

REVITALISING
THE RIVER

ST ALBANS



Our Outline Proposals

**Reach five – From Cottonmill Lane to just
upstream of the Watercress Wildlife Site**

19 March 2018

Reach five overview

Reach five covers the River Ver from Cottonmill Lane to the Watercress Wildlife Site – see maps below.

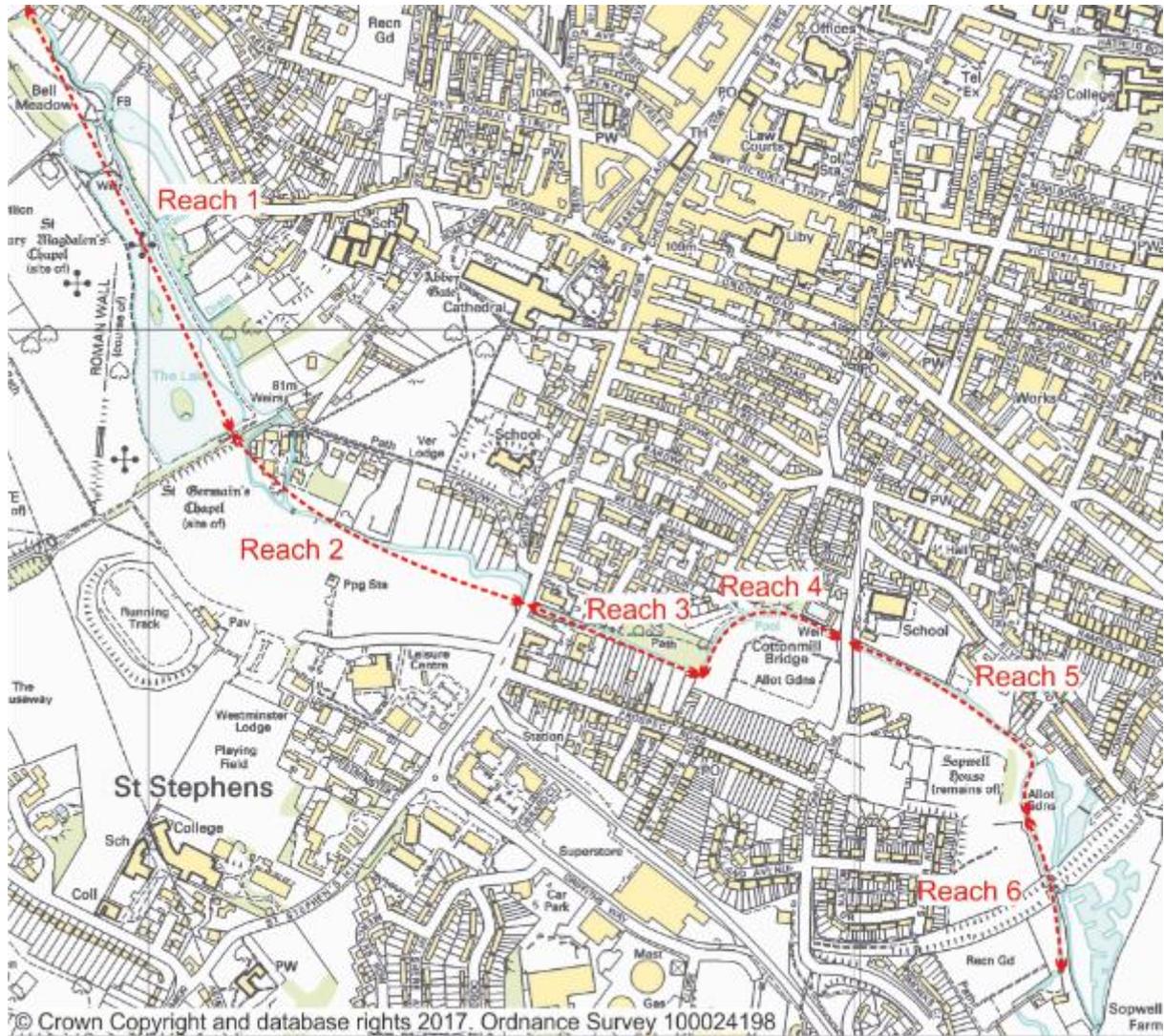


Image 1 – Map of all reaches



Image 2 – Map of reach five

Although the river through reach five is raised above the valley bottom and is not therefore in its natural location, it has naturalised well due to a good bed gradient and the development of natural in-channel features that have helped to narrow the over-wide river channel. This has helped to increase the speed of river flows which keep sections of the gravel bed fairly free from silt and means there are some areas of valuable chalk stream habitat.

However, there are raised mounds of dredged material along the south bank of the river which restrict views and the connection between the river and its floodplain. There is open parkland and Sopwell Nunnery to the south of the river and a school and residential properties to the north.

