



Resource Allocation Sub (Policy and Resources) Committee

Date: THURSDAY, 22 JANUARY 2015
Time: 11.30 am
Venue: COMMITTEE ROOMS, 2ND FLOOR, WEST WING, GUILDHALL

APPENDICES TO PROJECTS FUNDING UPDATE – ITEM NO. 12

**John Barradell
Town Clerk and Chief Executive**

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Committees:	Dates:
Hampstead Heath, Highgate Wood and Queen's Park Committee Projects Sub Resource Allocation Sub Policy & Resources Court of Common Council	20 January 2015 21 January 2015 22 January 2015 22 January 2015 Urgency
Subject: Gateway 5 Authority to Start Work: Ponds Project	Public (with non-public appendices)
Report of: Joint report of Director of the Built Environment and Director of Open Spaces	For Decision

Summary

Dashboard

Project status:	Amber due to final costs exceeding previous estimates
Timeline:	Preparation works to commence in February 2015 prior to main work commencement in April 2015. Project completion October 2016.
Total estimated cost:	£21,198,475 – this figure includes specific risk items totalling £884,000 and provisional sums of £1.515,000.
Resources spent to date:	£3,359,085

The Ponds Project has continued to progress to programme since the Gateway 4c Report. The City's decision to approve the Gateway 4c report was the subject of judicial review proceedings in the High Court. The Heath & Hampstead Society's claim was dismissed following a hearing in November 2014 and they are not pursuing an appeal.

The next step is for Camden Council's Development Control Committee to consider the planning application on 15 January 2015. Assuming that consent is granted and issued in a timely manner, and there are no unexpected additional pre-start conditions, the project will be ready to start on site in February. As part of Authority To Start Work (Gateway 5 of the City's project approval procedure), this report also recommends the signing of the commencement agreement which is the next stage in our partnership contract and is necessary to facilitate the start of works. Works will be managed through to completion by the City's project team together with the contract partners – Bam Nuttall (constructor), Atkins (lead designer) and Capita (cost consultant).

If site preparation takes place as expected in February 2015, works will commence in April 2015. The 18 month construction programme should complete in October 2016.

The Agreed Maximum Price for the works is £13,139,749 with a further provisional sum of £1.5M for the Ladies Bathing slab and facility, and a second provisional sum

of £15,000 for electrical cabinet upgrades. An additional £884,000 has been identified for specific risk provisions. The construction work together with fees, staff costs and spend to date total £21.2M.

The anticipated cost now exceeds the current allocation of £18.54M and the envelope as agreed by the Court of Common Council in 2011 of £15.M +/- 20% at 2010 prices, which subject to inflation is between £20.5M and £21M depending on whether RPI or BCIS is used. An additional allocation of £2.66M is therefore requested to meet the increased costs.

As there is currently only £2M available this financial year for allocation to capital projects, it is recommended that an additional £2M be allocated by Resource Allocation Sub, Policy & Resources and Court of Common; and that a further allocation of £0.66M be made in April 2015 when further capital funds become available for allocation.

Recommendations

It is recommended that:

- Noting that the total outturn including various risk items and provisional sums is now £21,198,475 and so will exceed the £18.54M currently allocated (i.e. £15.2M +20% plus the £300,000 allocated for judicial review costs but not including inflation from 2010 prices), approval of the Resource Allocation Sub, Policy & Resources and the Court of Common Council be sought to allocate funds to meet the shortfall of £2.66m from the 2014/15 and 2015/16 City's Cash provisions for new schemes
- Subject to the additional budget allocation and planning permission being secured and planning consent being issued, Members grant Authority to Start Work for the Ponds Project in accordance with the City's project procedure
- Authority be delegated to the Director of the Built Environment to make representations to Camden Council as to the form of the planning conditions, and to settle the terms of the section 106 agreement; and the Comptroller & City Solicitor be authorised to sign the section 106 agreement
- Authority be delegated to the Director of the Built Environment to submit all necessary applications and details to Camden Council to discharge planning conditions
- Authority be delegated to the Director of the Built Environment in consultation with the Chamberlain to agree the release of the specific risk provisions identified within the risk register and the provisional sum identified
- The Director of the Built Environment and the Comptroller & City Solicitor be authorised to sign the commencement agreement with BAM Nuttall, Atkins and Capita
- Authority be delegated to the Superintendent of Hampstead Heath to appoint and manage specialist contractors to provide additional support in managing protestors if required
- It is proposed that authority be delegated to the Director of the Built Environment in consultation with the Chamberlain to authorise the transfer of the budget for some reinstatement activities to Hampstead Heath to enable some of the smaller scale reinstatement works such as planting and seeding to be undertaken in-house if this felt to be appropriate and cost effective as the project progresses

