

HAMPSTEAD HEATH PONDS

A CRITICAL REVIEW OF KEY ISSUES BY THE WATER MANAGEMENT STAKEHOLDER GROUP

Revision 01, February 2013



CONTENTS

INTRODUCTION	3
OVERVIEW OF HAMPSTEAD HEATH PONDS	4
STOCK POND	5
KENWOOD LADIES BATHING POND	6
BIRD SANCTUARY POND	7
MODEL BOATING POND	8
HIGHGATE MEN’S BATHING POND	9
HIGHGATE No.1 POND	10
VALE OF HEALTH POND	11
VIADUCT POND	12
CATCH PIT	13
MIXED BATHING POND	14
HAMPSTEAD No.2 POND	15
HAMPSTEAD No.1 POND	16
APPENDICES	17
APPENDIX 1: Responses from the Water Management Stakeholder Group	18

Date of Issue	Revision No.	Comments
17.01.2012	First Draft	Issued after 10.01.2013 Meeting
10.02.2013	Second Draft	Updated based on WMSG Comments
14.02.2013	01	First Issue to Design Team

INTRODUCTION

The following review of the Hampstead Heath ponds was carried out by Peter Wilder acting as the Strategic Landscape Architect for the Water Management and Stakeholder Group (WMSG) at Parliament Hill Staff Yard on the 10th January 2013 and 11th February 2013.

The report aims to capture the key objectives of the WMSG through the identification of the threats and opportunities that each pond presents in the process of implementing improvements to the resilience of the dams to extreme storm events as part of the Corporation of London's response to its obligations under the Flood and Water Management Act 2010 and the Reservoirs Act 1975.

This report is underpinned by the objectives of the Hampstead Heath Act 1871 which aims to preserve the Heath as a natural space in London for the benefit of all users and for the prevention of development or encroachment onto the Heath.

The following observations by the WMSG pertain to the improvement of the dams and assume that all measures necessary have been taken to minimise both the scale of development and the impact of the proposed works on the visual aspects and the use of the heath as an open amenity space by all users throughout the works. These observations are by no means exhaustive and represent an initial assessment by the group of key concerns and objectives in the delivery of improvements both to the safe operation of the ponds in passing storm water through the chains to a safe point of discharge and the safe operation of the ponds as a leisure amenity for swimmers, anglers, walkers and nature enthusiasts.

The observations noted should be read as an initial set of objectives as defined by the WMSG that are subject to elaboration and refinement throughout the design process. It is intended that these observations will form part of the key performance indicators of the group when assessing the design process undertaken by Atkins and the further development of a scheme for implementation of the works.

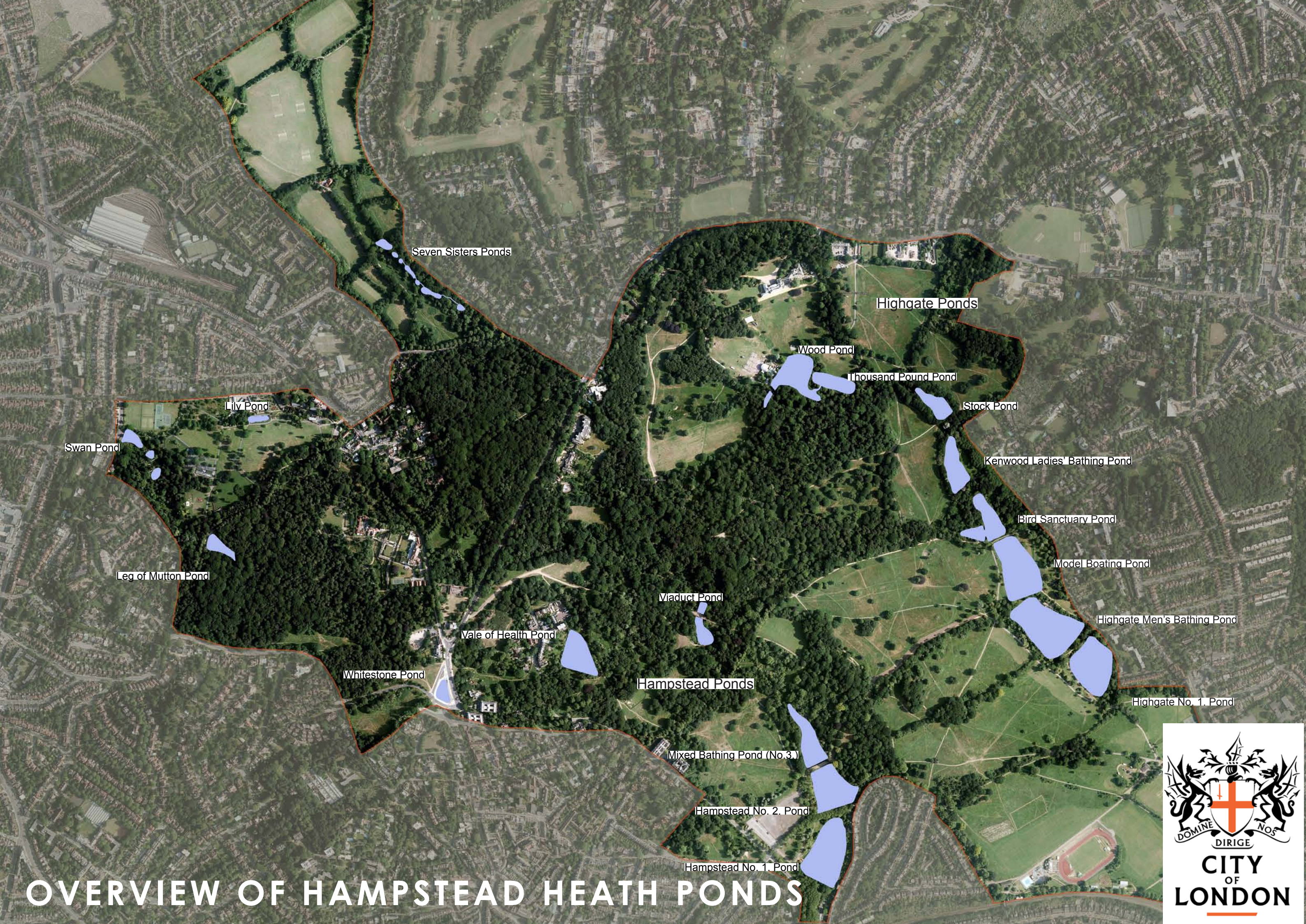
The comments provided by the WMSG assume that all technical, hydrological and ecological information in addition to any other data such as surveys of existing assets and services, be taken into consideration and be made available to the WMSG in order to inform their evaluation of the design process.

General comments on the overall development plan for the ponds reinforce the view that works should be limited wherever possible and confined to the less sensitive ponds in the lower part of the catchment. There is also a strong view from local residents that any opportunities to reduce the flood risk residents below the pond chains during normal and extreme events, notwithstanding the point above, should be given the most serious consideration.

Issues over the timing of the works and loss of amenity during the works are also key considerations, especially around the loss of access to the swimming ponds. There are concerns about the impact of the works in terms of the logistics of traffic, noise and confinement of the works to local areas around the ponds and although most of these issues will be under the control of the contractor, they should be considered at the design stage and in the phasing proposals of the design team.

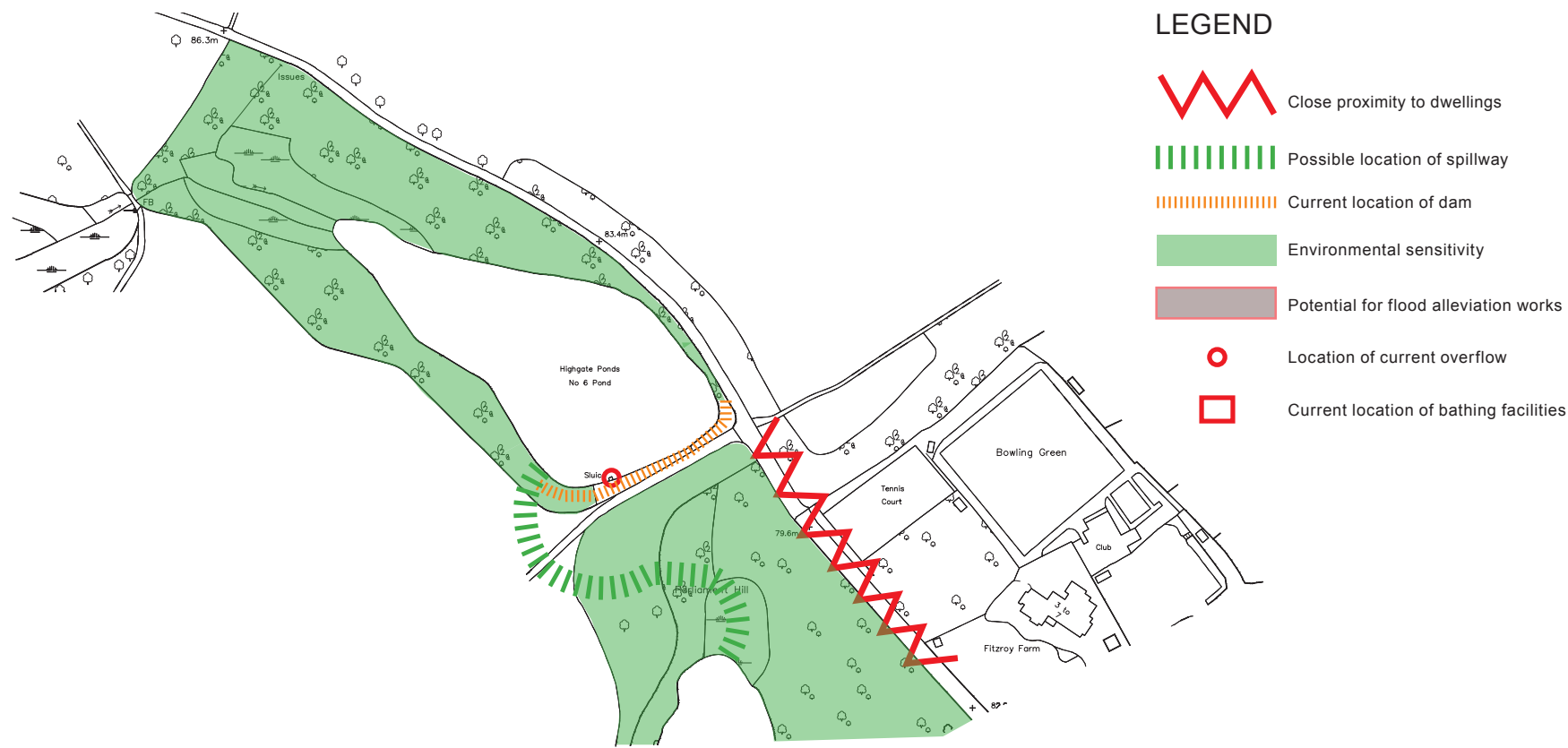
There is general consensus that any new dams proposed should look and feel natural, with no visible hard spillways or intrusive crest fences silhouetted on the skyline. Whilst there is a great desire for more information on the hydraulic modelling and evidence to support the capacity requirements of the dams, all stakeholders have made it clear that they will require both technical information and visualisations of the dams including 3D models and photomontage to understand the impact of the proposals in relation to the status quo.





OVERVIEW OF HAMPSTEAD HEATH PONDS





THREATS

- Loss of vegetation due to changes in water level.
- Loss of intimacy

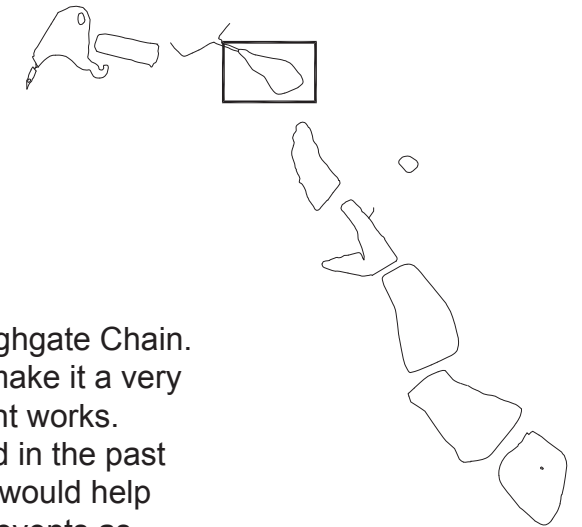
OPPORTUNITIES

- Improved discharge capacity
- Minimal visual intrusion
- Preserve natural character
- Improved ecology.
- Sensitive and light clearance of overhanging branches to restore valued 'windows' which are gradually disappearing.
- Water quality improvement
- De-silting
- Leave dam untouched if possible

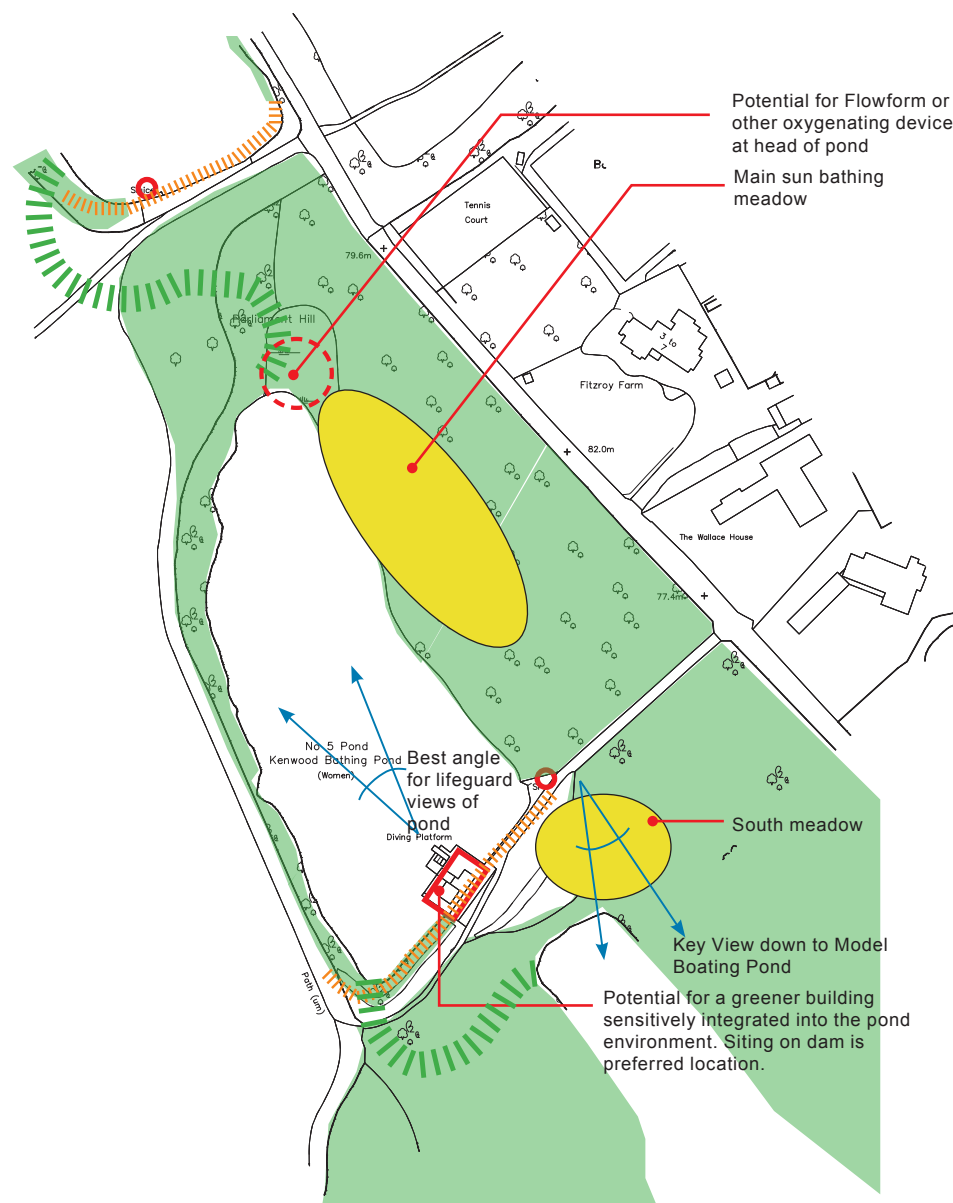
DESCRIPTION

The Stock Pond is the third pond in the Highgate Chain. Its intimate character and tree enclosure make it a very sensitive location for any dam improvement works. The Stock Pond has frequently overtopped in the past and improvements to its spillway capacity would help to improve its resilience to extreme storm events as witnessed in 1975.

