

Hampstead Heath Ponds Project



STATEMENT OF COMMUNITY
INVOLVEMENT

July 2014

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Glossary of terms

- **CoL:** City of London Corporation.
- **Culvert spillway:** formed by a concrete box culvert set within the dam so that the top of the dam crest can be reinstated.
- **EIA:** Environmental Impact Assessment.
- **ES:** Environmental Statement, which reports on findings of the EIA.
- **HHPP:** Hampstead Heath Ponds Project.
- **LBC:** London Borough of Camden.
- **MOLA:** Museum of London Archaeology.
- **PMF:** Probable Maximum Flood – Industry best practice dictates that where there is a significant risk to life dams must be able to safely pass a Probable Maximum Flood (PMF).
- **PPA:** Planning Performance Agreement.
- **PPSG:** Ponds Project Stakeholder Group.
- **Spillway:** an overflow structure that is provided to allow excess water to flow out of a pond or reservoir without flowing over the dam crest.
- **SLA:** Strategic Landscape Architect.

Definitions

For ease of reference, the following terminology has been used throughout this Statement of Community Involvement:

Term	Definition
The Proposed Development	As specified in The Application which is the subject of this Statement of Community Involvement
The Site	Land area of the Proposed Development
The Application	Proposed engineering works to the Hampstead and Highgate chains of ponds comprising dam raising at Model Boating Pond (2.5m) and Mixed Bathing Pond (1m), new walls along dam crest to increase the height of the dams at Men's Bathing Pond (1m) and Highgate No.1 Pond (1.25m), a 190mm kerb along part of the crest at Hampstead No.2 Pond, a new flood storage dam (5.6m) in the catchpit area, grass-lined spillways at most ponds, dam crest restoration, pond enlargement at Model Boating Pond, a replacement changing room building at Ladies Bathing Pond and associated landscaping, habitat creation and de-silting.
The Applicant	The City of London Corporation
The SCI	Statement of Community Involvement (this document)

1. Introduction

- 1.1 This Statement of Community Involvement (SCI) has been prepared for the purpose of supporting an application for planning permission submitted by the City of London Corporation (CoL) for works to the Hampstead and Highgate chains of Ponds at Hampstead Heath (Hampstead Heath Ponds Project). The purpose of the works is to make the dams safe from breach and to reduce the risk to life and property downstream to comply with the Reservoirs Act 1975, whilst also taking into account the emerging requirements of the Flood and Water Management Act 2010.
- 1.2 During the development of the scheme and preparation of the planning application extensive consultation has been undertaken to: develop design principles and inform options development process; explain the need for the proposals; gain an understanding of stakeholder support or opposition to different options; gather feedback from stakeholders and describe the Proposed Development. A range of methods was used to reach a wide range of stakeholders and ensure they had the opportunity to understand and engage in the project.
- 1.3 Consultation on the project began in January 2011 and has carried on from this point right up to submission of this planning application, a full list of all consultation events is listed in Appendix A of this report and a description of the consultation process and key findings is detailed in the remainder of this document. Early consultation included putting information on the Hampstead Heath Ponds Project pages of the CoL website, erecting signs on the Heath, and sending bulletins to raise awareness. This early consultation also included meetings with key groups (such as swimming groups), workshops, seminars and presentations; these are also detailed in Appendix A. In January 2012 the Ponds Project Communications Officer was employed to help raise awareness of the project.
- 1.4 From July 2012 consultation with the newly formed Ponds Project Stakeholder Group (PPSG) commenced as detailed in section 2 of this SCI. In August 2012 a Strategic Landscape Architect (SLA) was employed to champion the landscape working closely with PPSG, as detailed in section 3 of this SCI. Section 4 of this SCI describes the formal public consultation process which began in December 2012. Section 5 describes how the consultation responses have been used to influence the Proposed Development. Section 6 describes the pre-application consultation process undertaken with the London Borough of Camden and section 7 describes EIA consultation.

2. Consultation with PPSG

- 2.1 The Ponds Project Stakeholder Group (PPSG) (formerly known as the Water Management Stakeholder Group (WMSG) and the Hampstead Heath Ponds Project Stakeholder Group (HHPPSG)), was set up in July 2012 and is a body of people with knowledge and interest in Hampstead Heath. It was established as a group to provide views and advice to the Hampstead Heath Consultative Committee in relation to the Hampstead Heath Ponds Project within the context of the Hampstead Heath Act 1871 and relevant reservoirs legislation.

- 2.2 The involvement of PPSG in the project has been fundamental from the beginning, from the problem definition stage right through to the final design. Early workshops were held with the Group to establish opportunities and constraints for the project and develop design principles which have guided the development of the project. The Group has also been engaged with the SLA to ensure that the impact on the landscape of the Heath is key to design decisions and, most recently, the Group has been involved in the consideration of materials.
- 2.3 There are 14 members of the Group all of whom represent an interest group or a residents association. They meet monthly with additional meetings on an ad hoc basis, as detailed in Appendix A. The members of PPSG and their alternative representatives represent the following groups:
- Fitzroy Park Resident's Association;
 - Highgate Men's Pond Association;
 - Brookfield Mansions Resident's Association;
 - Dartmouth Park Conservation Area Advisory Committee;
 - Hampstead Heath Anglers Society;
 - Heath & Hampstead Society;
 - Highgate Society;
 - Kenwood Ladies Pond;
 - Mansfield Conservation Area Advisory Committee;
 - Mixed Pond Association;
 - Elaine Grove and Oak Village Resident's Association;
 - South End Green Residents Association;
 - Dartmouth Park Conservation Area Advisory Committee;
 - Vale of Health Society;
 - West Hill Court Residents Association; and
 - City of London.
- 2.4 Through consultation activities and communications with CoL, the SLA and the Design Team, the PPSG has provided its views on the technical details and proposed designs and their long term impact on the landscape, use and management of the Heath ponds. It has also commented on the construction planning, timetable, logistics, communications and implementation of the Ponds Project.
- 2.5 The members of PPSG disseminate information to the groups they represent, and as appropriate to the wider community, on all aspects of the emerging designs and implications arising from project.

- 2.6 Appendix A contains a list of all consultation activities undertaken for the project and includes consultation with PPSG, for example meetings focusing on particular topics, workshops and site walks to discuss key points. A log of questions raised by PPSG and the wider public over the pre-application consultation period can be found at <http://www.cityoflondon.gov.uk/things-to-do/green-spaces/hampstead-heath/ponds-project/Documents/hampstead-heath-ponds-project-log-of-questions-and%20answers-rev%201.pdf>
- 2.7 The feedback and comments provided by PPSG throughout the pre-application consultation process have been used to develop the design principles, inform the option development and design process.
- 2.8 Following the option development process, three seminars were held with PPSG on the 13th April, 10th May and 15th May 2014. These seminars have been used to communicate the Proposed Development which is being taken forward to the planning application stage to PPSG, to allow for alterations to be made where possible and to gain comments on the Proposed Development and types of drawings to be submitted for the planning application. Appendix B provides a summary table of the comments that PPSG made at these seminars and what has been done to respond to them.

3. Consultation with the Strategic Landscape Architect

- 3.1 The City of London (CoL) appointed Peter Wilder of Wilder Associates in August 2012 to act as the Strategic Landscape Architect (SLA) for the Hampstead Heath Ponds Project (HHPP). The brief for this role was to act as an impartial representative of the Ponds Project Stakeholder Group (PPSG) and to challenge the Atkins design team to come up with the most sensitive and appropriate solutions for the Heath, taking into account legislation, flood modelling and environmental considerations. It was considered very important to have an independent SLA involved in the project to ensure that PPSG's concerns over landscape issues are championed and where required changes to the design made.
- 3.2 One of the first initiatives undertaken by the SLA was a workshop on 10th January 2013. This workshop was designed to gather together the opinions, fears and aspirations of PPSG into a cohesive document that could be formulated into a brief for the design team. The SLA formulated the findings of the workshop into a report entitled 'A Critical Review of Key Issues by the Water Management Stakeholder Group', February 2013; this document can be found on the CoL Ponds Project website at <http://www.cityoflondon.gov.uk/things-to-do/green-spaces/hampstead-heath/ponds-project/Pages/Reports.aspx>. The document presents the findings by looking at each pond in turn, providing a description of the pond and its immediate surroundings, identifying potential threats from the Proposed Development and areas of opportunity.

- 3.3 Following the publication of this report the SLA continued to work closely with and represent PPSG during the consultations on the Proposed Development. The consultations included various meetings, workshops and site walkovers with Atkins and CoL; Appendix A provides a list of all external consultation on the Proposed Development and includes all consultation with PPSG.
- 3.4 In October 2013 the SLA produced a document entitled 'Strategic Landscape Architect Review'. This document provided an overview of the process of consultation with PPSG to that point and noted that further consultation would be undertaken going forward. The key conclusions drawn in this document were that the commitment shown by CoL to deliver a scheme that meets ICE guidance, improves water quality and protects the Heath has been matched by PPSG's determination to ensure the Proposed Development is designed to be as subtle as possible. The document also comments that the design team has responded by putting forward a range of options that are broadly aligned to the key issues identified in the Critical Review. The report notes that whilst there are still concerns among stakeholders that the proposals are disproportionate to the scale of the problem, it is important to be mindful that the design is catering for extreme events.

4. Consultation Process

- 4.1 A formal non-statutory public consultation process has been undertaken for the Proposed Development. This process was aimed at ensuring that the consultation reached out to as many different people and groups as possible, who may not have had a chance to engage in the project before.
- 4.2 CoL employed a specialist engagement organisation, Resources for Change, to offer expert independent advice and to undertake the process of information giving and consultation prior to the submission of this planning application. A full description of this process and its findings are contained within the 'Hampstead Heath Ponds Project Information Giving and Consultation Report' (March, 2014) (this document can be found at: <https://www.cityoflondon.gov.uk/things-to-do/green-spaces/hampstead-heath/ponds-project/Pages/Preferred-Options-Report.aspx>).
- 4.3 This public consultation process ran from 26 November 2013 – 17 February 2014 (12 weeks). It was undertaken at a stage in the project where the Preferred Options for the development had been selected. The process sought to explain to the public what was being proposed and why; provide opportunities for the public to seek clarification; and provide opportunities for the public to comment on the preferred options and guide the design. The two Preferred Options for each pond chain are detailed in the Preferred Options Report (Atkins, October 2013) (this document can be found at: <https://www.cityoflondon.gov.uk/things-to-do/green-spaces/hampstead-heath/ponds-project/Pages/Preferred-Options-Report.aspx>).

