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Project Name: **Kings Pond, Alton**
Date: **27/10/2026**
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Subject: **Outline Ecological Impact Assessment Review for Existing Two Options**

The Kings Pond Site in Alton, forms part of the course of the River Wey. The site itself is experiencing several problems, largely from siltation of the waterbody as the pond has been formed by a historical dam on the rivers existing course. As such the river cannot carry away silt and gravel as it would naturally do, depositing the material including potential pollutants within the pond itself. The site also receives other inputs such as outfall from a surface water drain. The presence of the pond in its current form creates other ecological problems, such as attracting high levels of waterfowl, including invasive Canada geese, which in turn create elevated levels of nutrients into the water column from faeces. A dense waterfowl population also leads to stripping of marginal, aquatic and terrestrial vegetation. Additional higher nutrient levels are generated by the general public feeding the bird assemblage on site, with excess food remaining within the water column and a large waterbird assemblage that are part reliant on feeding activity. It is understood this causes eutrophic conditions on site and downstream from the site within the River Wey, which is a chalk stream, a very rare habitat worldwide, with around 85% of the worlds chalk streams found in England. In addition, the pond has a warming effect on the river. Chalk stream water is typically cool, having risen from groundwater aquifers. The site holds water along the course of the river in a sizeable, relatively shallow waterbody, significantly warming the water that is discharged. It is understood that this changes the typical plant and invertebrate assemblages of the habitats downstream.



Figure 1. Approximate red line boundary of site

Initial investigation work by Alton Town Council and its team have identified two potential options aimed at improving the site ecologically but also maintaining the site as a much-loved amenity space for the public to enjoy. The Ecology Partnership have undertaken extensive survey work on site from late 2024 - 2026 to establish an ecological baseline. Survey work has included preliminary ecological appraisal work which characterised the habitats present and made recommendations for further survey work. The Ecology Partnership subsequently undertook survey work for bats, wintering and breeding birds, water vole, reptiles, great crested newts and invertebrates on site. Great crested newts and water vole were concluded as being likely absent from site.

The Ecology Partnership undertook some additional bat monitoring using static detectors in 2026, to gather some data for the month of August to fill a gap in the original data set. This is still being fully analysed; however early indications show that the activity for this month was notably higher than any other month recorded during the 2025 period. The new data shows a notable increase in use from Daubenton's bats, a species associated with open water. The full final data set will be used to inform detailed design.

Fiver Rivers have designed two potential options for the site, to try to alleviate the identified problems and also take into account potential ecological enhancements. These are presented below.

Option 1 – The Dredging Option

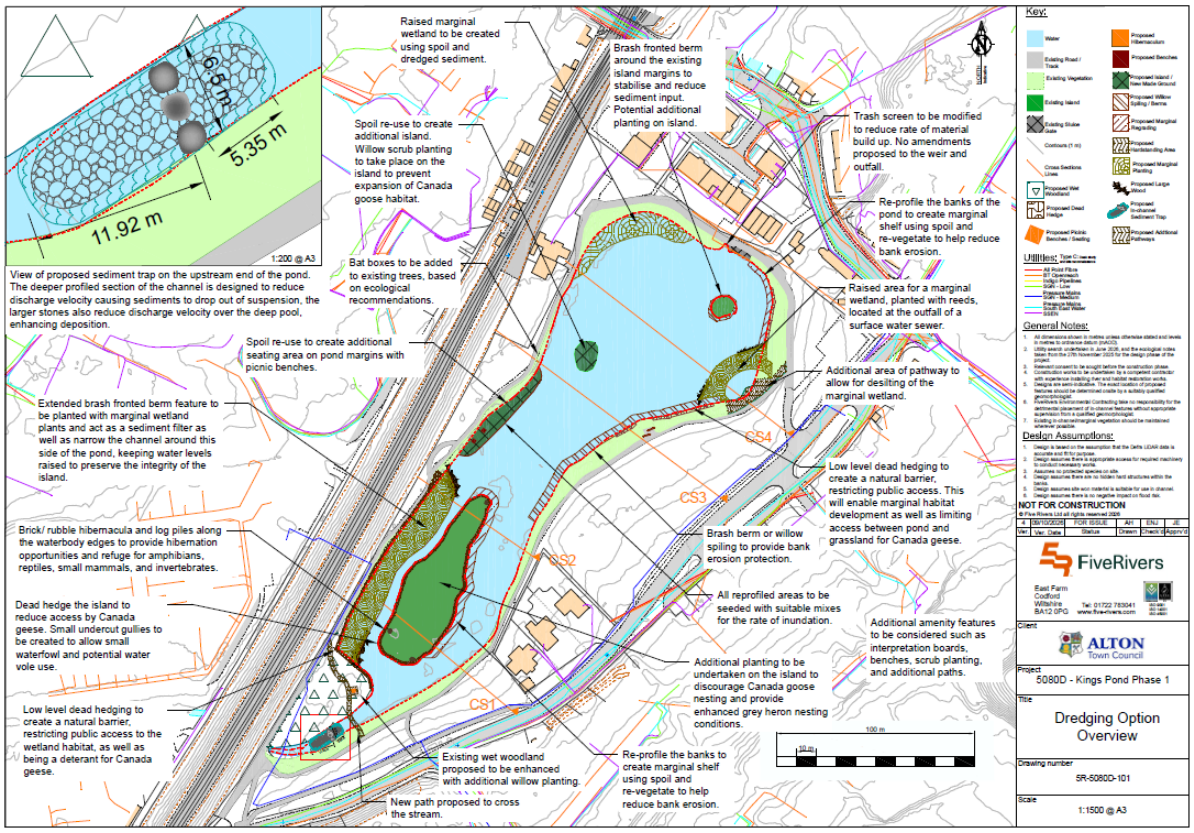


Figure 2: Outline plans for Option 1

Option 1 looks at the simplest option and aims to improve the waterbody by desilting the pond. This would aim to keep the pond largely in its current form. The main focus of the proposal is to make the pond more resilient to pollution and siltation, water level fluctuations, outfall blockages and strengthening of the banks, whilst taking opportunities to diversify the habitats present and in turn diversify the ecological niches for different species to use the site.