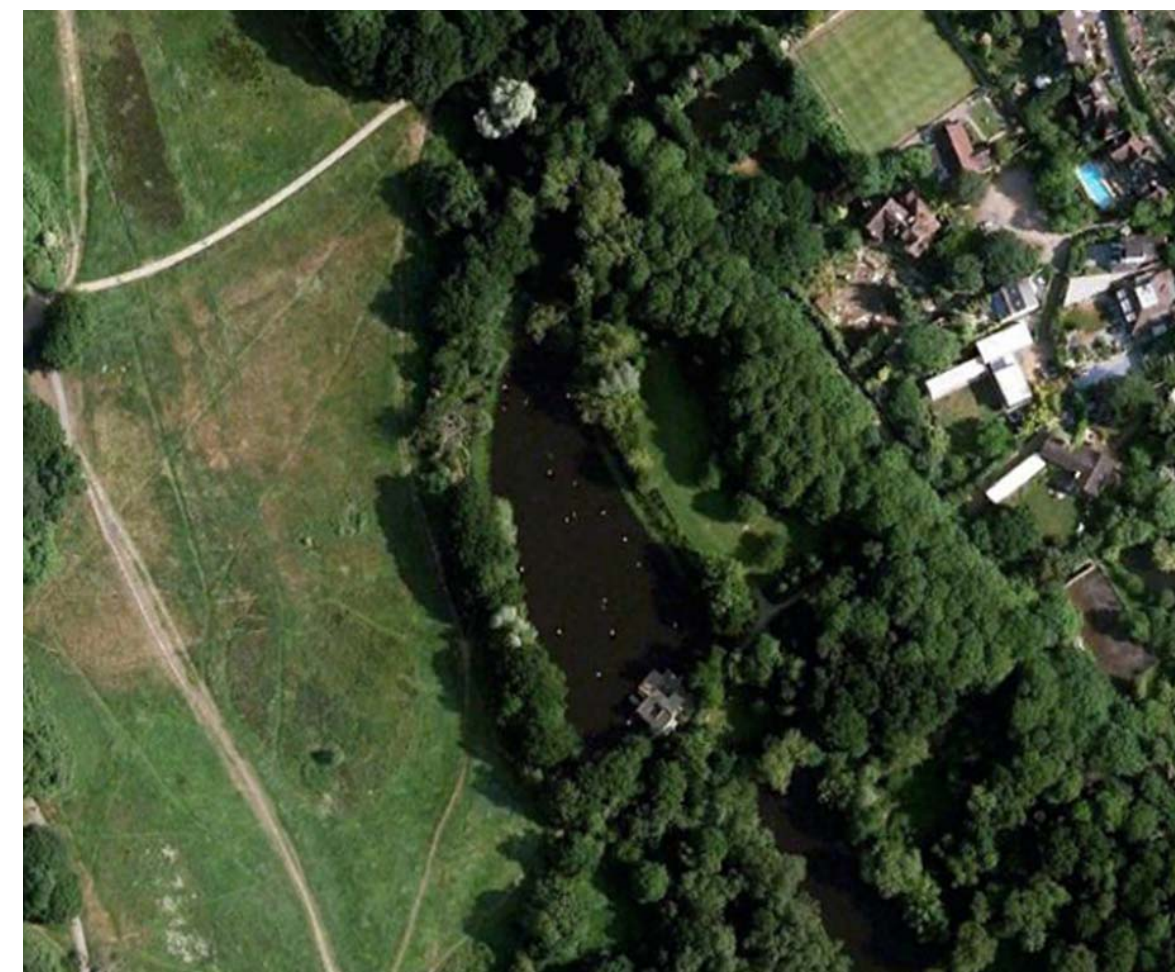
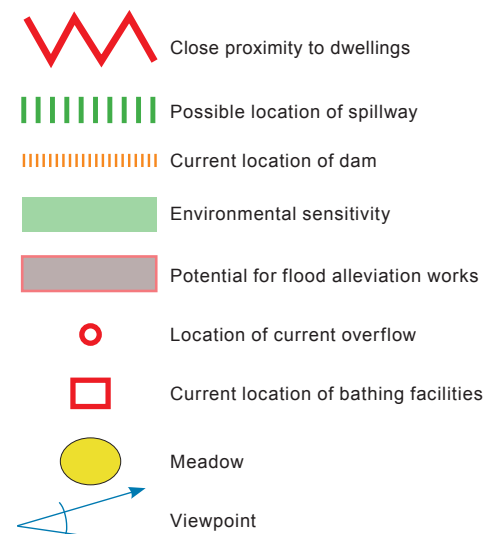
HIGHGATE CHAIN



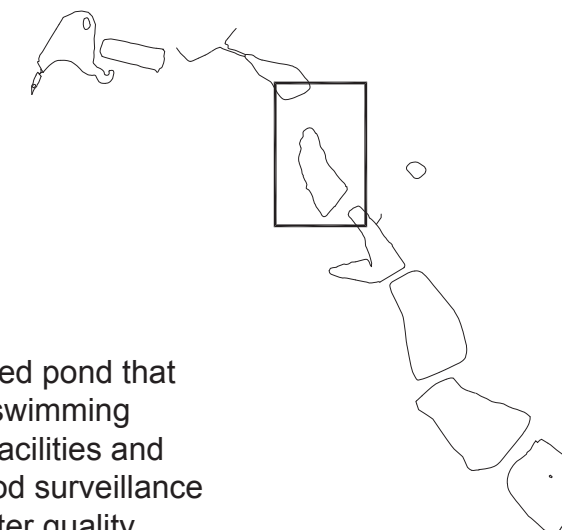
STOCK POND



LEGEND



HIGHGATE CHAIN



THREATS

- Change of Ladies Pond dam height impacting on meadow and on existing facilities.
- Loss of intimacy
- Loss of key views from south meadow
- Degradation of water quality through pond works
- Increase in hard standing
- Restriction of access through devices such as turnstiles.
- Impact of works on existing ecology of meadow area.

OPPORTUNITIES

- Improved soft engineered spillway.
- Maintain spirit of place.
- Improvement of water quality through Flowform Cascade or other aeration device at north end of pond provided that it is unobtrusive.
- Improved ecology.
- If a new facility is required due to changes in the dam configuration then it should be a sustainable low energy building with no increase in footprint.
- Retain historic entrances.
- Leave existing dam in tact if possible.

DESCRIPTION

The Ladies Bathing Pond is a well secluded pond that offers an opportunity for sunbathing and swimming without being overlooked. The changing facilities and lifeguard station on the dam wall offer good surveillance of the pond that is desirable to retain. Water quality in the pond is reasonable but measures to improve it through oxygenation would be welcomed.

KENWOOD LADIES BATHING POND



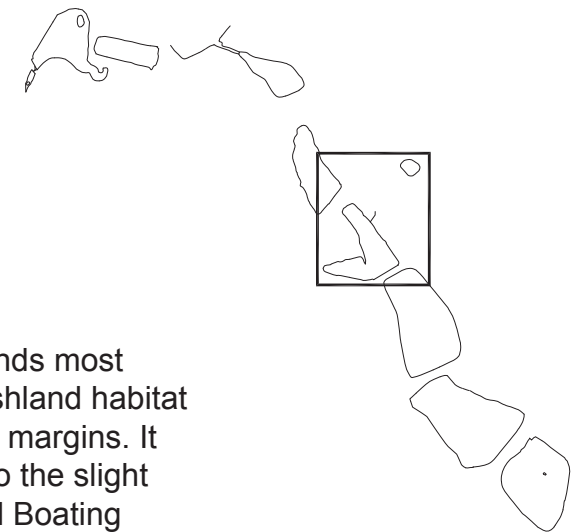


LEGEND

- Close proximity to dwellings
- Possible location of spillway
- Current location of dam
- Environmental sensitivity
- Potential for flood alleviation works
- Location of current overflow
- Current location of bathing facilities
- Kingfisher nesting area
- Existing marsh area
- Possible extension of marshland habitat protection zone
- Major route across the Heath



HIGHGATE CHAIN



THREATS

- Loss of Kingfisher nesting if the pond is greatly disturbed. (It has taken over 10 years to encourage Kingfishers to move in to the area)
- Loss of existing vegetation if pond levels are changed.

OPPORTUNITIES

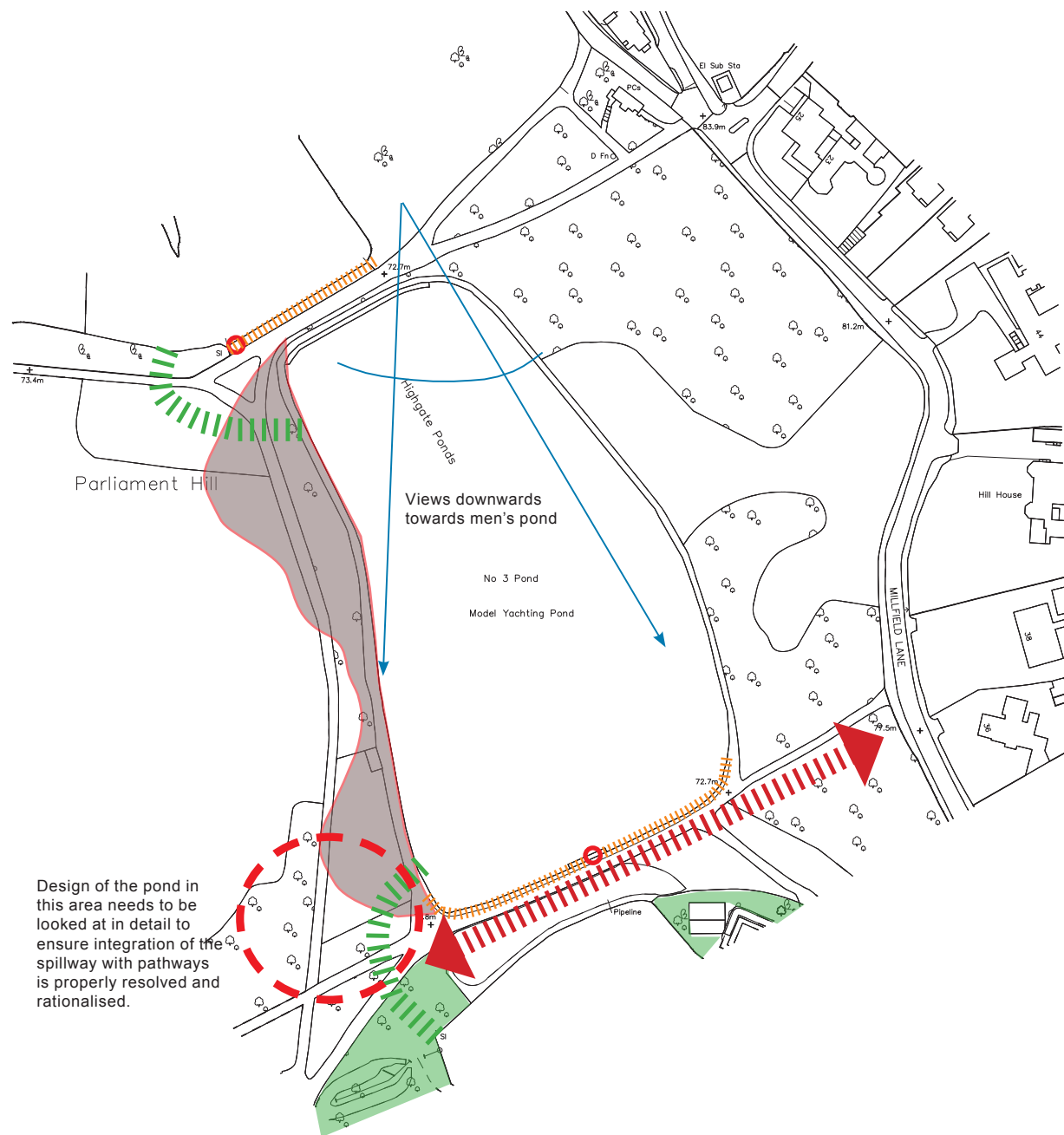
- Expand area of bird sanctuary.
- Remove invasive species.
- Water quality improvement through aeration and water movement, possibly via Flowform cascade in at northern end of pond.
- No increased storage or attenuation, leave pond alone if possible.
- Consider central dam overflow across existing path instead of constructing a spillway at the south-west corner of pond.

DESCRIPTION

The Bird Sanctuary Pond is one of the ponds most sensitive to level changes due to the marshland habitat and extensive tree cover around the pond margins. It is also one of the most robust dams due to the slight changes in level between it and the Model Boating Pond. The dam, which is more akin to a causeway, could be allowed to flood during times of peak rainfall if levels were raised on the Model Boating Pond.

BIRD SANCTUARY POND



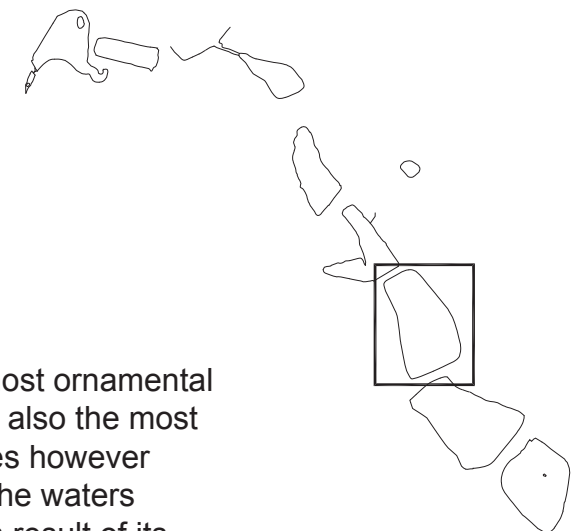


LEGEND

- Close proximity to dwellings
- Possible location of spillway
- Current location of dam
- Environmental sensitivity
- Potential for flood alleviation works
- Location of current overflow
- Current location of bathing facilities
- Highly used civic route
- Important views



HIGHGATE CHAIN



THREATS

- Loss of openness and views across open water
- Loss of access to waters edge

OPPORTUNITIES

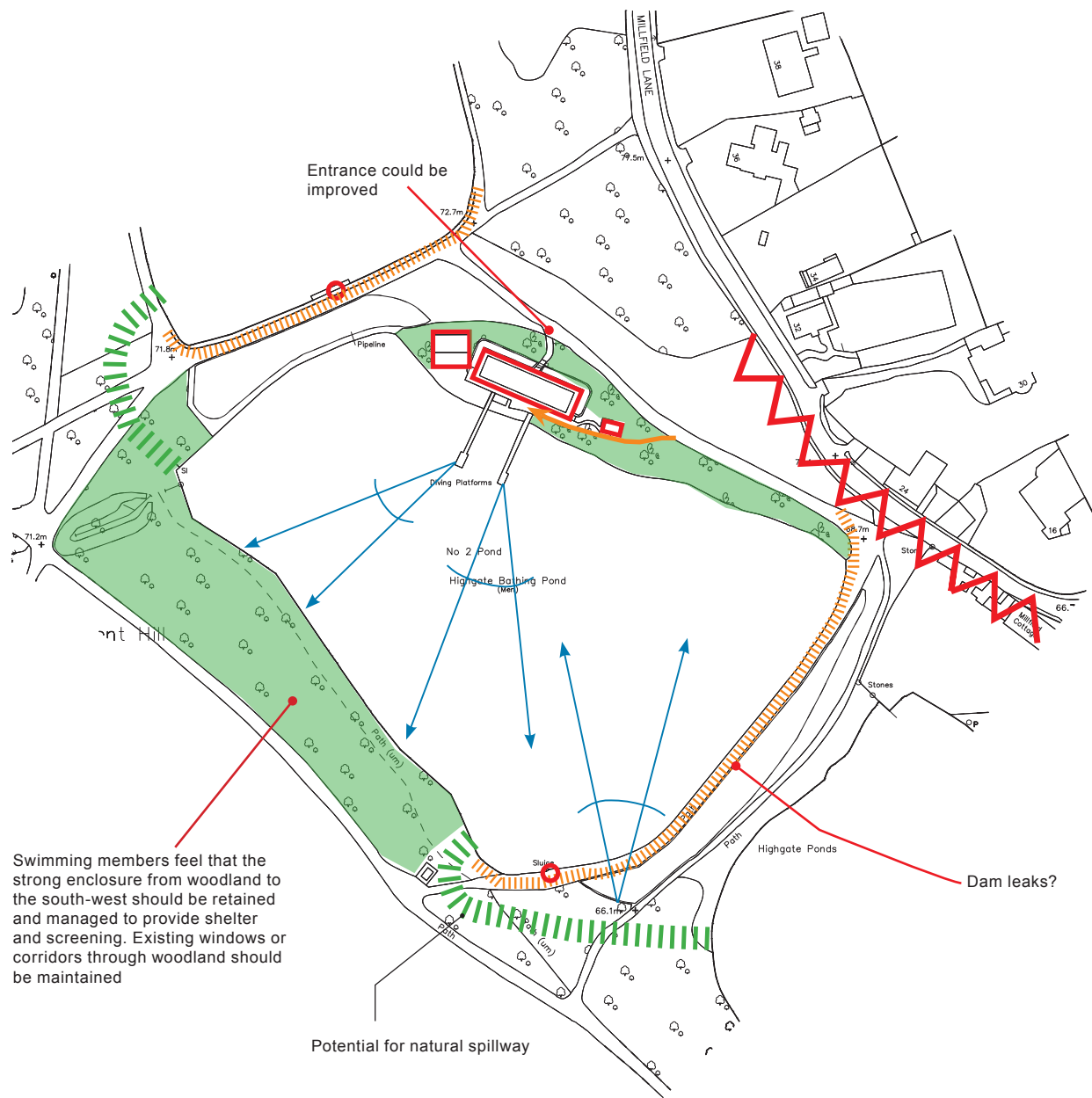
- Reduce sterility of pond margins
- Improve biodiversity and ecology
- Retain access to waters edge
- Provide a raised dam which provides greater attenuation capacity and with a natural spillway. Permanent water level would remain the same as the current level.
- Retain the ability for the pond to be used for model boating through the use of pontoons or hard edges on the eastern side of the pond.
- Extend the pond through excavation of the western edge to create a shallow and natural edge that acts as an expansion zone during storm events.
- Retain all existing trees
- Naturalise and soften existing dam crest and consider pathway(s) along dam if raised.
- Move fence on south side of dam crest to reduce constrained corridor.

DESCRIPTION










The Model Boating pond is perhaps the most ornamental of all the ponds on Hampstead Heath and also the most sterile with its sheet piled perimeter. It does however offer a unique opportunity to get close to the waters edge and provide views across water as a result of its design as a model boating pond and elements of this should be retained.