- 4.4 The information was provided to raise awareness of the project among a wide range of Heath users and local residents. The purpose was to be open and transparent about CoL's intentions; to generate a clear understanding of the rationale for the project; the principles behind it and the details of the engineering design and the associated environmental mitigation.
- 4.5 The consultation process sought to gather feedback from the public to inform the option selection process for the project. The intention was to gauge public feeling in reaction to the proposals; gather any indication of preference emerging towards the options for each of the pond chains; and to highlight any issues in relation to the impact of the works on the Heath that need to be taken account of by CoL.
- 4.6 As significant engagement with key stakeholders had already been undertaken, the purpose of this consultation process was to reach out to others who may be affected and had had less involvement to date. These were identified as:
- Users of the ponds and immediate surrounds;
 - People living within the vicinity of pond chain areas;
 - Users of the Heath;
 - People having a specialist interest in the Heath (e.g. bird watchers);
 - People in the flood risk area in the event of dam failure;
 - People who may potentially (or have reason to think they will) be impacted by the Ponds Project when works take place; and
 - Members of the wider public.

Information Giving and Consultation Methods

- 4.7 Leaflets, postcards, posters and a short film were produced for the public consultation process to provide information on the purpose and rationale for the project, the progress to date, design approach and options. A questionnaire was also produced, made available in paper and electronic format, to allow feedback to be given.
- 4.8 The wide variety of consultation methods used are listed below:
- Heath displays at Parliament Hill and East Heath – Displays were set up at Parliament Hill Yard and East Heath attended by Heath staff. The displays included information boards summarising the background, rationale and progress on the project to date; the options considered and what they involved. This included detailed diagrams and 'before and after' images. A detailed information leaflet and postcards were also provided as were questionnaires to enable provision of information on the project and ability to feedback.
 - Site Information Boards - Information boards were produced and set up at all the ponds and locations along the Highgate and Hampstead chains where works are proposed. The site information boards were intended to enable people to understand the Preferred Options in their immediate location and thus to get an enhanced understanding of what the impacts of them might be.

- Guided Walks around Key Areas - The City of London's Superintendent and the Supervising Engineer from Atkins led two guided walks for the public. The walks covered the key areas on the Heath affected by the Ponds Project, such as the Model Boating Pond, Men's Bathing Pond, Highgate No. 1 Pond, the Mixed Bathing Pond, the Catchpit area and the Hampstead No. 2 Pond.
 - Ponds Project Web Pages - The Ponds Project web pages (www.cityoflondon.gov.uk/pondsproject) contain all previous technical reports and other information on the Ponds Project such as the details of the PPSG and its activities. The Ponds Project web pages and the link above were signposted in all the awareness raising and information giving and consultation materials. The website provided information about the background, rationale and progress on the project to date; the options considered and what they involved, along with an online version of the questionnaire were also available. The intention was that having this material available electronically online would broaden the opportunity to access to the process and that some people would find it more convenient.
- 4.9 As well as the information giving and consultation methods described above, the process also sought to raise awareness of the project in order to reach out to as many people as possible. The awareness raising was an additional important method of information giving and included the following:
- Stalls at strategic public locations – Five street stalls were set up to raise awareness and hold informal conversations with members of the public. These stalls were at Parliament Hill Farmers Market, outside Kentish Town Tube, Hampstead Heath High Street, Golder's Green Tube Station, Gospel Oak Overground Station.
 - Local Media – Two sets of advertisements were placed in the Camden New Journal and Ham and High and a half page article was presented in Camden Magazine.
 - Mail shots to people who had asked to be kept informed about the project, local residents, local businesses and Camden and Barnet Councillors.
 - Postcards and / or posters were distributed around the Heath, to local cafes, shops and community centres and schools. A total of 79,000 of the postcards were sent to local residents and businesses, which contained a link to the CoL website.
 - Pop-up information giving was continued to be displayed around the Heath.
 - Social Media – Facebook and Twitter were used throughout the process to add to the diversity of the awareness raising activities.

The Results

- 4.10 Full details of the results of the consultation feedback are provided in the Information Giving and Consultation Report (<http://www.cityoflondon.gov.uk/things-to-do/green-spaces/hampstead-heath/ponds-project/Pages/Information-Giving-and-Consultation.aspx>), the key findings are detailed below.

- 4.11 The questionnaire and verbal response results indicated that there was a strong body of concern against the whole project. Much of the dissatisfaction is common to the works being done at all, rather than directed at specific options. However, there are also a significant number of respondents who viewed the work positively, not only on the basis of reduction of dam breach risk and /or safety benefits, but also as an opportunity to improve the Heath and its ponds, especially for wildlife.
- 4.12 In broad terms, for those dissatisfied with the project overall, the key issues are with regard to increases in dam height, disruption to, and negative impacts on, the Heath's amenity (particularly referring to swimmers), the landscape and wildlife.
- 4.13 Many of these respondents also challenge the need and justification for the work. These challenges are mainly based on the following concerns:
- Legal justification;
 - Engineering justification;
 - Quality of data being used and / or the modeling;
 - That alternative water management options to dams should be considered;
 - That water management should be dealt with downstream (mainly through sewer and drain improvements);
 - That water management for the area should be part of a more holistic approach, working beyond the boundaries of the Heath;
 - Mistrust of CoL its advisors and the engineers; and
 - A belief that engineering is not the solution and the focus should be on emergency response.
- 4.14 Many respondents said that they supported the improved safety that the work would bring to those in the potentially impacted downstream communities. There are a further number of people who feel that the proposed works could create an opportunity for enhancements to the Heath, especially for wildlife.
- 4.15 The public consultation process provided a key opportunity for increasing stakeholders knowledge of the project and a forum for seeking their views on the proposals. Their views have been used to inform the option to take forward to the planning application stage and have also been taken into account in the final detailed design of the Proposed Development.

5. Influence of Consultation Responses on Proposed Development

- 5.1 During the course of the design development, a number of the suggestions from stakeholders have been considered as feasible and have influenced the development of the preferred options and following this the Proposed Development. Below are examples of such suggestions and descriptions of how they have directly influenced the Proposed Development:

- Providing extra storage capacity by building a flood storage dam at the Catchpit area in order to minimise works at most sensitive ponds - This has become a key element of the options for the Hampstead chain of ponds, and has been modelled extensively. The flood storage dam would create around 12,000m³ of additional flood storage capacity, which significantly reduces the extent, scale, and impact of works to downstream ponds.
- Keeping the Kenwood Ladies Bathing Pond changing rooms in the centre of the dam - This has been incorporated into the options design due to queries about the impact of moving the building to the east bank in terms of lifeguard visibility.
- Desilting ponds at the same time as the dam safety works – From an early stage it was decided that works to remove silt from the ponds could be carried out while there are construction plant on site to carry out the dam safety works. As well as achieving efficiencies and reducing the overall impact of two separate sets of works, this creates possibilities such as the potential for moving the silt into the borrowpits created to provide fill for raising dams. Certain ponds are prioritised for these desilting works, such as Viaduct Pond, Stock Pond, and Bathing Ponds.
- Retaining the group of trees on the west bank of Model Boating Pond and turning the area into a peninsula - This idea has been incorporated in the design in a two stage process, firstly it was decided to have an island to ensure retention of the trees and subsequently it was decided that access should be provided to the island.
- Traffic management ideas - Suggestions such as avoiding movement between pond chains (in order to minimise the impact of construction traffic) have been incorporated into the Construction Environmental Management Plan.
- Modelling of options to reduce loss of plane trees at Hampstead No.2 Pond - At the constrained options workshop, there was a general consensus that the line of plane trees on and near the dam at Hampstead No.2 Pond was a key feature on the Hampstead chain of ponds. Consequently, the plane trees became a focal point for all options modelled on this chain, with the number of plane trees affected becoming a key criterion in options comparison. As a result of concerns raised over the Plane trees, efforts were concentrated on ensuring the minimum numbers of trees are required to be removed and that these trees are not part of the avenue visible from Mixed Bathing Pond. This has been possible due to the relocation of the proposed culvert and close liaison between stakeholders, CoL and Atkins' engineering and environmental teams.
- Borrowpit locations - Heath staff and stakeholders have provided suggestions for the location of borrowpits for fill to raise embankments these have formed the basis for ground investigations which have informed the final choice of locations in the Proposed Development. A key aim was to locate borrowpits as close to works which require their material thus reducing potential traffic movements within and around the Heath and to ensure the location minimised visual impact.
- Widening the proposed reinforced spillway at Mixed Bathing Pond to reduce the dam raising - The causeway at Mixed Bathing Pond is one of the few dams where this kind of approach is feasible, since the downstream slope is a uniform grassy

slope and is mostly clear of trees. An increased spillway width, with a lower dam crest level was modelled and meant that a 1 metre raising was sufficient rather than 2m as originally proposed.

- 5.2 In addition to the above examples of how the design has been altered to accommodate consultation responses where possible, Appendix B provides feedback from seminars undertaken with PPSG and how their comments have been actioned and alterations made to the Proposed Development where possible.

6. Consultation with London Borough of Camden

- 6.1 There has been lengthy pre-application consultation with London Borough of Camden (LBC) as detailed below. This started with the first pre-application meetings in March and November 2013 following which a Planning Performance Agreement was signed between LBC and the applicant (CoL) which laid down an agreed timetable for further pre-application liaison.