Main Report

<p>1. Background</p>	<p>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.</p> <p>Between 2011 and summer 2014, a highly iterative and consultative process was undertaken to consider firstly 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 was felt to satisfy the existing requirements of the Reservoirs Act 1975 and the anticipated additional obligations under the Flood & Water Management Act 2010, whilst preserving the natural aspect and state of the Heath in the most effect manner, in accordance with the City's duties under the Hampstead Heath Act 1871, and was in accordance with the agreed design principles.</p> <p>Following Committee approval in June 2014, a planning application was submitted to the London Borough of Camden. The application will be considered by Camden's Development Control Committee on 15 January 2015. At the time of writing, the outcome of that consideration is not known. However, given that there is an officer recommendation to approve the application, the positive result of the judicial review, robust support for the application from the Camden's appointed Independent Panel Engineer review, demonstrable benefits arising from the scheme to the safety of downstream residents and the limited comments received from Camden officers, we must proceed on the basis that the application will be approved. Members will of course be aware of the objections received by Camden, many as a result of the "Dam Nonsense" campaign.</p> <p>Many of the objections to the planning application (and responses to the City's own consultation) challenged the legal basis for the project. Although this has now been settled by the dismissal of the Heath & Hampstead Society's judicial review claim, Members should be aware that the "Dam Nonsense" group have stated their intention to continue to attempt to block the project and have suggested that they will lobby Camden and potentially government to this end. While the project team and our planning consultants remain confident that there are no planning grounds on which the application can reasonably be rejected, the decision is a matter for Camden's Development Control Committee.</p> <p>Due to the timing of the planning determination, the recommendations of this report are subject to securing planning approval and Camden issuing planning consent as works will not be able to start on site without this. Officers have made Camden aware of the importance of the project being able to</p>
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	<p>start on site in February but there remains a risk that a delay in Camden issuing consent could adversely impact on the project.</p> <p>The recommendations of this report will also be conditional on a budget allocation under urgency by Resource Allocation Sub, Policy & Resources and the Court of Common Council.</p> <p>A number of additional delegations to officers are also requested to allow the project to quickly progress to site preparations prior to the start of the bird nesting season.</p>
<p>2. Design summary</p>	<p>Since approval of the Gateway 4c report in June 2014, the project team has continued to progress the detailed design, including submission of a planning application. There have not been any major changes to the design, although further details on material finishes are now available. Pond by pond detail of the scheme are summarised at Appendix 1, and any changes are explained below.</p> <p><u>Highgate Chain</u></p> <p>The main focus of works on the Highgate Chain will be the 2.5m dam raising at the Model Boating Pond, the associated extension of the pond and creation of a new island in order accommodate the retained lime trees. The crests of the dams at Stock Pond, Kenwood Ladies' Bathing Pond and Bird Sanctuary Pond will be restored (i.e. the surface of the dam will be levelled to the current highest point). The dams at Men's Bathing and Highgate No.1 Pond will be raised using sheet pile walls capped with oak.</p> <p><u>Stock</u></p> <p>As approved at Gateway 4c, the crest of the Stock pond dam will be raised by up to 500mm and a small bund created in the eastern corner. A spillway will be created in the south-west corner of the pond and a new overflow pipe will be installed.</p> <p>The creation of a spillway necessitates the removal of several panels of the current iron railings which surround the pond. These cannot be replaced due to their potential to obstruct the flow of the water in a flood event. Consideration was given to commissioning a fence that would look similar but would be on a hinge so that in flood events it could swing upwards, allowing the water to flow freely. While this seemed an attractive idea, it was felt to be too complex, had too high a risk of failure and would have been prohibitively expensive. A simple wire fence is now proposed which will collapse in a flood event. This will prevent dogs accessing the pond (which is the principal aim of the current fencing). The wire fence over the spillway will also have the effect of opening up views into the pond as it will be less visually intrusive than the current railings.</p>



At gateway 4c, it was proposed to create additional marginal planting on the eastern bank, but this has been relocated to the south west bank where it will establish more readily given the higher light levels. Additional tree planting is now proposed on the dam.

Stock pond will be de-silted.

Kenwood Ladies Bathing Pond

The design for the crest restoration on dam and the creation of a spillway remains as approved at Gateway 4c.

As reported to your Committees in November 2014, a dive inspection of the underside of the slab which supports the changing room facilities revealed that the slab was in significantly worse structural condition than anticipated. It was therefore agreed that the slab would be replaced as part of the project. The need to undertake these additional works will slightly extend the programme at the Ladies Bathing Pond. BAM Nuttall are currently integrating the detailed design of the facility with the slab in order to reduce costs and build time and to increase buildability. As this final element of the design is not yet complete, a provisional sum has been included in the budget.

Additional aquatic planting will also be installed in front of the spillway for both ecological benefit and to discourage unauthorised access to the water from the spillway.

The Kenwood Ladies Bathing Pond will be de-silted.

Members should also be aware that there is a suspected leak at the Ladies Pond dam. There is however some doubt as to whether the water currently visible on the dam is the result of a leak or a problem with the drainage at the facilities. The current position of the slab on the dam crest makes further investigations difficult. As part of the works, the source of this water will be investigated and appropriate remedial measures undertaken.

Bird Sanctuary

There are no changes to the designs proposed for this pond, which remains crest restoration and ecological interventions to enhance wetland habitat.

There are a number of damaged fence panels around the pond, and it is anticipated that some of the fencing removed from Catchpit will be used to replace these panels.

Works will also be undertaken to repair the sink hole on the dam.

Model Boating Pond

The design and height of the dam, extension of the pond, new island and spillway remain unchanged. It has been confirmed that access to the island will be across a dry causeway.

