Ø700 – 1.200mm of approximate length 1.475m
- Pumping station PsEA with approximate capacity of 1,28 m^3/s
- Connection pipes from the pumping station PsEA to the pumping station PsZ, force main 2xØ700mm of approximate length of 1.690m; gravity sewer Ø 700 - 900mm of approximate length 1.285m
- gravity sewer Ø500 - 700mm of approximate length 535m
- Upgrading of existing main collector system (force mains and gravity mains)
- The pumping station (PsEA) between PsD and PsZ with an estimated base cost of €5.000.000.
- The pumping station on Spyros Kyprianou Avenue, Contract E18 (Tender 15/2014) with a base cost of €743.000.

Drainage

- Additional storm water drains, Ø500 – 1.500mm of approximate length 19.120m; boxes of approximate length of 3.500m
- Two retention ponds in Ayia Phyla and Ayios Athanasios

In addition, certain sewerage works shall be constructed by the Public Works Department in parallel with the road works for the new vertical road from the Limassol new port to the highway and the remaining part shall be constructed by SBLA itself. The cost of these works which shall be covered entirely by the SBLA is estimated to about €3.2m. including VAT.

3.7 Project cost and financing- Sewerage III

The cost for the new components of the revised scope of the Area was initially estimated to approximately €136 million at base cost and is financed by an additional loan of €68 million that the Board has secured under Government Guarantee from the European Investment Bank, as follows:

- €68 million from the European Investment Bank
- €68 million from SBLA own funds

3.8 Consultants' Contract

For the implementation of the project, SBLA has signed a contract with the JV of MWH and its local partner Antonis Ioannou in March 2007. According to the terms of this contract, the Consultant has to design and supervise the construction of the collection system, the pumping stations, force mains and main gravity sewers.

In August 2018, in view of the delays experienced in the construction of the West WWTP and the award of other contracts, SBLA signed the fourth amending agreement with the JV of MWH and its local partner Antonis Ioannou which provides for the extension of their services up to the end of 2021 when the remaining works for Phase B2 of the Sewerage and Drainage project are expected to be completed, including the West Wastewater Treatment Plant. The fourth amending agreement revised the contract budget to £8.135.991 compared to the original contract amount of £6.610.341.

Furthermore, for the implementation of the anti-flooding works, SBLA signed in September 2019, a contract with Z&A.P. Antonaropoulos & Associates for €470.000. According to the terms of this contract, the Consultant must prepare the tender documents, evaluate tenders received and supervise the construction of anti-flooding works of an estimated base cost of €11.7m.

3.9 Works and areas covered by Phase B2 of the Project- Limassol Sewerage III

Works and areas to be covered by the Limassol Sewerage III shall be executed in 6 or more contracts as shown below:

Short description of the areas to be covered by contract:

Contract E14

This contract includes the rehabilitation works of the existing main sea front collector. The contract with a contract value of €7.932.491 was signed on 31/10/2018 and has a duration of 24 months. Construction works which have started this month, include the renovation of specific pipelines from PSD to PSD of an approximate length of about 8 km and manholes, as identified by the investigation already carried out by SBLA.

Initially, each pipeline will be thoroughly cleaned to remove all debris and render them suitable for receipt of the liner. CCTV surveys, together with laser profiling, will then be undertaken and examined to ensure that the lining proposed for each pipeline is consistent with its condition. Lining and manhole renovation will then take place. Rehabilitation of manholes will comprise repair to any defects in the concrete followed by surface protection.

Contract E13

As mentioned earlier in this report, the results of the 2009 Master Plan Update have shown that a new WWTP constructed in the West, would better serve the West SBLA Area and also improve the overall reliability of the system.

This contract includes the construction of a new wastewater treatment plant in the West part of Limassol of an estimated capacity of about 13.000 m^3/day with a significant part of the flow from the northern and western part of the system being diverted to it thus relieving the coastal collector and the existing eastern WWTP and in addition reducing significantly pumping costs of sewage to the east WWTP.

An Environmental Impact Assessment Study has been prepared and approved by the Department of Environment of the Republic of Cyprus. The positive decision of the Department of Environment has also been issued in September 2011. Building permits and environmental approvals required from the British Sovereign Bases have also been obtained recently as well as the decision of the Water Development Department (WDD) on the quality standards of the effluent to be produced from the new WWTP. Furthermore, the WDD has issued its decision on the effluent re-use policy. The Building permit shall be issued after the submission of detailed designs by the successful tenderer.

The Contract which was signed on 30/11/2018 for €39.748.810 has a duration of 24 months and construction works started last January. The contract amount comprises of €26.009.550 for the Design and Build component and €12.739.260 for the Operation and Maintenance component.

Contract E10

This contract with an estimated base cost of €6.84m (including operation and maintenance costs of €0,96m) includes the construction of the new Pumping Station Z and the construction of a twin force main from PSZ to the new WWTP West. The construction of pumping station M was cancelled.

Tender was launched in December 2016 and tenders were submitted in April 2017. Following the award of the contract in October 2017, one of the disqualified contractors who had submitted the lowest tender price, filed recourse to the Tender Review Authority against the Board's decision. Following the decision reached by the Tender Review Authority to cancel SBLA's award decision, the Board withdrew its previous award decision and it is currently re-evaluating the tenders received. It is expected that a new award decision will be reached by SBLA by the end of May 2019.

Contract E16A

This contract includes the construction of the force main in the Limassol Marina area. The contract was signed in October 2011 for the amount of €662.600 and works have been completed and taken over.

Contract E16

This contract with an estimated base cost of about €9m. includes the construction of the force main from the Limassol Marina to Pumping Station Z and the construction of new gravity mains. It also includes the upgrading of PSE which consists of a construction of a new (extension) pumping station (PS EA) adjacent to the existing PSE.

Since the implementation of this contract was subject to the implementation of contract E13 for the construction of the new WWTP in the West, it is expected that tenders will be invited after 2020.