- 6.2 The following paragraphs provide detail of the key consultation undertaken with LBC:

Pre-application Start up Meeting – 4th March 2013

- 6.3 This first pre-application meeting organised by Atkins Planning and attended by CoL and LBC Planners. This meeting was undertaken early on in the development of the proposals to introduce the proposal to LBC's Planners and to explain the need for the development. During the meeting the planning strategy was discussed and LBC stated a preference for the development to be brought forward as a single full planning application for the development, rather than an outline application or splitting the development into smaller applications. The outline programme for design development, consultation and submission of the planning application was also presented.

Pre-application Meeting – 6th November 2013

- 6.4 A pre-application meeting was held between Atkins Planning, CoL and LBC's Planning Officers, this meeting presented an opportunity to discuss the forthcoming Planning Performance Agreement, Development Management Forums, Developer's Briefings to the Planning Committee, revised programme for submission of the application, the Preferred Options Report and Environmental Impact Assessment Screening Opinion request.

Planning Performance Agreement – Part 1

- 6.5 A Planning Performance Agreement (PPA) Part 1 covering the pre-application stage was agreed between LBC and CoL and signed on the 26th March 2014. This PPA covers the period up to submission of the planning application and established a shared commitment to an agreed timetable to enable the timely provision of pre-application advice and laid out the information requirements for the formal planning application for the Proposed Development. The PPA contains a diary which programmes all future meetings between the applicant and the LBC prior to submission of the application and also programmes a Development Management Forum (detailed further below), which was held on 5th June and was in addition to the extensive public consultation and information giving as detailed in section 4 of this SCI.

Breakout meetings – April 2014

- 6.6 On the advice of LBC and as programmed in the PPA Part 1, two 'Breakout meetings' were held in April 2014. The aim of these meetings was to formally bring together the specialists from Atkins, CoL, LBC and BAM Nuttall (the appointed contractor) to enable LBC officers to gain an appreciation of the proposed development and to provide comments, raise queries and make suggestions for amendments (if required) prior to the submission of the planning application. The two meetings held are detailed below.

Design, Landscape, Visual, Ecology and Water Quality Breakout Meeting – 23rd April 2014

- 6.7 A Breakout meeting to discuss design, landscape and visual impact, ecology and water quality was held on the 23rd April 2014. This meeting took place at Parliament Hill Yard on Hampstead Heath and was followed by a site walk around.
- 6.8 The meeting was attended by representatives from CoL, BAM Nuttall, Atkins specialists in Planning, Engineering, Landscape, Arboriculture, Terrestrial and Aquatic Ecology, Water Quality, and Museum of London Archaeology (MOLA) Heritage specialists. LBC officers specialising in Planning (Development Management), Nature Conservation, Planning Policy, Heritage and Conservation, Trees and Landscape, Sustainability and Business Continuity attended.
- 6.9 The key aim of the meeting was to introduce the need for the development, explain the design principles and provide a description of the Proposed Development to LBC. The council officers were able to ask questions and gain a good understanding of the proposals. The site walks around enabled the Council officers to gain an appreciation of the potential impacts of the scheme and to understand the mitigation proposed.
- 6.10 Subsequent to the meeting LBC issued a meeting note to confirm what had been discussed and to provide their initial feedback on the Proposed Development and the assessments to be undertaken. This information has been taken into account in the preparation of the planning application.

Construction – Transport, Air Quality, Noise – 24th April

- 6.11 A Breakout meeting to discuss transport, air quality, noise and construction was held on the 24th April 2014. This meeting took place in the LBC Council offices.

- 6.12 The meeting was attended by representatives from CoL, BAM Nuttall, Atkins specialists in Planning, Engineering, Transport, Air Quality and Noise. LBC officers specialising in Planning (Development Management), Transport, Environmental Health with post meeting input from the Council's Air Quality specialist.
- 6.13 The key aim of the meeting was to provide a brief description of the need for the development and a description of the proposals for the LBC officers who had not attended the meeting on the 23rd April and to discuss the construction of the Proposed Development with particular reference to potential transport, noise and air quality impacts and mitigations. In particular the methodologies for Noise, Transport and Air Quality assessments and the Construction Environmental Management Plan were discussed to ensure that the work undertaken satisfies LBC's requirements.
- 6.14 Subsequent to the meeting LBC issued a meeting note to confirm what had been discussed and to provide their initial feedback on the Proposed Development and the assessments to be undertaken. This information has been taken into account in the preparation of the planning application.

Final overarching pre-application meeting and discussion of Stage 2 PPA – 21st May 2014

- 6.15 A final overarching planning meeting was held at LBC offices on the 21st May 2014. This meeting was used to agree the PPA Part 2, which deals with the planning application stage of the process, and discuss the scope of an Independent Engineer Review which will take place once the application has been submitted to LBC.
- 6.16 This meeting was also used to discuss the likely requirements in terms of a Section 106 agreement for the Proposed Development. LBC confirmed that they would require a Section 106 agreement to ensure that the details of the Construction Environmental Management Plan are legally enforceable.

Development Management Forum – 5th June 2014

- 6.17 A Development Management Forum (DMF) on the Hampstead Heath Ponds Project was held on the 5th June 2014 at Parliament Hill School. The Forum was hosted by LBC and provided an opportunity for Atkins and CoL to inform local people about the Proposed Development before the planning application was made. The DMF included presentations on 'why' we need to do the work, 'what' we are proposing to do, with a description of the Proposed Development and the contractor presented 'how' we would implement the proposals. Appendix C contains a list of questions and answers from the DMF.

Developers Briefing to Planning Committee Members – June 2014

- 6.18 A Developers Briefing to members was considered appropriate for the Proposed Development due to the large amount of public interest and complexity of the Proposed Development. The Developers Briefing was held on the 30th June 2014 which allowed members to gain an initial understanding of the Proposed Development prior to submission of the planning application.

Planning Performance Agreement Part 2 – Planning Application Stage

- 6.19 The PPA Part 2 is effective for the planning application stage which covers the period from the pre-validation submission of documentation through to application submission and reporting to committee. This document has been agreed between LBC and CoL. It includes the requirement for a review of the application by an independent Panel Engineer and sets out a detailed timetable for the validation and determination of the application.

7. EIA Consultation

- 7.1 Consultation with statutory consultees was undertaken to inform the Environmental Impact Assessment (EIA) which was carried out to assess the impacts of the Proposed Development and inform any requirement for additional mitigation. An Environmental Statement (ES) will report the findings of the EIA and accompany the planning application.
- 7.2 This consultation constituted meetings, email exchange and telephone conversations with LBC and statutory consultees, such as the Environment Agency, to agree the scope for the assessment, methodologies and key areas of concern. Details of the consultation undertaken and issues raised are included in the individual assessment chapters of the ES. Consultee discussions and responses were used to ensure that the scope and methodologies for the EIA were comprehensive and fulfilled the requirements of LBC and statutory consultees.

8. Conclusions

- 8.1 This SCI has described the extensive consultation that has been undertaken for the Proposed Development. The consultation responses have been used where appropriate to influence the Proposed Development and to try to ensure that the wider community is aware of, and understand, the proposals and to allow them to engage if they wish. The consultation process has also involved detailed consultation with LBC and statutory consultees to ensure that the Proposed Development is in accordance with planning policy, has sufficient level of detail, and is supported by the required document which provide LBC with enough information to be able to assess the Proposed Development.

Appendices

Appendix A: List of External Consultation on Ponds Project

Date	Event
17 Jan 2011	Meeting between officers, Hampstead Heath Consultative Committee (HHCC), Hydrologist, Panel Engineer and Heath & Hampstead Society, to discuss the project and the issues arising
19 Jan 2011	Meeting between officers, Hydrologist and swimming groups to discuss the project and the issues arising
20 Jan 2011	E-bulletin update on the project published on the website
30 Jan 2011	Dams and Ponds page created on City of London website
8 Mar 2011	Swimmers Forum. Project discussed.
12 Mar 2011	HHCC walk including talk at Education Centre on hydrology by Hydrologist
2 Apr 2011	Workshop for residents, members of interest and user groups of the Heath and staff. Gave detailed information on the areas that could be affected by a flood and initial concept designs
20 Apr 2011	Briefing delivered to Camden Council
21 Apr 2011	Heath & Hampstead Society regular quarterly walk- project discussed
26 Apr 2011	Water quality seminar attended by swimming groups, staff, Hydrologist, HHCC, Management Committee, residents associations and anglers
1 May 2011	E-bulletin update on the project published on the website
9 May 2011	Report presented to Hampstead Heath Consultative Committee
23 May 2011	Evaluation report presented to Hampstead Heath, Highgate Wood and Queens Park Management Committee
7 Jun 2011	Swimmers Forum. Update on project given.
11 Jul 2011	HHCC – update in Matters Arising
5 Jul 2011	Site visit to ponds by Court of Common Council
14 Jul 2011	Evaluation report considered by the Court of Common Council
25 Jul 2011	Short update in Matters arising at Management Committee
1 Aug 2011	Meeting between officers, HHCC, Hydrologist, Panel Engineer, Heath & Hampstead Society and swimmers to discuss further option following further assessment by Haycock and Hughes
26 Sep 2011	Update report presented to Hampstead Heath, Highgate Wood and Queen's Park Management Committee
19 Oct 2011	Swimming Forum. Project discussed
5 Nov 2011	HHCC walk – verbal update given
7 Nov 2011	Update report presented to HHCC
11 Nov 2011	Visit to a similar dam at Tilgate Park in Crawley by staff and members of Heath & Hampstead Society
28 Nov 2011	Hampstead Heath, Highgate Wood and Queens Park Management Committee. Mentioned in minutes approval.
18 Jan 2012	Heath & Hampstead Society regular quarterly walk. Members given a brief update on project and introduced to Communications Officer
18 Jan 2012	Swimming Forum. Members given an update on project
23 Jan 2012	Update report presented to Hampstead Heath, Highgate Wood and Queen's Park Management Committee
26 Jan 2012	Representatives of the Heath & Hampstead Society briefed on procurement process by officers and their involvement in it
2 Feb 2012	Camden New Journal print story with update on project
2 Feb 2012	Ham & High print story about project
6 Mar 2012	Ladies bathing pond improvement meeting. Wider project discussed as part of the context for the improvement works
10 Mar 2012	HHCC walk. Brief update given on the project
12 Mar 2012	Update report presented to HHCC
14 Mar 2012	<i>Representative of the Heath & Hampstead Society looks at documents at Heathfield House</i>
15 Mar 2012	Meeting with Sally Gimson, ward councillor, and Leisure & Events Manager to discuss project
4 Apr 2012	<i>Representative of the Heath & Hampstead Society looks at documents at Heathfield House</i>

