

READING BOROUGH COUNCIL

REPORT BY DIRECTOR OF ENVIRONMENT AND NEIGHBOURHOOD SERVICES

TO:	STRATEGIC ENVIRONMENT PLANNING & TRANSPORT COMMITTEE		
DATE:	15 JULY 2015	AGENDA ITEM:	15
TITLE:	WHITEKNIGHTS RESERVOIR		
LEAD COUNCILLOR:	COUNCILLOR A PAGE	PORTFOLIO :	STRATEGIC ENVIRONMENT, PLANNING & TRANSPORT
SERVICE:	TRANSPORTATION & STREETCARE	WARDS:	PARK
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1. EXECUTIVE SUMMARY

- 1.1 Whiteknights Reservoir is located within the University of Reading grounds and borders Whiteknights Road and the Borough boundary.
- 1.2 This report summarises the Council's duties set out in the Reservoirs Act 1975, the necessary works that must be completed to reduce the risk of failure of the reservoir and the timeframes to complete these works.
- 1.3 This report summarises the progress to date and the intention to seek spend authority from Strategic Environment Planning & Transport Committee to enter into a contract with the lowest priced tender return.

2. RECOMMENDED ACTION

- 2.1 That the Committee note the progress to date and the programme for completing the necessary risk of failure reduction measures.
- 2.2 That the Strategic Environment Planning & Transport Committee delegate to the Director of Environment and Neighbourhoods in consultation with the lead member for Strategic Environment, Planning & Transport the authority to approve capital expenditure for the preferred option as set out in the report.
- 2.3 That the Strategic Environment Planning & Transport Committee delegate to the Director of Environment and Neighbourhoods in consultation with the lead member for Strategic Environment, Planning & Transport the authority to award the contract to the lowest returned tender.

3. BACKGROUND

- 3.1 Whiteknights Lake is a 70,000 m³ capacity reservoir retained by an earthfill embankment dam. There are three 'Statutory Undertakers' that own land forming part of the reservoir; the University of Reading, Reading Borough Council (both in its highway and land owning capacity) and B & M Care.
- 3.2 The University of Reading commissioned an inspection under Section 10 of the Reservoirs Act 1975. The inspection was undertaken on 5th October 2011 and the report was completed in July 2012.
- 3.3 There were five mandatory recommendations as to measures to be taken in the interests of safety under Section 10 (6) of the Act. Four related to B & M Care home site and one related to Reading Borough Council to protect the allotment side embankment to withstand the Probable Maximum Flood (PMF) discharge without damage. In effect the works are required to deal with the situation where water flows over the dam and to ideally channel that water into the existing designated spillway. A new Flood Study was to be completed for these works.
- 3.4 Since August 2014 the University of Reading and the Council have sought to collaborate in an attempt to deal with the outstanding mandatory recommendations. As a consequence of this in October 2014 the University and the Authority jointly sought Counsel's advice on the respective duties and responsibilities of the statutory undertakers and owners, under the Reservoirs Act 1975, and common law. This has confirmed the position that the University of Reading, Reading Borough Council and B & M Care are jointly responsible.
- 3.5 The University of Reading (UoR) then commissioned a Flood Study which was jointly funded by the Authority. The flood study has been completed and published in February 2015. In addition, at the request of Environment Agency (EA) the Statutory Undertakers have met the EA to discuss progress and compliance with the requirements of the Section 10 report.

4. PROPOSAL

- 4.1 The February 2015 Flood Study recommended two options:
- 4.2 Option 1 to construct a 610 mm high retaining wall for a length of 40m along the allotment boundary with the public highway footway including the stabilisation of the embankment, assumed to be with the addition of gabions at the toe. Initial indicative cost for this option is £ 220,000.
- 4.3 Option 2 to widen the existing spillway on the B & M Care site by 16m into the allotment site, construct a 1 m high gabion basket training wall down the allotment side of the spillway and construct a 460 mm high retaining wall for a length of 24m along the allotment boundary with the public highway footway

including the stabilisation of the embankment through the use of gabions. The initial cost for this option is in the order of £300,000.