Other works

Certain sewerage works shall be constructed by the Public Works Department in parallel with the road works for the new vertical road from the Limassol new port to the highway and the remaining part shall be constructed by SBLA itself. The cost of these works which shall be covered entirely by the SBLA is estimated to about €3.2m. including VAT.

Further, the Public Works Department has undertaken to construct along with the road works for the vertical road, the flood prevention works of Western Limassol of about €30m. which will be financed by the Government.

In addition to the above, the following works were **initially** scheduled to be constructed in the period up to 2016-2017.

1. Advance sludge treatment and drying plant of an estimated base cost of € 6 m. (contract E15)
2. Two retention ponds in the areas of Ayia Phyla and Ayios Athanasios with an estimated base cost of about €16 m.
3. New office building for the needs of the Board of an estimated base cost of €2.5m. In addition the cost for the acquisition of land is estimated around €1.2m.

However, the works referred to in 1 and 2 above have been cancelled as a result of the economic crisis and the Eurogroup decision of March 2013. In particular, Contract E15 for the sludge treatment and the new office building have been cancelled whereas the two retention ponds in the areas of Ayia Phyla and Ayios Athanasios will be implemented by the year 2022.

As stated in the amendment deed dated 23 May 2017, the following additional works have been included in the project scope of Limassol Sewerage III:

- The pumping station (PsEA) between PsD and PsZ with an estimated base cost of €5.000.000.

- The pumping station on Spyros Kyprianou Avenue, Contract E18 (Tender 15/2014) with a base cost of €743.000.

More details on further developments as a result of the economic crisis can be found under paragraph 5.2 below. In addition, Appendix 1 shows the initial base cost of Limassol II and Limassol III as well as their revised current cost giving a total revised cost of €370m for both Limassol II & III.

Map of the SBLA area with a contract breakdown is shown in Appendix 3.

3.10 Sewerage III- Financial Position of Contracts completed as at 31/12/2018

Contract No.	Contract Amount without VOP & VAT	Value of Work executed without VOP & VAT	Final amount with VOP & VAT	Note
E16A	662.600	567.111	662.253	1
E18	742.945	687.429	848.106	2
Total	**1.405.545**	**1.254.540**	**1.510.359**	

Note 1: Construction works have been completed and take over certificated issued.
Note 2: Construction works have been completed and take over certificated issued

3.11 Project implementation period

Initially, the project implementation period for the new components under Sewerage III was envisaged as the period 2012-2017. Several factors have moved the implementation period up to 2022, the main reasons being the following:

a) Detailed and time consuming procedures required by the Law with respect to tender procedures, environmental approvals and consents required by Authorities such as approval of Environmental Impact Assessments and provision of information from other Authorities.

b) Time consuming procedures with respect to the acquisition of land following the approvals and consents required by Authorities

c) Changes in design parameters and other components of the project, for example the Western drainage and antiflooding system has been designed in conjunction with the new vertical access road of the new port, which is a government project.

d) Delays in obtaining the building permit from the local Authorities to construct the WWTP in the West as a result of objections raised by the community of Kato Polemidia. These objections caused a delay of more than two years.

e) Preparation of various related studies such as:
   (i) Thermal Sludge drying options study
   (ii) Foul Pumping stations odour control asset & condition survey
   (iii) Surge analysis study for the force main between STP and pumping station F
   (iv) Risk Assessment and Optioneering study

f) The updated master plan of 2009 which was prepared in view of the conclusions reached by the studies above has caused some major changes in the project design concept and the implementation approach of the system. Such changes include the construction of the new WWTP in the West, a new pumping station, force mains etc.

g) The economic crisis and the resulting events of March 2013 when Cyprus entered into a rescue program. As a result of the economic crisis in 2013, the Government cancelled all its previous decisions to co-finance stormwater and flood prevention projects. In view of the Government's decision to terminate Government contribution in SBLA flood prevention projects, SBLA prepared an emergency plan, revising its investment programme by cancelling stormwater works from contracts E6, E7, E8 and E9. In addition, tendering for the construction of two retention ponds was also postponed. Following discussions between SBLA, the Ministry of Finance and the Ministry of Agriculture, the Government has agreed to proceed with the co-financing of the stormwater drainage and flood prevention works which were cancelled in 2013 up to the amount of about €16m. Further details on the issue are described in section 5.2.

h) The events at the Sewerage Board of Paphos where one of the contractors admitted professional misconduct. The contractor involved was also participating in the tenders of SBLA for Contract E13 and E14 and SBLA had to obtain legal advice as to how to proceed and also wait for the outcome of recourses made by this contractor to the Tenders Review Authority against the decisions of other organisations to disqualify him.

i) The events at the XYTA of Paphos and the XYTY of Larnaca where ACTOR SA, a partner of the successful tenderer AQUALIA-ACTOR, was allegedly involved in the scandal and SBLA had to investigate the allegations with its legal advisor in order to reach a decision whether or not to disqualify the said tender. Following the investigation, a decision was reached by SBLA not to disqualify the joint venture.

j) The complaint received that ACTOR SA was convicted by the Commission for the Protection of Competition of Greece for professional misconduct for participating in cartel practices. As the company had admitted its participation in such practices and was convicted to a fine of over 38 million euro, SBLA had to investigate the allegations further in order to decide, based on the legal advice obtained, whether or not to disqualify the tenderer professional misconduct. The recommendation of the legal opinion was that SBLA should disqualify the tenderer.

k) The need to obtain a second legal opinion from another Law Office due to the large difference of over €6m in the price between AQUALIA-ACTOR and the second tenderer. The recommendation of this legal opinion was that SBLA should carry a further detailed investigation in order to establish whether ACTOR SA has taken self-corrective actions in order to ensure that his reliability is restored and that it has safeguarded that such events shall not be repeated in the future. All the information submitted by the Contractor to this effect was subsequently examined and evaluated by SBLA.

3.12 Sludge disposal issues

Following the problems encountered in the past because of the increased number of flies in the area, allegedly due to the sludge drying procedures, the Board took in 2010 a number of actions to resolve the problem. These actions, which will continue in the year 2017, are:

- Short term actions

The sludge is transferred throughout the year to another area, to a private operator, where it is used for mixing with other biodegradable material in the preparation of land improvement material (pit moss).

