

Committee(s)	Dated:
Hampstead Heath Consultative Committee – For discussion	27/06/2016
Hampstead Heath, Highgate Woods and Queen's Park Management Committee – For approval	18/07/2016
Projects-Sub Committee – For approval	20/07/2016
Subject: Ponds Project Progress Report	Public with non-public appendices
Report of: Philip Everett – Project Director Bob Warnock – Superintendent of Hampstead Heath, Open Spaces	For approval
Report author: Jennifer Wood, Open Spaces Thomas Creed, Department of Built Environment	

Summary

The Hampstead Heath Ponds Project is now 14 months into its 18 month programme. Seven out of twelve construction sites are now finished and the construction element of the project is due to be completed, on time, by the end of October 2016. Despite some delays, the project is now making good headway.

This report updates on progress, budget and the risk register.

Having already given the Heath staff a more active role in supervising the landscaping works, it was seen that there are a number of aspects of the reinstatement are well within the capabilities of the Open Spaces team and would benefit on the experience and expertise they have to offer. It has therefore been agreed with BAM Nuttall to remove some aspects of the reinstatement from their scope of works and allow the Heath staff to carry out the works instead. It is therefore proposed that a budget of £25,000 is separated from the main works budget to facilitate this.

Recommendation(s)

Members are asked to:

- Note the report.
- Approve the reallocation of landscaping costs to be carried out by the Open Spaces team.

Main Report

Background

1. The Ponds Project was initiated following a series of hydrological studies which revealed that in the event of a severe storm, there was a risk that the reservoirs on Hampstead Heath could overtop, potentially leading to erosion and dam failure, putting lives, property and infrastructure at risk. Between 2012 and the summer of 2014, a highly iterative and consultative process was undertaken to consider the design criteria and approach, and then a wide range of options. In June 2014, an option for each chain of ponds was selected and approved on the basis that it satisfied the existing requirements of the Reservoirs Act 1975 and the anticipated requirements under the Flood & Water Management Act 2010, whilst preserving the natural aspect and state of the Heath in the most effective manner, in accordance with the City's duties under the Hampstead Heath Act 1871, and in accordance with the agreed design principles.
2. Following Committee approval in June 2014, a planning application was submitted to the London Borough of Camden in July 2014 and planning consent was granted by Camden's Development Control Committee, subject to Conditions and a Section 106 agreement, in January 2015. Construction work on the Ponds Project started in April 2015.

Construction progress

3. Work is progressing well at all of the current construction sites. Members will recall that the design was such that there were two more substantial work sites in each chain of ponds (Model Boating Pond and the Catchpit), and these have seen the bulk of the work in the last few months as the weather has turned more favourable for earthworks. It is worth remembering that by planning the works in this way we have been able to keep the total area of the works to the minimum, as the total area of work compounds only accounts for approximately four per cent of the Heath in its entirety – 26 hectares are work sites and the Heath is 679 hectares in total. It will also be recalled that another principle of the Project was to find all the fill material from within the Heath (to minimise lorry movements), and this has meant the earthworks proposals have had to be managed throughout the project, as the exact volumes of cut and fill available became apparent.
4. This earthworks management has been particularly relevant at the largest of these work sites, Model Boating Pond, where the crest has been raised (2.5m taller than the original dam) using clay excavated from the hillside next to the pond. The dam is now at full height and excavations to form the new island on the western edge of the pond are well underway. The borrow pit in the work compound is being filled with silt excavated from other ponds in the chain, (Model Boating Pond, Stock Pond, Ladies Bathing Pond and Men's Bathing Pond) before being covered with first a layer of clay and then the original top soil on the top. Due to an overall shortfall of silt, an additional 3,000 m³ of clay may be required to ensure the borrow pits are filled up to their original levels. However, the discovery that the large gas main which runs across the Heath was further away from the pond and would not be acting as a constraint to the restoration, means there is additional flexibility and the hillside will be able to be restored to a very similar gradient to the original, with the additional fill material being found by re-

contouring the hillside and also by making the channel around the island deeper on its northern side.