MODEL BOATING POND



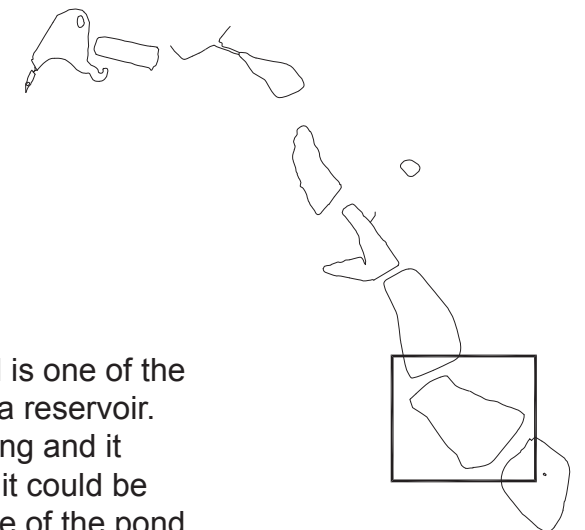


LEGEND

-  Close proximity to dwellings
-  Possible location of spillway
-  Current location of dam
-  Environmental sensitivity
-  Potential for flood alleviation works
-  Location of current overflow
-  Current location of bathing facilities
-  Possible new disabled route to changing facilities.
-  Important views



HIGHGATE CHAIN



THREATS

- Impact of major dam works on Boating Pond to north.
- Impact of development on neighbouring properties.
- Imposed swimming charges.
- Loss of enclosure.
- Loss of trees in woodland to the west of the pond.
- Loss of Poplar trees on downstream slope of embankment.

OPPORTUNITIES

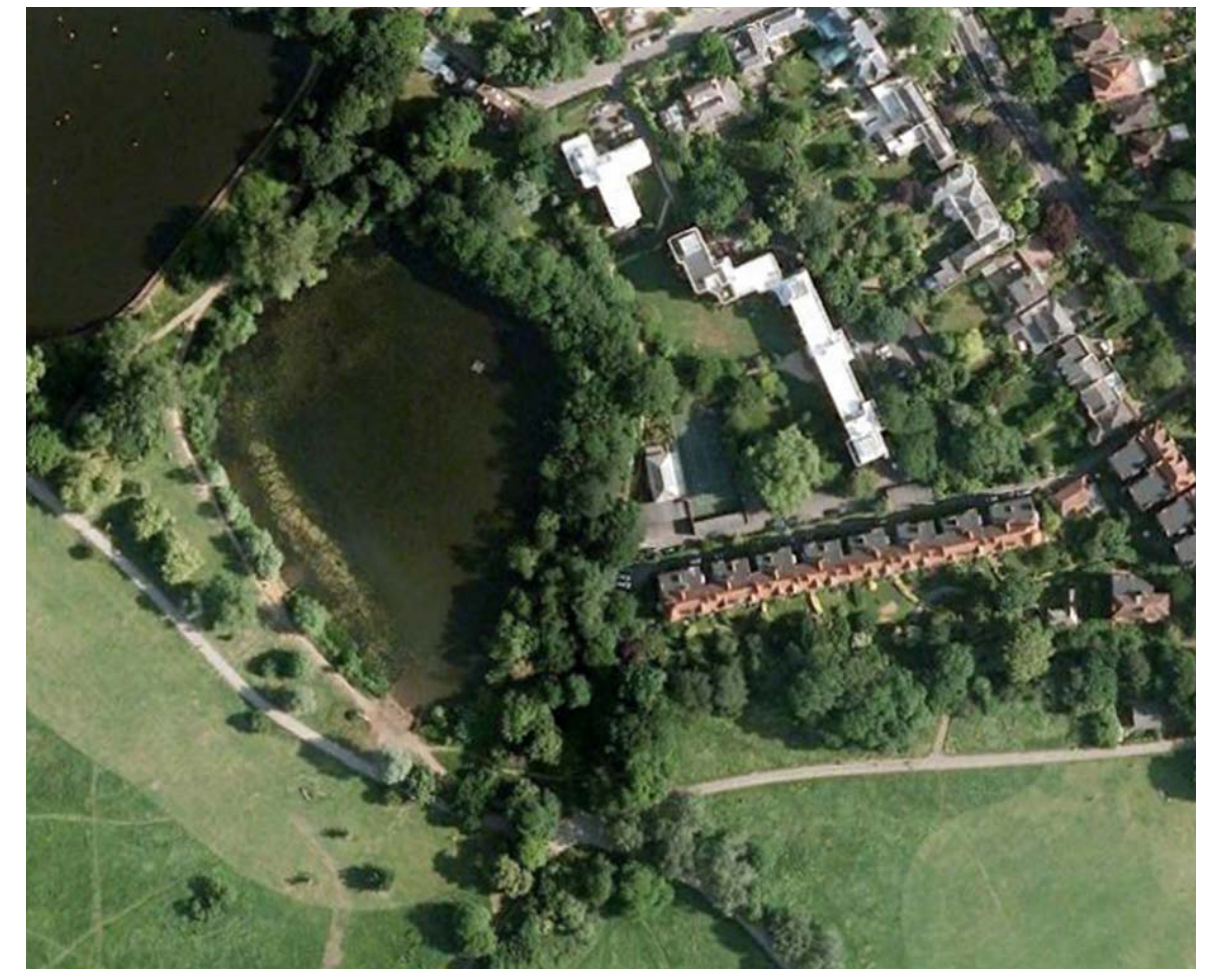
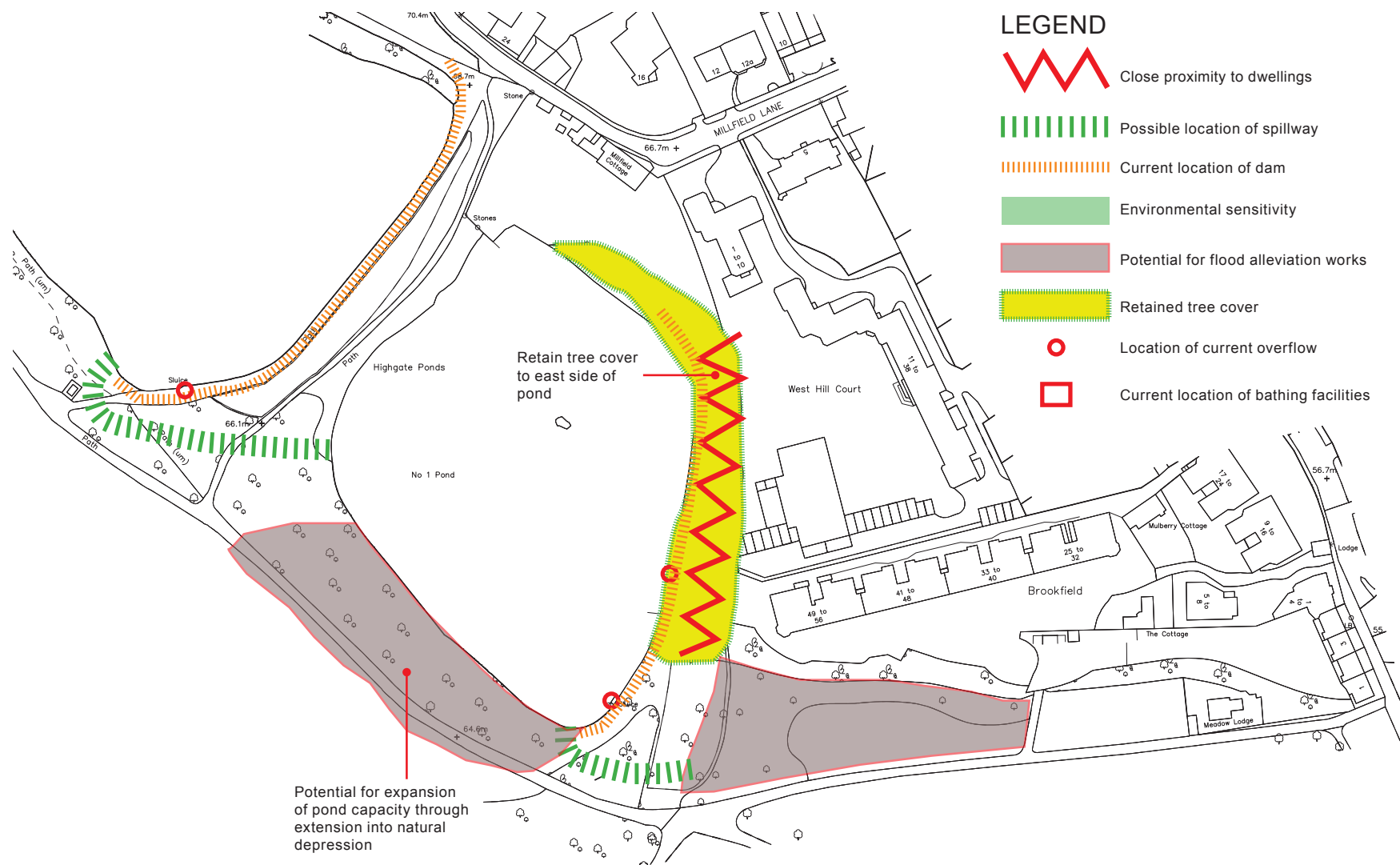
- Improved spillway to the south west corner
- Improved access to facilities for disabled via an additional entrance from the north-east path that would adjoin the current path from the changing area to the toilets.
- Keep the existing Men's Pond entrance open.
- Keep the Men's Pond toilets male only and add disabled facilities.
- Consider a small sunbathing area on the bank alongside the jetty.
- Water quality improvement.
- Existing 'windows' through woodland to the west of the pond maintained or enhanced.
- Naturalise and soften artificial dam crest and possibly move fence down the slope to remove from skyline views.
- Improve attenuation capacity by raising dam.
- Remove intrusive fence on west side of pond.

DESCRIPTION

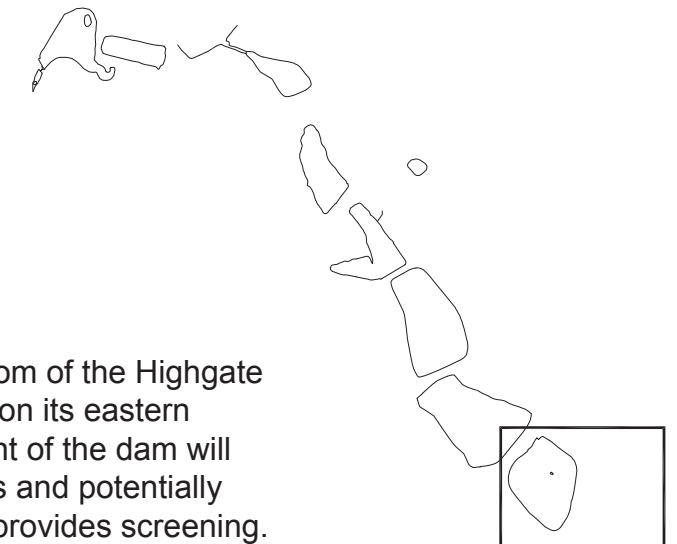
The Mens Bathing or Highgate No.2 Pond is one of the largest in the chain and now classifies as a reservoir. There are suspicions that the dam is leaking and it require remedial works already. If so then it could be possible to improve the attenuation volume of the pond. The pond is concealed by trees to the east and west but more open to views from the south and north. The current access to the bathing facilities from the north could be improved by a new route.

HIGHGATE MEN'S BATHING POND





HIGHGATE CHAIN



THREATS

- Loss of Vegetation on eastern edge and on dam if works are required.
- Loss of vegetation to the south of the dam which is particularly rich in biodiversity.
- Loss of enclosure of pond.
- Impact of development on Brookfield Mansions.
- Residents would like pre-development surveys carried out to measure the impact of works on the structure.

OPPORTUNITIES

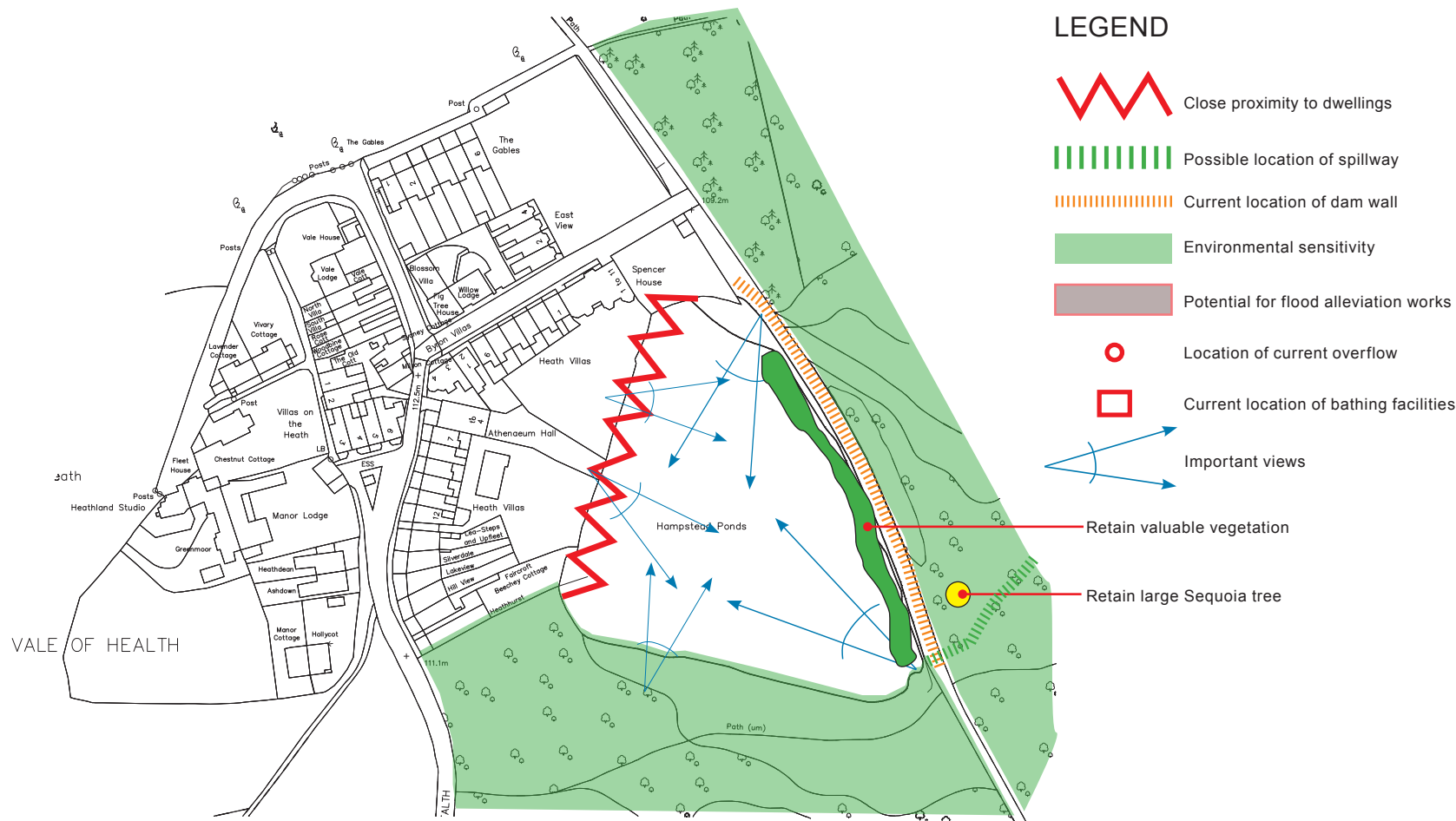
- Enhanced protection flood protection for Brookfield Mansions and other residents.
- Raising of the dam should be avoided if possible and additional storage capacity could be created by excavation and lowering of permanent water level.
- Consider expansion of the pond further west up to the existing pathway to create additional storage capacity.
- Improved management of overflow and potential for environmental improvements east of the dam.
- Any alteration below the dam wall should be viewed in relation to the flood protection offered to Brookfield Mansions.
- Water quality improvement.

DESCRIPTION

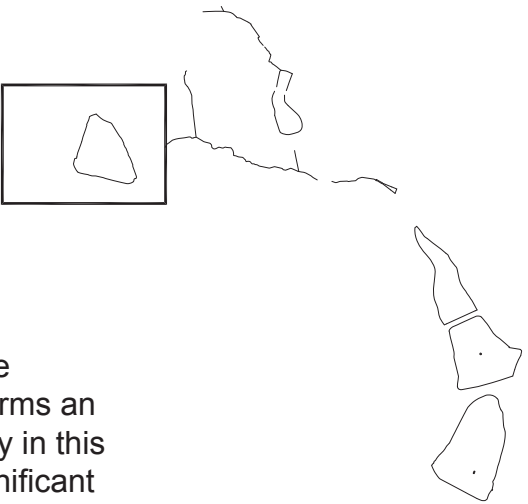
Highgate No.1 pond lies at the bottom of the Highgate chain and abuts closely to housing on its eastern perimeter. Any changes in the height of the dam will have an impact on nearby residents and potentially result in a loss of tree cover which provides screening. Water quality is poor and increased aeration/movement of water would be beneficial.



HIGHGATE No.1



HAMPSTEAD CHAIN



THREATS

- Loss of internal trees on eastern edge .
- Impact on key views.
- Loss of large Sequoia tree.
- Loss of access to waters edge.