- Long term actions

A sludge study has been prepared by SBLA Consultants MWH & I on the alternative options on sludge treatment.

The implementation of the sludge drying process has been abandoned for the time being following the adoption by the Board of the Emergency Action Plan prepared in order to secure its short- and

medium-term financial viability as a result of the significant financial losses suffered in March 2013 following the Euro group's decision.

The table below shows the total quantity of sludge produced in previous years transferred throughout the year to another area, to a private operator and the production of electricity from the biogas produced.

Year	Sludge Quantity (Tons)	Cost (Euro)	Cost per Ton (Euro)
2010	8.252	171.880	20.82
2011	7.578	186.300	24.58
2012	8.023	215.660	26.88
2013	8.229	162.400	19.73
2014	8.479	249.320	29.40
2015	8.845	250.720	28.35
2016	8.887	230.508	25.94
2017	9.848	252.749	25.66
2018	10.442	252.924	24.22

4. SBLA FINANCIAL POSITION AND TARIFF STRUCTURE

4.1 Current position

The financial statements for the year ended 31 December 2018 are currently being prepared.
The position of capital expenditure and loans for **Phase B2** of the Project as at 31/12/2018 (unaudited figures) is as follows:

DESCRIPTION		COST €
Extension of Moni WWTP including VAT, finance costs and foreign exchange differences		32.037.000
Sewage and drainage collection system (Contracts E1, E6, part of E2, part of E3, part of E4, part of E7, part of E9, E5, E8, E11, E12 and E18 capitalized) completed including VAT, finance costs and foreign exchange differences – **In operation**		137.866.922
Work in progress		
Extension of collection systems including VAT but excluding finance costs	Contract E2*	679.601
	Contract E3*	2.651.035
	Contract E4*	5.615.627
	Contract E7*	10.403.587
	Contract E9	1.067.049
	Contract E16A	662.253
***Completed but not in operation.**		
Other sewerage and drainage works in progress		5.008.439
Design and supervision costs - Phase B2		3.083.566
Total		**199.075.079**

Loans Balances as at 31/12/2018

DESCRIPTION	AMOUNT €
CEB FP335 Tranches 6-9 and FP1702 1st and 2nd tranche	57.589.230
EIB loan number 23.640 and 25.599	89.276.777
Total	**155.151.151**

The position of **cumulative capital expenditure and loans** for the Board (including Phases A, B1, B2 and extended B2) as at 31/12/2018 is as follows:

Cumulative capital expenditure 2018

DESCRIPTION	COST €
Sewage collection system	229.676.400
Moni WWTP	43.652.416
Drainage collection system(incl. pond)	49.663.321
Buildings (WwTP administration building, chemicals shed and work shop)	4.924.726
Buildings (Administration office)	2.324.555
Buildings-(Retention pond)	50.438
Land	7.921.921
Total	**338.213.777**

Cumulative Loans balances as at 31/12/2018

DESCRIPTION	AMOUNT €
CEB	58.949.230
EIB 23.640	60.815.239
EIB 25.599	28.461.538
Total	**148.226.007**

Draft Income and Expenditure Account and the Balance Sheet as at 31 December 2018 are shown below:

UNAUDITED BALANCE SHEET AS AT 31 DECEMBER 2018

	2018	2017
	€	€
Assets		
Non current assets		
Fixed assets	**211.556.677**	220.149.480
Investments	**15.002.377**	564.297
	226.559.054	220.713.777
Current assets		
Stocks	**1.184.732**	1.111.465
Debtors and prepayments	**22.206.174**	21.661.087
Cash at banks and in hand	**86.758.281**	95.196.850
	110.149.187	117.969.402
Total assets	**336.708.241**	338.683.179
Equity and liabilities		
Reserves	**142.273.308**	127.776.071
Non current liabilities		
Deferred income	**35.131.280**	42.757.360
Loans	**137.764.197**	148.226.008
Pension Fund	**1.737.047**	1.769.481
	174.632.524	192.752.849
Current liabilities		
Deferred income	**1.750.000**	1.754.582
Creditors and accrued expenses	**7.568.961**	7.601.355
Bank overdraft	**21.638**	3.179
Loans-amount due within one year	**10.461.810**	8.795.143
	19.802.409	18.154.259
Total liabilities	**194.434.933**	210.907.108
Total reserves and liabilities	**336.708.241**	338.683.179

UNAUDITED INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31 DECEMBER 2018

	2018	2017
	€	€
Income		
Sewerage charges	**18.675.526**	19.285.858
Service charges	**6.387.525**	6.217.407
Interest receivable	**492.919**	802.762
House connection charges	**291.544**	328.943
Other income	**88.985**	32.857
	25.936.499	26.667.827
Amortisation of grants	**2.300.000**	2.289.621
Expenses reimbursed	**1.008.696**	963.954
Profit /(Loss) of sale of fixed assets	**34**	-2.102
	29.245.229	29.919.300
Expenditure		
Operation and maintenance expenses	**5.248.943**	5.749.167
Administrative expenses	**3.631.363**	3.071.167
Interest payable	**800.000**	776.015
Depreciation	**10.500.000**	10.463.310
Adjustment of fair value of shares	**208.744**	77.991
Adjustment of fair value of debtors	**--**	-204.791
	20.389.050	19.932.859
Surplus for the year before exchange differences	**8.856.179**	9.986.441
Gain/(Loss) on staff pension benefit	**--**	1.708.578
Surplus for the year	**8.856.179**	11.695.019
Accumulated surplus brought forward	**127.776.071**	116.081.052
Accumulated surplus carried forward	**135.852.250**	127.776.071

Notes:

1. **Depreciation charge and amortization of grants are estimated figures**
2. **Interest paid includes an amount paid of €0.8m on tranches withdrawn but not used as at 31/12/2018 which was initially recorded in work in progress**
3. **Pension fund obligation in accordance with IAS19 has not yet been calculated as at the date of this report**

4.2 Tariff structure

4.2.1 Revenues

SBLA revenues are based on the following main categories of income:

- Sewerage rates on immovable property
- Drainage rates on immovable property
- Service charge on water consumption (water surcharge)
- Connection fees
- Extra house connection charges

4.2.2 Basis of Tariff Structure

The basis of the tariff policy applied by SBLA is defined in the Sewerage and Drainage Act of 1971. According to the Law, the Board can impose charges up to a ceiling, which has to be approved by the House of Representatives. The rates actually imposed every year have then to be approved by the Board of the SBLA provided they are not exceeding the threshold rates approved by the House of Representatives.

