

Agenda item 5

For decision - Welshmill Riverbank Stabilisation Project

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Summary (including recommendations)

A section of the River Frome riverbank at Welshmill has experienced significant erosion following exceptional rainfall and prolonged periods of high river flow during January and February 2026. Approximately 17 metres of riverbank has suffered from rotational failure and reduced the width of the bank (between footpath and river) from around 3 metres in width to approximately 1 metre in width, resulting in movement of safety railings and subsidence of the adjacent public footpath.

An options appraisal undertaken by surveyors, Easton Bevins assessed three potential solutions: sheet piling, rock wall stabilisation and path diversion with bank re-profiling. Following consultation with the Environment Agency, the path diversion and bank re-profiling option has been identified as the preferred solution as it represents the lowest-cost, lowest-risk and most environmentally appropriate option. It is also the only option that has received support in principle from the Environment Agency.

The proposed scheme would protect public access, reduce future maintenance liabilities and deliver a solution consistent with the Council's environmental objectives, the Frome Nature Recovery Plan and the River Charter (which were covered earlier in this agenda).

Recommendations

1. Approve the project for the diversion and bank re-profiling of the Welshmill path.
2. Appoint Easton Bevins to provide project management, procurement support, Environment Agency liaison and contract administration services.
3. Delegate authority to the Environment Manager to progress design work, commissioning of surveys, regulatory approvals and procurement.
4. Approve a project budget allocation of £70,000 to come from General Reserves

Background

The Welshmill riverside path is an important recreational route and public amenity used extensively by pedestrians and cyclists. Since the Henley Way ramp replacement it is also the only accessible route from the town centre to Welshmill. During January and February 2026 exceptionally high rainfall generated sustained periods of elevated river flow accelerating erosion along a vulnerable section of the riverbank.

Approximately 15 metres of riverbank has been affected, with the width of land between the river and the path narrowing from around 3 metres to approximately 1 metre in places (marked red below). This erosion has resulted in movement of safety railings and localised subsidence of the riverside path. A second adjacent bay of similar length is also showing signs of erosion

(marked yellow below) and any mitigation works would need to include this section making a combined length of approximately 35 metres.



The Environment Agency completed engineering works associated with the Welshmill boat launch facility on the opposite bank during 2025. Following discussions regarding the erosion issue, the Environment Agency advised that it does not believe those works have contributed to the erosion on the opposite bank and considers the erosion to be associated with river processes and exceptional flow conditions.



Without intervention, future erosion is highly likely to result in loss of public access and risk to safety.

The Council therefore commissioned surveyors, Easton Bevins to undertake an options appraisal and explore viable solutions.

The Scale and Urgency of the Issue

The erosion presents a significant infrastructure, safety and environmental management challenge.

- Approximately 35 metres of riverbank is affected
- Bank width for about 15 meters has reduced from 3 to just 1 metre.
- Subsidence has affected both the path and safety railings.
- Future high-flow events is highly likely to accelerate erosion further.
- Delaying intervention is likely to increase future repair costs and risks to public safety and access.

Relationship to the Nature Recovery Plan

The footpath diversion option supports several priorities identified within the Council's Nature Recovery Plan (covered in a separate report on this agenda), including:

- Supporting natural river processes.
- Protecting and enhancing the River Frome corridor.
- Improving riparian habitat.
- Supporting ecological connectivity.
- Delivering climate resilience and adaptation benefits.

By avoiding extensive hard-engineering measures, the project aligns infrastructure management with wider environmental objectives.

During discussion with the EA it was suggested that the bank should be allowed to become naturalised and the EA suggested that the long term aim for the River Frome in the town centre was to remove the hard engineered bank and allow the river to return to a more natural and environmentally appropriate shape.

Relationship to the River Charter

The preferred approach is consistent with the principles of the River Charter (also covered earlier in this agenda) by:

- Supporting river recovery.
- Working with natural river processes.
- Enhancing ecological function.
- Promoting long-term stewardship of the River Frome corridor.