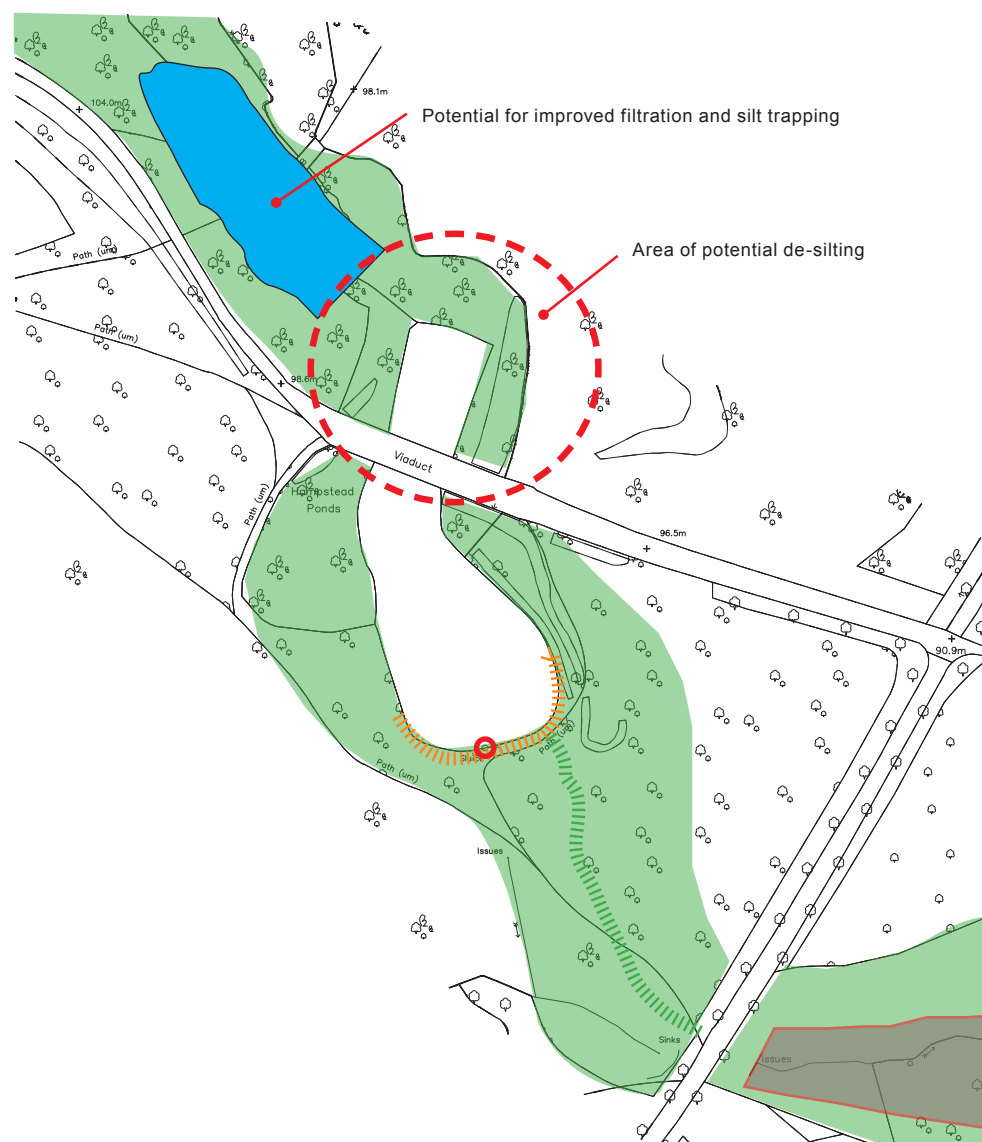
OPPORTUNITIES

- Retain trees at waters edge on eastern side of pond.
- Dam performance could be improved either through a new and natural surface spillway or piped outlet.
- There are opposing views as to whether the downstream valley should be opened up to improve views or to avoid further removal of trees to retain the enclosed nature of the valley.









DESCRIPTION

Lying at the head of the western branch of the Hampstead chain, the Vale of Health Pond forms an integral part of the character of the community in this intimate enclave. Unusually the pond has significant vegetation on the internal side of the dam and this contributes to the character of the pond. The spillway at the south-east corner of the site discharges into a valley east of the pond which provides pleasant views through the woodland. There is little scope for the improvement of the attenuation capacity of this pond.



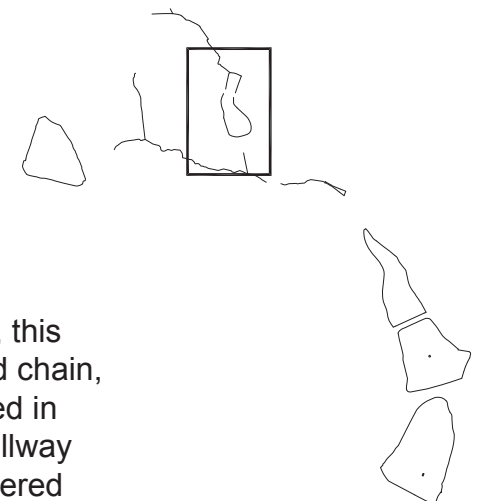


LEGEND

-  Close proximity to dwellings
-  Possible location of spillway
-  Current location of dam wall
-  Environmental sensitivity
-  Potential for flood alleviation works
-  Potential for stormwater wetland
-  Location of current overflow
-  Current location of bathing facilities



HAMPSTEAD CHAIN



THREATS

- Loss of intimacy and character if there is major loss of vegetation through raising of the dam height.
- Silt accumulation and loss of water quality.
- Loss of trees and vegetation on downstream slope.
- Visual alteration of the scenes as it is a popular subject for photographers of the Heath.

OPPORTUNITIES

- Improve overflow capacity through natural surface discharge system down east side of dam into valley.
- Creation of stormwater wetland to north end of pond to improve biodiversity and silt trapping.
- Combine works with de-silting of pond.

DESCRIPTION

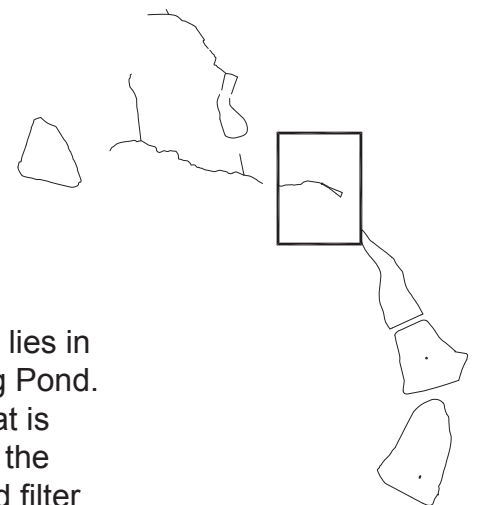
Set against the dramatic backdrop of the viaduct, this pond, one of the two top ponds in the Hampstead chain, is both intimate and intriguing. The pond has failed in the past and improvements were made to the spillway capacity and dam structure. It is therefore considered that minimal works are required to the dam. Due to its location at the top of the catchment it is prone to silting and improvement in the capture of silt through wetland planting could also enhance the ecology and water quality of the pond.



VIADUCT POND



HAMPSTEAD CHAIN



THREATS

- Loss of vegetation, including some fine veteran Poplar trees, and biodiversity
- Loss of route across the Heath during attenuation periods

OPPORTUNITIES

- Creation of a detention basin which is normally dry but provides additional capacity during all storm events. This would possibly reduce pressure on the need for works to the lower ponds in the chain.
- Enhanced biodiversity through the introduction of an ephemeral aquatic habitat.
- Possible introduction of a boardwalk that allows access when the area is used for water storage.
- Creation of a natural looking environment rather than a piece of new infrastructure.
- Any proposals should be carried out sensitively so as not to impact greatly on wildlife, trees or nesting birds.

DESCRIPTION

The catch pit is a small area of damp ground that lies in between the Viaduct Pond and the Mixed Bathing Pond. It is an area rich in vegetation and biodiversity that is currently traversed by an open walkway crossing the valley. The Catch Pit currently helps to collect and filter runoff prior to entering the Mixed bathing Pond and there is potential to enhance this function whilst protecting the biodiversity and providing additional attenuation capacity through the creation of temporary storage during storm events.



CATCH PIT



THREATS

- Loss of vegetation especially on eastern edge where there is only a narrow strip to screen from pedestrian access.
- Impact on key views south from pond if dam wall is raised significantly.
- Loss of seclusion and tranquillity.
- Timing of works - winter preferable.

OPPORTUNITIES

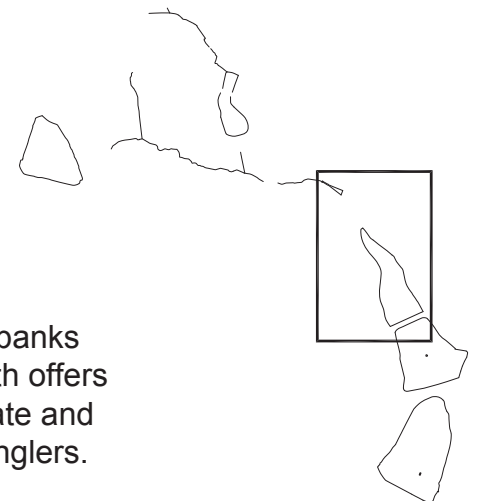
- Some minor improvements to facilities
- Dredging for both depth and water quality
- Improvement to water quality (dissolved oxygen content) through Flowform or similar device at the northern end of the pond, possibly solar powered.
- Improved design of overflow through a surface spillway at the south-west corner of the pond. This should be unobtrusive.
- Potential raising of causeway by no more than 1m for increased storage capacity.
- Move swimming platform further north to provide greater swimming area. The embankment south of the mixed pond should be gentle and sloping with no high vegetation to obscure views.
- Enlarge pond on west side where bank is collapsing.
- Improved screening of shower area.

LEGEND

- Close proximity to dwellings
- Possible location of spillway
- Current location of dam
- Environmental sensitivity
- Potential for flood alleviation works
- Location of current overflow
- Current location of bathing facilities



HAMPSTEAD CHAIN

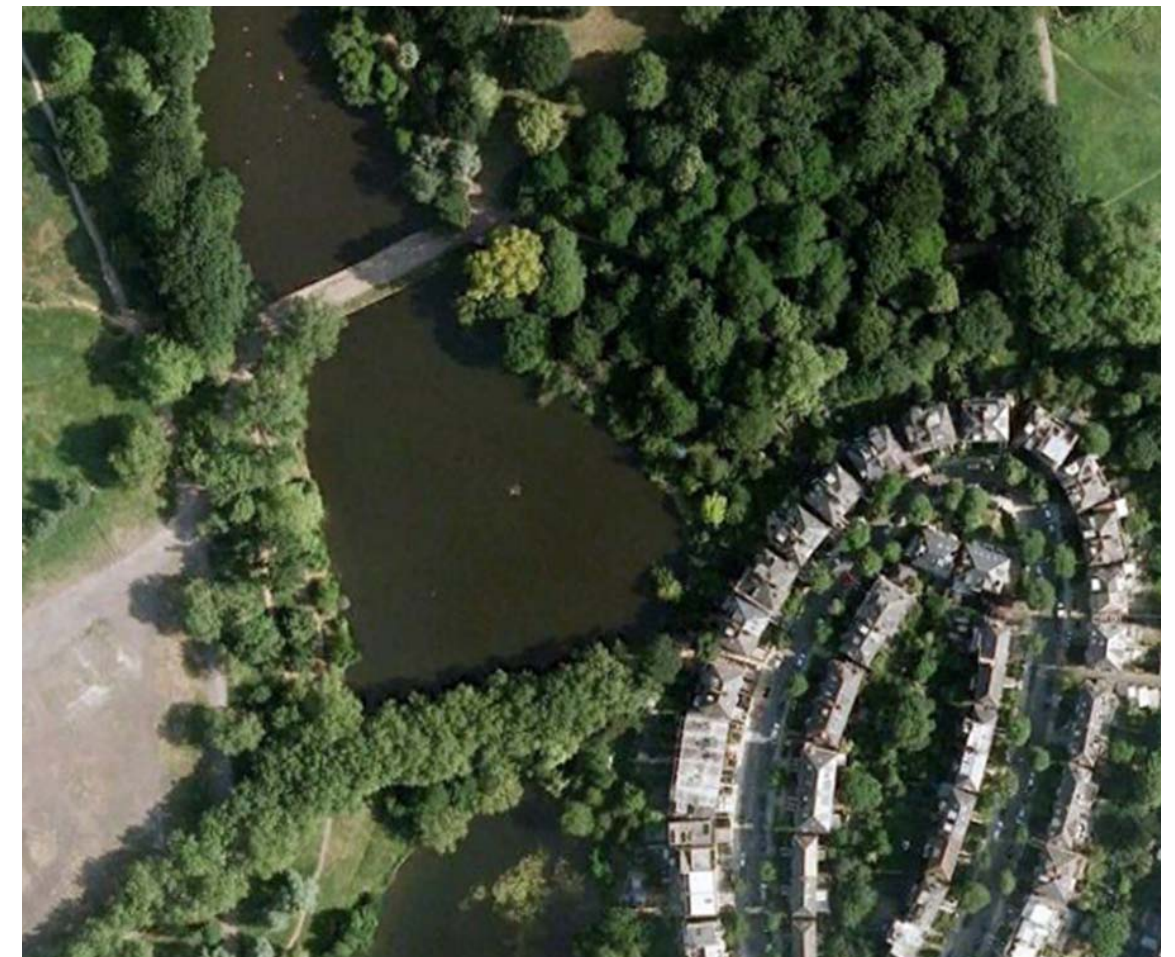
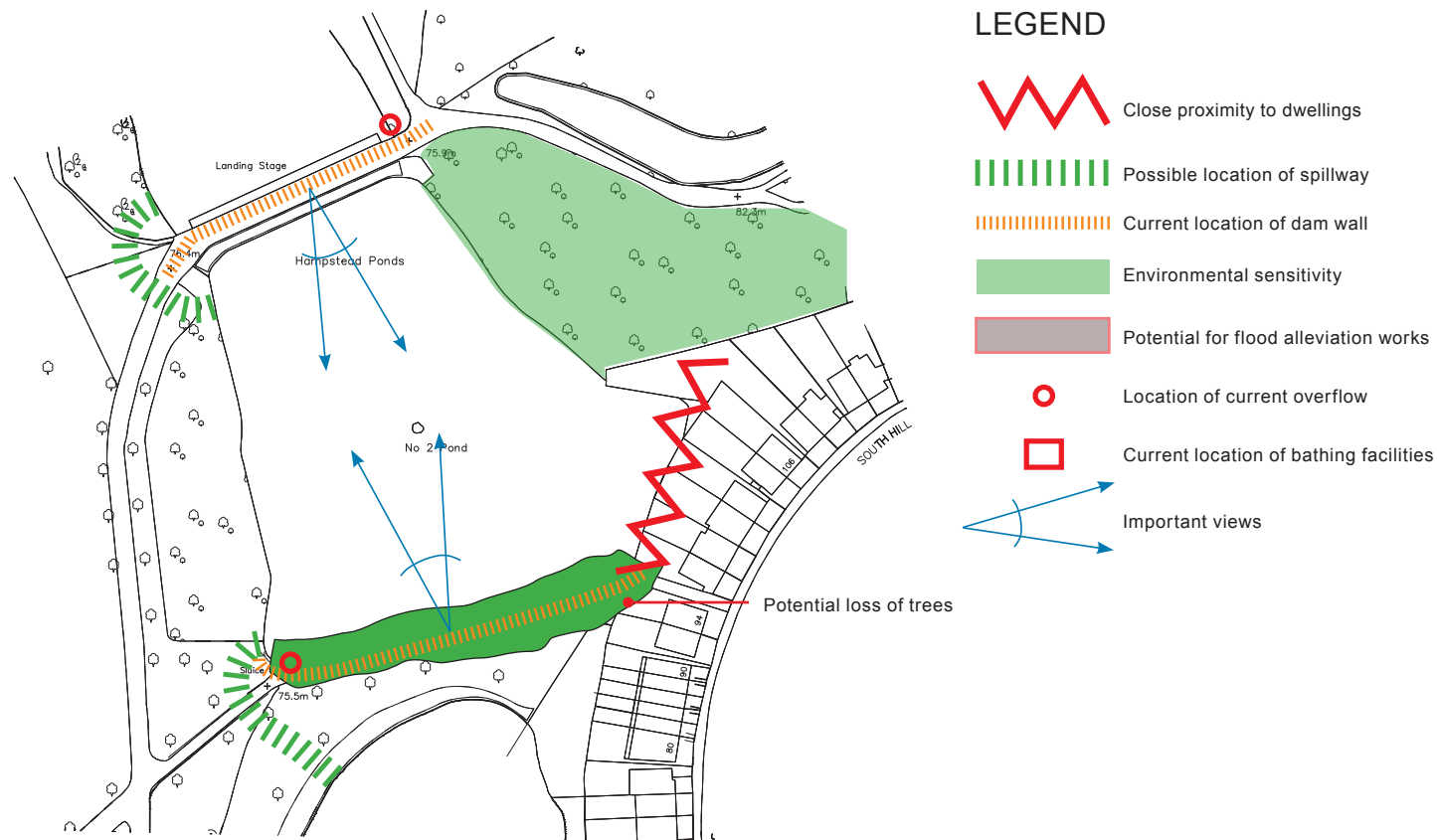


DESCRIPTION

The Mixed Bathing Pond, with its well vegetated banks to the east and west and its openness to the south offers a unique bathing experience on the Heath. Intimate and yet open it is accessible to both swimmers and anglers.