The SBLA follows a tariff policy of continuous monitoring and adjustment of the rates in order to meet its financial objectives (Debt coverage, self financing, etc) and to maintain a sound financial position.

4.2.3 Description of charges

Sewerage rates on immovable property

The Law allows the Board to charge and collect sewerage charges from all the property owners as soon as the first investments are planned or undertaken within a particular project area. The main charge of this tariff policy, the sewerage rate, is levied per 1,000 euro of assessed property valuation on the basis of 1980 price levels.

Rates differ between areas (phases of implementation). A distinction is also made between residential properties and hotels and (since 1994), industries or industrial areas. In particular non residential properties are charged at higher rates.

Drainage rates on immovable property

The tariff structure allows for imposition of a drainage charge in addition to the sewerage charge. This rate is levied per 1,000 Euro of assessed property value. A uniform rate is applied for the entire SBLA area.

Service Charge on Water Consumption- (Water surcharge)

Once the system is in operation, a service charge is levied per cubic meter of water consumed. This charge is levied only on properties actually connected to the system.

Connection fees

A connection fee of €20 is levied on each property connected to the scheme.

Extra house connection charges

One house connection is provided free of charge for each property. Should an owner desire any extra house connections, he will be charged for each extra house connection.

Construction permits

A construction permit fee of 2% on the budgeted cost of private sewers is levied with a minimum fee of €50.

Penalties for late payment of rates imposed on immovable property and of services charges
Up to the year 2016, a penalty of 20% was imposed on sewerage and service charges not paid by the due date.

As from 2017, the penalty has been reduced to 15% which is imposed gradually as follows: a surcharge of 5% is imposed on the outstanding amount of the sewerage charges of the current year paid within 4 months from the due date and a surcharge of 15% on the outstanding amount paid after 4 months from due date.

Penalties for non connection to the system

A penalty of €85,43 is imposed for non connection to the system.

Imposition of surcharge on properties not connected to the public sewerage system in accordance with the Amending Law 158(I)/2013 of the Sewerage Systems Law 1971-2012

SBLA imposes a surcharge on all properties located within the areas as specified in the relevant decree for which the connection period has expired. The surcharge equals the current service charge which is imposed on the connected properties based on the water consumption.

4.3 Applied Tariff Structure

According to the Law, the SBLA can impose sewerage, drainage and service charges up to a ceiling, which has to be approved by the House of Representatives. The rates actually imposed every year have then to be approved by the Board of the SBLA provided that they are not exceeding the threshold rates approved by the House of Representatives. In addition, the Law allows the imposition of differentiated charges depending on the category or the area of the property.

The tariff policy of adjusting the rates, aims at maintaining a sound financial position of SBLA and meeting its financial objectives. The tariff policy adopted to-date by SBLA, distinguishes between different groups of users and different areas according to the phase in which the property is situated. Users are classified in two main groups: a) residential area users and, b) hotel and industrial areas users. Each of these groups is charged on a different basis. Rates differentiation is usually used as a tool for promoting social policies and to charge the various groups on the basis of the use of the system, taking into consideration their affordability to pay. The rates are constantly revised in order to meet the financial needs of the Project.

In 2014 the Department of Land and Survey revalued all properties in Cyprus and the assessed property values were restated as at 1/1/2013. As a result, the assessed property values within the boundaries of SBLA increased from €4,3bn (as at 1/1/1980) to about €35,01bn (as at 1/1/2013) as shown below. Following this increase, the corresponding thresholds were reduced by the House of Representatives in order to ensure that Sewerage Boards would not charge excessive sewerage rates. The new thresholds were approved by the House of Representatives Board in April 2017 and the sewerage and drainage rates to be applied in 2017 were approved by the Board of SBLA in May 2017. The table below shows the new sewerage and drainage rates applied in 2017 together with the corresponding thresholds.

The sewerage and drainage rates approved by SBLA ensure that, based on the assessed property values of 2013, the Board's income is maintained at about the same level as in 2017. The new assessed property values of 2013 which were made available to SBLA in 2018 as well as the sewerage rates used are shown below:

Description	Assessed property values (1.1.2013 values)	%	Applied Sewerage Rates Eur/000		Applied Drainage Rates Eur/000	
	2018 Euro		Threshold	2018	Threshold	2018
Hotels	922.237.017	2,62%	1,25	1,05	0,1375	0,095
Industrial	1.122.282.196	3,19%	1,25	1,05	0,1375	0,095
Residents A	10.820.233.017	30,74%	0,5	0,40	0,1375	0,095
Residents B1	5.461.381.839	15,52%	0,5	0,40	0,1375	0,095
Residents B2	16.869.210.757	47,93%	0,5	0,40	0,1375	0,095
Total	**35.195.344.827**	100,00%				

The Service Charge rate applied per cubic meter for the years 2019 and 2018 is as follows:

2019 and 2018 Eur 0,64 per cubic metre

SBLA approved in October 2017 a service charge rate of Eur 0,66 per cubic metre which will be applied only after the threshold rate of Eur 0,64 per cubic metre is increased by the House of Representatives.