Options Appraisal

With Easton Bevins' guidance, three options have been considered.

Option 1: Sheet Piling

This option would involve installation of a substantial sheet-piled retaining structure to stabilise the riverbank.

The solution would require:

- Structural engineering design.
- Ground investigations and surveys.
- Ecological assessments.
- Installation of a cofferdam.
- Significant construction works adjacent to the river.

The Environment Agency has indicated that approval is unlikely due to impacts on river processes and ecology.

Figure 1 Example of Vinyl Sheet Piling



Estimated Cost: £284,165 excluding VAT.

Advantages

- Maximum structural stability.
- Long design life.

Disadvantages

- Highest overall cost.
- Significant engineering intervention.
- Likely Environment Agency objection.
- Ecological impacts.

Option 2: Rock Wall Stabilisation

This option would involve construction of a substantial rock-block retaining wall along the river edge.

The approach provides strong bank protection but still requires substantial engineering works and supporting surveys. The Environment Agency has advised that approval would also be unlikely because it remains a hard-engineering solution.

Figure 2 Example of Rock stabilisation of riverbank



Estimated Cost: £201,399 excluding VAT.

Advantages

- Strong bank protection.
- Durable solution.
- Lower cost than sheet piling.

Disadvantages

- High cost.
- Habitat impacts.
- Significant engineering works.
- Environment Agency approval unlikely.

Option 3: Path Diversion and Bank Re-Profiling (Preferred Option)

This option involves:

- Diverting the path away from the unstable river edge.
- Re-profiling the bank to a more stable gradient.
- Replacing fencing.
- Establishing vegetation to provide natural bank stabilisation.

The Environment Agency has indicated support in principle for this option as it works with natural river processes and aligns with river restoration objectives. The proposed route of the path would be decided once the project is adopted by council based on the commissioned topographic and wildlife surveys and approved by the Environment Agency.

Figure 3 - Approximate route of footpath diversion through trees. Entering by the bench (yellow arrow), emerging in the open glade (red arrow). Final route to be decide in project based on topographic and wildlife surveys



Figure 4 - Approximate route of the path looking back from BMX track end (red arrow is approx. exit route with yellow arrow approx. tree entry point)



Estimated Cost: £50,364 excluding VAT (see breakdown below).

Advantages

- Lowest cost.
- Environment Agency supported.
- Nature-positive solution.
- Lowest regulatory risk.
- Supports natural river processes.

Disadvantages

- Requires path realignment.
- Minor loss of riverside land.

Summary of Pros and Cons

Option	Pros	Cons
Sheet Piling	Maximum stability; Long design life; Robust structural solution	Highest cost; Significant engineering works; Ecological impacts; EA approval unlikely
Rock Wall Stabilisation	Strong bank protection; Durable solution; Lower cost than piling	High cost; Habitat impacts; Significant engineering works; EA approval unlikely
Path Diversion and Bank Re-Profiling	Lowest cost; EA supported; Nature-positive; Lowest regulatory risk; Supports natural river processes	Path realignment required; Small loss of riverside land

Cost Comparison

Option	Estimated Cost (Excl. VAT)	Environment Agency Support
Sheet Piling	£284,165	Unlikely
Rock Wall Stabilisation	£201,399	Unlikely
Path Diversion and Bank Re-Profiling	£50,364	Supported

Path Diversion Recommended

The path diversion is the only option that the Environment Agency have indicated would be given permission. Although still a significant cost it nonetheless represents a substantial £150k saving on any other option.

It would also:

- Protect public access.
- Support environmental objectives.
- Minimise long-term maintenance liabilities.

The path diversion option is therefore the most practical, affordable and environmentally sustainable solution and is the recommended option.