Ground investigations revealed a greater depth of silt than previously thought. This silt will be removed to hard bed level, and this means that the dam itself will be built up from a lower level. This means that the temporary dam to enable construction of the raised dam will need to be sheet piling rather than the previously proposed aqua dam. The requirement for more material has increased the size of the borrow pit and the associated costs of the earthworks.

New marginal planting will be introduced on the western side of the pond and next to the island whereas the eastern side will retain its hard edge to facilitate access to the water for model boating and for fishing. Fishing will also be facilitated by gaps in the planting. New trees will also be planted.

It was intended at Gateway 4c that only 1/3 of the pond would be de-silted, but due to the increased size of the borrow pit, it is likely that the entire pond will be de-silted. This additional de-silting to win further material will be conducted as required.

Men's Bathing Pond

As confirmed at Gateway 4c, sheet piling will be used to raise the height of the dam and to repair the leak in the dam by driving the sheet piles into the core of the dam. The sheet piling will be capped with oak and climbing plants will be planted on either side. New marginal aquatic planting will be placed in front of the dam. A spillway is being created in the southwest corner.

Men's Bathing Pond dam – upstream view:



The Men's Bathing Pond will be de-silted.

Highgate No.1 Pond

The dam at Highgate No.1 pond will be raised 1.25m using a sheet pile wall capped with oak. A spillway will be introduced in the southwest corner. It is proposed that climbing vegetation will be used to disguise the sheet piling. Officers are confident that the sheet piling could be quickly disguised due to the quantities of ivy and scrub regeneration already prevalent in this area.

The landowners to the east of Highgate No.1 have objected to the scheme because the current proposal impinges on their land. The City is negotiating with these landowners and has a number of alternative design solutions. An amicable agreement is sought with the landowners, but Members should note that if necessary the works could be carried out entirely on the City's land.

Hampstead Chain

The main focus of the works will be the new 5.6m high (from lowest point in the valley) dry dam at the location of the current Catchpit. There will be crest restoration works at the Vale of Health, Viaduct and Hampstead 2. The dam at Mixed Bathing Pond will be raised by 1m. Buried culverts will be installed at Hampstead 2 and 1.

Vale of Health Pond

The crest of the dam is being restored using a combination of raising the path and a conservation curb. A spillway is being introduced in the southern corner of the pond.

Viaduct Pond

The crest of the dam will be restored and a spillway created in the southeast corner. Where the current wood cladding which disguises the sheet piling around the edge of the pond has been

damaged, it will be replaced.

New marginal planting will be created on the eastern bank of the pond (below the Viaduct bridge). The pond will be de-silted to improve water quality, and it is anticipated that this will once again allow the pond to be fished.

Catchpit

The 5.6m dry earth dam is unchanged but the outlet pipe from the dam to the Mixed Bathing Pond has been “broken out” to create a natural stream. This will enhance bio-filtration, improve water quality and create habitat. A wooden, informal crossing point will be provided across this stream. New wetland scrapes and a small catchpit have been included above the new dam.

Informal crossing point:



It has been confirmed that there will be shrub planting on the upstream face while the downstream face will have pre-grown turf. There will be some new tree planting south of the dam.

Mixed Bathing Pond

As outlined at Gateway 4c, the dam will be raised by 1m using a combination of raising the dam and footpath by 500mm and by creating a 500mm earth bund on the upstream side of the dam. New aquatic marginal planting will be created in front of the dam and at the northern end of the dam to improve water quality.

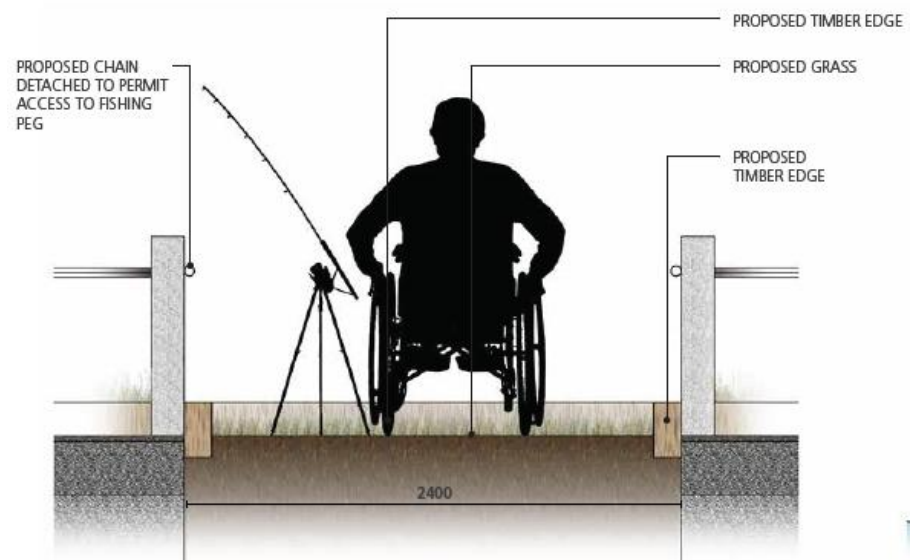
The Mixed Bathing pond will be de-silted.

Hampstead 2

The crest dam at Hampstead 2 restored and a 200mm wooden curb will be installed. A buried concrete culvert is being created in the southwest corner.

