|  | Risk | Major Flooding caused as a result of pond embankment failure at Hampstead Heath  Links to: Strategic Aim SA3 and Key Policy Priority KPP4 | Gross Ris  | sk R   |
|--|------|---|------------|--------|
|  |      |   | Likelihood | Impact |
|  |      |   | 3          | 5      |

## Detail

If there were to be failure of the pond embankments during a major storm, and no warning was given, the number of lives at risk on the Hampstead chain would be in the region of 400 and on the Highgate chain would be around 1000. This would also result in inundation and damage to local properties, roads and the railway lines towards Kings Cross. Detailed analysis has identified that dam crests are not currently able to cope with the level of overtopping expected to occur as a result of such a storm, increasing the risk of erosion and dam failure. The City of London Strategic Flood Risk Assessment 2012 with new surface water modelling identified 4 areas of risk in the City from upstream run-off (including Hampstead Heath).

## **Specific Issues**

Insufficient warning given of flooding

Inadequate response to dam overtopping

Sensitivities of the local community regarding the natural aspect of the Heath

## **Mitigating Controls**

Telemetry system installed and managed by the City Surveyor as an integral part of the on-site Emergency Action Plan for reservoir dam incidents enabling early warning where pre-determined water levels at key ponds in both the Hampstead and Highgate chains of ponds are breached. Testing of this with the emergency plan and Hampstead staff has happened and further tests are planned with Mitie. (City Surveyor/Director of Open Spaces)

Emergency Action Plan for on-site response in place and Camden have an off-site plan in place Liaison with Camden Council's emergency planners is on going, to work through issues raised by Emergency Services and to appraise them of revisions to our work plan as it develops. (City Surveyor/Director of Open Spaces)

The City has undertaken extensive consultation with local stakeholders about why this public safety project is required. The City has established a Stakeholder Group to enable key groups to contribute to the detailed design of the scheme and has a dedicated officer managing consultation. (**Director of Open Spaces**) Hampstead Heath, Highgate Wood and Queens Park Committee actively engage with the local community. The group has met regularly to develop their understanding of the project and responded to documents provided by the design team, working with the Strategic Landscape Architect appointed to champion the landscape.(**Director of Open Spaces**)

City Surveyors are about to appoint designers to start mitigation works. First priority upon appointment will be to conduct a verification of the risks associated with the ponds. (City Surveyor)

When the preferred design options are developed, wider public consultation may produce new issues, not yet anticipated by the Project Board (Director of Open Spaces)

There remains a potential risk for Judicial Review. This is most likely to arise in relation to the City's need to adhere to current Guidance that sets standards for dams that is opposed by certain Groups/individuals.

Non delivery of project to upgrade pond embankments (includes slippage from agreed timetable and budget)

The City Surveyor's Department has appointed a specialist consultants (Atkins) to undertake a review of the current risk of flooding based on storm predictions and based upon that assessment they will then prepare three options to mitigate this risk for consideration by the CoL , A revised programme of activities and actions have been agreed by members and supported by the independent panel engineer which will allow formal consultation with the public and stakeholders with intent of submitting a formal planning application by the end of May 2014 and subject to consents, site works to commence early 2015.

Project approved by CoL and progressing to Gateway 5. (City Surveyor)

Responsibilities and implications for adjacent landowners

Discussion with adjacent landowners has commenced, regarding their liabilities and seeking to clarify responsibilities. A report will be presented, once negotiations have progressed. (**City Surveyor**).

## **Summary and Further Action**

The project to upgrade the pond embankments is progressing, but until such time that this project is completed (2015/16) there remains a risk of flooding downstream through a catastrophic dam breach and an associated sudden influx of water. Responsibility for the delivery of this project rests with the City Surveyor and in relation to the City's reputation, day to day management of the ponds and the community welfare aspects of this risk, the Director of Open Spaces.

|  | Net Risl              | R  |      |  |  |  |
|--|-----------------------|----|------|--|--|--|
|  | Likelihood            | lm | pact |  |  |  |
|  | 3                     |    | 5    |  |  |  |
|  | Control<br>Evaluation |    |      |  |  |  |
|  | A                     |    |      |  |  |  |