5. Another principle that has worked well was getting the contractor appointed early and in a contract form that encouraged collaboration. Our contractor, BAM Nuttall, has worked really well in this regard, sometimes having to deal with a client that changes details in the design at the last moment! A recent example of how this collaboration among the project team has worked has been in relation to the busy footpath between Men's Pond and Model Boating Pond, which can safely remain open to pedestrians while the dam construction work takes place alongside. This way of working has been adopted throughout the project, where paths have been locally diverted or kept open but narrowed in order to minimise disruption to Heath visitors. Much of the fencing around the work sites has been purposely installed as an open meshing which enables the site to be visible for the public's interest, and the workforce has been encouraged to answer questions from the public about what they were doing. This has received favourable comment.
6. Elsewhere on the Highgate Chain, works have been completed at Stock Pond, Ladies Pond and Bird Sanctuary, other than some environmental works (turfing, seeding and the like), and are in progress at Men's Bathing Pond and Highgate No. 1 Pond. The new Ladies Pond facility opened for swimming on programme on Saturday, 7 May 2016. By using a prefabricated building, the time between the arrival of the new building and its opening was 25 working days.
7. On the Hampstead Chain, the Catchpit dam is steadily growing towards its 5.6m final height with clay excavated from borrow pits on Pryor's Field. Work will continue here until late summer, after which planting and restoration of the borrow pit will take place. Works on the other ponds on this chain are almost all complete, except for some environmental works, and the desilting of the Viaduct Pond.

Environmental mitigation

8. Upon completion of the construction works at each pond, environmental mitigation then takes place. All of this has been carefully considered by ecology experts with input from the Heath's own ecology team who have a wealth of knowledge on the Heath. Previous environmental works at Bird Sanctuary pond, which were part of the project, have been a success with the addition of a deep channel and wetland scrapes to help prevent the reeds from drying out and to provide additional habitat for birds, amphibians and invertebrates. Aquatic planting shelves are being constructed at several ponds and in total 25,000 new aquatic plants of 15 different species will be planted. This will result in an additional 1,700 cubic metres of aquatic planting which is an important habitat the Heath does not have in abundance.
9. Six hectares of wild flower meadow will also be sown by the end of the project with a seed mix specified by the Heath's ecology team. The location of these wild flower meadows is being specifically detailed in restoration plans which are being

drawn up for the larger areas disturbed by the construction. Although the construction element of the project is due to be finished in October 2016, some of the environmental works, such as the restoration of wild flower meadows, will take place after this time due to the seasonal nature of this work.

10. Desilting work, using a suction technique, has successfully taken place at four ponds, which includes all three bathing ponds. This work will improve water-quality and benefit aquatic life. Viaduct Pond will also be desilted as part of the project. At this pond, the debris will be excavated first from a floating platform, and it will then be desilted. The delay here has been because there was too much debris in the pond to use the suction method successfully on its own.
11. Changes to the design have happened at a number of sites, with 76 contract instructions since the project began. Many of these have been related to the sensitive nature of the Heath, and include changing path locations or construction methods due to proximity of trees, or indeed a single tree. The design is continually monitored on site and adapted to meet the requirements of the Heath.

Planning Conditions, Stakeholder Engagement and Communications

12. An amendment to the original planning application was submitted in May 2016. This relates to a revised design of a small section of the end of the new wall at Highgate No. 1 Pond which is in private land. The design was altered in this location to meet the requirements of the landowners to minimise the impact to trees and to lessen the visual impact from the Heath. A separate application was required as the property is listed and in a Conservation area. The City Surveyors' Department are liaising with the land owner's solicitors to arrange access for the proposed works and to enter into a formal agreement for future maintenance/improvements access rights.
13. Part of Camden's conditions required a Community Working Group be established to monitor the progress of the project. This has largely replaced the group that we had set up, as it has some of the same members on it. This group have been holding evening meetings monthly since February 2015 and also take part in regular guided walks of the site. They monitor various aspects of the project, including complaints, environmental data, vehicle movements and the programme. Since April 2015, when the project began, there have been 60 written complaints. The members have been taken down into the 'hole' to inspect the base of the dam at Model Boating Pond, to the new ladies pond facilities and on top of the new dam at Model Boating Pond.
14. We have been clear throughout the project that our publicity must reach a variety of audiences through different media. Weekly emails with updates on the project are currently being sent to over 800 subscribers, while the Ponds Project blog regularly receives over 2000 visits per month and has received as many as 4,300 visits in one month. It can be found at <https://hampsteadheathpondsproject.wordpress.com>. Information signs are placed at each pond and BAM Nuttall have been praised on their positive interaction with the public over the project. A time-lapse camera was installed at

the Model Boating Pond. The live feed with a photo updated every four minutes can be viewed here: <https://timelapse.regenology.co.uk/api/embedded/m3m/>

