

Appendix A to CSD 436/19 Cyclical Works Programme Progress Report

CYCLICAL WORKS PROGRAMME 2017/18

CITY'S CASH 2017/18	Budget	Spent	Committed	Total	Left to spend
Mayor & Shrieverly, The Monument	£20,316	£19,021	£0	£19,021	£1,295
Mansion House	£344,564	£270,388	£6,671	£277,099	£67,555
Magistrates Court	£343,584	£264,840	£6,744	£271,584	£72,000
London Central Markets	£717,739	£465,806	£80,239	£546,045	£171,694
Guildhall School	£1,787,829	£752,236	£227,850	£980,086	£807,743
Epping Forest & City Commons	£1,440,977	£972,449	£198,133	£1,170,582	£270,395
West Ham Park & Bunhill Fields	£207,148	£95,905	£3,667	£99,572	£107,576
Hampstead Heath, Highgate Wood & Queen's Park	£1,402,698	£1,014,231	£85,260	£1,099,491	£303,207
Keats House	£152,867	£31,416	£110,456	£141,872	£10,995
Savings	£75,602	0	0	£0	£75,602
TOTAL	£6,493,324	£3,886,242	£719,020	£4,605,262	£1,888,062
CITY FUND 2018/19	Budget	Spent	Committed	Total	Left to spend
Barbican Centre	£2,144,235	£1,619,980	£138,017	£1,757,997	£386,238
Central Criminal Court, Mayor's Court, Roman Bath House	£437,195	£281,784	£46,642	£328,426	£108,769
Culture Heritage & Libraries, City Info Centre	£247,000	£158,871	£61,010	£219,881	£27,119
Planning & Transportation	£752,387	£347,793	£115,146	£462,939	£289,448
Port Health	£188,487	£186,516	£1,981	£188,497	-£10
Other Open Spaces	£60,800	£28,000	£21,737	£49,737	£11,063
Savings	£16,135	0	0	£0	£16,135
TOTAL	£3,846,239	£2,622,944	£384,533	£3,007,477	£838,762
GUILDHALL ADMIN 2017/18	Budget	Spent	Committed	Total	Left to spend
Guildhall Complex	£1,312,195	£754,002	£312,770	£1,066,772	£245,423
Savings	£0				£0
TOTAL	£1,312,195	£754,002	£312,770	£1,066,772	£245,423

Appendix B to CSD 436/19 Cyclical Works Programme Progress Report

CYCLICAL WORKS PROGRAMME 2018/19

CITY'S CASH 2018/19	Budget	Spent	Committed	Total	Left to spend
Mayor & Shrievalty, The Monument	£91,637	£21,417	£170	£21,587	£70,050
Mansion House	£780,035	£548,868	£76,580	£625,448	£154,587
Magistrates Court	£55,000	£31,000	£2,500	£33,500	£21,500
London Central Markets	£297,500	£232,590	£7,648	£240,238	£57,262
Guildhall School	£35,000	£0	£0	£0	£35,000
Epping Forest & City Commons	£1,627,348	£763,297	£212,304	£975,601	£651,747
West Ham Park & Bunhill Fields	£593,034	£138,323	£5,286	£143,609	£449,425
Hampstead Heath, Highgate Wood & Queen's Park	£2,107,570	£905,618	£86,027	£991,645	£1,115,925
Keats House	£182,735	£30,552	£76,717	£107,269	£75,466
Savings	£62,815			£0	£62,815
TOTAL	£5,832,674	£2,671,665	£467,232	£3,138,897	£2,693,777
CITY FUND 2018/19	Budget	Spent	Committed	Total	Left to spend
Barbican Centre	£1,004,000	£116,282	£11,387	£127,669	£876,331
Central Criminal Court, Mayor's Court, Roman Bath House	£366,000	£214,027	£14,912	£228,939	£137,061
Culture Heritage & Libraries, City Info Centre	£152,000	£35,032	£5,562	£40,594	£111,406
Planning & Transportation	£1,365,500	£308,654	£101,007	£409,661	£955,839
Port Health	£1,098,000	£440,179	£142,409	£582,588	£515,412
Other Open Spaces	£15,000	£0	£0	£0	£15,000
Savings	£100,000	0	0	£0	£100,000
TOTAL	£4,100,500	£1,114,174	£275,277	£1,389,451	£2,711,049
GUILDHALL ADMIN 2018/19	Budget	Spent	Committed	Total	Left to spend
Guildhall Complex	£1,428,500	£370,138	£515,449	£885,587	£542,913
Savings	£0	0	0	£0	£0
TOTAL	£1,428,500	£370,138	£515,449	£885,587	£542,913