4.4 Historical information on sewerage rates

Table – Sewerage Charges (‰)

Year	Phase A				Preaccession Phase	Phase B	Drainage Charges
	Hotels	Industries	Other Premises	Expansion of Phase A'	All premises	All premises	All premises
1991	7	1.8	1.8	-	-	0.5	-
1992	7	1.8	1.8	-	-	0.5	-
1993	7	1.8	1.8	-	-	0.5	-
1994	8	4	2	-	-	0.6	-
1995	8.8	4.4	2.2	-	1.25	0.6	-
1996	8.8	4.4	2.2	2.6	1.25	0.6	-
1997	8.8	4.4	2.2	2.6	1.25	0.6	0.5
1998	8.8	4.4	2.2	2.6	1.25	0.6	0.5
1999	10	10	2.6	2.6	1.25	0.6	0.5
2000	10	10	2.6	2.6	1.25	0.6	0.5
2001	10	10	2.6	2.6	1.25	0.6	0.5
2002	10	10	2.6	2.6	1.25	0.6	0.5
2003	10	10	2.6	2.6	1.25	0.6	0.5
2004	10	10	2.6	2.68	1.29	0.6	0.5
2005	10	10	2.6	2.76	1.33	0.6	0.5
2006	10	10	2.6	2.84	1.37	0.6	0.5
2007	10	10	2.6	2.84	2.84	2.84	0.5
2008	10	10	2.68	2.93	-	2.93	0.56
2009	10	10	2.76	3.00	-	3.00	0.58
2010	9.70	9.70	2.84	3.10	-	3.10	0.60
2011	9.40	9.40	2.93	3.19	-	3.19	0.62
2012	9.10	9.10	3.02	3.29	-	3.29	0.75
2013	8.90	8.90	3.11	3.39	-	3.39	0.75
2014	8.65	8.65	3.70	3.49	-	3.49	0.80
2015	8.65	8.65	3.70	3.49	-	3.49	0.80
2016	8.65	8.65	3.70	3.49	-	3.49	0.80
2017	1.10	1.10	0.42	0.42	-	0.42	0.10
2018	1.05	1.05	0.40	0.40	-	0.40	0.095

4.5 Future Tariff Structure

In 2016 SBLA awarded to Deloitte Limited, the contract for the preparation of the Board's Strategic Plan for the period 2017-2036 which has been completed and submitted to the Board recently. This report examined the Board's projected financial position up to the year 2036 and based on its conclusions, the Board, taking into consideration the sound financial position of SBLA as at 31/12/2017 and the financial projections up to the year 2036, decided in October 2017 the following:

Gradual reduction of sewerage and drainage rates and gradual increase of service charge rate
The gradual reduction of the sewerage and drainage rates by 5% every year and the gradual increase of the service charge rate by 3% every year, for the years 2018-2022.

Loan disbursements
To finance the new investments by self generated funds and therefore for the time being, no further disbursements shall be needed from the approved loans.

As shown below, the policy of gradual decrease in the sewerage and drainage rates was applied on all categories of properties with the exception of service charge rates which are gradually increased in order to adhere to the principle that the service charge rate should reflect the cost of collecting and treating the sewage.

The approved tariff structure initially approved by the Board in October 2017 is shown below:

Category		2017	2018	2019	2020	2021	2022
Sewerage charges							
Hotels & Industries	‰	1,10	1,05	0,99	0,94	0,90	0,85
Residents–Phase A extension	‰	0,42	0,40	0,38	0,36	0,34	0,32
Residents–initial Phase A	‰	0,42	0,40	0,38	0,36	0,34	0,32
Drainage charge	‰	0,10	0,095	0,090	0,085	0,080	0,075
Service charge	cent/m^3	0,64	0,66	0,68	0,70	0,72	0,74

4.6 Affordability Analysis

The Board has carried out an affordability analysis, the results of which are shown below.

	2008 €	2009 €	2012 €	2016 €	2020 €
Estimated Lowest Annual Income	9.000	9.225	10.130	9.117	10.261
Estimated Family Lowest Income	13.500	13.838	15.194	13.675	15.391
Property Assessment	42.715	42.715	42.715	42.715	200.000
Annual Water Consumption					
-Litres per day per person	180	180	180	180	180
-m^3 per year per person	65,70	65,70	65,70	65,70	65,70
Persons per household	2,9	2,9	2,9	2,9	2,9
Annual Consumption per Household in m^3	191	191	191	191	191
Rates					
Domestic Water Charge per m^3 of metered water	0,43	0,43	1,40	1,64	1,84
Sewerage Charge per €1000 of property valuation	2,93	3,00	3,29	3,49	0,36
Sewerage Service Charge per m3 of metered water	0,38	0,41	0,49	0,64	0,70
Drainage Charge per €1000 of property valuation	0,55	0,58	0,75	0,80	0,09
Annual Charges					
Domestic Water Charge per m3	81,93	81,93	266,74	312,30	351,49
Sewerage Charge	125,16	128,15	140,53	149,00	72,02
Sewerage Service Charge	72,40	78,12	93,36	121,94	133,25
Drainage Charge	23,55	24,77	32,04	34,17	17,15
	303,03	312,97	532,67	617,48	573,91
Total as % of annual income **including** Domestic Water Charge	2,25%	2,26%	3,52%	4,52%	3,73%
Domestic Water Charge as % of annual income	0,61%	0,59%	1,76%	2,28%	2,28%
Sewerage and drainage charge as % of annual income	1,64%	1,67%	1,75%	2,23%	1,45%

As shown from the analysis above, by the year 2020 the annual charges as a percentage of annual income will decrease to 3,73%.

5. OTHER WORKS NOT FINANCED BY EIB

5.1 Expansion of the Project Service Area

The construction of the Sewerage System in the areas described below is not currently financed by the existing EIB loan. These components will not be financed by EIB.

Expansion of the Project Service Area to the North and to the East

The Board at its meetings at the beginning of 2009 has decided to expand its boundaries in order to cover additional communities adjacent to the existing boundaries. In particular the Board has decided to incorporate in SBLA boundaries, new areas which have been converted from rural zones to residential zones, during the previous changes of Limassol Urban Plan. The Council of Ministers has approved the expansion of SBLA project area to cover the new residential areas. The Decree was published in the Official Gazette of the Republic of Cyprus number 4392 on 23/10/2009 (ΚΔΠ 352/2009).