Project Savings and Risk

15. Before starting on site, one of the risks identified from the ground investigations was that there could be a considerable depth of clay near the surface of the borrow pits which would be 'weathered' and therefore not suitable for dam construction. This would result in this clay being excavated, stored and then re-instated in the borrow pits on completion of the dam construction works. An estimate of the depth of weathered clay was made from the information obtained from the borehole investigations and a risk sharing agreement was entered into with BAM Nuttall. This agreement shared any savings or additional costs associated with the double handling of this material.
16. At the Pryor's field borrow pit (being used to construct the Catchpit dam), it is expected that the level of weathered clay will be less than originally assumed. This, combined with the extremely good quality of the clay, has allowed a slight adjustment to the specification for placing the clay in the dam. It is therefore expected that this will translate into a saving to the Agreed Maximum Price.
17. Other project risks are continually monitored to reflect the changing status of the works on site. At the time of writing, the gross valuation of works completed is approximately 65% of the expected final cost, while 54% of the risk provisions have been realised (£473,245). An updated version of the risk register, including the current allocations of the specific risk provisions, is included in Appendix 1.
18. However, sitting outside of the specific risk provisions there are a number of larger issues which the project has had to deal with to date. These include the additional reinforcement needed in the temporary works at the Model Boating Pond, additional storage areas for silt drying and difficulties in de-silting the Viaduct Pond. Whilst the City's project team do not believe these costs sit with the City, there are on-going discussions with BAM Nuttall and the Partnering Advisor (an independent advisor, specified in the contract) as to how these risks are to be properly apportioned in accordance with the partnering contract. The outcome of these discussions will be reported back to committee once the contractual position has been confirmed. This may result in additional costs to the City at a later stage.

Landscaping and Re-instatement

19. As the engineering work progress, focus is turning towards how the Heath will look on completion of the project, in particular the landscaping works. Having already given the Heath staff a more active role in supervising the landscaping works, it was seen that there are a number of aspects of the reinstatement are

well within the capabilities of the Open Spaces team and would benefit on the experience and expertise they have to offer.

20. It has therefore been agreed with BAM Nuttall to remove some aspects of the reinstatement from their scope of works and allow the Heath staff to carry out the works instead. It is therefore proposed that a budget of £25,000 is separated from the main works budget to facilitate this.

Ponds Project Education

21. In the year or so since the Ponds Project Education Programme was launched we have engaged with 1437 Secondary School students over 60 education sessions and 763 Primary School pupils over 29 sessions. These figures put us ahead of schedule for Primary School targets and behind for Secondary School targets. However, we hope to begin to catch up in June and July, as these are our most popular months so far for session bookings.
22. In addition to this we have been exploring alternative ways to connect with secondary schools students. This has included running writing and art competitions, and nurturing partnerships with different organisations, like BAM Nuttall and Museum of London. These partnerships have allowed us to utilise a greater pool of expertise when developing new engagement activities. With BAM we ran a successful series of dam building activities at Hendon School during British Science Week. We are also in the process of developing a series of cross curricula activities with the Museum of London based around the River Fleet. We have just over a year of delivery time left on the Project, after which we will focus on developing resources that will be the lasting legacy of the education programme.

Financial Summary

23. The project is on budget and there is potential for future saving from the risk sharing agreement on the depth of weathered clay (as discussed above). However, it should be noted that there are a number of outstanding items on which further advice is being sought as to how the partnering contract apportions the risk. This may result in additional costs to the City at a later stage.
24. A summary of the project finances are included in Appendix 2.

Conclusion

25. The project is progressing well and the positive impacts of the project are becoming more apparent. The focus is turning to the reinstatement of the works and the legacy it will create.

Appendices

- Appendix 1 – Risk Register (NON PUBLIC)
- Appendix 2 – Financial Update (NON PUBLIC)

Previous committee reports are available at: www.cityoflondon.gov.uk/committees

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