Both options are dependent upon further flood modelling work to determine the capacity of the current B and M Care spillway and the design height of new training walls.

- 4.4 The selected scheme will require Planning Approval and the works may also affect Tree Preservation Order trees along the allotment embankment. In addition either the partial or total closure of Whiteknights Road may be required during the works.

5. PROGRESS TO DATE

- 5.1 Since the Flood Study was completed in February 2015, Reading Borough Council (RBC) has commissioned John Gosden as the Qualified Civil Engineer under the Reservoirs Act 1975 to oversee the improvement work and to certify the works once completed.
- 5.2 Building on from the Flood Study, RBC has appointed Peter Brett Associates LLB (PBA) to complete a detailed study in relation to the proposed engineering options and to determine the most appropriate engineering solution.
- 5.3 The necessary site topographical surveys to supplement the LiDAR data are completed, the detailed design is underway and the procurement tender process will commence late summer. The site works are provisionally programmed to be completed within the current financial year.
- 5.4 The ground investigation to confirm the composition of the dam at the allotment embankment was also completed in May 15. A Phase 1 Habitat Survey to identify any ecological constraints has also been completed.
- 5.5 PBA are currently finalising the hydraulic model for the reservoir, which will be used to model the Flood Study options and a preferred solution will be available by late July / early August 2015.
- 5.6 The Section 10 report inspection recommended minor remedial works has been completed.
- 5.7 Regular update discussions with the Environment Agency are taking place between officers.

6. CONTRIBUTION TO STRATEGIC AIMS

- 6.1 Corporate Plan Service priority: Keeping the town clean, safe, green and active.

6. COMMUNITY ENGAGEMENT AND INFORMATION

- 7.1 Work on the Whiteknights Reservoir will be placed in the public domain via the planning application process.

7.2 Advance information notice boards will be erected at Whiteknights Road and the Allotment site detailing the scope of the scheme prior to the commencement of the works.

7.3 All stakeholders affected by the proposals, including the Allotment tenants will be consulted prior to the submission of the planning application.

8. LEGAL IMPLICATIONS

8.1 The Reservoirs Act 1975 requires 'Statutory Undertakers' of the reservoir to reduce the risk of failure and the consequences should it fail.

8.2 The Flood and Water Management Act 2010 requires the Borough Council to take the leadership role for ensuring significant risk from all sources of flooding is identified and managed

8.3 Schedule 2 of the Flood and Water Management Act 2010 amends other Acts and under the amended Section 14A of the Land Drainage Act 1991, LLFA's have the power to carry out works to manage flood risk from surface water runoff, groundwater and ordinary watercourses, where the work is desirable having regard to the 'local strategy for flood risk management'.

8.4 If an option involves the relocation of allotment holders then this will require requisite notices and potentially compensation to be paid.

9. FINANCIAL IMPLICATIONS

9.1 The expected range of expenditure is between £220,000 and £ 300,000 depending on the option selected and further detailed flood analysis to determine whether the existing spillway on B & M Care site has sufficient capacity. The approved capital programme for 2015/16 includes a budget for Health & Safety Works from which it is proposed that expenditure of up to £300,000 on this scheme is funded.

10. Risk Assessment.

10.1 'Statutory Undertakers' of the reservoir are required to reduce the risk of failure and the consequences should it fail.

10.2 Lead Local Flood Authority Councils are required to carry out their designated statutory duties, as described in the Flood and Water Management Act 2010.

11. BACKGROUND PAPERS

11.1 The Reservoirs Act 1975 Section 10 report for Whiteknights Dam dated July 2012.

11.2 The Whiteknights Dam Flood Study report dated February 2015.

11.3 Environment Agency Biennial Report on Reservoir Safety (1st April 2013 - 31st December 2014)