Date	Event
18 Apr 2012	Swimmers' Forum – Ponds Project Stakeholder Group (PPSG) discussed and Communications Strategy shared with group
23 Apr 2012	Leaflet explaining why the work is necessary is distributed to 60,000 residents around the Heath and to visitors on the Heath
8 May 2012	Mixed bathing pond improvement meeting
21 May 2012	Report on Communications Strategy presented to the Hampstead Heath, Highgate Wood and Queens Park Management Committee.
22 May 2012	Presentation and site visit given to members of Camden Council Environment Scrutiny Panel
7 July 2012	HHCC walk – presentation on project
9 July 2012	Hampstead Heath Consultative Committee. Communications strategy and Terms of Reference of Stakeholders discussed as well as tender report
16 July 2012	Inaugural meeting of PPSG
18 July 2012	Swimmers forum. Members given an update on the project.
23 July 2012	Hampstead Heath Management Committee. An update report on the progress and procurement structure given to members.
9 Aug 2012	Ham & High –Chairman's column focuses on project
30 Aug 2012	PPSG attend presentations by two prospective candidates for the role of Strategic Landscape Architect.
14 Sep 2012	First pop-up consultation. These consist of two members of staff going out on Heath for a two hour session, providing information as well as canvassing opinion on the project.
1 Oct 2012	PPSG
6 Oct 2012	Walk with PPSG – Highgate Chain. Members of the PPSG taken on a walk down the chain, stopping to discuss the key issues.
8 Oct 2012	Swimming forum. Members given an update on the project.
10 Oct 2012	Pop-up consultation
18 Oct 2012	Camden New Journal briefed on project and prints update
27 Oct 2012	Pop-up consultation
29 Oct 2012	PPSG
30 Oct 2012	Pop-up consultation
6 Nov 2012	Pop-up consultation
6 Nov 2012	News release announcing appointment of Strategic Landscape Architect and providing information on PPSG as well as appointment of Atkins
8 Nov 2012	Ham & High – Chairman's column focusses on project
20 Nov 2012	Panel Engineer briefs PPSG's Chairman, Deputy Chairman and Heath & Hampstead Society's representative on scope of fundamental review and indicative timescales of project
24 Nov 2012	Walk with PPSG – Hampstead Chain. Members of the PPSG taken on a walk down the chain, stopping to discuss the key issues.
26 Nov 2012	Update report presented to Hampstead Heath, Highgate Wood and Queens Park Management Committee.
28 Nov 2012	Design Review Method Statement, drafted by Atkins is released to PPSG for their comments
30 Nov 2012	Pop-up consultation
3 Dec 2012	PPSG – discussion on Design Review Method Statement
17 Dec 2012	Journalist briefing with Ham and High and News release with update on consultation opportunities throughout the project
19 Dec 2012	Pop-up consultation
20 Dec 2012	Ham & High piece profiling Strategic Landscape Architect
10 Jan 2013	PPSG workshop -Strategic Landscape Architect takes PPSG on virtual tour of the ponds looking at each site and noting threats and opportunities.
14 Jan 2013	Walk of Highgate Chain with residents from Brookfield Mansions and others who could not attend original walk.
14 Jan 2013	PPSG – follow up on 10 Jan workshop
14 Jan 2013	News release inviting views from public, covered in Ham & High
17 Jan 2013	Pop-up consultation

Date	Event
17 Jan 2013	Draft Critical Review by Strategic Landscape Architect, issued to PPSG for their comment
18 Jan 2013	Staff workshop which follows the same format as Strategic Landscape Architect's.
26 Jan 2013	Posters put up on Heath inviting people to give their views
28 Jan 2013	Hampstead Heath Management Committee
28 Jan 2013	Heath Superintendent meets with Oak Village Residents Association to discuss issues relating to flooding.
31 Jan 2013	Adverts in Ham & High and Camden New Journal inviting people to give their views
31 Jan 2013	PPSG – special meeting to talk about programme.
7 Feb 2013	Camden New Journal print an update on project talking about 'landscaped' approach
11 Feb 2013	PPSG – review of critical review
18 Feb 2013	Special meeting of PPSG to talk about communications
26 Feb 2013	Swimming Facilities Forum. Members given a briefing on project
7 Mar 2013	Pop-up consultation
11 Mar 2013	A resident from Kentish Town given briefing on project
14 Mar 2013	Ham & High and CNJ run stories on results of Design Flood Assessment and the fact it will result in less intrusive work on the Heath.
15 Mar 2013	Walk of chain of ponds with members from Highgate Neighbourhood Forum
18 Mar 2013	Panel Engineer meets with residents from Oak Village and Elaine Grove
18 Mar 2013	PPSG – Panel Engineer presents the results of the Design Flood Assessment
20 Mar 2013	Heath Superintendent gives presentation on project to Highgate Area Action Group as part of Camden's consultation on Flood Strategy
21 Mar 2013	Pop-up consultation
22 Mar 2013	Meeting with officers from CoL and Hampstead Heath Anglers Society
22 Mar 2013	Workshop with young people at Queen's Crescent Community Centre
27 Mar 2013	Pop-up consultation
8 April 2013	Special meeting of the HHCC – Panel Engineer presents results of Design Flood Assessment
9 April 2013	Visit to Abberton Reservoir with members of the Stakeholder Group
10 April 2013	Posters updated at Parliament Hill and Golders Hill Park
12 April 2013	Pop-up consultation. Around 40 people spoken to, approximately half were aware of project.
15 April 2013	PPSG – members of the design team give a presentation on the matrix and its function
19 April 2013	Meeting to discuss outstanding queries on Design Flood Assessment – attended by Panel Engineer, Atkins' engineers and hydrologist, Strategic Landscape Architect, City of London Officers and representatives of the PPSG
24 April 2013	Pop-up consultation. Spoke to around 100 people, half of whom were aware of the project
25 April 2013	Journalist at Ham & High is given a briefing on project
30 April 2013	Walk of Highgate Chain representatives of the Kentish Town Neighbourhood Forum
2 May 2013	Chairman's Column in Ham & High with update on project
9 May 2013	Sign erected on Pond Box and on causeway between Mixed Pond and Hampstead No. 2.
9 May 2013	Report on Design Flood Assessment taken to Hampstead Heath, Highgate Wood and Queens Park Management Committee.
13 May 2013	PPSG Meeting
18 May 2013	PPSG workshop on unconstrained list
21 May 2013	MP Mark Fields is briefed on project and taken on site
29 May 2013	Pop-up consultation

Date	Event
3 June 2013	New Ponds Project leaflet produced
5 June 2013	Staff workshop – unconstrained list
7 June 2013	Pop-up consultation
7 June 2013	Constrained Options Report published and distributed to PPSG
10 June 2013	Briefing and press release to Ham & High
12 June 2013	Pop-up consultation
13 June 2013	First eNewsletter distributed to 900 email addresses, with details of Constrained Options Report
17 June 2013	PPSG walk and meeting to discuss outstanding queries on unconstrained list
27 June 2013	Pop-up consultation
30 June 2013	Pop-up consultation – City of London Festival
2 July 2013	Pop-up consultation (with Atkins)
8 July 2013	HHCC – Update report and unconstrained options presented
9 July 2013	Representatives of the PPSG meet with Atkins in Epsom to discuss – Kenwood, QRA, hydrology
12 July 2013	Staff forum – discuss opportunities
13 July 2013	PPSG workshop – shortlist of options
16 July 2013	Pop-up consultation
22 July 2013	Hampstead Heath Management Committee – update report
22 July 2013	PPSG – meeting – continuation of discussion on shorter-list of options
25 July 2013	Staff workshop – shorter-list of options
26 July 2013	Pop-up consultation
5 Aug 2013	Shortlist Options Report published and distributed to PPSG and to wider public with newsletter.
6 Aug 2013	Pop-up consultation
9 Aug 2013	Hampstead Heath Anglers Society briefed as part of a regular meeting.
14 Aug 2013	Brookfield Mansions and EGOVRA residents meet with Atkins to discuss issues relating to Highgate No. 1 Pond.
11 Sep 2013	Evening Standard run story based on QRA
11 Sep 2013	ITV news covers Ponds Project
11 Sep 2013	Walk with West Hill Court residents and Hampstead Heath staff
14 Sep 2013	PPSG workshop – preferred options
18 Sep 2013	Pop-up consultation
18 Sep 2013	Email to all staff
18 Sep 2013	Legal meeting between City and H&HS
20 Sep 2013	H&HS visit to Atkins to deal with outstanding queries to Shortlist Options Report (Jeremy Wright)
27 Sep 2013	PPSG meeting with Atkins to discuss QRA
27 Sep 2013	Pop-up Consultation
27 Sept 2013	Highgate Men's Pond Association meet with Atkins to deal with outstanding queries to Shortlist Options Report
30 Sep 2013	PPSG meeting
9 Oct 2013	Pop-up consultation
21 Oct 2013	PPSG meeting – stakeholders feedback on preferred options report
25 Oct 2013	Residents from West Hill Court meet Superintendent and City officers for an update on the plans
5 Nov 2014	Residents from Brookfield Mansions and Oak Village Residents Association meet with Atkins and the City.
27 Nov 2014	Public Consultation on Preferred Options commences. This lasts until 17 February and includes: two displays open daily on Heath, an online questionnaire, mail-out to 79,000 residents, national and local media coverage, social media, media adverts, signs on Heath, posters in local community.
2 Dec 2014	PPSG meeting
14 Dec 2014	BBC London coverage of project on evening bulletin
20 Jan 2014	Court of Common Council visit the Ponds Project consultation display