Project Timeline and Delivery Programme

Indicative Delivery Programme

Stage	Description	Indicative Timescale
Design Proposal	Detailed path diversion and bank stabilisation design	4 weeks
Environment Agency Pre-Application Discussions	Review permit requirements and supporting information	Concurrent with design
Tree and Fauna Surveys	Ecological and arboricultural surveys	4–6 weeks
Environmental Impact Assessment	Preparation of supporting environmental assessments	4 weeks
Environment Agency Sign-Off and Permit Process	Permit submission and determination	3–6 months
Contractor Tender Process	Tender preparation and evaluation	4 weeks
Contract Award and Mobilisation	Contractor appointment and preparations	2 weeks
Project Start	Commencement of works	Following approvals
Construction Phase	Path diversion, bank reprofiling, fencing and planting	6–8 weeks
Completion and Snagging	Final inspections and sign-off	2 weeks
Project Finish	Practical completion	Summer / Autumn 2027

The proposal is to appoint Easton Bevins as the contracts manager who would coordinate:

- Design development.
- Environmental surveys.
- Environment Agency engagement.
- Procurement and tendering.
- Contract administration.
- Construction monitoring.
- Completion inspections.

The Environment Agency approval process is expected to be the principal factor determining the timeline of the project.

Project Management and Professional Fees

Easton Bevins has already undertaken the options appraisal and Environment Agency consultation work associated with the project at a cost of approximately **£1,000**.

The proposed management commission is based on **10% of the final contract value plus VAT**

Path Diversion – Full breakdown of construction cost

Item	Estimated Cost
Regrading Riverbank (incl. labour, equipment costs for 2 weeks)	£12,600
Undertaking Bank Re-Profiling Works	£5,000
Rerouting Path - Rerouting path to match existing 40lm x 2lm wide: £80m2 @ £96.00/m2	£7,680
Remove and Replace Fence	£5,000
Planting for Bank Stabilisation	£7,500
Environment Agency flood risk activity permit	£302
Sub-total	£38,082
Preliminaries (15%)	£5,712
Works Total	£43,795
Professional Fees (15%)	£6,569
Total Excl. VAT	£50,364

Easton Bevins Fees

Service	Fee
Existing Options Appraisal and EA Consultation	£1,000
Project Management / Contract Administration	10% of final contract value plus VAT

Recommended Budget Allocation

Budget Element	Estimated Cost
Path Diversion and Bank Stabilisation Project (Ex. VAT)	£50,364
Surveys: Topo, Ecology, Arborist	£5,000
Existing Easton Bevins Options Appraisal Fee	£1,000
Easton Bevins Project Management Fee (10%)	£5,536
Recommended Project Contingency (10%)	£6,190
Recommended Total Project Budget	£68,090

It is recommended that the project budget be set at **£70,000**.

Project Risks

Risk	Likelihood	Mitigation
Continued erosion before works commence	Medium	Progress approvals promptly
Environment Agency approval delays	Medium	Early engagement
Additional ecological requirements	Low-Medium	Undertake surveys early
Construction cost inflation	Medium	Competitive tendering
Future extreme weather events	Medium	Deliver works as soon as practicable

Other options considered	Sheet piling and rock wall stabilisation
Key considerations for the Council	Public safety, regulatory approval, cost
Consultation and feedback	Consultation to explain proposal will be needed
Links to Council Plan and Medium-Term Financial Plan	Aim three: Cultivate environmental sustainability: build environmental resilience
Financial and Risk Implications	Higher costs if works delayed. Risks to public safety
Legal / HR Implications	Environment Agency permits and associated approvals will be required before works commence. No specific HR implications have been identified.
Equalities Implications	The project will help maintain access to an important public footpath and valued green space.
Community Safety Implications	The project addresses an existing area of path and riverbank instability affecting public infrastructure.
Climate Change and Sustainability Implications	The preferred option supports climate adaptation, biodiversity enhancement, river recovery and sustainable flood resilience.
Health and Safety Implications	The project will reduce future risks associated with ongoing riverbank erosion and path instability.
Constitutional Requirements	N/A
Background Papers	None
Report Sign-Off	Peter Wheelhouse, Town Clerk 29/09/26

Recommendations

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