In addition, the Board has decided to incorporate in SBLA boundaries the communities of Pyrgos and Parekklissia in the east and the community of Palodia in the north. The Council of Ministers has approved the expansion of the SBLA area in order to incorporate the two communities of Pyrgos and Parekklissia in the east and Palodia to the north.

The Decree for the incorporation of Pyrgos and Parekklissia was published in the Official Gazette of the Republic of Cyprus number 4392 on 23/10/2009(ΚΔΠ 353/2009). The Decree for the incorporation of Palodia was published in the Official Gazette of the Republic of Cyprus number 4397 on 27/11/2009(ΚΔΠ 392/2009).

Expansion of the Project Service Area to the west.

In addition, there is the need to incorporate the new communities in the West that will likely be included in the SBLA's boundaries. Government support has facilitated that the following communities could be included in the Sewerage Board of Limassol-Amathus' service area:

- Ypsonas
- Erimi
- Kolossi
- Episkopi
- Trachoni

As a result of certain outstanding objections from the community of Episkopi and Trachoni these communities will potentially join SBLA service area in the future provided there is an agreement with the Government. Their inclusion was considered in Scenarios 5 and 6 of the Master Plan of 2009.

Inclusion of the western communities will increase further the flows in the mains of the network as currently designed and therefore additional measures need to be taken. There are plans for a new WWTP in an area near Episkopi village. This WWTP could in the first place serve the additional rural areas, but could also improve the redundancy of the overall network as described above. The Master Plan study and Risk Assessment study, examined how a western WWTP could be best integrated in the overall network. The use of advanced wastewater treatment technology is to be considered to reduce the footprint of the plant and to increase re-use possibilities of treated water.

Besides the new communities in the west, the following three communities in the east will need to be connected to the system in the future as well: Monagroulli, Moni and Pentakomo. However no official discussions have yet started for these communities.

All these issues and additional measures have called for the update of the 2005 Master Plan. A first version of the present Master Plan Update including 5 scenarios was delivered in November 2008, the final Master Plan Update includes the previous results and incorporates a 6th scenario. It is expected that the results of this study will generate a high impact on the set-up and main structure

of the sewer network that is to serve the public of Limassol for many years to come. Therefore the time horizon for technical/hydraulic matters has been extended to 2050 whereas the time horizon of the 2005 Master Plan was up to 2025 only.

It should be noted that the Board's decision does not consider the expansion of the system in areas other than the existing SBLA boundaries as shown on the attached Map. In particular, in the light of the delays in reaching a decision for these communities by the Government and the subsequent economic crisis, the decision to expand the system in the five western communities has been postponed. However if the Government decides to incorporate these five communities in SBLA area the scheme shall be expanded accordingly without changes in the Master Plan of 2009.

5.2. 2013 Economic Crisis and Latest Developments

As a result of the economic crisis and the financial blow of the Banking sector in Cyprus, SBLA has suffered significant losses. In particular the decision for the resolution of Laiki Bank had as a result a significant haircut of €19.510.973 on unsecured deposits. In addition, an amount of €4.587.771 of the deposits with Bank of Cyprus has been used for the recapitalization of the Bank in exchange of shares.

As a result of this development, SBLA has prepared an Emergency Plan of Action in order to secure the short term and middle term financial viability of the Organization. The Plan of Action together with other details has been discussed with the Bank's mission in April 2013. In addition the Plan of Action has been submitted to the Bank.

On the basis of the Plan of Action, the Board of Management of SBLA has taken a number of decisions which in general are summarized as follows:

1. The scope of certain projects or components has been modified or cancelled. These projects include the following:

   (a) The scope of construction of SBLA's new offices of an estimated cost of €3 million has been modified. Instead, SBLA decided that instead of acquiring an additional plot and demolishing the existing property which was also acquired for this purpose, to renovate it in order to create auxiliary storing and office facilities of substantially less cost. The final cost of these works was about €125.000.

   (b) The sludge drying plant of an estimated cost of €6 million has been cancelled. The issue shall be reconsidered in the future, in the light of the prevailing economic conditions and on the basis of a cost/benefit analysis.

2. Storm water drainage components of contracts E6, E7, E8 and E7 which were in progress have been postponed. These works of a total base cost of about €17 million (estimated final cost €23 million) have not been executed due to Government's inability to finance its contribution of about €9 million in base cost (estimated final cost €13 million).

3. Following discussions between SBLA, the Ministry of Finance and the Ministry of Agriculture, the Government has agreed to proceed with the co-financing of the storm water drainage and flood prevention works which were cancelled in 2013 up to the amount of about €16m.These works shall be executed under a separate contract to be launched by the end of 2019 under normal procurement procedures. More details on the works postponed can be seen in paragraph 3.9 of this report.

4. Implementation of the west WWTP together with all related works for the construction of pumping stations and main collectors.

   Following the agreement reached for the construction of the WWTP of a smaller capacity of 13.000m³/day, the Contract was signed in November 2019 and construction works have already started.

Furthermore the Government has taken in January 2014 a decision through the Council of Ministers that the State shall finance the Tertiary Treatment component of the WWTP of about €8 million.

5. Following the Government´s decision to finance 80% of the cost for the sewerage network for the east communities of about €13,9 million, the Board of Management of SBLA decided to proceed with the tendering of Pyrgos and Pareklissia sewerage network.

   This decision was taken following the Government´s consent in January 2014 to include the sewerage works of the two eastern committees i.e. Pyrgos and Parekklisia in the European Co-financed Projects in order to finance part of the Government's contribution.

   SBLA signed in March 2018 the contract for the provision of consultancy services for the preparation of tender documents, evaluation of contractors' tenders and supervision of construction works in the communities of Pyrgos and Pareklisia. It is expected the construction works will start in the third quarter of 2019.

6. Cost reduction and austerity measures have been approved. More details and the assumptions that have been considered by the Board are described in the Crisis Plan of Action.