Date	Event
20 Jan 2014	Discussion between representatives of the Heath & Hampstead Society, City Officers and the Chairman of the Policy & Resources Committee
24 Jan 2014	Members of the Audit and Risk Management Committee visit the Ponds Project consultation display
8 Feb 2014	Guided walk led by the Superintendent and the Panel Engineer
11 Feb 2014	Guided walk led by the Superintendent and the Panel Engineer
17 Feb 2014	Public consultation ends
24 Feb 2014	PPSG meeting
27 Feb 2014	Presentation to Kenwood Ladies Pond Association members to discuss new facilities.
3 Mar 2014	Swimming forum – update given on Ponds Project
24 Mar 2014	PPSG meeting
27 Mar 2014	Walk on site with BAM Nuttall and stakeholders showing them Ground Investigations in action
7 April 2014	HHCC consider the results of the public consultation
10 April 2014	Meeting with Brookfield Residents, City and Atkins to discuss their concerns
13 April 2014	PPSG seminar focusing on ecology and the upper ponds
14 April 2014	Hampstead Heath, Highgate Wood & Queen's Park Committee consider the results of the public consultation
24 April 2014	Meeting with Chair of Kenwood Ladies Pond Association, the City, Atkins, Walters and Cohen to discuss the plans for the new facilities.
24 April 2014	Meeting with Anglers to discuss how the Ponds Project might impact on them
24 April 2014	Re-run of 13/04/14 seminar with stakeholders who could not attend.
29 April 2014	Meeting between City and RSPB wetland ecology expert to discuss proposals.
2 May 2014	Meeting between the City and Cllr De Souza (Camden Councillor) to discuss the proposals and how they affect Camden.
12 May 2014	Meeting between representatives of the Heath & Hampstead Society, City Officers, Chairman of the Hampstead Heath, Highgate Wood & Queen's Park Committee, Camden Officers, Cllr Hai and Cllr Saddiq to discuss emergency plan arrangements
10 May 2014	PPSG seminar focusing on design and the lower ponds
15 May 2014	Re-run of 10/05/14 seminar with stakeholders who could not attend.
19 May 2014	PPSG meeting – round up of seminar and presentation by BAM Nuttall
22 May 2014	Meeting with Kenwood Ladies Pond Association on site to discuss new facilities
2 June 2014	HHCC consider the Gateway 4c (option selection) report
4 June 2014	Meeting with Brookfield Mansions, Millfield Cottage, West Hill Court, City Officers, Atkins and BAM Nuttall to discuss Highgate 1
5 June 2014	Development Management Forum – public meeting chaired by Camden Council
9 June 2014	Hampstead Heath, Highgate Wood & Queen's Park Committee consider the results of the public consultation approve the Gateway 4c (option selection) report
9 June 2014	Atkins lead tree walk for members of PPSG
10 June 2014	Presentation to Kenwood Ladies Pond Association on new changing and lifeguard facilities
17 June 2014	Projects Sub Committee consider the results of the public consultation approve the Gateway 4c (option selection) report
26 June 2014	PPSG meeting – review material for planning application

Appendix B: Summary table of PPSG feedback
from Seminars on 13 April, 10 May and 15 May
2014 and how this has been/will be addressed

	YOU SAID	WE DID	FUTURE WORK
1.0	GENERAL POINTS		
1.1	Contours must be consistent on all maps.	All contours are at 0.25m on engineering drawings (currently 1m intervals on existing site plans and Environmental Masterplans). Proposed contours have been differentiated from existing on the Environmental Masterplans.	
1.2	Contour information of Brookfield and West Hill Court requested.	A survey has taken place. City received draft results on 9 May.	Contours will be generated and shown on drawings once scope agreed by CoL. The results will feed into detailed design.
1.3	Plans are difficult to read when ponds are spread over several pages.	Each pond has now been reformatted to appear on one sheet for PPSG consultation – benefit printing at A3 sheet.	
1.4	PPSG request to see engineering drawings.	Engineering drawings were made available for review on May 10. Cross sections were made available on 26 June.	Further Engineering details will made be available during detail design.
1.5	Request for a cross section of entire chain to scale.	Noted.	Atkins is preparing cross sections to submit with the planning application – these will be submitted with the planning documents.
1.6	Show water level heights on drawings.	Top water level heights have been shown on drawings.	27

1.7	Contours need to be more visible (ok on our prints not on Stakeholder copies).	Thickness / darkness of contours and levels have been adjusted on Environmental Masterplans.	
1.8	Cross sections – different scales on sketch development sections.	Accepted. Existing and proposed cross sections have been prepared at same scale to enable comparison.	
1.9	Design Development Document requested for Lower Ponds.	Atkins have issued.	
1.10	Can a catchment be proposed for each pond.	Noted.	Atkins to review.
1.11	Footpath finishes to retain Heath character avoiding black asphalt and 'civic' appearance where possible.	Accepted. Atkins have considered in relation to usage and location.	
1.12	Electronic version of Materials Palette requested.	Atkins have issued.	
1.13	Abbreviations should be clarified on drawings g TWL, EGL and AOD.	Accepted.	
2.0	DETAILED INFORMATION		
2.1	Tree removal information must be given in more detail for clarification.	A table listing tree loss at each pond distributed on 9 May. Tree protection plans issued on 15 May with trees to be removed marked with red crosses and description of species in table. Tree walk with PPSG took place on 9 June.	
2.2	Spillway dimensions must be made available.	A table with this information was distributed on 7 May	
2.3	In addition to detail comments identified by pond below by H&HS in relation to the palette H&HS have also suggested:	Noted. Atkins are considering as part of the design development.	

	no black asphalt should be used anywhere as a finished surface, path edges should not be defined and should be hidden by encroaching grass, additional fencing should be kept to a minimum, adopting a minimalist approach <i>'if it is not essential don't do it'</i> .		
2.4	Highgate CAAC concur with H&HS above and have advised <i>'the project affects ALL users of the Heath and ALL local residents we feel strongly that the opinion of one particular group should have no more weight than that of any other and that the best solution is for the majority view to prevail'</i> .	Noted. Atkins are considering as part of the design development.	
3.0	HAMPSTEAD CHAIN		
3.1	VALE OF HEALTH		
3.1.1	Spillway would be better in a straight diagonal line rather than a sweeping curve. Vale of Health Society keen to see spillway starting at existing low point of dog washing area to run at a slight angle across the path and then as close to the redwood as is possible without risking the healthy tree.	Accepted.	
3.1.2	Vale of Health Society are interested to see suggestions for more attractive fencing beside the path, but reserve the	Accepted.	Palette of finishes / styles of fencing to be reviewed as part of detail design fencing will

	option to leave it as is. Also considered that the fence on the pond side of the path needs to be dog-proof (this is currently achieved with wire mesh), but the fence on the down side does not. H&HS suggest fencing style should be similar to existing and if existing fencing not used then the fencing should be in lower hardwood stanchions.		need replacing due to level change.
3.1.3	Consensus that path surfacing to remain similar to as it is now (no asphalt).	Accepted. Proposed finishes have been indicated on the Environmental Masterplans - footpaths will be reinstated to match existing.	
3.1.4	Crest restoration - 0.25m raising and 0.25m raised edge (with vegetation allowed to grow over) generally supported Vale of Health Society noted path to be raised (at the South end) by 250mm with a further 250mm upstand/kerb on the down side, where they would expect it to be quickly concealed by the natural vegetation.	Accepted. The design has been amended to show a simple raised edge. The height of the raised edge has been reduced from 250mm to 150mm.	The planting design along the raised edging will be carefully considered as part of the detail design.
3.1.5	Options requested on 0.25m raised kerb to achieve dam raising.	Atkins provided options in their Upstream Ponds Design Development Booklet	
3.1.6	Footpath is occasionally used for emergency vehicle access.	CoL have confirmed that the dam crest footpath is not a designated route for emergency access.	
3.1.7	Footpath used by buggies and wheelchairs. Needs to be gentle gradient.	Accepted.	Current proposed spillway side slope gradient of 1:12 to be reviewed as part of detail design.

3.1.8	Would like slope of spillway closer to Sequoia and to include natural dip.	The spillway is designed to avoid the natural dip which is a gully formed by erosion and could lead to further erosion of the dam fill. The general concept of this spillway is to carry water safely around the dam.	
3.1.9	Lighting to be retained.	Accepted.	
3.2	VIADUCT		
3.2.1	Clarity requested on alignment of spillway as it was considered that the spillway could take the water down the current path avoiding existing trees and shrubs.	The spillway should avoid the natural dip where the path sits as it could lead to further erosion of the dam fill. The general concept of this spillway is to carry water safely around the dam.	
3.2.2	Broken cladding to be repaired with similar timber. Review location of log piles. Behind fenced area would be ok.	Accepted.	
3.2.3	Mis-matching fencing to be retained.	Accepted.	
3.2.4	Self-draining path desirable as current path gets muddy. Split opinion on footpath finish - leave as it is or change to a bound gravel?	Noted.	May require further discussion with stakeholders and review of feedback during detailed design phase. General policy is to reinstate footpaths with the same finish as existing.
3.2.5	Wood piles should be located away from paths and ponds.	Accepted and adjusted on Environmental Masterplans.	
3.2.6	Additional marginal planting should not encroach too far into the water	Noted. Planting extents reviewed by Atkins Aquatic Ecologist and not considered to be an issue. Encroachment will be limited by either planting shelf width or tolerance of species to water depth. Species selection will ensure that encroachment is limited on ponds where plants are not constrained by geotextiles,	