Earlier in the design process it was hoped that it would be possible to incorporate disabled fishing access from the wooden platform above the inlet to the culvert. This has not been possible due to the requirement to have a parapet at least 1.1m high because of the drop into the water. Disabled fishing has therefore been incorporated into the design of the dam itself. Sections of the current scaffold poles in between the wooden pillars which currently fence the pond will be removed and replaced with a removable chain and an even surface provided to allow wheelchair access to the water for angling.

Hampstead No. 2 Fishing Peg



At Gateway 4c, it was noted that the designs put two London plane trees at risk, and it was hoped that it would be possible to retain one of these trees. As the designs progressed it has unfortunately become clear that it will not be possible to retain the second tree. This is because the culvert will pass in close proximity of the tree, damaging too many of its roots for it to remain stable. The stability of these trees is particularly important as they are on the crest of the dam and were a tree on a dam to fall over, it could lead to failure of the dam.

Hampstead 1

An additional culvert and a high capacity overflow have been added to the design. These will not be visible from the banks of the pond as the culverts are within the ground and the inlet will be screened by aquatic planting. As agreed at Gateway 4c, new aquatic planting will also be created on the western bank

Tree loss

Tree loss figures are included at Appendix 3. These reflect the tree loss numbers submitted as part of the planning application

in the Arboricultural Impact Assessment reflect the worst case scenario. There are a total of 174 trees at risk, of which 2 are Category A, 30 are Category B, 129 are Category C and 12 are Category U.

These figures include those trees which maybe coppiced and allowed to regenerate rather than felled. This may be the case for some crack willow, ash and hawthorn at Catchpit where feasible; some holly and hawthorn at the Ladies' Bathing Pond to facilitate construction access and some sycamore and elm at Highgate 1 to facilitate the installation of the sheet pile wall.

Tree loss numbers will be finalised as part of the issue of the construction drawings after the receipt of planning permission and the pre-start conditions.

Desilting

When the project was reported to Committee at Gateway 4c, it was intended to de-silt five ponds (Stock, Men's, Mixed, Viaduct and Ladies). Some additional de-silting is now proposed due to the need to secure additional material to reinstate the borrow pits. It is now proposed that additionally Hampstead 1 and 2 be de-silted, and additional parts of Model Boating Pond will be de-silted as required. This will avoid additional importing of material which would generate truck movements and increase costs. Additional de-silting will be of benefit to the ecology of the Heath ponds.

The de-silting will be undertaken using a new suction method so draining the ponds will not be necessary. Aerators will be placed at the opposite end of the pond from where the de-silting is happening in order to attract fish and other aquatic animals to the oxygen rich water, away from the de-silting. De-silting has been programmed to avoid the fish spawning season.

The material which has been sucked up will be put through a centrifuge to separate out the solid components from the water. The remaining water will then be put into settlement tanks to allow sediment to be filtered out before the water is pumped back into the pond. The "de-watered" silt will then be used to reinstate the borrow pits.

Reinstatement

It is currently considered that some of the smaller reinstatement works could potentially be carried out directly by the Heath staff rather than by a BAM Nuttall sub-contractor. This could reduce costs, create staff buy-in to the project and build on existing staff expertise and local knowledge. The more complex and difficult elements of reinstatement (such as the aquatic planting and mature tree planting) will be carried out by BAM Nuttall.

It is proposed that authority be delegated to the Director of the Built Environment in consultation with the Chamberlain to authorise the transfer of the budget for some reinstatement

	<p>activities to Hampstead Heath to enable some of the smaller scale reinstatement works such as planting and seeding to be undertaken in-house if this felt to be appropriate and cost effective as the project progresses.</p> <p><u>Memorial benches</u></p> <p>As part of site preparation, it will be necessary to temporarily remove a number of memorial benches. Heath staff have already started to make contact with owners of the benches to discuss the removal and reinstatement as appropriate.</p>
3. Planning permission	<p>The planning application for the ponds project was submitted to Camden on 4 July 2014. The City signed two Planning Performance Agreements with Camden. It was originally anticipated that the application would be considered by Camden's Development Control Committee in October. However delays in appointing the Independent Panel Engineer Reviewer meant that this was not possible. Camden will consider the application on 15 January 2015.</p>
4. Delivery team	<p>BAM Nuttall who were appointed as constructor in a partnership contract in March 2014 will carry out the works. Most of the works will be undertaken directly by BAM Nuttall but some small areas will be subcontracted. Capita will continue to provide cost consultant services. Atkins, the design team, will continue to play a role as leader designer providing site supervision with the City acting as Client Representative (project management).</p> <p>Representatives of the Core Group (City, Atkins, BAM Nuttall and Capita) will continue to meet monthly to administer the partnership contract. The City's project board will also continue to meet monthly. Weekly site meeting will be introduced with the BAM Nuttall site agent, City engineers and Heath Operational Services Manager to monitor progress.</p>
5. Programme and key dates	<p>The outline programme is included at appendix 2. Site preparations will start in February 2015. The main works start on site in April 2014 and will conclude in October 2016.</p> <p>The main works in the first year will be at the Model Boating Pond and at Pryors Field and Catchpit in the second year.</p> <p><u>Impact on swimming</u></p> <p>The Men's and the Mixed Ponds will only close for de-silting – scheduled for November 2015 at the Men's Pond for up to six weeks and January 2016 for up to four weeks at the Mixed Pond. De-silting was purposefully programmed to take place during the winter when the ponds are least used.</p> <p>The Ladies Pond will need to be closed for the works to the changing room facility and slab, and this closure has been programmed for the winter period to minimise disruption to swimming. During the closure, alternative provision will be made for the Ladies. Further discussion will be undertaken with</p>