APPENDICES

APPENDIX 1. - SCOPE OF WORKS

APPENDIX 2. - CONTRACTS OF WASTEWATER SEWAGE WORKS

APPENDIX 3. - MAP SHOWING LOCATION OF PROJECT ELEMENTS

APPENDIX 4. - PERFORMANCE INDICATORS

APPENDIX 1 -SCOPE OF WORKS

Description	LIMASSOL II		LIMASSOL III		TOTAL
	Initial estimated base Cost	Current estimated base Cost	Initial estimated base Cost	Current estimated base Cost	Extended B2 Total estimated cost
Gravity and Force main collector **expansion** including 4Km duplication of force main connecting to WWTP Moni	8.533.000	6.015.920	14.515.600	10.517.111	16.533.031
Construction of laterals	63.755.000	116.410.569	4.715.000	3.756.724	120.167.293
Construction of new pumping stations: PSZ	1.333.000	--	5.000.000	2.800.000	2.800.000
PSEA			--	5.000.000	5.000.000
Sp.Kyprianou			--	678.504	678.504
Upgrade of existing pumping stations	1.256.000	4.435.340			4.435.340
Upgrade of WWTP Moni including upgrade of tertiary treatment – capacity 40.000 m3/d - increase to 49.000 m3/d * See note below	13.310.000 8.543.000	21.376.472 --			21.376.472 --
Construction of retention reservoirs	4.000.000	4.345.155	5.400.000	5.400.000	9.745.155
Construction of drainage and other antiflooding works	18.538.000	39.592.621	20.150.000	16.600.000	56.192.621
Sludge Treatment		--	6.000.000	--	--
Upgrading of existing main collector system (force mains and gravity mains)			--	7.900.000	7.900.000
New West WwTP capacity 13.000m³/day		--	28.000.000	26.000.000	26.000.000
Construction of new offices		--	2.500.000	--	--
Land for new office		--	1.200.000	647.600	647.600
Land for retention reservoirs		--	9.737.000	5.000.000	5.000.000
Sub-Total	**119.268.000**	**192.176.076**	**97.217.600**	**84.299.939**	**276.476.015**
Design and supervision	8.280.000	16.318.987	4.314.030	3.932.617	20.251.604
Physical contingencies 5%	12.653.000	2.749.579	4.529.732	4.129.248	6.878.826
Licences and other permits 3%	6.959.000	3.515.414	2.853.731	2.601.426	6.116.840
Financial contingencies 8%	17.309.000	7.457.903	9.040.597	2.328.228	9.786.132
VAT	24.521.000	33.257.269	18.147.754	17.306.899	50.564.168
Borrowing costs	23.010.000				
Total	**212.000.000**	**255.475.229**	**136.103.444**	**114.598.357**	**370.073.586**

Appendix 2. – Sewerage III, Contracts of wastewater sewage works

Table 2.1 - Contracts completed before 31/12/2018

CONTRACT NO.	Original Length KM	Tender Price excluding VAT	Unit cost Euro/M	Final Length KM	Final Cost/Costs to date including VAT	Comments
Contract E16A Sewerage collection system	0,60	€0.66m	€1.050/m	0,60	€662.252	The contract is financed under Sewerage III. Total cost includes VAT paid €95.141
Contract E18 Construction of a new Pumping station on Spyros Kyprianou avenue		€0.743m			€800.805	Total cost includes VAT paid €122.301 Works were completed and taken over in January 2017.

Appendix 2. – Sewerage III, Contracts of wastewater sewage works

Table 2.2 - Contracts under construction as at 31/12/2018

CONTRACT NO.	Original Length KM	Tender Price excluding VAT	Unit cost Euro/M	% complete	Costs to date including VAT	Comments
Contract E13 Construction of a new WWTP to the West- Design& Build component	-	€26.009.550	-	-	-	The contract was signed on 30/11/2018 and construction works started in January 2019.
Contract E14 Contract for the rehabilitation of gravity sewers, manholes and rising mains	8,1	€7.932.491	-	-	-	The contract was signed on 31/10/2018 and construction works started in November 2018.

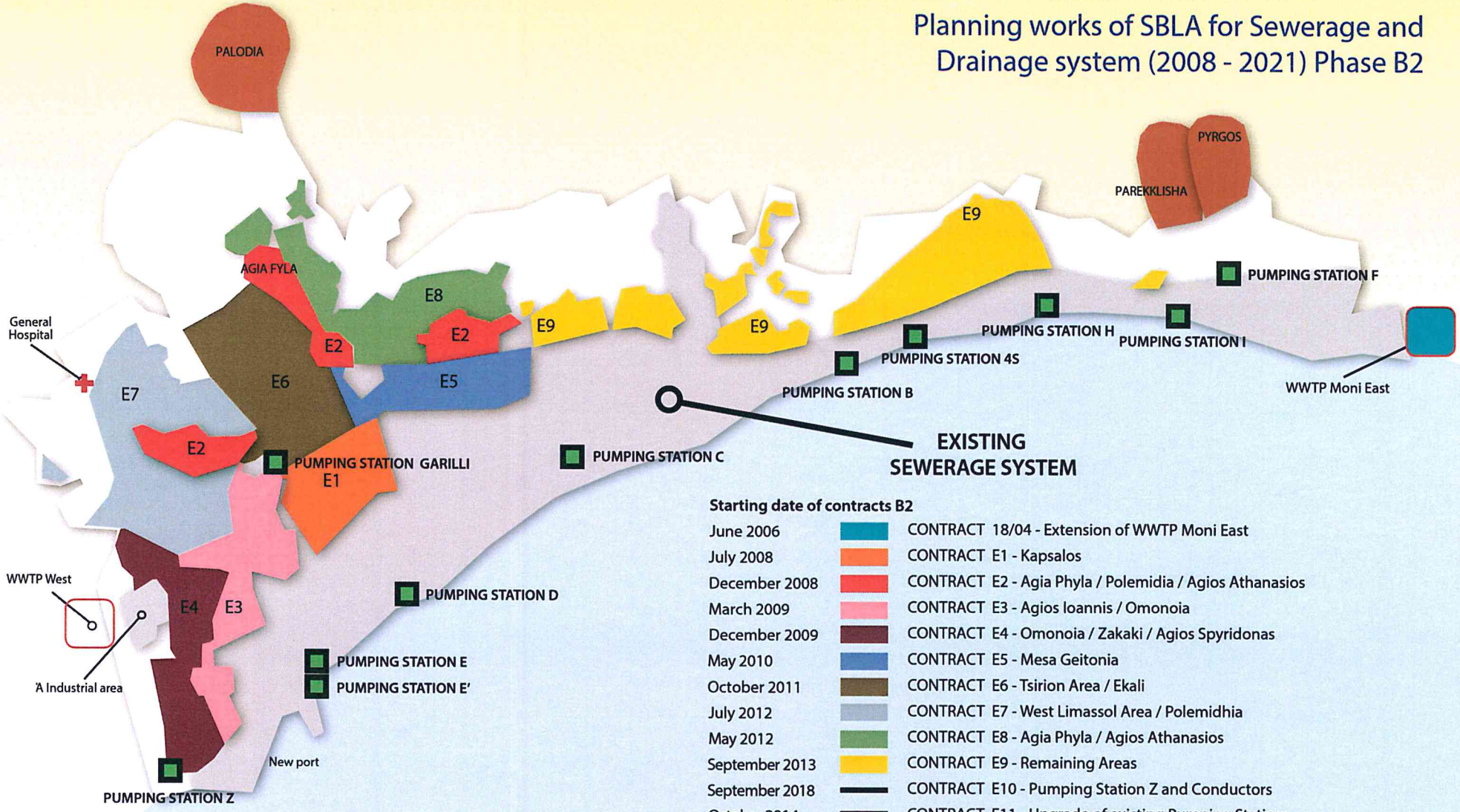
Table 2.3 – Other contracts planned to be awarded in 2019