		as they will be established in constructed planting shelves.	
3.2.7	Comments were made regarding the use of the pond for fishing, the potential for four pegs and extending the pegs into the pond away from path. Vale of Health Society considered no fishing pegs should be included	Noted - Viaduct is an existing fishing pond. The quantity of silt and water quality currently prevents its use for fishing.	CoL considering requirement for fishing pegs to reduce conflict with walkers using the footpath across the dam. Discussions with the Hampstead Heath Angling Society are continuing.
3.2.8	Concern that works might interfere with Kingfisher bank.	Atkins confirmed not affected by design.	
3.2.9	Proposed brick cladding at Highgate No.1 and Men's Bathing could be similar brick to that of Viaduct Bridge.	Noted.	Material selection will form part of the detailed design.
3.2.10	Meaning of the thicker black line was questioned.	Atkins has clarified on Environmental Masterplans.	
3.3	CATCHPIT		
3.3.1	Fencing around old Catchpit should be removed and possibly reused elsewhere on site. H&HS have suggested that if a fence is required that a low rail or even fencing is preferable to railing.	The fence will be removed as part of the dam construction, as the existing Catchpit will be filled in. As a design principle Atkins are trying to minimise new fences and may be able to avoid a new fence around the proposed inlet screen. The suggestion of reuse elsewhere on the Heath is noted.	
3.3.2	Boardwalk south of new dam could help access across wet area/ potential opened channel – not everyone agrees. H&HS suggest that the existing valley should be retained and not converted to wetland.	Noted.	Atkins will consider design of wetland area downstream of Catchpit in the context of the feedback from PPSG. The boardwalk will be replaced by a “crossing point”, design to be

			developed.
3.3.3	Could the dam be made steeper to have smaller footprint?	Atkins advised that maximum slopes of 1:3 are desirable for maintenance (currently 1:3 north slope and 1:4 south slope).	
3.3.4	Previous concerns about loss of mature trees.	Atkins have addressed by moving the dam further north. This also results in less material required from borrow pits.	
3.3.5	Could there be access across the dam?	Atkins confirmed there would be public access but informal only, so there would only be a reinforced grass surface on the dam crest.	
3.3.6	Will the dam be seen from Pryors Field?	Atkins confirmed there would be views initially but views could be screened by new vegetation once established.	
3.3.7	Request for tree planting to plug gaps around Catchpit dam.	Small tree and shrub planting is planned for the upstream face of the proposed dam and for surrounding area.	Planting proposals to be developed as part of detail design. Species which are suitable for coppicing will be selected.
3.3.8	Could there be replacement planting on the dam?	See above. Atkins advise only on the north slope and this would be smaller trees/shrubs such as Hawthorn/Blackthorn/Elder/Goat Willow.	
3.3.9	Planting required on both sides of dam.	See above but south side must be grass similar to current dam at Men's Pond to ensure PMF can pass safely.	
3.4	MIXED BATHING POND		
3.4.1	Concerns regarding proposals to reduce overhanging trees and impacts on nesting water birds.	Accepted.	CoL to review as part of Management Plan.

3.4.2	Ensure that planting palette results in only low growing marginal fringe so that views from dam are not obstructed.	Accepted.	
3.4.3	Cladding of wall to be finalised.	The proposal is to raise the dam by 0.5m with a bank, and 0.5 m wall which will be covered by marginal planting.	
3.4.4	Details of the proposed fence at the pond edge needs confirming.	The fence should be the minimum required to prevent people from unauthorised swimming from the dam.	
3.4.5	Retain the existing wooden post and steel rail on the Hampstead No 2 side of the dam although it was noted that the type may vary.	COL to review requirement to retain this fence.	
3.4.6	Railing should match those on both sides. Discussion around railings which are safe but do not look imposing - fence should be the absolute minimum required for safety and also to prevent swimming from causeway.	See above.	
3.4.7	Request for details of the low growing marginal flowering plants.	Accepted.	Detailed design phase, but note will be added to drawing regarding species, typical heights etc.).
3.4.8	More specific details of the northern end of the pond scrub clearance and reed bed construction.	Accepted.	More information provided at detailed design regarding form of species, typical heights etc.).
3.4.9	Query if a speed bump should be included in access to slow people on bikes.	The existing speed bumps would be retained as these are higher up the slope than the proposed works.	
3.4.10	Path surface should match existing ie tar and chip but strong enough for vehicles	Accepted. Design principle is to reinstate footpaths with the same finish as existing.	

	– H&HS have suggested no black asphalt.		
3.4.11	Trees – request for the term ‘self-seeding’ to be dropped as all trees on the Heath are this. Need to be aware that even category C trees are important parts of the landscape.	Self-seeding is an ecological term.	
3.4.12	How will the proposals at Mixed Bathing affect trees?	Atkins consider that five category C hawthorn and blackthorn within surveyed groups G27 and G1136 will be affected at east end of dam.	
3.4.13	Replanting of clump of hawthorn and blackthorn at south east corner where removed as they screen off an open bit of land and are a nice feature.	Noted.	
3.4.14	This is the only pond on this chain with wheelchair access for anglers. If there is to be no angling here, is there to be provision elsewhere?	There is a plan to provide disabled access at Hampstead No. 2 and at Model Boating Pond.	
3.4.15	Support for causeway solution (with 0.5m raising and 0.5m bund) proposed by Atkins is good and will improve the area as it is now.	Noted. This has been included on Environmental Masterplans.	
3.5	HAMPSTEAD No 2		
3.5.1	Culvert dimensions need to be included on the Environmental Masterplan.	Accepted.	These will be included on Environmental Masterplans.
3.5.2	Why can't a mole be used to save both trees? Can the culvert move further west?	The Panel Engineer does not want to bore/ pipejack through the dam since this procedure has been known to cause leakage paths in the dam around the outside of new pipes (see the example of Warmwithens dam failure of 1970). A large tunnel boring machine would	

		be required for this size of culvert. The residual risk of impact of trees would still exist. Engineers did consider alternative construction methods but they were unfeasible.	
3.5.3	Can the culvert be more curved to reduce impact on trees? H&HS have also suggested that the curve should be widened to avoid the plane trees.	The curve will remain the same but looking at pollarding the tree to potentially save the London Plane tree (No 0177)	
3.5.4	Consider ways to reduce erosion to the banks. Install fishing pegs on the west bank.	To be considered.	Discussions on fishing provision are on-going.
3.5.5	Install cladding to cover existing sheet piling. Cladding detail to be finalised.	Cladding to match culvert finish.	
3.5.6	Details of the 0.2m edging need to be provided.	Noted.	Details to be included with the planning application will provide information on the 0.2m edging. Exact shape and material can be discussed at detailed design.
3.5.7	Request for details of screening the inlet drop shaft as this will be visible from the Mixed Bathing Pond dam.	Noted.	Details to be included with the planning application on the inlet drop shaft - cover type and material to be discussed at detailed design.
3.5.8	Retain the existing style of fence.	Accepted.	
3.5.9	Request for an additional tree at east end of causeway to screen buildings.	There are landownership and utilities issues which mean it will be difficult to plant trees at eastern end of dam.	
3.5.10	Support for proposed tree planting –	Noted. Atkins have proposed semi mature tree	

	request for other species than just London Plane. Suggested existing stump good location.	planting on Environmental Masterplan.	
3.5.11	Incorporate planted areas on east bank with fishing pegs. Concern that location in south east corner would be too limiting for disabled anglers.	Noted.	Discussions on fishing provision are on-going.
3.5.12	Dredge south-east corner where platform for disabled fishing access was proposed. Point made about wider issues through loss of disabled fishing access at Mixed Bathing and Model Boating Ponds.	Noted.	Discussions on fishing provision are on-going.
3.5.13	15 th May group did not like idea of wooden decking over the inlet dropshaft, preferred to extend a slab over the shaft, with the same surface to match the existing footpath. Conversely, H&HS have suggested that asphalt should not be used and that timber decking should only be used for fishing platforms.	The aim is to provide disabled fishing access from this location – an appropriate surface will be selected to enable this.	
3.5.14	Details of platform/cover over culvert outlet to next pond.	Noted.	Details to be included with the planning application Atkins to develop further as part of detail design.
3.5.15	On 15th May concern was expressed about possible “dog diving” if a platform is introduced over the culvert entrance.	Noted.	

	Pond dipping was not supported either.		
3.6	HAMPSTEAD No 1		
3.6.1	Return periods for proposed design for Hampstead No1 and HG1.	The return period is at least 1 in 1000 years at both these ponds.	
3.6.2	Show the effect of the coppicing in the working area.	Accepted. Environmental Masterplan has been amended to show this.	
3.6.3	Plans to show the dimensions of the box culvert	Accepted. Environmental Masterplan has been revised to show all culvert / spillway widths	
3.6.4	Request for detail on the screening of the box culvert inlet on the pond side.	Accepted. Environmental Masterplan has been revised to show screening details including reed planting will be developed for the planning application drawings.	
3.6.5	Request for detail or the screening of the existing dam as this will be more obvious as a result of tree works.	Accepted. Proposed planting has been included on the Environmental Masterplan between the fence and the outlet - tree and shrub planting cannot be implemented on the crest or grassed downstream slope.	
3.6.6	Agreement in relation to creation of more reed edge planting.	Accepted.	
3.6.7	H&HS have advised no black asphalt should be used in any footpath surfacing.	Noted. The footpaths on or near the dam are not affected by the works for this pond.	
4.0	HIGHGATE CHAIN		
4.1	STOCK POND		
4.1.1	Similar fencing to be retained and dogs kept out of water.	Accepted. This has been included on the Environmental Masterplan.	
4.1.2	Similar path surface to be retained as this is an important vehicular access route from Kenwood Yard - preference not black asphalt and reiterated by H&HS in their	Accepted. This has been indicated on the Environmental Masterplan.	