Appendix C to CSD 436/19 Cyclical Works Programme Progress Report

CYCLICAL WORKS PROGRAMME 2019/20

CITY'S CASH 2019/20	Budget	Spent	Committed	Total	Left to spend
Mayor & Shrievalty, The Monument	£52,000	£0	£32,000	£32,000	£20,000
Mansion House	£768,000	£11,834	£59,304	£71,138	£696,863
Magistrates Court	£110,500	£11,830	£3,170	£15,000	£95,500
London Central Markets	£906,000	£48,000	£239,978	£287,978	£618,022
Guildhall School	£983,000	£68,454	£53,622	£122,077	£860,923
Epping Forest & City Commons	£1,202,100	£82,256	£122,338	£204,595	£997,506
West Ham Park & Bunhill Fields	£247,700	£0	£0	£0	£247,700
Hampstead Heath, Highgate Wood & Queen's Park	£1,052,700	£144,256	£19,643	£163,898	£888,802
Savings	£31,500	0	0	£0	£31,500
TOTAL	£5,353,500	£366,630	£530,056	£896,686	£4,456,814
CITY FUND 2019/20	Budget	Spent	Committed	Total	Left to spend
Barbican Centre	£1,255,000	£0	£16,340	£16,340	£1,238,660
Central Criminal Court, Mayor's Court, Roman Bath House	£1,207,000	£47,150	£189,154	£236,305	£970,695
Culture Heritage & Libraries, City Info Centre	£625,000	£0	£0	£0	£625,000
Planning & Transportation	£634,000	£0	£0	£0	£634,000
Port Health	£1,435,000	£109,030	£219,197	£328,228	£1,106,772
Savings	£0	0	0	£0	£0
TOTAL	£5,156,000	£156,181	£424,692	£580,873	£4,575,127
GUILDHALL ADMIN 2018/19	Budget	Spent	Committed	Total	Left to spend
Guildhall Complex	£2,137,000	£86,834	£228,994	£315,828	£1,821,172
Savings	£0	0	0	£0	£0
TOTAL	£2,137,000	£86,834	£228,994	£315,828	£1,821,172

Appendix D to CSD 436/19 Cyclical Works Programme Progress Report

The Lido Hampstead Heath – Water Loss: History of Events C178CW290I

Introduction

Parliament Hill Lido is a 61m x 28m unheated swimming pool with depths between 0.75m and 2m. The pool volume is approximately 2342m³. During the 2004/5 refurbishment, the pool was fitted with a stainless-steel liner and was converted to a level deck pool, with the inclusion of a below ground balance tank, new pipework and pool plant.

There have been reports of excessive water loss from the pool over recent years which has led to various tests and monitoring exercises to establish the reasons.

January – February 17

The water usage in the Lido was monitored by Mosley Underground Installations Solutions, (Mosley) this indicated a water loss of 145m³/week (21m³/day) A sounding test was carried out along the route of the suction pipe to determine the location of the leak. The highest sounding was directly located in front of the lifeguard tower.

March 2017

Mosley carried out more detailed measurements over 17 hours. The water loss with the pumps running was 3.87m³, (this equates 38m³/week) the loss with the pumps off was 25m³(this equates to 247m³/week)As the water loss increases when the pumps are off, this indicates that the leak is on the suction pipework.

The 4 main drain outlets, at the bottom of the pool were covered with boxes fitted with meters. Meter readings were taken at each outlet, this indicated that there was no significant variation in flow between the outlets, which suggests that the leak is in the common pipework, either the manifold of the common return to the plantroom.