	<p>the user groups later this year, but it is anticipated that this will involve Ladies only swimming sessions at the Mixed Pond.</p> <p><u>Impact on events</u></p> <p>The events programme has been considered as part of the programming, and it has been confirmed that all the usual events such as cross country will be able to take place as planned.</p>
<p>6. Managing the works on site</p>	<p>The constructor BAM Nuttall have been on site since commencing Ground Investigations in spring 2014. They have become familiar with the Heath and the particular constraints of the site, for example in terms of volumes of people, dogs and the variability of ground conditions.</p> <p><u>Site compounds</u></p> <p>As works progress areas of the Heath will be fenced off to allow BAM Nuttall to undertake their works. BAM Nuttall will be responsible for the security of their sites, and when works are not being undertaken (such as evenings and weekends), BAM Nuttall will have security present.</p> <p><u>Access routes and divisions</u></p> <p>The construction access routes were presented as part of the planning application. On the Highgate Chain, access is through the main entrance at Parliament Hill, along the path next to Duke's Field and then along the western side of Highgate No.1 Pond and the Men's Bathing Pond. A new temporary track will be created to the west of the Model Boating Pond borrow pit to provide access to Bird Sanctuary Pond, Kenwood Ladies' Bathing Pond and Stock Pond. On the Hampstead Chain, access to the Viaduct Pond and the Vale of Health Pond will be from East Heath Road, close to Lime Avenue. Access to the Catchpit borrow pit, Hampstead No.1 Hampstead No.2 and Mixed Bathing Pond will be from East Heath Road, next to the East Heath car park.</p> <p>With the exception of the fenced track to be created between the Pyrrors field borrow pit and the Catchpit work site, all access routes will remain open for public use. This is possible because of the relatively low vehicle numbers and the fact that each vehicle will be preceded by a banksman and will progress at walking pace. Where paths are too narrow to allow for pedestrians and vehicles to pass one another, a series of pedestrian refuges will be created.</p> <p><u>Signs and information</u></p> <p>Signs informing people of the works will be posted at the main entrances. Where paths are diverted for works to take place, diversions will be signposted. The most significant diversion is the causeway at the Model Boating Pond which is part of the east-west cycle route across the Heath.</p>

	<p><u>Communications</u></p> <p>Heath users will be kept informed of the progress of the works and any potential impacts for their usage of the Heath through signs, information on the website, Twitter and Facebook. The Communication Officer will spend time on site and will make her contact details available. Staff will be regularly briefed so they are able to answer questions about the project and advise on alternative routes.</p> <p><u>Ponds Project Stakeholder Group (PPSG)</u></p> <p>As previously reported to the Hampstead Heath Consultative Committee and Hampstead Heath, Highgate Wood & Queen's Park Committee, the PPSG will continue to meet but its role will change. As options have now been fixed, the focus of the group will move from one of consultation to one of information sharing. To this end, the group will concentrate mainly on site visits and will also consider issues associated with diversions. The PPSG will next meet on Monday 26 January and the agenda will focus on diversions and communications during construction.</p>
<p>7. Additional landowners</p>	<p>Negotiations with the one landowner who could potentially impact on the progress of the works have been progressing well, and it is anticipated that a transfer agreement will be signed in January.</p>
<p>8. Future management</p>	<p>New management plans will be developed by the Heath's ecology team in consultation with Atkins. Prior to the full development of the revised management plans, schemes will be developed for the protection of new planting while it establishes – for example, fencing of aquatic planting to prevent its destruction by dogs.</p>
<p>9. Outstanding risks</p>	<p>The project's risk register has been reviewed in preparation for construction. The risks have been divided between the City, BAM Nuttall and Atkins, and the City's risks have been costed. There are currently 37 risks on the City's part of the risk register, of which 7 are rated as red after mitigation. Of those risks where a specific sum has been included as part of the project, the most significant in cost terms are onerous conditions associated with the planning consent, site security issues and the potential for design changes.</p> <p><u>Planning permission and conditions</u></p> <p>At the time of writing, the planning application has not yet been determined by Camden Council. Assuming Camden Council resolve to grant the planning permission, the section 106 agreement required by Camden will have to be completed before the permission can be issued. Once the permission is issued any pre-commencement conditions will have to be discharged before works can commence. Although Camden are aware of the project implications of any delay and officers have</p>

had advanced sight of the proposed conditions, there is still some risk that the issuing of the consent and conditions could be delayed.

One of the planning conditions is for three apprentices to be employed. Following conversations with the contractor, it has been agreed that the apprentices will be employed to work on the Heath as part of the broader Heath support to the project rather than on the construction site itself. This has been agreed with Camden. The costs for this will be included as staff costs.

Design changes

Any further changes to the design could have significant costs.

Cut/fill balance

The risk that contamination of the silt would prevent its re-use in the borrow pits has been included on the risk register. However the costs associated with this risk have not been included in the budget because were the silt to be unusable, this would be of sufficient detriment to the reinstatement proposals that a fundamental reconsideration would be required. Members should note that testing of the silt and geotechnical modelling has been undertaken in order to mitigate this risk.