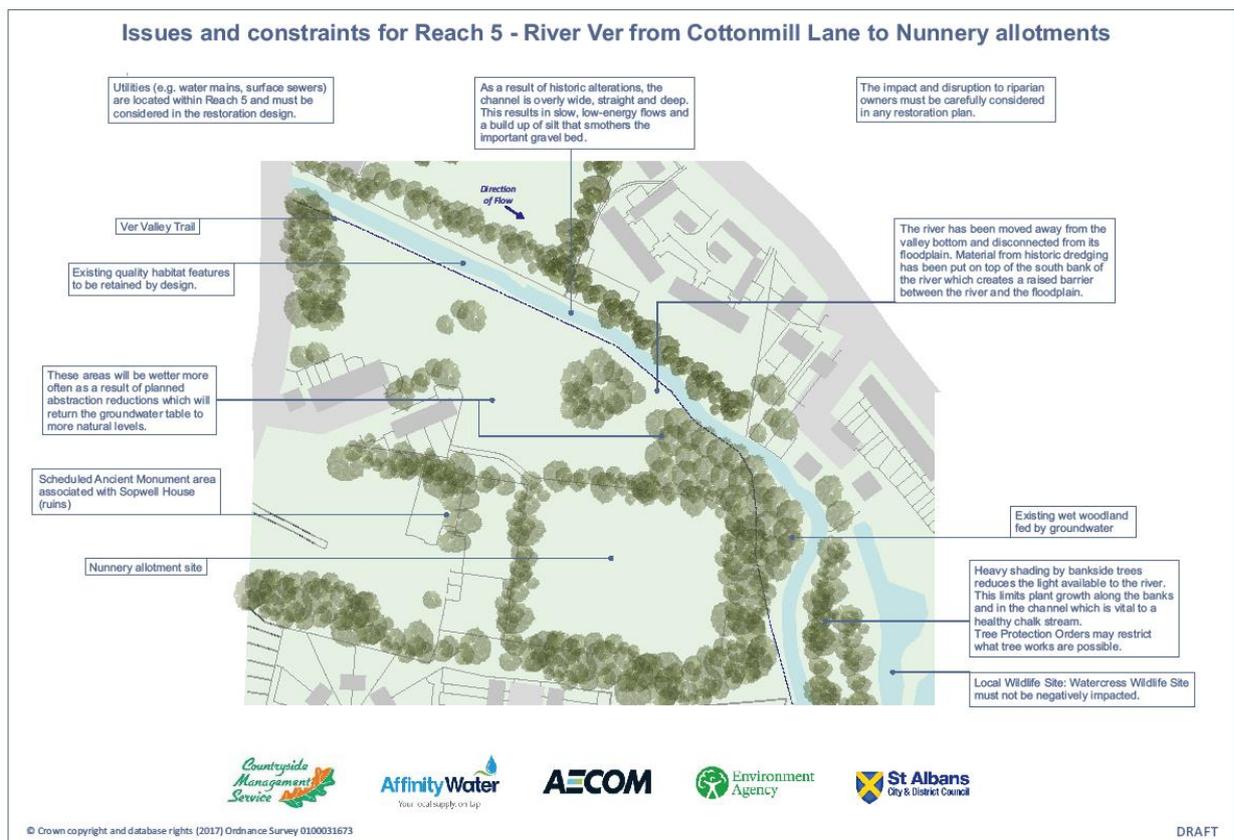
Our proposals will extend and enhance the natural chalk stream characteristics that already exist in reach five. We will look to deliver some in-channel improvements, introducing features such as riffles and low wet river margins to provide habitats for wildlife. Some marginal planting and narrowing in the over-wide areas will create faster flows to improve the bed by stopping silt building up.

In the coming years, to restore and protect the River Ver, Affinity Water plan to reduce the amount of groundwater that is abstracted for drinking water at pumping stations in St Albans. This will return the groundwater table and river flows to more natural levels. As a result, some of the low lying areas to the south of the river that are already boggy and marshy for some of the time, will become wetter more often.

We will lower the raised river banks in places to reconnect the river to the floodplain. This will also help develop enhanced areas of wetland and wet woodland habitats alongside the river, particularly in those areas that will be wetter more often as a result of abstraction reductions. Access will be maintained along the river, potentially by extending the current boardwalks if required.

Issues and constraints overview

This plan shows the range of issues which currently affect the river and the constraints within which we are working to develop solutions. Click on the plan to open it in a separate pdf which will allow you to zoom in and see the detail. Further information on the issues is provided in the following sections of the report.



Issues in reach five

The river in reach 5 has some areas of good habitat, but it still suffers from a range of issues that limit the quality and diversity of habitats. The issues with this reach are:

- Over-wide and deep – through some parts of this reach the river has been over-deepened and widened in the past, reducing the speed of flows.
- Low flows – due to abstraction pressure
- Silty – as a result of the above factors, some of the gravel river bed is smothered in silt.