	comments.		
4.1.3	Aerator would be too noisy at this tranquil spot.	Atkins advised a mobile aerator could be used if necessary.	Atkins will review during detail design.
4.1.4	No interpretation boards wanted.	Accepted.	
4.1.5	Approval of suggestion to move footpath south (downstream) and save more trees.	Footpath has been repositioned to protect veteran oak.	
4.1.6	Unhappy at level of tree loss at spillway and would like more information on why the spillway is sweeping around the side.	The general concept of this spillway is to carry water safely around the dam. If spillway is put on middle of dam, which is steeper, then the flows will potentially be much faster. The location of the scour pipe (in the middle) is also an issue. Atkins has looked at alternative options with CoL but found that moving the spillway to the middle of the dam was not possible due the steep slope on the south side.	
4.2	KENWOOD LADIES' BATHING POND		
4.2.1	Existing building outline shown	Noted.	Atkins will amend on environmental plan to show proposed layout option.
4.2.2	Sight lines into Ladies' Pond must be checked.	Tree removal will not affect view into Ladies' Pond as majority of tree loss is on north side of the path way. A site meeting with KLPA confirmed this.	
4.2.3	Trees at risk of removal should be marked.	Trees have been marked on a detailed map. A site meeting has also been provided.	
4.2.4	Consider bridging the spillway.	This has been discussed with the Kenwood Ladies' Pond Association (KLPA). The current option, however, is to minimise work at the spillway by not building over it.	
4.2.5	Use tree and shrub planting to plug gaps	Accepted.	Planting options to be discussed

	and provide additional screening.		with the KLPA. Provides opportunity to enhance ecological value of existing planting.
4.2.6	Need to protect trees on boundary.	Accepted. This has been taken into account when locating the spillway on the dam. This avoids the trees which screen the pond from other parts of the Heath.	
4.2.7	Incorporate feed from Kenwood into valley.	Atkins have proposed some improvement works/check dams.	
4.2.8	Could the west path be made wider?	This path will be maintained as it is now.	
4.2.9	Path currently gets very wet – could a causeway help here?	Atkins consider that this is currently due a leak which adds to this problem. It is hoped this will be fixed after the work has taken place.	
4.2.10	Enclosure and privacy important.	Accepted	Environmental Masterplan– New planting along western edge to include shade tolerant, native evergreen species such as Holly or Yew. Provides opportunity to enhance ecological value of existing planting.
4.3	BIRD SANCTUARY		
4.3.1	Could fenced area be extended to stop people cutting around back and making route muddy. It was noted that some people in group like the muddy route.	Noted.	To be discussed and agreed with CoL as part of the future management plan for this pond.
4.3.2	Show pipe location.	Accepted.	To be shown on the Environmental Masterplan.
4.3.3	Could we provide a bridge over north	CoL's aim is to maintain a wet meadow and not to	

	western boggy area connecting to Ladies' pond?	formalise this area in line with the Management Plan	
4.3.4	General support.	Noted.	
4.4	MODEL BOATING POND		
4.4.1	Will the increased steepness of the west bank affect slope stability?	No. Safe slopes and adequate drainage are a fundamental part of the design.	
4.4.2	Slope gradient queried – will it be too steep to walk up plus concern expressed over appearance of hill - will it look like a quarry. Need to provide a better comparison between the existing east bank and the proposed west bank slopes. H&HS have suggested in their detail comments that the reprofiled west bank is no steeper than the landform on the east bank.	Noted.	Cross sections will be submitted as part of the planning application.
4.4.3	H&HS have suggested in their detail comments that an island is not required and an L shaped peninsula would be better as the channel would become silted up over time.	Accepted. Access to the island will be provided by a causeway as discussed with PPSG.	
4.4.4	Majority opinion that access should be provided to the proposed island eg to allow safe access to retrieve model boats. The island and pond should not become a nature reserve – concerned noted re litter Not agreed exact details of this, could be	Accepted. See above.	

	bridge, boardwalk or a wet causeway to the island. Possibly include fencing on island		
4.4.5	Varying opinions on whether or not to use board walk around planted areas on island to prevent heavy foot passage.	Boardwalk considered too formal for the Heath's natural aspect.	CoL advised this is not required.
4.4.6	Ensure the parallel paths on the west bank aren't too close together.	Noted. The upper path accommodates maintenance vehicles while the lower path is for pedestrians only.	
4.4.7	Ensure there is sufficient access to the water around the pond for model boats and fishing. Model Boating Pond is the only pond with access all the way round. Is fishing from the island to be permitted? If so, from platforms?	A balance between hard and soft edging is being proposed to provide access for fishing and model boating.	
4.4.8	Are we having pegs on southern dam or just gaps in proposed planting, or no planting at all?	In consultation with HHAS, the proposal is to maintain fishing access and include disabled access.	
4.4.9	Requirement for fishing pegs on the east bank need to be discussed. Consensus that fishing pegs not required as currently no conflict between users and anglers.	Conflicts do exist and pegs/platforms are a means to help resolve these issues.	
4.4.10	Some stakeholders do not want softened edges to excavated banks or the raised dam, others do. Eg, concern over the safety of people in relation to the 1:3 slope into the water and the use of the planting platforms for	The excavated bank will need to have a hard edge in some places so a channel can be of the correct depth. The hard edges will be softened with planting. Other areas on the western edge will have softened edges, as will the new raised dam. The new design will be safer for the public than the existing situation.	

	access to the water.		
4.4.11	Edge sections requested with planting details relating to access issues. H&HS have suggested in their detail comments that at least 80% of the bank should be accessible and that the extent of marginal planting should be reduced.	Noted.	Typical details and cross sections will be provided for meeting on 26 June.
4.4.12	Request for timber cladding on the existing east bank sheet piling and concrete. 13 th April and 10 th May groups preferred to continue cladding around entire pond perimeter. H&HS have reiterated this in their comments.	East bank to remain in current state.	
4.4.13	Types of path surface including path across the dam should be reviewed. Tar and chip preferred on busier routes. H&HS suggested black asphalt should not be used.	Accepted.	Environmental Masterplan. Materials will form part of the detailed design.
4.4.14	Group on 15 th May not supportive of fishing platforms. They do not think there is any conflict between anglers and walkers.	Conflicts do exist and pegs/platforms are a means to help resolve these issues.	.
4.4.15	Will forming a channel around the island affect the trees on the island – can they take extra saturation?	No – trees will not be affected.	
4.4.16	In regards to the Bronze Age landscape at the top of the Tumulus hill, a request for locations of trial pits and methodology of MOLA when examining.	MOLA have now prepared a watching brief. Nothing of archaeological interest was found.	

4.4.17	Would like clarity over what the proposal will look like.	Noted.	Atkins will submit verified photomontage views with the planning application as requested by LBC
4.4.18	Request for access path to be moved further up the west bank and looped around the willow so the tree can be retained.	Accepted. Path to be repositioned to save tree.	
4.5	HIGHGATE MEN'S BATHING POND		
4.5.1	CoL needs to review the requirement for the "Pond Hut", could this be removed completely as a bund is having to be installed to protect it.	Upon review CoL have decided there is no requirement for a bund. Pond hut will be sacrificed in PMF event.	
4.5.2	Options for cladding the existing sheet piling. Timber or Brick - preference from West Hill Court and Millfield Cottage is a brick wall. H&HS have suggested in their detailed comments that <i>'the wall should be faced on both sides with oak picket fencing, slightly higher than the wall, and no higher than the existing fence. This should be further hidden by low growing plants, or climbers such as honeysuckle, which would not need to be pruned continuously to keep it from growing above the fence.'</i>	Noted.	Materials will form part of the detail design
4.5.3	Options for preventing unauthorised access to the pond from the spillway	Accepted.	CoL have asked Atkins to consider a collapsible fence.

	should be reviewed.		
4.5.4	Maintaining fishing access to the dam needs to be discussed. Can there be pegs or gaps in proposed planting on southern dam face for angling?	Noted. CoL aiming to retain fishing access from dam.	Further discussions with HHAS required
4.5.5	Issue of safety and distance between new sheet piled wall and existing sheet piled wall.	Noted.	
4.5.6	Timber spillway deflecting wall to utilise corten steel posts and oak boards – need to avoid tropical hard woods. Designed to follow the profile of the slope.	Accepted.	Atkins to consider further as part of detail design.
4.5.7	Comments regarding both opening up views of the pond and avoiding disturbance to the habitat were recorded. H&HS suggested in their detailed comments that 2-3 windows should be opened up.	Noted.	CoL to review as management issue.
4.5.8	Concern expressed with regards cutting back trees that overhang ponds.	Noted.	CoL to review as part of Management Plan.
4.5.9	Can the guelder rose tree on the proposed spillway location be saved, as it rare on the Heath?	Arboriculturists have concluded that the tree in question is not a guelder rose but a non-native Cockspur Hawthorn.	
4.5.10	Can the path along top of dam be widened – it is encroached upon by trees.	This is a maintenance issue.	
4.5.11	H&HS have suggested that black asphalt should not be used.	Accepted.	
4.5.12	Could there be a storage area created to	This would require a deeper spillway and a lot of	Not to be taken forward.

	the west of the Men's Pond where the ground is flat.	excavation in an area where works are otherwise limited. Consequently this is out with the scope of the project as it would impact on the natural aspect of the Heath and would not be in line with the objectives of the Ponds Project and the management of the Heath.	
4.6	HIGHGATE No 1		
4.6.1	Return periods for proposed design for Hampstead No. 1 and Highgate No. 1.	The return period is at least 1 in 1000 years at both these ponds.	
4.6.2	Existing landscape to extend west, south and east of Highgate No. 1. (Significance of the area shaded light green needs clarification), to show direction and depth of flow of water beyond spillway.	Topographical survey has been undertaken.	The area downstream of the spillway will be modelled using the survey data.
4.6.3	Consideration of additional overflow at Highgate No. 1. (This is noted on your summary table of spillway details as tbc at DD stage) but is also part of our feedback.	City have reviewed design and spoken with Camden and Thames Water. An additional pipe to the sewer system will increase the flows off the Heath and is therefore would not be in line with the objectives of the project.	Not to be taken forward.
4.6.4	Crucial question from downstream residents is, 'how much safer will we be after the work has taken place?' These answers are needed now - the 1:2000 and the 1:5000 need to be modelled. We are trying to be supportive but it is very difficult without this information.	The key points are that, 1) the risk of flooding due to dam failure will be virtually eliminated and 2) the frequency of flooding will be the same downstream of Hampstead Chain and improved from 1:100 to over 1:1,000 on the Highgate Chain.	Modelling after detailed design will demonstrate standard of protection.
4.6.5	Depth of gas lines.	Query relates to additional storage. This is outwith the proposed scheme. Creating storage on or within the hillside would impact on the natural aspect of the Heath and would not be in line with the objectives of the Ponds Project and the management of the Heath.	