Potential protest

The City will of course accommodate peaceful protest which does not put the safety of Heath users, City Staff, BAM Nuttall staff or the protesters themselves at risk, and does not infringe on project progression. Accommodating peaceful protest is something that the project team have already started to discuss with BAM Nuttall and Heath staff.

Whether protest will take place or what form it might take is not known.

Officers have also started to give consideration to how protest which breaches bylaws, is disruptive or dangerous, or inhibits the project will be managed. Provisional sums have been identified within both the budget and additionally within the risk register (appendix 4) for this. The project team have already liaised with the Comptroller & City Solicitor and the City of London Procurement Service to identify specialist contractors to provide support if necessary.

It is recommended that authority be delegated to the Superintendent of Hampstead Heath to appoint and manage such contractors as required, up to the limit set out in appendix 4. Should such an appointment be necessary, Members will be informed.

Other works on the Heath

Officers are continuing to liaise with colleagues in the City Surveyors about other works on the Heath – principally the upgrade in the water supply to the Kenwood Ladies Bathing

	<p>Pond and the forthcoming surveys of the jetties at the Mixed Pond and Highgate Men's Bathing Pond being undertaken as part of the Additional Works Programme.</p> <p>Neither of these projects is part of the Pond Project works but are likely to be undertaken alongside.</p>																																
<p>10. Budget</p>	<p><u>Agreed Maximum Price</u></p> <p>The Agreed Maximum Price (AMP) for construction is 13,139,749. A breakdown of these costs is included at Appendix 3.</p> <p><u>Budget</u></p> <p>The anticipated cost of £21.2M now exceeds the current allocation of £18.54M (i.e. £15.2M +20% plus £300,000 for JR costs) and the envelope as agreed by the Court of Common Council in 2011 of £15.M +/- 20% at 2010 prices, which subject to inflation is between £20.5M and £21M depending on whether RPI or BCIS is used. Members noted in November 2014 that costs were expected to be in the region of £20M.</p> <p>It is proposed that the funding shortfall of £2.66M is funded via request to the Resource Allocation Sub-Committee for an allocation from the City's Cash provisions for new schemes. As there is currently only £2.21M remaining from this financial year's provision, it is recommended that an advance allocation of £0.45M be approved from the 2015/16 provision on an exceptional, one-off basis.</p> <table border="1" data-bbox="533 1274 1455 2018"> <thead> <tr> <th></th> <th>Estimate cost at last Gateway (£)</th> <th>Variance (£)</th> <th>Revised estimated cost (£)</th> </tr> </thead> <tbody> <tr> <td>Preliminary evaluation costs</td> <td>271,000</td> <td>0</td> <td>271,000</td> </tr> <tr> <td>Construction</td> <td>12,292,624</td> <td>3,246,125¹</td> <td>15,538,749</td> </tr> <tr> <td>Fees</td> <td>4,026,876</td> <td>450,800²</td> <td>4,477,676</td> </tr> <tr> <td>Judicial review</td> <td>300,000</td> <td>-190,950³</td> <td>109,050</td> </tr> <tr> <td>Staff costs</td> <td>802,000</td> <td>0</td> <td>802,000</td> </tr> <tr> <td>Estimated project sum</td> <td>17,692,500</td> <td>3,505,975</td> <td>21,198,475</td> </tr> <tr> <td>Allocation</td> <td>18,540,000</td> <td>2,658,475</td> <td>21,198,475</td> </tr> </tbody> </table> <p><i>1: The increases in costs are largely due to construction inflation</i></p>		Estimate cost at last Gateway (£)	Variance (£)	Revised estimated cost (£)	Preliminary evaluation costs	271,000	0	271,000	Construction	12,292,624	3,246,125 ¹	15,538,749	Fees	4,026,876	450,800 ²	4,477,676	Judicial review	300,000	-190,950 ³	109,050	Staff costs	802,000	0	802,000	Estimated project sum	17,692,500	3,505,975	21,198,475	Allocation	18,540,000	2,658,475	21,198,475
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	<p><i>(the likelihood of this was recognised by the Court in its 2011 decision), the increased scope of the work at the Ladies Bathing Pond and the project risks.</i></p> <p><i>2: This figure relates to increases mainly Atkins' fees which are still being negotiated and the allocation funds to support the superintendent in dealing with potential protests.</i></p> <p><i>3: The judicial review costs were less than allocated but as this was capitalised cost, it is recommended that sum be reallocated to the project.</i></p> <p>The cost of construction includes provisional sums for the Kenwood Ladies Bathing Pond facility and slab at £1.5M and £15,000 for electrical upgrades identified by the constructor, and £884,000 of specific risk items in addition to the AMP. The specific risks detailed and quantified in Appendix 4.</p> <p>A further breakdown of the budget is included at Appendix 5. In addition to the Agreed Maximum Price, it includes risk items, staff costs, fees (Atkins and Capita) and all expenditure to date.</p>
<p>11. Success criteria</p>	<p>Officers are optimistic that trust in our constructor BAM Nuttall can be further developed once works start on site. By delivering each successive element of works in a sensitive manner, we will be able to demonstrate our commitment to protecting and enhancing the Heath. We are therefore using BAM Nuttall's contractual KPIs as success criteria for the delivery of the project:</p> <ul style="list-style-type: none"> • Zero tolerance of accidents • Zero unacceptable defects • Carrying out the Project in accordance with the Partnering/Project Timetable • Carrying out the Project in accordance with agreed budgets • Protection of the Heath's environment and Stakeholder satisfaction <p>In considering the long term success of the project, it is recommended that success be measured by how well the new planting has established, consideration of whether the new landscape is coherent with the surrounding areas of the Heath, and public, stakeholder/user and staff response at completion, after one year, two years and five years.</p>
<p>12. Progress reporting</p>	<p>Quarterly progress reports to Spending Committee and any project changes not covered by delegated authority or specific risk provision will be sought by exception via Issue Report to Spending and Projects Sub Committees.</p>