MIXED BATHING POND





HAMPSTEAD CHAIN



THREATS

- Potential loss of trees if Hampstead No.2 dam is raised or altered

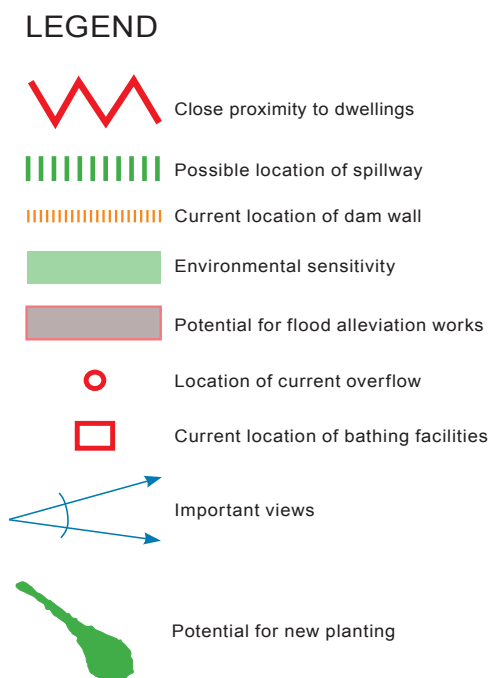
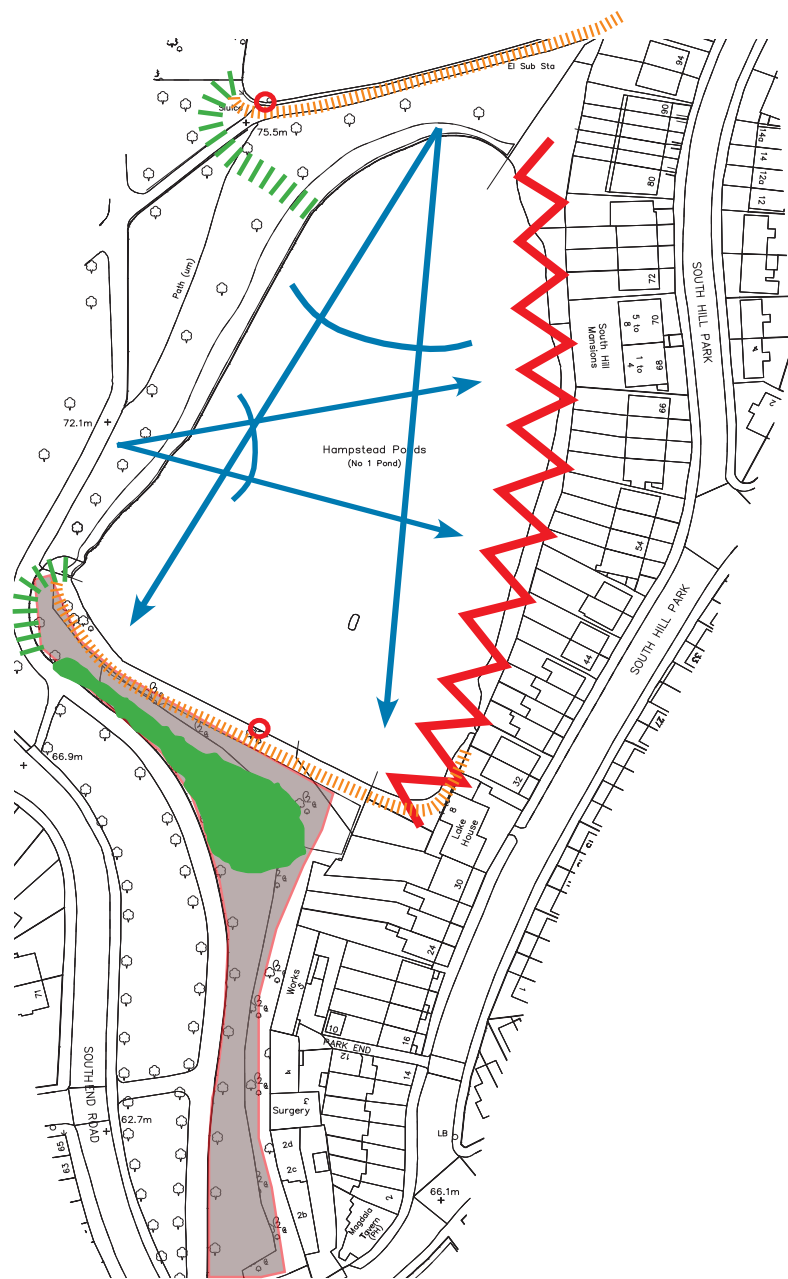
OPPORTUNITIES

- If it is found necessary to increase the dam height then a new wall on north edge of dam crest is preferable to the loss of trees and could provide a seating edge for anglers.
- Thrust bore of improved discharge in order to safeguard existing Plane trees on the dam crest.

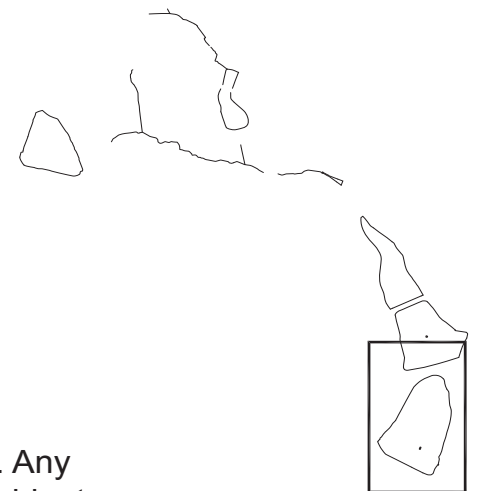
DESCRIPTION

The Hampstead No.2 is quintessential of the Heath character backing onto homes and woodland to the east and an open character to the west. There is potential to provide additional attenuation capacity on this pond but not without potential impact on the character of the area. In particular the avenue of mature Plane trees on the dam crest would be impacted by any works on the dam. Raising of the dam height on this pond should be a last resort.





HAMPSTEAD CHAIN



THREATS

- Loss of vegetation on eastern edge and on dam wall if works are required.
- Impact on key views.
- Loss of open views to pond from the western side.

OPPORTUNITIES

- Pillar box spillway on dam crest in order to reduce impact of spillway.
- Additional planting south of dam crest.
- Vegetation on toe of dam should be retained.
- Water quality improvement through improved oxygen content should be considered and care should be taken locate any proposals in order to reduce visual impact.
- Improved management of overflow and potential for environmental improvements south of the dam.

DESCRIPTION

The Hampstead No.1 pond lies at the bottom of the Hampstead chain and abuts closely to housing on its eastern and southern perimeter. Any development will have an impact on nearby residents and potentially result in a loss of tree cover which provides screening. Loss of vegetation on the dam wall should be compensated by planting on the dam toe.



HAMPSTEAD No.1

Appendix 1: Responses from the Water Management Stakeholder Group

Hampstead Heath Water Management Project
A Critical Review of Key Issues by the Water Management Stakeholder Group
Responses following Workshop and Initial Draft Document

EGOVRA's Response

1. We thank Peter Wilder for a useful exercise and clear report.
2. EGOVRA members met subsequent to the meeting and have agreed that, whatever else is to be included or excluded in the Works, our over-riding issue by far is that of downstream flooding. An holistic, balanced approach is needed that specifically addresses issue.
3. In particular, we do not want to end up having an increased risk of flooding from ANY sized storm (not just from the peak storm events) because of changes in water management resulting from the works undertaken.
4. To achieve this goal, it is essential that CoL works closely and pro-actively with LB Camden and Thames Water (and any other relevant organisation) in order to produce 'joined up' solutions, not just to prevent Dam Failure, but also to investigate and include measures to mitigate and decrease our risk from the smallest to the largest rainfalls (up to the Legally required event) of downstream flooding.
5. Balance and Legacy
 There should be an appropriate, good neighbourly inspired balance between, on the one hand, minimising the scale and impact of the development with, on the other hand, a goal of decreasing the risk of downstream flooding from whatever the source of water coming off the Heath.
 A beautifully designed, minimal impact outcome would leave a sour taste if this goal was not achieved.
6. With regards to Peter Wilder's pond by pond review, we agree with the majority of the points raised except where the report limits the Opportunities for improved attenuation to 'peak storm events'. We would hope that the dams and spillways are designed to attenuate for all storm events that could cause an increase risk of downstream flooding, not just for peak storm events.
7. Model Boating Pond:-
 We are very much in favour of focussing upon the benefits of developing and significantly raising the Model Boating Pond dam to provide much of the necessary increased attenuation for the chain.
8. Highgate No 1 pond dam:-
 We believe the attenuation properties of this pond should be significantly increased. Whether the dam should be raised or whether the pond's normal water level should be permanently lowered (or a combination of the two) to provide for the desired increased attenuation and controlled release needs further informed discussion.

 With regards to the proposed spillway on Highgate No 1 pond we are strongly concerned about the effects of changing the way water is released from this pond. At present the water is taken away underground. A spillway would presumably mean that the pond's discharges are classed as 'surface water'. Where will this water go? Will it still find its way into the Flood Attenuation Tunnels via the Highgate storm water sewer? Is this a good thing? Will the current underground pipes still be used as well as a new spillway? There are lots of questions that need investigating with regards to HG No 1.
9. Catchpit
 With regards to the Hampstead chain, we support the opportunity of creating additional flood storage capacity at the 'Catchpit' but, again, this should be during all storm events that might lead to an increased risk of downstream flooding, not just peak storm events.
10. Kenwood Ponds

Have the CoL and English Heritage been able to collaborate successfully with English Heritage upon how the Kenwood ponds could affect the CoL's plans for the top of the Highgate chain? Is there a danger of the Kenwood ponds releasing more water more quickly than the CoL is planning for?

11. Will the introduction of new spillways for the Stock pond and other ponds down the Highgate chain lead to a change in patterns and strengths of the water flowing through ecologically sensitive areas such as the Bird Sanctuary pond?

12. Mixed Bathing Pond
 We support the idea of improving the water quality by the use of a Flowform or similar device at the northern end of the pond and also support the idea of raising the causeway as being a good way of providing more attenuation in the Hampstead chain without impacting detrimentally to the swimmers and other Heath users.

13. Hampstead No 2 Pond:
 We particularly like the idea of the new wall - an elegant way of providing increased attenuation.

These points represent the core of EGOVRA's position but because we cannot distribute this report easily or quickly there may be further points yet to come from EGOVRA. In [REDACTED] absence on holiday, [REDACTED] ('Alternate') will channel any further comments should they arise.

EGOVRA.

Kenwood Ladies Pond Association

Dear Simon,

The meeting last night made the following statement:

We are pleased that already there appears to be much movement by the whole team at Atkins in realising that the nature of the Ladies' Pond is such, that any work has to be done with huge sensitivity. As you are aware the pond holds such a special place in the lives of so many women who swim there, but who also come because it represents a huge element in their daily lives. It is a place of very particular importance being both a swimming place but a whole area, which for many is the most "natural" that they know intimately. And for many women the place is one, which replenishes them and provides them with the necessary pleasures and strengths that they need when times are hard. Consequently there was large agreement that where possible, as little work should be done at the pond and, where possible, works should be done on areas above or around the Ladies Pond.

Ideally we would want nothing altered, and this is important when realizing that it is a mature and well loved place, one that is treasured both by women today but also for their daughters and friends. The ecology of the area almost warrants it having protected status for fauna and flora with the particular character of the flowers, which have established themselves in the meadows and in the areas around the pond as well as the bird life. (Today the pond was visited by a flock of siskins, to the delight of the swimmers who were there).

We are immensely pleased that it appears that there will be no major work done on raising the dam. That also there is an agreement that many of the trees on the small meadow can and will be retained as it is now. That the overspill channel could be channeled to the western end of the pond so that it flows through to the small plantation, but we would want the path to the back gate to be maintained; a bridge may therefore be required. We are also pleased that there is now a feeling that the life guards hut could be on the dam in some way – cantilevered or whatever. We would hope that the changing rooms and the first aid room and toilets could all be similar to their present positions. We know too that the proximity of the buildings is important for the lifeguarding.

One of the most welcome pieces of news is that there are no longer proposals to build a large dam at the end of the bird sanctuary pond which would have radically changed the view that we have down towards the men's pond.

We want to state clearly that we wish to maintain the Ladies Pond as a place that is as "natural" as possible. We would not wish to have any alteration in the entrances to the pond, wanting to maintain the historic ones.

We categorically do not want to have turnstiles, nor have pay machines in any but a discreet location. Ideally we would wish to have the buildings in their current location, whilst understanding that they may need altering or refurbishing. If they are to be moved there has to be consultation on where any new location should be.

But categorically we do not want the ambience of the pond to be changed and for it to become a "facility".

We would insist that

1. The uninterrupted view down the ponds from the south meadow is maintained
2. The historic entrances to the pond are protected
3. That any building alteration must lead to lower energy consumption
4. That the building footprint must not be enlarged
5. That the water overflow must be soft engineered
6. There be no increase of hardstanding
7. There be no restriction of access such as turnstiles

There was hope at least that the pond could be muddied out during the works, which may address some of the questions about water quality.

Concerns were expressed about the length of time that the pond may be closed but we said that there was an agreement that throughout the works there would be at least two swimming ponds open.

There were also concerns that consultation would be taking place in the summer months, and as many may be away we would prefer the consultation to be later.

on behalf of the Kenwood Ladies Pond Association.

Mixed Pond Association

Members Views on proposed works - 31 January 2013

1) The Fundamentals

All members say that what they most value about the Mixed Pond is the fact that it is a pond, not a dedicated swimming facility. It is hugely valued for its naturalness, its established habitat, its seclusion and its tranquillity. In that context, the status quo must be disturbed only as far as it is absolutely necessary and with a maximum of discretion.

2) The suggestion of putting a landscaped bank (or low dam) across the woodland north of the Mixed Pond to hold back flash flood water, thus easing pressure on ponds below. In principle this was generally thought to be a good solution. However, there were concerns about the extent that it would be necessary to interfere with established woodland, the impact on nesting, its specific location and how visible it would be. Concerns were also raised about whether a temporary pond containing water could lead to stagnation and what steps could be taken to avoid this; i.e. use of reed beds for purification both of this area and the Mixed Pond below.

3) Dredging the Mixed Pond and improving water quality

Most agree that dredging is now badly needed, but every care must be taken to preserve wildlife (e.g. fish, waterfowl, nesting birds, etc.). Poor water quality is an issue that is becoming more serious and environmentally sensitive ways of improving it need to be looked at.

There were a number of proposals for improving the end of the Pond north of the swimming deck. These include cutting back vegetation, moving the deck further northwards to increase the swimming area and installing a reed bed and/or an oxygenating device at the northern tip of the Pond.

The west bank of the pond is crumbling in some places and needs attention. It could even be pushed back a little when dredging is done to increase swimming area.

4) Increasing height of causeway dam at southern end of pond

It was felt that an increase in height of not more than 1m would not seriously spoil the view from the Pond. If the whole causeway is to be raised then the slope up from the Mixed Pond should be green and gradual. The planting will need to be sensitively chosen and not so tall as to obscure the view from either direction.

5) Making spillway at south west corner to aid discharge of water in flood conditions

No objections to this at all as long as it is done as unobtrusively as possible. It should be possible to make it almost unnoticeable.

6) Threat to vegetation around pond when works go ahead

All members feel strongly that the surrounding vegetation should be touched as little as possible, although pruning is occasionally necessary.

Swimmers accept that the Pond is open to view from the causeway, but more could be done to screen the benches at the end of the space by the shower where people change (especially in winter).

There is a need for some well thought out thinning of the trees probably on both sides to allow more sun in. This would restore position to that of a few years ago when, except in dead of winter, some early morning sun reached the changing area and lingered a bit longer on the meadow in the evening

7) Improvements to changing areas and layout of enclosure

There was a strong feeling that any changes should be minimal, in harmony with the natural feeling of the pond and its sense of seclusion. It is NOT a swimming pool, nor a Lido.

More sunbathing space would be pleasant, but not at the cost of the secluded nature of the place. At present there is some dead space dedicated to changing areas that could be better used to extend the sunbathing area on the south west facing lawn

If any structures are to be replaced they should be no more intrusive than the existing ones. It was not felt that more cubicles were needed; one sided shelters in the changing areas are fine. A continuous bench in the Ladies as in the Men's enclosure would be good. Cold showers in each of the changing areas would be much appreciated; the existing shower by the pond could then be removed freeing up more sitting/sunbathing space.

The cracked floors in the changing areas do need upgrading but not by anything too unnatural looking.

8) Timing of Works

Anxiety expressed about the length of time Pond would need to be closed and assurance needed that only one of the swimming ponds should be closed at a time. The period between October and April, when the Mixed Pond is only used by members of the Winter Swimming Club, would be most suitable. However early morning winter swimmers would then want to be able to access one of the other ponds before they open at 8.00am.

APPENDIX

The above is a consensus of members' opinions as expressed at a meeting last summer and by email in response to information sent out in December and January. These people are nearly all regular swimmers, some of them using the Pond year round. However, many people only swim in the Pond occasionally on hot summer days: we will attempt to get more views from these next summer. Below are samples of actual quotes which illustrate the range of ideas expressed:

1) The Fundamentals

- no changes wanted - it should look just the same in 10 years' time
- I value the pond for the trees overlooking it, the birds and fish - its seclusion.
- leave everything alone as much as possible - I like it the way it is
- leave things the way they are and don't mess things up
- we must maintain the beautiful environment that has been treasured by so many, as can be seen from memorial benches, and do our best to keep the pond a paradise for users in this century too
- there is NO plan that will be good for the ponds - leave them alone!
- we all know that the Heath needs 'managing' to keep it looking natural, but this management has to be so discreetly done that it is almost indiscernible
- it is a piece of nature in the city and everything possible must be done to keep its naturalness

- it keeps me in touch with nature and the changing seasons

2) The suggestion of putting a landscaped bank (or low dam) across the woodland north of the Mixed Pond to hold back flash flood water, thus easing pressure on ponds below.

- if the temporary pond so created stays for any length of time it will become stagnant and attract flies & insects
- it might mean the removal of a significant amount of woodland and nesting area
- a good idea if it is upstream and not visible from the Mixed Pond
- mustn't entirely block the grassy passage across the valley
- could it have a reed bed upstream of it to help purify the water?