- Perched channel – the river was moved northward to a higher elevation in the past so is no longer in the bottom of the valley.
- Disconnected from the floodplain – the natural valley bottom is to the south of the river and the river is further disconnected from the floodplain as a result of the mounds of dredged material on the south banks.
- Lack of habitat and flow diversity – some sections of this reach have little diversity of habitat or flow.
- Heavy shading – trees line the banks of the downstream section of this reach and the resulting heavy shade blocks light to the river and restricts plant growth.
- Groundwater re-emergence – it is likely that some areas of the woodland to the north of the channel will become wetter more often as a result of planned abstraction reductions.

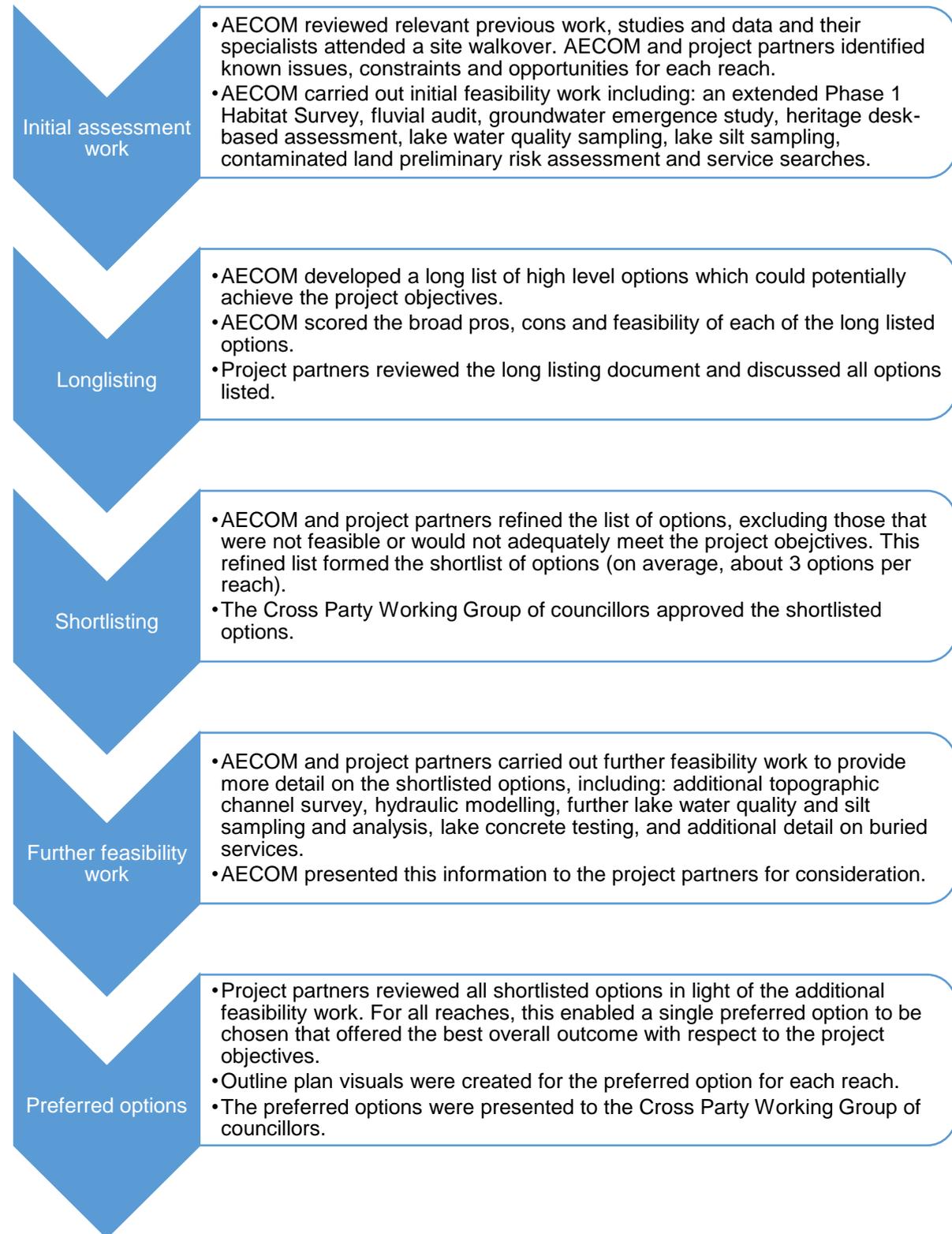
All of these issues are explained in more detail [here](#).



Option selection process

How we got to our outline proposals

For each of the six reaches, AECOM and the project partners worked through the process show below to identify the best overall option to meet the three project objectives.