Appendices

Appendix 1	Scheme summary
Appendix 2	Programme
Appendix 3	Tree loss table
Appendix 4	Risk Register (NON PUBLIC)
Appendix 5	Budget table (NON PUBLIC)

Background papers

- CARES Flood Risk Study report
- Haycock Hydrology Improvements Detailed Evaluation Process (HiDEP): Hydrology and Structure Hydraulics and Recommendations Report
- Aecom Peer Review
- Design Review Method Statement
- Design Flood Assessment
- Constrained options report
- Shortlist Options report
- Interim Quantitative Risk Assessment and accompanying Position Paper
- Preferred Options report
- Strategic Landscape Architect Review
- Ponds Project public consultation report
- Application for planning permission submitted to the London Borough of Camden for engineering works to the Hampstead and Highgate chains of pond
- Judgment of the Honourable Mrs Justice Lang in R (Heath and Hampstead Society) v Mayor (et al) of the City of London

Background papers are available at www.cityoflondon.gov.uk/pondsproject

Selected previous committee reports

- Bid Report, July 2009
- Evaluation Report, May 2011
- Project update and appointment of the design team, July 2013
- Preferred Options and Non-Statutory Consultation, November 2013
- Contract Tender Report, January 2014
- Public Consultation Results, January 2014
- Option Selection Report (gateway 4c), June 2014
- Pre-Authority to Start Work Issue Report, November 2014

Previous committee reports are available at:

www.cityoflondon.gov.uk/committees

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Highgate Chain

Pond	Dam	Spillway	Ecological mitigation and reinstatement
Stock Pond	Crest restoration by up to 500mm and a small bund created in the eastern corner..	New grass lined spillway at the western end of the dam, 21m wide at the base, with side slopes of 1:12. Two new 900mm overflow pipes to run parallel with the existing overflow pipe	Pond to be de-silted. New marginal planting on south west bank Japanese Knotweed to be managed. New tree and shrub planting Wetland scrapes and mini check dams will be created to catch sediment and channel the normal flow from Stock pond and the existing stream to the east of the pond into the Kenwood Ladies Bathing Pond. The path across the dam will be restored to its current finish of tar and chip.
Kenwood Ladies' Bathing Pond	Crest restoration by up to 300mm New concrete slab and facility to be built. Concrete slab to have the same footprint as existing.	New grass lined spillway at the western end, 19.4m wide at the base, with side slopes of 1:3. New 600mm diameter overflow pipe alongside the new spillway.	Pond to be de-silted 3 woody debris check dams and scrapes to be installed along inflow streams upstream to control sediment ingress and improve water quality of discharge to Kenwood Ladies' Bathing Pond. Screening of the western perimeter of the pond to be enhanced with new tree/scrub planting. Additional aquatic planting will also be installed in front of the spillway The path across the dam will be reinstated as currently.
Bird Sanctuary Pond	Crest restoration by up to 80mm.	No spillway but the slope downstream to the Model Boating Pond is to be smoothed and lined with a turf reinforcement mat. Relocation of the two overflow pipes	Additional channel (46m) to be dug to enhance wetland area. Development and extension of existing reed bed New wetland scrapes constructed along existing inflow stream to south-west arm to control sediment ingress and improve water quality of discharge to pond. The path across the dam will be restored with tar and chip dressing.
Model Boating Pond	Dam raised by 2.5m with a new earth embankment upstream of the existing dam. West bank excavated to win material to raise dam and to extend pond. Island created to preserve existing mature trees. A second borrow pit will provide material for the raised dam. This borrow pit is proposed for the top of the hill west of the Model Boating Pond. Borrow pits to be reinstated with silt from the de-silted ponds. Model Boating Pond is the main focus of works on the Highgate Chain	New upper grass lined spillway over the raised dam and lower grass lined spillway over the existing at the western end to retain existing mature trees on existing dam.	Partial de-silting New island to be formed around the preserved group of existing mature lime trees, London plane and English Oak, and linked to west bank with causeway. New marginal planting on west bank, upstream edge of raised dam and around new island. The eastern side will retain its hard edge to facilitate access to the water for model boating and for fishing. Fishing will also be facilitated by gaps in the planting. New trees will also be planted. New footpath on upstream face of the raised dam and along realigned west bank providing continuous access to pond edge. The path around the pond will be re-laid as hoggin, while the path which will be reinstated on the western side part way up the bank and the path across the dam will be tar and chip.
Men's Bathing Pond	Raising of the dam by 1m, using a sheet pile wall capped with English oak. Current leak in the dam to be repaired.	New grass lined spillway at existing ground level at the western end of dam, 25m wide.	2 check dams and a small reed bed created on existing inflow to north west corner to control sediment ingress and improve water quality of discharge to pond. Climbing plants either side of the sheet pile wall There are no changes to the finish of the paths.
Highgate No.1	Raising of the dam with a 1.25m high wall, using a sheet pile wall capped with English oak.	New grass lined spillway at the western end of the dam, 64m wide. Return wall along east side of spillway.	Extension of the existing reed beds along the north bank and new marginal planting on east bank. There are no changes to the finish of the paths.