3) Dredging the Mixed Pond and improving water quality

- pond area north of swimming deck particularly needs clearing, as it is overgrown and murky.
- could deck be moved northwards when pond is dredged to allow a bit more swimming space?
- plant northernmost tip of pond with reed bed to improve water quality
- I've heard that dredging Men's Pond was responsible for growth of toxic algae as vital organisms were removed with mud
- develop area at north end of pond more attractively once dredging is done
- oxygenating device at north end a good idea as long as it is unobtrusive (and possibly solar powered)

4) Increasing height of causeway dam at southern end of pond

- raising height of causeway by not more than one metre shouldn't spoil view
- raising height up to the existing railing would not be too bad for the view from sunbathing area, but any higher would be a mistake.
- best if whole causeway is raised and if slope up from the Mixed Pond is gentle & green - plant wildflowers suitable for conditions (loosestrife, flags, etc.), but not so tall that they obscure view any more.

- plant sedges or short reeds in the water to soften view and improve water quality

5) Making spillway at south west corner to aid discharge of water in flood conditions

- no comments

6) Threat to vegetation around pond when works go ahead

- the pond is open to view from the causeway and swimmers accept that, but more could be done to screen the benches at the end of the space by the shower where people change (especially in winter)

- some well thought out thinning of the trees to allow more sun in probably needed on both sides. This would restore position to that of a few years ago when, except in dead of winter, some early morning sun reached the changing area and lingered a bit longer on the meadow in the evening
 - no removal of trees - don't touch them!
 - maximum grass/vegetation, minimum concrete
- 7) Improvements to changing areas and layout of enclosure
- at present there is a lot of dead space dedicated to changing areas that could be better used to extend the sunbathing area on the south west facing lawn
 - can changing facilities be improved?
 - it would be great if we could find a better use for the changing area space and open more area up for enjoying the sunshine.
 - I think the facilities are fine for what the Mixed Pond is. I would certainly not wish to have them developed in a way that would spoil the seclusion and natural look & feel of the pond and swimming area. It should not become a Lido - there is an existing Lido already.
 - If any structures are to be replaced they should be no more intrusive than the existing ones.
 - open sided shelters in the courtyards are fine - no more cubicles needed, nor an enclosed space that would become cold and damp.
 - cold showers in each of the enclosures would be great - then shower beside pond could be removed and there would be more sitting/sunbathing space.
 - cracked concrete in both changing areas does need upgrading, but not by anything too unnatural looking
 - one member is very keen that there should be a nude sunbathing area for men (and there might also be women who fancied one), perhaps sited at the north end of the present men's changing area
- 8) Timing of Works
- can mixed summer and winter bathing always be provided even if Mixed Pond has to close so that I can swim with my husband?
 - the pond must be open during the summer season. What happens if there is a heatwave and it's closed?

Brookfield Mansions

Constraints and Issues

**Statement from Brookfield
(Comprising Block 1-4, Block 5-8, Block 9-16, Block 17-24, Block 25-56, The Cottage and Mulberry Cottage)**

We agree and support the principle that the Heath's landscape and character should be preserved.

In our view the objectives of any work should be (in order of importance):

- 1 ensuring the structural safety of the dams.
- 2 providing protection of residential areas from flooding.
- 3 keeping the ponds at a recommended level to preserve the landscape and ecology of the Heath and enable use of the swimming ponds.
- 4 keeping changes to the landscape around Brookfield to a minimum.

Our primary concern is that the scheme should minimise the risk of flooding to any part of Brookfield, either directly from collapse of the dams or overtopping of the ponds, or indirectly from 'surplus discharge' through the drains or spillways.

We feel this should be considered by all the relevant authorities (LBC, Thames Water, Defra, Environment Agency etc) in conjunction with the work proposed by CoL, and clear information should be provided that will enable residents to assess their exposure to flood risk and insurers to determine the cost of the risk. Legal responsibility for damage to property arising from overtopping or surplus discharge should be clarified at as early a stage as possible.

We should like information on position, capacity and ownership of existing drains in and around Brookfield. There is a substantial existing sewer running from Highgate No 1 under the car park to the NW of Brookfield, under Flats 49 and 50 and under the front garden. I have not received definite information but understand this sewer may be the responsibility of CoL. The path adjacent between the car park and front garden and the garden of Mulberry Cottage have both flooded in recent years.

Any proposed alteration to the dam and area below Highgate No 1 should be considered in conjunction with the benefits offered by these alterations. We support a scheme which addresses the problem of attenuation higher up the chain, with improvements to the swimming ponds.

Generally, we would be unhappy with changes that reduce the views to the south and for the end flats, to the west. We are happy for some clearance of trees from the dam but feel the trees below the dam and south of the long block should be retained as the woodland south and west of Brookfield is rich in wildlife. This area was inspected by London Borough of Camden's tree advisor in 2009 who commented that the wooded area, the vegetation beneath the larger trees and the dead wood lying around combined with the fact that very few people use the area, has resulted in probably one of the most important and interesting areas on the Heath, particularly for insects. Fungi, grubs and insects abound that feed the songbirds on the Heath as well as woodpeckers' nests. If a bund is proposed, we should like clarity on what form the bund would take; it should not encroach on the area of woodland, or disturb it. The height should not obstruct the view of the path from the flats. CoL have stated and we agree that a belt of trees to the south of the woodland benefits the Heath, providing a belt of green between the Heath and Brookfield, although the ash trees to the south of the enclosure seem to be nearing the end of their lives and this would be an opportunity to consider some replanting.

The dam is already high in relation to Brookfield and we would be unhappy about this being raised by more than one metre. There is a metal fence around the car park, at the base of the dam which replaced an unstable brick wall. Residents at this end of Brookfield would feel more secure with a solid wall.

We propose that a 3D (physical) scale model should be made to show the height and extent of the 'bund' to the south of Brookfield, together with any change in the height of the dam and details of what trees would have to be removed and any new planting. This would make it easier for us to comment on specific proposals.

We should like consideration of work to Duke's Field, possibly as an extension to the dry reservoir/ water meadow.

If major work is proposed to or near the dam we should like a survey of the fabric of any buildings within approximately 50 metres of the works and a survey of the existing culvert to be carried out.

We have a concern as to how the works will be carried out and should like a description of possible access routes for vehicles and storage of materials together with an assessment of probable disruption to be included in evaluation of the options.

At this stage it obviously isn't possible to comment on specific proposals. We understand that comments from Brookfield will be taken into account at every stage of the development of the design.

Additional comments 11 February 2013

We are not confident of an attempt to store water at this point which if it failed would impact and possibly endanger The Cottage and the lower floors and basements of Flats 1-5 and Flats 25-56 Brookfield. We are concerned that if any water were to be stored in front of Brookfield, it would flood the areas behind.

When the secret garden was built an old drainage culvert, pre-dating Brookfield Mansions, was discovered and was cleared inside the Heath. During the 1980s the large sewer that runs directly under the front garden of The Cottage from Highgate No 1 was dug up and cleaned and repaired. In the 1990s the culvert became fouled and was opened up from the front garden at The Cottage through onto the heath near the spinney gate by a team from the Heath. There is evidence of breaks in either the main drain or the culvert and there is ongoing rat infestation at the cottage from the drain. There are, it seems, unmarked and unsafe subterranean channels that could allow for surges of water through here.

An accurate map should be prepared and a survey of size and condition of the drains, culverts, Fleet river and underground streams in and around Brookfield should be undertaken to ensure a better knowledge of what would happen if flooding or overtopping occurs.

Highgate Men's Pond Association

Response of the HMPA, the USA and Highgate Lifebuoys to the Strategic Landscape Architect, in respect of his summary of the WMSG meeting of 10th January 2013.

HMPA meeting: 25th Jan 2013

The WMSG meeting of 10th Jan identified a number of opportunities, for each pond, arising from the proposed works (see minutes of that meeting). There are five opportunities for changing aspects of the Men's Pond. The five opportunities are

Five Opportunities

1. Improved spillway to the south east corner
2. Improved access either along the boating pond dam wall or from the south of the changing facilities
3. Creation of a sun bathing lawn on the south facing slope of the dam between the Men's Bathing Pond and the Boating Pond
4. Water quality improvement
5. Opening up of views from the south-east

The delegates discussed each of these in turn and arrived at the following decisions:

1. 1 Improved spillway to the south east corner

The meeting agreed that this might be an option, though they felt they could not offer an informed opinion, due to lack of data regarding the size of the suggested spillway. We would like this information as soon as possible and the opportunity to provide feedback in response (members have since echoed the committees view on this point).

1.2 Improved access either along the boating pond dam wall or from the south of the changing facilities

Delegates rejected the idea of access along the Boating Pond dam wall. However, delegates discussed opening an additional entrance from the northeast path, adjacent to the present Men's Pond toilets (where the gradient is flat), that would adjoin the current path from the changing area to the toilets.

Delegates resolved to:

- A. Keep the present Men's Pond entrance open.
- B. To allow CoL to comply with its legal obligation to facilitate disabled access, open an additional entrance accessible to disabled/wheelchair.
- C. Keep the Men's Pond toilets male-only and add a disabled facility.

Delegates noted the presence of male and female public toilets in the northeast corner of the Boating Pond and resolved that these should be retained as public toilets, and suggested that disabled access should be included there too.

1.3 Creation of a sun bathing lawn on the south facing slope of the dam between the Men's Bathing Pond and the Boating Pond

Delegates were opposed to this.

Delegates noted that there presently is no sunbathing area overlooking the Men's Pond.

Alternative proposal: Delegates would like CoL to consider the feasibility of opening a small sun bathing area on the bank alongside the jetty. Delegates would like this idea to remain as an option, rather than as a decision. Delegates were concerned over the impact on wildlife, on the tranquillity of the pond and as an additional responsibility on the lifeguards. A further discussion with the wider membership and with more information is required.

1.4. Water quality improvement

Delegates were in favour of this.

1.5. Opening up of views from the south-east

Delegates were opposed to felling any trees, and supported the existing arrangement that involves solely pruning to maintain open the two existing small "windows".

Fitzroy Park Residents' Association

For ease of reference I have roughly divided the six ponds in the Highgate chain into two sub-groups: Upper 'rural' ponds: those intimate and smaller ponds upstream of the Bird Sanctuary causeway; and Lower 'urban' ponds: those larger ponds with a more open and urban feel downstream of this marker.

Based on this rough designation we would recommend adoption of the following key principles and ideas:

Minimum dam and attenuation works should be carried out the Upper ponds - spillways should be buried/ camouflaged where possible;
Current water levels maintained to ensure minimum disruption to local ecology;
Tree and vegetation cover around ponds to be retained and where possible enhanced;
Special attention given to improving water quality using new technologies in addition to possible dredging of Stock Pond and Ladies Pond;
Enhanced facilities for pedestrians to sit and enjoy wildlife viewing and vistas downstream;
Sensitive renewal of Ladies changing room facilities.

Increase total capacity of volume of water stored in Lower ponds by exploring combination of enlargement of existing ponds footprint (Model Boating Pond and Highgate no 1 pond each to south west corner) increasing depth by dredging or excavation and raising existing dam levels (Highgate No1 pond and possibly Men's Bathing Pond);
Increase flexibility of spillway design to accommodate variety of rainfall events;
Mitigate these changes by focusing on legacy of enhancing diversity of current Hampstead Heath by creating new ecological environments (introduce reed beds, focus on native tree planting);
Follow through improving water quality down through the Lower ponds;
Integrate enhanced amenities for those using ponds other than swimmers - angling, boating, dog bathing, bird watching (maintain direct access to pond edges);
Holistic native planting scheme designed for three ponds as a whole to improve vistas for local residents.

Heath & Hampstead Society, Heath Sub-Committee**Without prejudice****Heath Dams Project: Views, Ideas, and Options**

Dear Jennifer

Water Management Project: Feedback on Views, Ideas and Unconstrained Options

We are pleased to submit, as requested, our attached schedule of views, ideas and unconstrained options on the Water Management Project.

Our overriding Vision for the Heath is the preservation of the original Heath in its wild and natural state; and also the preservation of the natural characteristic features of later additions to the Heath. We recognise that some dam safety work may be required, but this must be restricted to that which is essential and legally necessary, and implemented in a way that has minimum impact upon the Heath

We have found it difficult to carry out this exercise in the abstract as there is as yet no agreed quantum of flood water for design, and no indication of the scale and size of measures needed to deal with it. We have therefore examined many possible ideas for each pond as listed in our attachment. Some of these are therefore interrelated, or may overlap, or may be mutually exclusive. Each idea has been ranked by almost all of the 14 members of the Society's Heath Sub-committee, and our attachment gives our overall ranking for each. We would be pleased to clarify any point if required. This is a 'Work in Progress' document and may be amended as further information becomes available

Your request asked Stakeholders to give feedback on the Peter Wilder 'Key Issues' draft document January 2013. We were pleased to participate in the workshop which provided ideas for this report, which is a useful overall method of presenting views. However, our attachment covers many more points than shown in this report. It will also be noted that we agree with many of the points recorded by Peter Wilder, but disagree with others. We would be pleased if our options could be incorporated in this report as far as possible, but request that our attachment be also appended to the report when it is sent to the Design Team, and to the Water Management Stakeholders Group.

A) – GENERAL PRINCIPLES**A1) – 'Improvements' and Aspirations for the Heath**

1. There are no improvements applicable to all ponds and any possible improvement must be considered pond by pond. Strongly agree

A2) – 'Inappropriate' Concepts and Fears

1. No visible 'hard' spillways and manufactured constructions on any dam. [But see comments re Flowform]. Strongly agree

2. No extensive tree/vegetation removal on dam slopes and crests. Agree

3. No artificial looking dams with dead level crests and intrusive crest fences silhouetted on skyline, and uniform grass slopes with little/no vegetation

[the Men's Swimming dam is a prime example]. Soften with vegetation on sacrificial undulating mounds or similar where possible. Strongly agree

4. The impact of dams work and construction activities that might threaten veteran and important trees. Every location needs a detailed survey with sensitive items identified. Strongly agree

B) - GENERAL IDEAS, possibly applicable to several dams and ponds

1. Leave dams untouched, but drive sheet piling along crest to prevent failure during floods. Agree

2. Consider re-circulated water in pipe from bottom to top of each chain, pumped

with solar power, to provide a continuous water flow in normal and dry conditions, for water oxygenation and as an attractive feature. Agree

3. Clarify if pre-emptive draining down of ponds when severe storms are forecast would reduce dam work. Strongly agree

C) - POND BY POND REVIEW, ponds and dams

(Note: 11 members of the Heath S/C carried out a sensitivity analysis for raising dams for Reservoir Act safety

work, and a summary of their combined conclusions in 3 broad bands is shown against each pond name. (e.g.. Sensitivity – High). Sensitivity for dam raising for water quality is not shown as it now seems unlikely that this will occur.)

How **water flow between ponds** can be handled needs to be clarified, but there may possibly be 4 ways:

surface or pipe for normal outlet flow / spillway for rare extreme flood [normally on surface but possibly

in a culvert]/ overtopping of crest for even rarer probable maximum flood / pipe for emergency draw-down. The S/C has given preliminary preferences on whether normal inflow and outflow would be

best as [Surface or Pipe, or No Preference]. These preferences are also shown against each pond name.

The S/C gave preferences without all options being available, and Jeremy suggests that this aspect be

given greater consideration when available options are developed.

4 February 2013

Highgate Chain

Kenwood (Wood and Thousand Pound / Concert Ponds: (Sensitivity – not assessed) [Inflow:- not assessed.