The outlets were covered for 4 days and the pool level dropped by 15mm (with the pumps off). Previously the pool level dropped by 16mm in 17 hours which would equate to 90mm over 4 days. This further indicates that the leak is in the suction pipework, isolated by the boxes.

October 2017

Mosley excavated around the lifeguard tower (highest noise level from the sounding tests) but the pipework was found to be sound.

February 18

Hydrospec Swimming Pool Engineers Ltd, (Hydrospec) carried out various tests including 3 days of water loss testing with and without the plant running. The tests concluded that the main drain is leaking, and the loss is about 18m³ /day (126m³/week) with the pumps off and 12m³ /day (84m³/week) when in operation.

A visual inspection was made by divers of all areas of the pool, the damaged area at the deep end was looked at closely and a localised dye test carried out, there were no signs of any leakage.

Hydrospec suspect that normal solvent adhesives were use in cold conditions, (-5°C) and these joints have failed, this would mean that most of the joints have failed underground.

Hydrospec recommended that -

- The main drainage pipework is tested using Hydrogen or Helium gas detection to pinpoint the area to be excavation.

- They also recommend that the pipework is replaced, and the pool would have to remain 75% full.

December 2018

Project C178CW290L established with a budget of £118,716

A meeting was held with Hydrospec to discuss their recommendations. They advised that the option to replace the pipework comes with considerable risks and they now recommend that a liquid leak repair product is added into the main drain circuit and circulated for 24-48 hours until leak ceases.

Hydrospec will not give a guarantee, but they are 95% confident that it will minimize the leak considerably and is likely to seal the leak completely.

March 2019

Hydrospec were appointed to add a liquid leak repair product to the main drainage circuit.

The liquid leak product was added to the system between, initially under pressure and then under gravity. It is thought that some smaller pipe leaks have been rectified, but tests indicate that there are leaks with openings larger than 3mm, otherwise the leak seal product should have worked.

The camera inspection shows the main drain was glued using correct product for lower ambient temperatures. It also indicated that the two flanges may be misaligned, where the stainless-steel pipework connects to the uPVC.

In April 2019 Hydrospec recommend that:

1. The suction pipework is excavated, and pressure tested to determine the location of the leak.
2. They are not able to supply a cost for the repair until the leak is found and the extent of repairs required.
3. No proposals submitted about how to deal with the misaligned flange.

May – September 2019

No works were undertaken during this period as the Lido is extremely busy.

Conclusions

1. There have been reports of excessive water loss from the pool over several years but despite extensive tests and monitoring, the extent of the leak (s) is still unknown. Estimates vary between 38m³/week (Mosley) and about 84m³/week (Hydrospec).
2. Mosley believed the leak was in the vicinity of the lifeguard tower (highest noise level from the sounding tests) the area was excavated, but no leaks were detected.
3. Hydrospec believe the wrong type of glue was used and that there were multiple small leaks that could be sealed by introducing a liquid leak repair solution into the system, this proved to be incorrect on both points.
4. Hydrospec initially recommended that the suction pipework be replaced at a cost of £47,600 they now recommend that it is repaired, because of the risks to the pool, but are unable to supply a cost for the repair until the full extent of the work is known.

Moving Forward

1. In September pulse meters were installed on the hydrant and the balance tank to accurately establish the water usage/loss in the lido, this will be monitored over several months to build up a clear picture.
2. Seek budget quotations from Hydrospec and Mosley to undertake the following works, the cost is estimated to be in the region of £100K
 - Expose the main tee where the pipe branches and pressure test back to the plant room to determine if the pipe is leaking.
 - Engage a dive team to plug the main drain outlets
 - Excavate an area around the 12" Tee fitting where the main drain splits to either side of the pool. Cut the drain in two places, and pressure test each side.
 - Once it has been determined which side is leaking or maybe both, continue with localised excavations to each drain connection.
 - Once the leak (s) is found, strip out and replace the defective pipework
 - This is a process of elimination, to minimise excavations and reduce the risk to other services in the area and to the pool.