Long and shortlisting

The longlisting stage for this reach considered 4 different options to improve the river. All four of these options were shortlisted for more detailed consideration:

Option number	Description
1	Full re-alignment of existing channel to the valley bottom, connecting to reach 4 through new structure under road.
2	Full re-alignment of existing channel, but connecting to reach 4 through existing structure under road.
3	Small re-alignment of the existing channel through the woodland.
4	Retain and improve the existing channel

The decision we reached was to take forward a modified version of option 4 to form the proposed option.

Option 1 was discounted due to the excessive costs of creating a new road crossing over the realigned river. Options 2 and 3 would have had slightly better outcomes for the river, but most of the benefits could be achieved through option 4 at a much lower cost. Option 2 was also considered to have potential to increase flood risk.

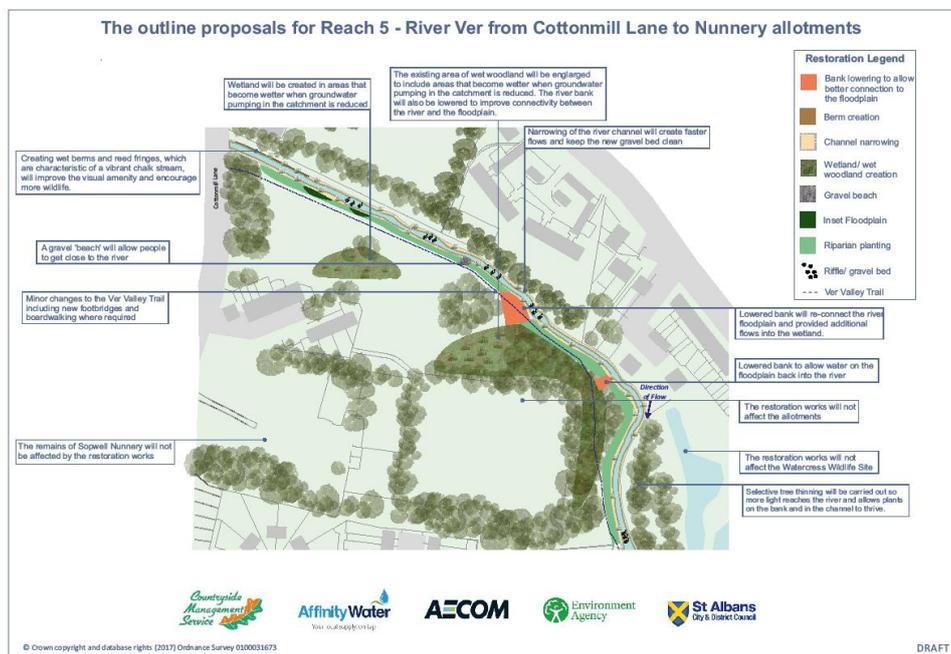
The proposed option includes in-channel improvements through channel narrowing and feature creation. It also includes lowering sections of the south bank of the river to improve floodplain connectivity and creating space for marginal plants to grow. Wetland would be created in areas we expect to become wetter as a result of abstraction reductions. Some bed regrading will be necessary at the upstream end of this reach due to the bed lowering under Cottonmill Lane, which is necessary to enable the proposed option for reach 4. Access and amenity improvements will also be incorporated, making the most of the new areas of wetland and wet woodland habitat that will be created.

Outline proposals

This is the outline proposed plan for reach five. These proposals will address many of the current problems affecting the river which were detailed earlier. Click on the plan to open it in a separate pdf which will allow you to zoom in and see the detail.

There are already really nice, natural parts of the river through reach five which our proposals will enhance. In-channel features such as pools and riffles will create habitats for a range of wildlife. Narrowing the channel will improve the energy of the flow. We will remove bunds that will reconnect the river with the floodplain, as well as giving a public a better view of the river.

When abstraction for water is reduced in the coming years, some areas of this reach may be wetter more often. We plan to make the most of this, with the creation of rare wetland habitats.



Next steps

We would like to hear what you think of the proposed plans, both for this reach and any others you are interested in. There is a survey on St Albans City and District Council's website [here](#) where you can leave us your feedback.

We are organising engagement events for stakeholders which will be held over the coming months. Feedback from the survey and these events will be used to refine the outline plans.

Once we have agreed the proposed option, we will carry out further feasibility studies that are necessary to help inform the detailed designs. The detailed designs will then be developed and any necessary permissions will be sought. Alongside this, we will also begin to identify potential sources of funding to deliver the plans.

There will be many other opportunities throughout this process for you to have your say. We hope you share our enthusiasm for this fantastic opportunity to achieve significant benefits and that you will help us shape the proposals to achieve the best possible outcomes for people and wildlife in St Albans.