Outflow:- not assessed]

1. Provide more access to water's edge. Tend to disagree

2. Have minimal fencing, with removal of most of the fencing around ponds. Disagree

3. Pond to be visually opened up, creating expansive views across water for Heath users. Undecided

4. Deepen pond and lower water levels to provide attenuation without dam raising. Tend to disagree

5. Raise road on crest of Thousand Pound dam to provide some (limited) attenuation if this helps downstream designs. Agree

6. Check compliance with RA 1975 and FWMA 2010, particularly re outlets and spillways. Strongly agree

Stock: (Sensitivity – High) [Inflow:- Surface. Outflow:- Pipe]

1. Provide more access to water's edge. Strongly disagree

2. Have minimal fencing, with removal of most of the fencing around ponds. Disagree

3. Pond to be visually opened up, creating expansive views across water for Heath users. Undecided

4. Deepen pond and lower water levels to provide attenuation without dam raising. Disagree

5. Leave untouched, dam not raised Agree

6. Provide underground culvert for storm water discharge, as an armoured spillway would be inappropriate here. Agree

7. Alternatively (to 6) remove some trees to increase light to promote good grass growth if this would allow a 'softer' spillway. Disagree

8. There is potential to install Flowform or similar for normal flow from Stock pond through marshy area in enclosure upstream of Ladies Pond, provided that it significantly improves water quality, and vegetation visually obscures the construction. Agree

9. Provide spillway from SW corner through meadow by lowering ground level. Agree

Ladies Swimming: (Sensitivity – Medium) [Inflow:- No Preference. Outflow:- Pipe]

1. Provide more access to water's edge. Disagree

2. Have minimal fencing, with removal of most of the fencing around ponds. Strongly disagree

3. Pond to be visually opened up, creating expansive views across water for Heath users. Undecided

4. Deepen pond and lower water levels to provide attenuation without dam raising. Disagree

5. Design to retain dam untouched if possible, and to retain existing changing room building. Agree

6. Do not upgrade existing building if retained (subject to lady swimmers' requirements). Agree
 7. Install Flowform for normal flows into the Bird Sanctuary pond, on the W side at the edge of the lower lawn, which could provide a visual feature with gurgling water in this secluded and 'private' landscaped garden, provided that it significantly improves water quality downstream. Agree
 8. Install Flowform or other aeration device at head of pond, provided it is invisible and inexpensive to maintain. Agree
 9. Have a natural spillway at the meadow gate, rather than central on the dam as recorded by Wilder. Agree
 10. No work and minimal impact in ecologically sensitive meadow on the W. Strongly agree
- Bird Sanctuary: (Sensitivity – High) [Inflow:- No Preference. Outflow:- Pipe]**
1. Provide more access to water's edge. Strongly disagree
 2. Have minimal fencing, with removal of most of the fencing around pond. Strongly disagree
 3. Pond to be visually opened up, creating expansive views across water for Heath users. Undecided
 4. Deepen pond and lower water levels to provide attenuation without dam raising. Disagree
 5. Leave untouched with no significant tree removal or spillway. Likely to be main construction access route. Provide attenuation elsewhere. Strongly agree
 6. Cut significant windows through scrub vegetation on dam crest, to give wide views along pond and to reed beds on W. Tend to agree
 7. Minimise work to ensure Kingfisher nesting is not lost from disturbance of pond. Strongly agree
 8. Expand reed bed up the Western arm in the existing marsh area. Agree
 9. Provide spillway at SW (Heath) end of dam. Disagree
 10. Let dam overflow centrally across the existing path, instead of constructing a spillway at the SW corner. Agree
 11. Increase visitor awareness through construction of bird hide or interpretation point. Disagree
- Model Boating: (Sensitivity – Low) [Inflow:- Pipe. Outflow:- Pipe]**
1. Provide more access to water's edge. Agree
 2. Have no fencing. Agree
 3. Pond to remain open with expansive views across water for Heath users. Strongly agree
 4. Deepen pond and lower water levels to provide attenuation without dam raising. Disagree
 5. Provide 'natural' spillway (through trees, left untouched, on W side of pond), on obvious route that avoids dam toe. Little or no armouring may then be needed except possibly on any newly raised bank. Strongly agree
 6. Provide normal discharge via surface Flowform into the Men's pond for water quality, as a 'parks' type interesting feature, which could be walked and touched, particularly by children, provided that this gives significant water quality improvement. Agree
 7. Enlarge and naturalise pond on W side. Strongly agree
 8. Enlarge pond at normal water level on W side, but retain all trees. Agree
 9. Retain sheeting on E side to maintain close contact with water and path at waters edge. Agree
 10. Maintain clear views across pond from most of banks, particularly from the E, - much valued by users and picnickers on the E slopes. Agree
 11. Provide island(s) for birds with trees within the existing pond. Tend to agree
 12. Provide attenuation by raising dam if this precludes work on Bird dam. Tend to agree
 13. Provide attenuation by lowering water level. Strongly disagree
 14. Naturalise and soften the very artificial looking level crest, high and dominating when viewed from Men's Swimming pond and dam. Strongly agree
 15. Consider location[s] of path along dam, particularly if dam is raised, particularly re access to waters edge, and views from and to the dam. Agree
 16. Move fence on S side of dam crest a short distance downslope to open out and reduce constrained and narrow corridor feel (as recently done successfully at PH café on the Broadwalk). Strongly agree
 17. Retain ability for model boating with pontoons or hard edges on E side. Agree
 18. Retain ability for model boating with pontoons on W side. Agree
 19. Retain ability for model boating by ensuring adequate access to all banks. Agree
- Men's Swimming (Sensitivity – Low) [Inflow:- Pipe. Outflow:- Pipe]**
1. Provide more access to water's edge. Undecided
 2. Have minimal fencing, with removal of most of the fencing around ponds. Undecided

3. Pond to be visually opened up, creating expansive views across water for Heath users. Undecided
 4. Deepen pond and lower water levels to provide attenuation without dam raising. Undecided
 5. Provide 'natural' spillway through trees, left untouched, on W side of pond near the bothy and existing outlet, on obvious natural route that avoids dam toe. No spillway armouring required. Strongly agree
 6. Retain berm (trackway across slope) and large poplar trees on downstream slope (Haycock proposed remove all). Strongly agree
 7. Naturalise and soften the very artificial looking level dam crest, high and dominating and topped with a fence on skyline when viewed from berm and Highgate No 1 (possibly move fence downslope to remove from skyline and plant bushes irregularly on crest). Strongly agree
 8. Provide attenuation by raising dam. Agree
 9. The path alongside the pond on the W is extremely boring with low visual interest, bounded by uniform grass on the W and thick vegetation bounding the pond the E (that was only planted and fenced in 1970's), hence provide much larger windows through pond vegetation to give long views across the expanse of water. Tend to agree [NB. Wilder states, re. opening up views across pond from South East (not South West) 'this is a conflict between two different interest groups with a preference by the swimmers to maintain the enclosure of the place'. He does not mention the preference of the thousands of Heath users who use the path on the W].
 10. Remove intrusive fence on W side of pond, and if needed, replace with lower fence downslope nearer the pond, which would appear to be less high and be mainly concealed by the vegetation. Strongly agree
 11. Form large window(s) through vegetation bounding pond on E side S of toilets, to give long views across the expanse of water from Millfield Lane, the bordering path and the sun-bathing lawn. Undecided
 12. Bathing facilities are not affected by dams work, and need no upgrade (recently upgraded). Agree
 13. Provide disabled access and upgraded toilets as a separate project – men swimmers to advise. Agree
 14. Create a sun bathing lawn on the south facing slope of the Boating Pond dam, provided it is available to all Heath users. Agree
- Highgate No 1: (Sensitivity – Medium) [Inflow:- Pipe. Outflow:- Pipe]**
1. Provide more access to water's edge. Undecided
 2. Have minimal fencing, with removal of most of the fencing around ponds. Undecided
 3. Pond to be visually opened up, creating expansive views across water for Heath users. Undecided
 4. Deepen pond and lower water levels to provide attenuation without dam raising. Undecided
 5. If attenuation at this pond is essential, lower the water level with dredging if necessary, if this allows trees to be retained on the dam crest to screen the buildings. Tend to disagree
 6. Or convert pond into a large reed-bed with small shallow pools between the reeds. Disagree
 7. Enlarge pond into natural depression on W side, to form reed-bed/swale (but check route of major gas and water mains alongside pond). Retain all trees if possible, on islets if necessary. Strongly agree
 8. Provide 'natural' spillway from enlarged pond on W side broadly along existing path line, which avoids dam toe, if this would eliminate spillway armouring. [Some areas may have to be re-contoured and dam slightly raised.] Strongly agree
 9. Dig new swale/reedbed at NW corner of Dukes Field below Highgate 1 to act as 'stilling pond' for flood waters discharging from 'natural' spillway, before these swirl round into Brookfield Mansions. Tend to agree
 10. Avoid large scale tree clearances on this dam, as this would open up buildings/flats visually from the Heath. Strongly agree
 11. Minimise work on the dam to minimise impact of development on adjacent Brookfield Mansions. Agree
 12. Provide wall or bund along boundary with Brookfield Mansions, but only if required to prevent structural damage to block. Agree
- Hampstead Chain**
- Vale of Health: (Sensitivity – High) [Inflow:- No Preference. Outflow:- Pipe]**
1. Retain current access to water's edge. Agree

2. Have minimal fencing around ponds. Agree
3. Pond to be visually opened up, creating expansive views across water for Heath users. Undecided
4. Deepen pond and lower water levels to provide attenuation without dam raising. Strongly disagree
5. Leave untouched as far as possible. Strongly agree
6. Avoid surface spillway, enlarge outlet pipe if possible. Strongly agree
7. Avoid further tree/vegetation removal on the downstream slopes and crest, and avoid further opening up of the downstream valley. Agree
8. Preserve the 2 views from private gardens marked by Wilder as 'important'. Agree
9. Preserve the 3 views across the pond from the public domain (from the NE corner, SE corner, and from the SW bank). Strongly agree

Viaduct: (Sensitivity – High) [Inflow:- Surface. Outflow:- Pipe]

1. Provide more access to water's edge. Disagree
2. Have minimal fencing, with removal of most of the fencing around ponds. Tend to disagree
3. Pond to be visually opened up, creating expansive views across water from E & W banks for Heath users. Undecided
4. Deepen pond and lower water levels to provide attenuation without dam raising. Disagree
5. Leave untouched as far as possible. Strongly agree
6. Minimise downstream slope vegetation clearance. Agree
7. If surface spillway is essential, locate this on E side, discharging down natural channel through the trees (which should all be retained once clear of dam toe). Agree
8. Remove fencing from E & W banks. Undecided
9. Combine work with de-silting this pond. Agree
10. Creation of and planting storm water wetland to north end of pond to improve biodiversity and silt trapping. Agree

Catch Pit (Silt Trap): (Sensitivity – not assessed) [Inflow:- not assessed. Outflow:- not assessed]

1. If attenuation here helps significantly on downstream dams, construct a 'natural' looking 'humpy and bumpy' mound across this valley. Strongly agree
2. Avoid damage to fine veteran poplar trees in this valley. Strongly agree

Mixed Swimming: (Sensitivity – Low) [Inflow:- No Preference. Outflow:- Pipe]

1. Provide more access to water's edge. Undecided
2. Have minimal fencing, with removal of most of the fencing around ponds. Disagree
3. Pond to be visually opened up, creating expansive views across water for Heath users. Disagree
4. Deepen pond and lower water levels to provide attenuation without dam raising. Disagree
5. Raise dam, by a maximum of 1 metre, if attenuation helps on downstream dams. Undecided
6. Enlarge pond on W side where bank is collapsing. Agree
7. Bathing facilities lie within pathway of extreme flood and reconstruction would not achieve anything unless sited uphill. Do facilities need any improvement as part of this project? [Mixed swimmers to advise]. Disagree
8. Dredge to improve for both depth and water quality [worst water quality of the 3 bathing ponds]. Agree
9. Improve water quality through Flowform or similar device at the northern end of the pond, with photovoltaic panels on the roofs to drive devices. Agree
10. Improved design of overflow through a surface spillway at the SW corner of the pond. Agree

Hampstead No 2: (Sensitivity – Medium) [Inflow:- Pipe. Outflow:- Pipe]

1. Deepen pond and lower water levels to provide attenuation without dam raising. Disagree
2. It is essential that all plane trees be retained [Hughes suggests 2 or 3 at W side may have to be removed]. Agree
3. Design for max. upstream attenuation, [at catch pit/Mixed pond?] if it helps retain trees Strongly agree
4. Lower the water level [with dredging if necessary], if attenuation saves plane trees? Tend to disagree
5. If dam needs to be raised, do this with wide rustic brick wall on N edge, with space for sitting on top rather than earth fill which could affect plane tree roots. Agree
6. Thrust bore an improved discharge in order to safeguard existing trees on the dam crest. Agree

Hampstead No 1: (Sensitivity – Low) [Inflow:- Pipe. Outflow:- Pipe]

1. Deepen pond and lower water levels to provide attenuation without dam raising. Undecided
2. Lower the water level, with dredging if necessary, if this reduces work on dam and reduces discharge to South End Green. Tend to disagree
3. Lower the water level and reinstate public path right round pond on E side [water in this pond was raised c.1975 - prior to this the public could walk all the way round the pond] and reclaim land appropriated by owners of adjoining houses. Tend to disagree
4. Minimise tree and scrub removal on downstream slope, and 'naturalise' an otherwise ugly level dam crest which is very obvious when walking up from S End Green, and conceal dam crest with tall vegetation at toe, or on dam slope. Strongly agree
5. Use a pillar box spillway on dam crest in order to reduce impact of spillway. Agree
6. Locate surface spillway at extreme W, just N of dam. Agree

4 February 2013

Dartmouth Park CAAC

As I said to you at our last meeting, it has been difficult to elicit responses from the wider group of members of the DPAAC. An e-mail to all members of the group has produced little response further to that of the small group of members we were able to assemble who all agreed that the City is obliged to take action about the dams. Inevitably, the concern is that work should be done as sensitively as possible. The comments and suggestions in the Wilder report about the first three ponds were generally agreed to, as were the suggestions that major works should be considered for the model boating pond but with the strong proviso that there must still be a path with access to the water. Views on the men's pond were less clear though there seemed to be a consensus about opening up views from above. There was strong agreement that trees must be preserved on No one pond dam above Brookfield Mansions. However, in general, it seems clear that residents wish to see proposals before commenting.



Highgate Society

4th February, 2013

HAMPSTEAD HEATH PONDS
Water Management Stakeholder Group – Key Objectives Paper
Comments and views from the Highgate Society

1. We agree with others of the Stakeholder Group that, whatever our preferences as regards work to be undertaken, comments and views must at this stage be somewhat aspirational until the legal framework, and hence the base-line requirements, has been clarified beyond reasonable doubt. From our attendance at meetings where this aspect has been discussed, we conclude that it remains unresolved, largely through lack of clarity and guidance on the part of the drafters of the legislation and the government legal advisers whose task it is to interpret the legislation clearly for those affected.
2. Therefore, until the stakeholder group has a clearer steer on how, or whether, their preferences can be accommodated within the final scheme, it would seem premature to make closely detailed comments. We appreciate, however, that the Strategic Landscape Architect need as close guide as possible to the Stakeholder Group's preferences and aspirations but, for these reasons, we believe that our comments should at this stage be summary rather than detailed.
3. Our comments are therefore indicators of what we believe should be the principles to be followed. We also believe that whatever the final interpretation of the legislation, it should be predicated upon carrying out the works in a manner which will, unless technically and legally impossible, accommodate the legal requirements while meeting the requirements of the 1871 Legislation and the aspirations of the Stakeholders Group and other community consultees.
4. Two members of the Highgate Society Environment Committee also sit on the Heath and Hampstead Society's Heath sub-Committee. Both have had input into the document submitted by that Society, and we would therefore, in general, support its conclusions.
5. Much concern has been voiced in some quarters about possible "destruction of the Heath" under the proposals. It is also unclear whether it is envisaged that works will proceed on all ponds simultaneously, or in succession; the latter would cause far less overall damage and disruption. However, all affected ponds, other than the Vale of Health and Viaduct, are located close to the edges of the Heath. It is presumably a basic principle that no works will be carried out other than (a) those demonstrably needed (e.g. leaking dam reinforcement) or required by law, or (b) generally agreed improvement works. Below those constraints, we suggest the following further guiding principles:
(a) as far as possible, works to any of the ponds must not impact upon, or cause permanent damage to, areas beyond where the works themselves occur;
(b) to minimise the need for reinstatement, works compounds etc. must as far as possible be within the near vicinity of the pond concerned, and occupy as little open Heath land as possible beyond what is absolutely necessary;
(c) vehicular traffic routes must, as far as possible, be on existing hard paths; access to the work sites must, as far as possible, be by a minimum of routes, and those should be the shortest ones possible;
(d) equipment and materials should not be stored on Heath land in larger quantity, or on a wider area, than is necessary to implement the immediate job in hand. The site logistics must therefore be aimed at ensuring a timely supply of the materials and equipment needed, on this basis;
(e) impact of construction and delivery traffic on adjoining residential roads must be minimised. In the view of the narrowness of the surrounding residential roads, this will itself be challenging;
(f) Given that spillways will (presumably) see only highly infrequent use, their design should, as far as possible, be integrated with the natural topography, to minimise the physical works necessary to enable them to function as intended.
(g) The Pond and Dams themselves are historic monuments – what the National Planning Policy Framework would term "Heritage Assets". The two major chains originated as the provider of the City of London's water supply in the 17th and 18th centuries. There is little documentary information available about their origin, how they were constructed, or what significant works have or have not been carried out on them since they were constructed, other than obvious works such as the formalisation of the edges of the Model Boating Pond. They are therefore a unique archaeological

resource. The opportunity must therefore be taken, as a part of any works to the dams, to ascertain their constructional history. An archaeological programme to record historical information which will be destroyed in the course of the works must therefore be integrated into the works programme.

In this connection, the ponds themselves, as well as their surrounds, have been in use for up to 400 years, not only for water supply but, for some 200-300, as agricultural land, and for at least a century as public open space. It is not known how many have ever been dredged, or how often. Therefore the accumulated silts may contain large quantities of artifacts lost or discarded over four centuries. Artifacts found during a small recent archaeological investigation above the Bird Sanctuary and Model Boating Ponds suggest that a wide range of cultural material used by the 17th century work gangs digging the original ponds – pottery, tools, or possibly even organic objects - could be present, discarded or lost during the works. In addition, the presence above the Model Boating Pond of “The Tumulus”, a Scheduled Ancient Monument thought to be a Bronze Age Burial Mound, suggests that there was a wider Bronze Age landscape in the area. The streams formerly on the route of the Pond chains could have been a focus for any related settlements, and the need to be alert for such deposits still surviving should be built into any archaeological programme.

All this could significantly enhance our understanding of the use of the area over those centuries, and would make a valuable educational interpretive display for the Information Centre. Therefore, in the event of dredging or emptying the ponds, reasonable and practicable steps should be taken to ensure the recovery of a sample of this material.

Archaeological consultants should therefore have a role in the project team.

6. *The Individual Ponds*

We would summarise as follows what we see as the major constraints, threats and opportunities in relation to each pond. As a general point in regard to “improvements”, we would not favour removal of railings to improve public (and thereby dog) access to the ponds. Where railings are present, valuable ecological habitats have become established, often over many decades. These provide important seclusion for wildlife, particularly birds. Given the intensive human presence and erosion on most of the Heath, we believe these areas should remain undisturbed. “Freedom of access” must go hand in hand with responsibility, and the public must be educated to understand that a “right” to unimpeded access across the Heath could be incompatible with that very rural and ecological character which they value. Except where specifically mentioned, therefore, we would not favour greater opening-up of those fenced-off areas around the ponds which have sensitive visual or ecological value.

The works would afford an excellent opportunity to remove invasive species from any pond, and we would welcome any such initiative. However, since much of it has resulted from clandestine dumping of unwanted domestic wildlife by irresponsible members of the public, safeguards to prevent its recurrence should also be considered.