Hampstead Chain

Pond	Dam	Spillway	Ecological mitigation and reinstatement
Vale of Health	Crest restoration up to 560mm achieved by 300mm of fill and 260mm kerb	New grass lined spillway at the western end where the dam is currently lower, 5m wide. Additional new overflow pipe, 500mm, to run parallel to the existing pipe.	Marginal planting on south-east bank. The footpath will be re-laid to match the current one. The existing fence will be retained
Viaduct	Crest restoration up to 200mm	New grass lined spillway at the eastern end, 4m wide, 1:12 slide slope. New overflow pipe 500mm diameter.	Pond to be de-silted. Marginal planting on the east bank below the Viaduct bridge The path will be reinstated as a compact aggregate self-binding gravel and will have a slight camber to improve drainage.
Catchpit	New flood storage provided by earth embankment dam, 5.6m high at the lowest point in the valley and 40m wide at the widest point. Crest of the dam approximately 100m long. Slopes 1:3 upstream and 1:4 downstream. Catchpit is the main focus of works on the Hampstead Chain.	Reinforced turf spillway along the whole crest of the dam. 750mm pipe under the dam to pass normal flows. Current pipe between Catchpit and the Mixed Pond to be removed to allow the natural stream to be restored. This will create a new wetland area. A cross point will be installed	A new mini catchpit incorporating reed bed filter systems upstream of the dam. Wetland scrapes and informal flow channels downstream of dam to control sediment ingress to Mixed Bathing. New trees to be planted south of the new dam Scrub to be planted on upstream face, downstream face to be turfed. The informal path across the dam will be grass reinforced with an open 3D grass reinforcement system.
Mixed Bathing	Dam raised by 1m within footprint of existing dam achieved by raising pond edge by 500mm with 500mm low bund along upstream face. 4m wide path reinstated on crest surface. Downstream slope of raised fill to be 1:3 and lined with reinforced turf to match existing slope, which will be lined with reinforced turf.	Spillway over the majority of the crest of the dam with 1:20 ramp either side of spillway to preserve existing mature trees. Existing overflow pipe extended further in to the pond.	Pond to be de-silted. New marginal planting on the north bank and along the upstream face of the dam. The path across the dam will be reinstated as presently with tar and chip.
Hampstead No. 2	Crest restoration with a 0.2m high edging	A new overflow at the western end formed with a precast concrete box culvert, 2.1m wide, with a drop inlet within the pond.	Marginal planting on the west bank. Culvert route and width redesigned so that the London Plane trees on the dam, visible from Mixed Bathing Pond are preserved. Platform designed to screen drop inlet Disabled fishing access to be provided along the dam The path across the dam will be reinstated as currently with tar and chip. New trees are being planted by the southwest corner of the pond.
Hampstead No. 1	No raising or restoration proposed.	New box culvert overflow through and over the embankment at eastern end of dam, Culvert to be buried with topsoil and located to retain existing mature London plane trees.	Marginal planting along south and east bank. Paths will remain as existing.

Appendix 2 - Outline Construction Programme (AMP Issue)

Apr-15 May-15 Jun-15 Jul-15 Aug-15 Sep-15 Oct-15 Nov-15 Dec-15 Jan-16 Feb-16 Mar-16 Apr-16 May-16 Jun-16 Jul-16 Aug-16 Sep-16 Oct-16

Hampstead Chain

Viaduct Pond																			
Vale of Health																			
Hampstead No.2																			
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Highgate Chain

Bird Sanctuary																			
Stock Pond																			
Ladies' Bathing																			
Model Boating																			
Men's Bathing																			
Highgate No.1																			

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Tree loss

Trees are categorised as being:

A: large, high quality, veteran trees;

B: smaller, not particularly high quality trees. However these trees still make a significant impact on the environment and have a significant life expectancy;

C: smaller trees or those considered of low quality; they may have a limited life expectancy of contribute little to amenity; U: poor condition.

Pond	Category A	Category B	Category C	Category U	Total
Stock Pond	0	8	15	0	23
Ladies Bathing Pond	0	3	15	0	18
Bird Sanctuary	0	0	0	0	0
Model Boating	0	2	6	0	8
Men's Bathing Pond	0	0	15	0	15
Highgate No.1	0	4	12	1	17
Total for Highgate Chain	0	17	63	1	81

Vale of Health	0	1	0	0	1
Viaduct Pond	0	0	5	1	6
Catchpit	0	12	49	10	71
Mixed Bathing Pond	0	0	7	0	7
Hampstead 2	2	0	0	0	2
Hampstead 1	0	0	5	1	6
Total for Hampstead Chain	2	13	66	12	93

Scheme total	2	30	129	13	174
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