CONTRACT NO	LENGTH KM	EST. COST EXCL VAT	UNIT COST EUR/M	START/DURATION
Contract E10 Construction of the new pumping station Z and construction of twin force main from pumping station Z to the West WWTP		€6,84m		Tender was awarded in October 2017 but one of the disqualified contractors who had submitted the lowest tender price, filed recourse to the Tender Review Authority against the Board's decision. The Tender Review Authority cancelled the Board's decision and tenders are currently being re-evaluated. It is expected that a new award decision will be reached by SBLA by the end of May 2019. Estimated cost includes €0.96m operation and maintenance costs for 10 years
Contract E19 Construction of anti-flooding works	20 KM	€11,7m		Tender will be launched by the end of May 2019 and it is expected that it will be awarded by the end of 2019.

Map 1 –Showing existing sewerage system and work completed so far, contracts under construction and contracts shortly to be awarded and tendered.

SBLA AREA MAP

Planning works of SBLA for Sewerage and Drainage system (2008 - 2021) Phase B2



Starting date of contracts B2

June 2006	CONTRACT 18/04 - Extension of WWTP Moni East
July 2008	CONTRACT E1 - Kapsalos
December 2008	CONTRACT E2 - Agia Phyla / Polemidia / Agios Athanasios
March 2009	CONTRACT E3 - Agios Ioannis / Omonoia
December 2009	CONTRACT E4 - Omonoia / Zakaki / Agios Spyridonas
May 2010	CONTRACT E5 - Mesa Geitonia
October 2011	CONTRACT E6 - Tsirion Area / Ekali
July 2012	CONTRACT E7 - West Limassol Area / Polemidhia
May 2012	CONTRACT E8 - Agia Phyla / Agios Athanasios
September 2013	CONTRACT E9 - Remaining Areas
September 2018	CONTRACT E10 - Pumping Station Z and Conductors
October 2014	CONTRACT E11 - Upgrade of existing Pumping Stations
December 2010	CONTRACT E12 - Force Main of Pumping Station F to East WWTP
January 2019	CONTRACT E13 - West WWTP
November 2018	CONTRACT E14 - Rehabilitation of Pipes
Beginning 2020	CONTRACT E16 - Pumping Station E' and Mains
April 2019	CONTRACT E17 - Pyrgos / Parekklisha
October 2015	CONTRACT E18 - Garillis Pumping Station
October 2019	CONTRACT E19 - Anti Flooding Work

APPENDIX 4. PERFORMANCE INDICATORS

	WASTEWATER SERVICES	
	SERVICE INDICATORS	
1	Resident population connected to sewer system	88%
2	Resident population served by WWTP	88%
3	Treated wastewater in WWTP	
	- preliminary treatment	100%
	- primary treatment	100%
	- secondary treatment	100%
	- tertiary treatment	100%
4	Average wastewater charges for direct consumption [1]	EUR/m³ 0,64
	PHYSICAL EFFICIENCY INDICATORS	
5	Sewer blockages	16/100 km sewer/year

Notes

1 Wastewater charges are for SBLA area for 2018

Summary of key data

Total population SBLA	170.000	year 2018
Population connected in SBLA area	149.500	year 2018
Estimated house connections in SBLA area	36.100	(constructed)
Estimated house connections in SBLA area	26.100	(in use)
Persons/connection	6 up to 2014, 4 thereafter	SBLA area

Moni WWTP capacity	40.000	m³/d
actually treats on average	25.690	m³/d

Length of collection system	750	Km	Currently in use

Wastewater charges (SBLA)-euro	6,4	M	in 2018	billed
Sewerage charges - euro	18,7	M	in 2018	billed
Total income	28,7	M	In 2018	

Staffing efficiency		
Employees per connection	N/1000	2,49

Financial data is for 2018 shown below has not been audited at the date of preparation of this report.

Water & wastewater		
Financial Indicators		
Cost recovery		
Unit annual revenue	Eur/m^3	3,12
Unit total costs	Eur/m^3	2,17
Total cost coverage ratio	%	144
Operating cost coverage ratio	%	557
Profitability		
Return on fixed assets	%	2,70
Return on equity	%	6,22
Cash position		
Collection rate	%	104,99
Debt service coverage ratio		2,32
Financial structure		
Current ratio		5,56
Debt equity ratio		1,04