The Kenwood Ponds

In the absence of other information, we assume that the reinforcement works carried out several years ago to the Wood Pond dam addressed issues of instability, but we do not know how effective it currently is for storm water attenuation; the present water levels seem quite close to the top of the dam.

The Stock Pond

Constraints: Visually, perhaps the most sensitive of the Ponds. It has developed a unique atmosphere, combining the appearance of a “rustic” lake which might have been created by an 18th-century landscape architect, with being an established area of importance for wildlife, with its heavily overgrown banks. It is loved in its current form for both its visual and ecological value. It is hard to suggest how it might be “improved”, and we doubt that any alteration, other than as suggested below, would be welcomed.

Threats: any change to the water level would impact seriously on these qualities. However, we recognise that it has overtopped on a number of occasions.

Opportunities:

- A sensitive and light clearance of overhanging branches on the causeway side, and perhaps on the Millfield Lane side, would restore valued “windows” which are gradually disappearing as vegetation grows along those sides.

- The threat of overtopping should be addressed by the spillway proposal discussed by the WMSG; this may necessitate bridging the pathway at the western end, depending on how much it may be necessary to lower ground levels to accommodate the spillway. In the absence of information about

the stability of the causeway dam, we can only comment that, if reinforcement works are necessary, there should be no visual alteration and the causeway should not be raised, as that would alter the whole atmosphere from a rustic lakeside walk to an “observation platform” experience.

- Similarly, we cannot comment on the desirability of dredging or of other water aeration measures as we have insufficient information about the quality of the water, the depth of the pond silts, or how it might affect the ecology.

Kenwood Ladies Bathing Pond

Detailed knowledge of this pond being limited to a particular sector of Heath users, it is difficult to make informed comments, and we should perhaps defer to the Pond users for detailed comment, particularly as regards new buildings, screening, or water levels, making only the following comments: *Constraints:* Screening should not be reduced.

Threats: The main threat, to both the ecology of the wilder areas within the overall enclosure and to the swimming amenities, would be a raising or lowering of water levels. This should therefore be avoided.

Opportunities:

- The Key Issues Document (KID) describes water quality as “reasonable”. However, if the ecology would benefit from a Flowform Cascade where the spillway from the Stock Pond would enter the enclosure, this should be investigated. In addition, there could be scope for some low-key and visually sensitive storm-water attenuation measures in that area.

- Scope for improvement of the rather monoculture Horse Chestnut tree screen between the Pond and Millfield Lane could be investigated.

- The location shown for a spillway in the Key issues diagram seems acceptable.

Bird Sanctuary Pond

Constraints: We agree with the KID that any change to water levels would be highly undesirable.

Threats: The original proposal, to raise the dam by nearly 3m, was ill-advised and insensitive and would have irreparably damaged not only the ecology of the pond, but views of it and of a wide area around it, and transformed walking along the causeway from a lakeside walk to a precipitous and, for some people, unnerving experience atop a high dyke. The KID identifies the dam as one of the most robust, and it appears that appropriate works on the Model Boating Pond would obviate the need for any work to the Bird Sanctuary pond or dam.

Opportunities: We would therefore oppose any works to the Pond or its causeway.

The area marked on the KID plan for “Possible extension to bird sanctuary area” is already enclosed by railings and is, in effect, a part of it. It is low-lying relative to the causeway area, and could present a useful opportunity to provide a further small, yet possibly critical, area for flood-water attenuation.

Model Boating Pond

Constraints: The main contribution of this area – other than facilities for model boats, swimming dogs and basking water birds - is in the extensive open views of water which it gives, both close-up, and at a distance from the Tumulus Field. While we argue elsewhere here for minimum opening-up of views across ponds, it is important that the openness of the Boating Pond be retained (although we believe it has been enhanced by the recent judicious planting of reed-beds).

Threats: Any significant raising of the northern dam, as per the Haycock proposals, would unacceptably damage the character and openness of both the Bird Sanctuary and Boating Ponds, and also municipalise them. This would be particularly damaging to the Boating Pond, which is already quite severely formal, surrounded by mown grass and with vertical concreted edges.

Opportunities: If a significant water attenuation scheme is ultimately shown to be needed, the topography of the area either side of the southern ends of the Boating Pond would enable a substantial raising (and moderate extensions to east and west) of the dam on the southern causeway (up to 2m has been suggested). This could be done with acceptable impact on views of or from the Pond, and we consider that any impact on views of the Men’s Pond from the Bird Pond northern causeway would be acceptable.

In helping to consolidate our own views, it will be important to establish whether the water attenuation measures proposed for this pond would to a large extent obviate the need for such measures (as opposed to any necessary dam strengthening measures) elsewhere in the chain. If this were to be the case, then significant works here could be acceptable.

The location of the spillway on the KID would appear to be acceptable subject to the provisos set out on the same map; the natural topography, rather than artificial barriers, should be utilised as far as possible. However, provision of a spillway in the middle of the dam itself, with a Flowform

cascade into the Men's Pond, would reduce the visual impact and complexity of any measures at the south-western corner of the Boating Pond, and less disruption to pedestrian arrangements, and therefore should be considered as an alternative.

Finally, the large Weeping Willow trees around the Pond, which moderate the severity of its formal appearance, are reaching maturity and dying off, and the opportunity should be taken to replant.

Highgate Men's Bathing Pond

As with the Ladies' Pond, we believe that we should, in general, defer to the views of those who use it and know its internal character best.

Constraints: We believe that the low-scale wooded screen which has grown up on the south-west side should be maintained, although it may be possible to provide some windows to afford views to the pond without impacting on its privacy.

Threats: As with the Ladies' Pond, the retention of an element of privacy and enclosure for users should be a priority.

Opportunities: Since the dam is identified as leaking, should not the opportunity be taken, as a part of any repair works, to incorporate a spillway into the dam itself, thereby reducing the need for complex reconfiguration works to the busy pedestrian pathway area at the south-western corner? Does the comment "Potential for natural spillway" suggest that the existing topography would be adequate as a spillway to the No. 1 Pond?

We remain uncertain about the suggestion of providing a new sunbathing area at the southern slope of the Boating Pond Dam, since this could be somewhat visible to the public from the causeway above. It might be more appropriate to introduce more low-scale tree and shrub planting, for improving both the internal visual amenity of the pond and its ecological value, while minimising effects on views down the chain from the Boating Pond area.

Highgate No. 1 Pond

Constraints: A gateway to the Heath, controlling and impacting on views in and out; therefore maintenance of an appropriate tree screen, whether on or around the pond itself or in its immediate vicinity, is important.

Threats: This is largely dependent on what work proves to be necessary to the dam and for dealing with excess storm water, and this is as yet unclear. The proximity of Brookfield, and its level relative to the pond, as well as the need for attenuation to protect residential areas immediately below the Heath, makes it difficult to consider what "minimum" works might be necessary. At present, it appears that considerable earth-moving works might be necessary in the field between Brookfield and the footpath to Highgate Road to accommodate flood waters; but, this is at the end of the chain, and it is unclear whether even major works will provide the capacity to hold back, divert and channel water from a major event, or what exactly would happen to the water once it had passed the "Additional bund for protection of Brookfield Mansions", since this appears to run only half-way along the boundary with Brookfield. Until this is clarified, the preferred location of the spillway remains uncertain. Much more technical detail is necessary. Increasing the depth of the pond and lowering the water level would presumably be of value only if it still increases flood-water holding capacity. Clearly this area has only limited water-holding capacity without major works, which are likely to be unacceptable.

Opportunities: Given these uncertainties, it is difficult to identify opportunities, as these will depend on what engineering work proves necessary. If the water level is to be lowered sufficiently to serve a useful flood relief purpose, the nature of the habitat would be considerably altered, and this will impact on what water quality improvement measures are practicable or necessary. If the holding area east of the pond and south of Brookfield is to have an appreciable function, will significant excavation of the area be necessary? Finally, would increasing the holding capacity of the Model Boating Pond render only minor works necessary here? These issues need clarification.

Vale of Heath Pond

This is a further area where it seems best to defer to those who know it best – the Vale of Heath Society. Briefly:

Constraints:

The Pond has its own unique character, little changed for a century or more.

Threats: The only way of increasing its capacity would be by raising the dam, which would severely damage that character and views to and from it. We therefore agree that there is limited scope for increasing water attenuation.

Opportunities: Given the pond's position and water catchment area, we are unclear as to the likelihood of its overtopping during a major event, and therefore the extent to which any work is needed, other than reinforcement of the structure of the dam, if considered necessary. We are not clear what "opening up views through woodland" would entail. We do not necessarily agree that "views" have to be "opened up" wherever possible; in this location it is the intimacy of the scene which is its most important feature, and wider views are obtainable a short distance up the slope.

Viaduct Pond

Constraints: Visually highly sensitive, and perhaps one of the most popular locations on the Heath for photographers; there should preferably be no visible alteration to the scene.

Threats: Raising, or visibly reinforcing, the dam, will transform the scene unacceptably, not least by reducing the perceived height of the stately Viaduct from below, and thus devaluing the impressiveness of the scene. Raising the water levels will also have an impact on the pond and marsh area to the north of the Viaduct, and its ecology – and would necessitate raising the dam, with the above adverse impacts.

Opportunities: We appreciate that the dam has partially failed in the past, though we need to understand better whether the strengthening works carried out addressed that problem. If not, any necessary works should be reinstated to leave the scene unaltered. We agree that using the Catch Pit below the Lime Avenue to increase flood storage capacity would be both sensible and an improvement ecologically. We also agree that the wetland area between the Bird Bridge and the Viaduct could be both improved ecologically and used as a storm water holding area. We also agree that the ecology of the pond could be significantly improved by de-silting; to what extent, however, might the resultant deepening of the pond cause extra pressure on the dam, since the water level must remain the same?

Mixed Bathing Pond

Constraints: The sylvan views of the Pond's banks, north from the causeway, are its most important feature. We are unclear whether the openness to the south would be significantly affected by raising the dam, given that the main viewpoints to the south are from the northern end of the pond, some distance away, and from the water level.

Threats: However, any permanent raising of water levels would have a major impact, by altering the hydrology of the banks and affecting the trees around its banks, as well as reducing the bankside habitat between the water and the railings. Increasing the pond's capacity would therefore be unwelcome. Our comments above (Viaduct Pond) on dredging to increase its depth, and therefore capacity, apply here too; will pressure on the dam be increased and, if so, will reinforcement works be required?

Opportunities: Overall, as little visual change as possible should be the aim. However, the causeway itself is a somewhat dull and municipalised area, which could be improved by some raising of the dam (if that proves absolutely necessary for water attenuation purposes), in appropriate materials – perhaps both hard and soft, to enabling some planting. The opportunity could also be taken to introduce some physical constraints to deter the public from diving into the pond from the causeway, a current problem. We would support a Flowform or similar device for improving water quality, as long as this were either unobtrusive, or an attractive feature water, perhaps incorporated into the hard landscaping of the bathing area at the northern end of the Pond.

Hampstead No. 2 Pond

Constraints: What we would find useful are sections showing the relationship of particular ponds and dams to their surroundings, particularly where buildings are concerned – e.g. Highgate No. 1 and Hampstead Nos. 2 and 1. This would enable a better understanding of likely impacts from a storm event, and help us to come to a more informed decision as to the extent to which reinforcement, raising, deepening or other works would be appropriate solutions, and thereby to better understand what opportunities for improvement may also present themselves.

Threats: Clearly any impact on the mature tree screen along the south of the dam is a major consideration, as it will allow much more built form to be visible from within the Heath, always considered undesirable. However, it would also be helpful to understand whether raising of the dam, and of water levels, will impact on ground-water and hence the tree screen on other sides of the Pond.

Opportunities: Increasing capacity through deepening could be an opportunity, although this must surely also require a reduction in the normal level of water, or its water attenuation capacity will be unchanged. Deepening and reduction of average levels here, as on some of the other ponds, could

result in the creation of forbidding, and potentially more dangerous, “craters” – tree-lined, perhaps, when possible, but still more inaccessible to the general public than at present and transforming the character of those parts of the Heath for the worse, as well as negating efforts to improve water quality through faster flow. The suggestion of a thrust bore in the dam to improve discharge from the pond should be considered, but its impact on the capacity and stability of No. 1 Pond, receiving, needs to be explained to us. We are less convinced about the need to preserve the “open character” of views to the west of the pond; while views north-west, to Pryor’s Field, are important, to the west the ground slopes steeply upwards to a permanently bleak fairground site. The opportunity could be taken to prove a more attractive, while still visually permeable, screen to the Fairground edge which would enhance the sense of being in a wooded environment at the edge of grassland.

Hampstead No. 1

Though a “gateway” to the southern end of the Heath, this function is to some extent illusory as regards the Pond itself, which is so far above its southern approach that it is only visible when approached from above.

Constraints: There are, therefore, two separate considerations: maintaining a tree and shrub screen along the southern edge of the dam and, as far as practicable, along the eastern bank, and maintaining a sense of openness in views across the Pond from the west.

Threats: as identified, the nature of works which may be required on the dam wall and the pond’s eastern edge, and the resultant opening-up of views to the suburban development beyond. If it is necessary for the dam to be substantially reinforced, and that there must be no major planting on its bank, this will conflict with the aim of protecting views. Therefore, once again, we need more information on the extent to which the dams are currently “fit for purpose” and, where they are not, some indication of the range of engineering options available for improvement with minimum impact on the amenity of the Heath. We also do not yet clearly understand the current action to regulate the normal outflow of water from the Pond; is this entirely underground and, if so, by what means, and could that outflow itself be improved to have a better capacity for discharge into the main drains outside the Heath? With a better understanding of the physical (and legal) realities of the situation, it will then be easier to make informed suggestions.

Opportunities: Any spillway works should be as unobtrusive as possible - which would require tree or shrub screening, or high-quality sculptural landscaping. Some form of water quality improvement, through an open or concealed Flowform cascade from No. 2 Pond, should be considered. To what extent does the pond need de-silting? Could its capacity be increased by slightly deepening and slightly lowering the water level, without affecting present usage (by humans, dogs and wildlife) and views?

We are, however, unclear as to what is envisaged on the map in the KID for the area marked “Proposal for flood alleviation works”. This is on a narrow, downhill-sloping strip of land exactly level with the similarly-sloping West Heath Road and higher than the retail and residential areas beyond. We are unclear how this land could be used for water attenuation without the construction of substantial walls which would severely urbanise this gateway to the Heath.

We hope that the above has been of some help, although you will see that we still have a number of questions, the answers to which are not yet clear but which will fundamentally affect views of the solutions to be finally adopted. We therefore hope that this process will be repeated when there is clarification on all these issues.

Yours sincerely


The Highgate Society

Comments from Mansfield Conservation Area:

MCAAC feels that according to our remit, we are only qualified to comment on the dam proposal in respect of the aesthetic outcome of any scheme to modify the existing dams.

Our feeling is that the optimum outcome would result in the Heath remaining visibly unaltered with no extra hard surfaces, no attempt to increase accessibility through levels changes, no dam experience centre and a return to the current appearance of this part of the Heath.

This should entail the accurate recording of the existing topography and conditions and the requirement that this should be included in any building contract as a baseline for the finished scheme.

And from the MNA: We would ask that any solutions with regard to alleviating the prospect of the dams overtopping, such as as a controlled release of water, does not result in an excess of surface water to other parts of the Heath that may overwhelm the storm drain system and result in localized flooding on the south side of the Overground tracks.

Comments from South End Green Association from [REDACTED]

I circulated PWA First draft WMSG pond review summaries to all our South End Green Association members and to another local group and suggested responses were sent directly to the Corp of London as requested by yourselves.

We have not met independently, so my comments are further clarified below and are now based on Peters updated summaries of 10th Feb - thank you Peter.

Clearly main knowledge and concerns are to the lower Hampstead chain.

Hampstead No 1

- A very public pond with a sensational night view of House backs- (urban ad-hoc beauty).
- Dam is becoming too bare when viewed from No 1/2 causeway, needs low screening, also to proposed enlarged pillar box outflow. But recently enabled higher level lights towards South End Road is positive.
- Pond water level needs to remain largely stable to preserve tree roots and boundary walls of abutting house gardens.
- Any new additional spillway around SW corner needs to be discrete.
- Needs few new high quality trees on the public (west) side as this area is now too bare; many trees lost through age over last 15 years.
- Conceal the new wide proposed outflow on the SW dam face with extensive growth cover.
- Planned emergency co-ordination with Thames Water Storm sewers in South End Green is essential.

Hampstead No 2

- Very serene when viewed from both causeways and between the trees from the West ; a beautiful fairly natural looking pond.
- Raising water level dubious as gardens and garden walls to 105 - 96 South Hill Park would be compromised. Also existing East & West bank trees and planting will be compromised and will eventually die back.
- Therefore building a low raised brick bund from dam edge to the position of present railing on dam will likely to be unnecessary and could change character of pond.
- Firmly of the opinion that any works should be concentrated only on a well a designed open natural spillway in conjunction with a pillar box feeding a deep thrust bore outflow at SW corner between ponds 2 & 1.

Mixed Bathing

- A private pond from NE &SW, much loved. All observations and comments are totally covered by the Mixed Pond Association response dated 31.01.13.

Outlined Wetland Catch pit sited N/E of Mixed bathing

- This proposal to dam an existing marshy area in the event of extreme rain is excellent.
- It will create a meaningful water flow into the mixed pond that can be discretely aerated.
- It will significantly reduce or negate costly works to achieve increase in water storage to Mixed Bathing and Hampstead No 2 ponds
- It is a comparatively cheap and easy solution.
- It will be near invisible in all but extreme weather.
- It will be an excellent use of Heath Created Spoil from other excavations.

Viaduct and Vale of Health Ponds.

- No additional comments

Highgate Chain

- No significant additional comments to those summarised by PWA 10.02.13