4.6.6	Consider arrangement of reed bed extensions and views into the pond.	Noted.	This will be picked up in the Management Plan.
4.6.7	Proposals to increase habitat complexity were agreed.	Noted.	
4.6.8	Plans need to show where trees on the dam will be coppiced. H&HS have suggested in their detail comments that the pond side of the wall should be screened with coppiced trees and low shrubs on the dam crest.	Noted. This has been indicated on the Environmental Masterplans.	Atkins will add to the
4.6.9	Concern regarding tree loss – on dam and in spillway. Details on the dam need sharing with neighbours.	Accepted. A meeting on site with residents took place on 4 June.	
4.6.10	Wall cladding – brick facing was requested for consideration. H&HS have suggested in their detail comments that yellow brick or an oak picket fence should be used on the pond side and as preferred by residents on the other.	Noted.	Material selection will form part of the detailed design.
4.6.11	West Hill Court RA have suggested that horizontal wood cladding would be a more attractive alternative to picket style fence.	Noted.	Atkins to consider further as part of detail design.
4.6.12	H&HS have suggested in their detail comments that black asphalt should not be used for surfacing footpaths.	Accepted.	Material selection will form part of the detailed design.
4.6.13	West Hill Court RA have suggested that the footpath finish should not add sediment to the pond or lead to a	Path surfaces will be chosen so they are appropriate for their location. Atkins has incorporated measures in the design to capture this sediment along the inflow	

	deterioration in water quality.	stream.	
4.6.14	Tawny owls live here and are missed off the bird survey. They are important as they help control the rat population.	Information passed onto ecologist.	
4.6.15	Query on 15 th May if additional storage area for water could be created to the west of Highgate No 1.	This is outwith of the proposed scheme. Creating storage on or within the hillside would impact on the natural aspect of the Heath and would not be in line with the objectives of the Ponds Project and the management of the Heath.	
4.6.16	Request to save the lime tree on the dam with sheet piling or a bund.	Engineers have consulted with arboriculturalists but the location of this tree at the front of the spillway means this is not feasible.	

Appendix C: Questions and Answers from the Development Management Forum (3 June 2014)

Development Management Forum

5 June 2014

Parliament Hill School

Q&A

Robert Sutherland Smith

Q: Why are Camden restricting the kind of questions which can be asked?

Ed Watson: We are not, we are grouping the questions in order to get the most out of the meeting.

Robert Sutherland Smith

Q: Why is proper consideration not being given to the Hampstead Heath Act 1871.

Philip Everett: The 1871 Act is at the forefront of the plans but we also have the 1975 Reservoir Act which we must follow. We are trying to find a balance between the two pieces of legislation.

Robert Sutherland Smith

Q: Why have no alternatives been offered?

Mike Woolgar: We did look at various alternatives such as removing the dams completely. This was unacceptable. The proposal we have put forward is the best way of passing the PMF while keeping the Heath looking as natural as possible.

Robert Sutherland Smith

Q: Why are you building the dams to withstand an event that is never going to happen (1 in 400,000)?

Philip Everett: As we explained, we know the PMF is very unlikely to happen but that is the standard which is in the ICE guidance for reservoirs in the high risk category – which all of the Heath's reservoirs fall into.

Brian Wilson, local resident

Q: We've been told people are at risk of dying – if this is the case why have residents not been warned?

PE: We have updated flood maps as part of our emergency plan. These will be going on the website.

Brian Wilson: But you are not currently doing anything about it so your position is untenable – you said you cannot accept the risk but you currently hold the risk. What is the evacuation procedure?

PE: We have done an analysis and looked at where the water would go but we have not knocked on everyone's door individually.

Noah Frank, local resident

Q: Dams need to be capable of withstanding a PMF but what does that mean? Could they not be rebuilt to look similar to how they do now but with more strength?

Mike Woolgar: We need to pass the PMF safely but without hard engineering such as visible concrete. Rebuilding the existing would not achieve what needs to be achieved.

Lady swimmer

Q: The risk of London flooding (from Thames) is much higher than that of dams collapsing so can the money not be spent to try and reduce the flooding risk?

Philip Everett: The City of London is not responsible for surface water flooding across the whole of London. They are responsible for making sure the dams on the Heath do not collapse and add considerably more water to the flooding situation.

Geoff Goss

Q: As Chair of the Highgate Men's Pond Association I am totally opposed to the work. It is based on spurious facts such as the 1 in 400,000. Not based on what has actually happened. Why don't you model the 1975 flood?

Mike Woolgar: We have studied the 1975 flood although we have not run it through the model. This is because it falls within the envelope of floods we have modelled. We know it was somewhere between a 1:10,000 and a 1: 20,000. We have modeled 1:10,000 and we have modeled PMF so the dams we are proposing will withstand an event of the 1975 size. From the City's perspective it would be of no use to model the 1975 event because the City and Atkins must follow the guidance, which say the dams must be able to withstand a PMF.

Tony Hillier

Q: The speakers have all avoided the point that in the QRA it clearly states that 1,100 people would have already died due to surface water flooding, and if the dams collapse 1,400 die. Why is the City doing all of this work to protect the marginal 300 people?

Philip Everett: My job is to make sure no lives are lost due to dam collapse.

Dan Brown, pond swimmer

Q: Would you welcome a court judgment which took the legal responsibility away from the City?

Philip Everett: I would welcome views on where we are going wrong. So far no one has told us this.

Mick Farrant, Oak Village Resident

Q: My house was flooded in 1975. After this event a large system was built to take excess water – what part does that play in this scheme?

Philip Everett: It will not affect the scheme.

Edward Knight

Q: Is everyone on the panel agreed that it is a 1:400,000 risk? If so this is madness.

Mike Woolgar: No – the flood size we must pass is a PMF. The PMF does not have a figure attached to it. The panel engineer makes a judgment on whether a collapse could cause death and if so then the dam must be able to withstand the PMF. The 1:400,000 comes from the QRA which we were asked to do. The QRA normally comes at the end when a scheme has been designed to analyse the

cost/benefit ratio. It is not used in the design process. In a QRA we must give the PMF a number and a calculation was done which came out as 1:400,000. This number is a red herring and is not used in the design process.

John Dollar

Q: Large flood relief tunnels were built after the 1975 event. That is why the area has not flooded since. What was done after 1975?

Cathleen Mays

Q: In storing more water on the Heath are we not creating an even larger risk of dam collapse?

Mike Woolgar: The point of storing the water is to slow down the flow and take the energy out of it. We are not trying to store the whole PMF – it is too much water but if we store or hold back some water temporarily it will help control the flow and reduce the amount going over the top of the dams.

Q: Is it not true that dams covered in trees are far stronger than those with no trees?

Mike Woolgar: No, if you have an obstruction on a dam like a tree it concentrates water in that area which then causes erosion and damage as the water finds channels to flow down. This can eventually lead to so much erosion the dam is no longer stable. If you have an open grass area the water will not find a channel but will flow over the whole area safely with less erosion.

Q: Why is the project not based on empirical evidence that exists – rainfall date, 1975 event?

Mike Woolgar: We have studied the 1975 event and it has been used in our calculations along with local rainfall data from other smaller events. We have modelled smaller events but we cannot design to a lesser event as we must follow the standards set out in the guidance.

Philip Everett: The dams will also protect against smaller events – there will be less water leaving the ponds and it will happen less frequently.

Charles Leonard

Q: Can you tell me how safe we are at the moment and how safe we will be after the work has taken place?

Mike Woolgar: Hampstead Chain is 1:1000 at the moment and will remain the same. Highgate Chain is 1:100 and will go up to 1:1000.

Prem Holdaway

Q: After 1975, Thames water put in three six-foot pipes. One for the overflow from the drains and two for the run-off from the Highgate chain. These were six-foot in diameter with each pipe having a surface area of 1.76 tons of water. That's if I have done my sums right, this equates to 28 tons of water per second. So why are designers not making more use of this capacity?

Mike Woolgar: Outflow pipes have been taken into account – they do exist and take water down to the sewers, which will also be receiving water from elsewhere and are likely to be running at full capacity. Outflow pipes only have a marginal

impact during large flood events and will have a very marginal impact to our designs.

Lady swimmer and local resident.

Q: Last winter we had the most rainfall on record but the ponds did not fill up – why?

After working in insurance I know it is impossible to eliminate risk. Would the Thames Barrier withstand a PMF?

Mike Woolgar: The Thames Barrier protects against tidal flooding – sea/storm surge. It does not protect against rainfall which is a completely different sort of flooding. Tidal flooding is easier to predict. The Thames Barrier protects against a 1:1000 and at some point it will need to be replaced. In winter we had long term continuous rainfall which reservoirs can handle as they have outflows designed to handle it. The rivers flooded as they do not have the same outflows. The sort of rainfall we are worried about is a short sharp storm – like the type of event that often happens in summer without warning and deposits an enormous amount of water in a short period.

Matthew, Dartmouth Park resident

Q: How many times greater in magnitude is the PMF compared with the 1975 storm?

Mike Woolgar: I don't have the figures to hand and it is not a linear comparison. It needs to be plotted on a graph. It is perhaps double.

Q: People are worried about the motives. Are the City trying to make the Heath more like a nature reserve? We need an independent company to be brought in to look at this.

Philip Everett: We have had three different studies: Haycock, Aecom and Atkins. I must justify the work to the City of London members which is why we have had three different people look at the issue.

Q: Who are the people who sit in their basements during a storm? Can they not be warned for £15m?

Philip Everett: We can't force people to leave their homes – that is not our job. Our job is to make sure the dams do not collapse making the situation much worse.

Male swimmer

Q: Is QRA online?

Philip Everett: Yes, it is on the City's website.

E Watson: We can provide a link to this information

Male swimmer

Q: Why are Camden not webcasting these meetings?

Ed Watson: At the moment we do not webcast but it is something we can look into for future.

Mary Hogan, swimmer

Q: Would you welcome a different opinion on whether the project should happen?

Philip Everett: The City does not want to spend £15m but it has no choice – the risk is unacceptable.

Mary Cane, swimmer

Q: If elected members have been told that they are personally responsible for deaths then it is morally reprehensible that they have not warned those in the flood zone.

Ed Watson: Letters have been sent to addresses in the flood zone.

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