A silt trap is to be installed at the pond inflow which contains a deeper section of the channel and large stones to reduce discharge velocity causing sediments to drop out of suspension into the trap. The trap can then be emptied regularly with the aim of a greater reduction of sediment being deposited across the wider waterbody. An area of wetland will also be built around the outfall of a surface water drain that enters the pond to the northeast. This will also allow for siltation within a contained area which can be emptied as part of maintenance. The area is also aimed to contain potential pollutants entering the pond and allow for physical and biological processes to break them down before entering the main waterbody. Regrading

banks, brash berm work or willow spilling, marginal planting and wetland creation will be undertaken onsite. This will aim to increase the diversity with new habitat for invertebrates, smaller bird species, amphibians and reptiles, while stabilising the banks against erosion. Measures have been put in place to reduce the sites suitability for Canada geese, an invasive species. To reduce access to the main island in particular for the species, dead hedging will be installed. This will leave smaller gaps within the structure to allow access to smaller birds for safe nesting on the island. The scheme will also include the creation of a new island on site. It is also understood that carp are to be proposed to be removed from the pond who are bottom feeding species, these uproot vegetation and cause turbidity in the water which again contribute to poor water quality. The works will aim to improve the waterbody for native target fish species such as bullhead.

Option 2 – The River and Pond Option

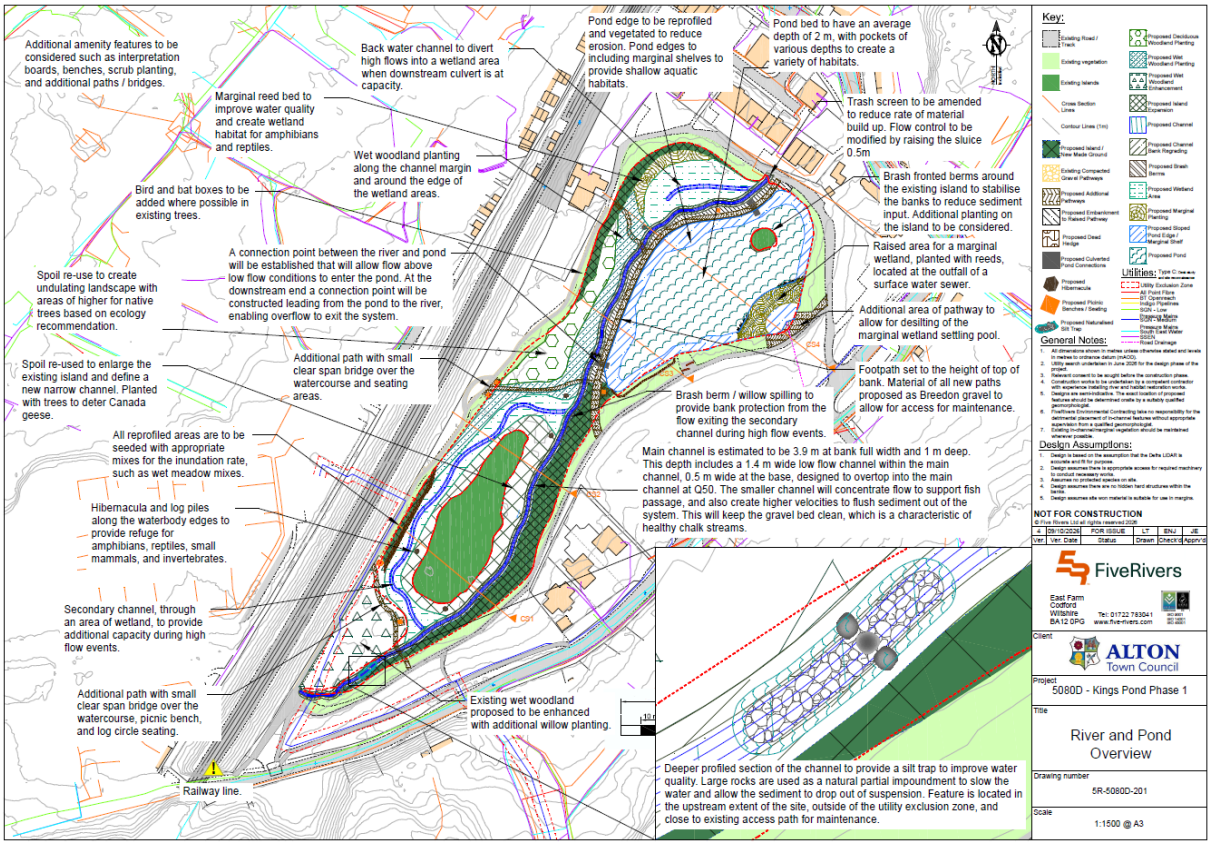


Figure 3: Initial design for Option 2

Option 2 will restore a separate section of river through the site to connect the existing river sections at either end, whilst also retaining a smaller pond and the creation of sizeable areas of wetland habitat as well as new woodland areas. This option would lead to the biggest change in the current site, however this aims to address blockages and water level fluctuations, reinstate and strengthen banks as well as creating a new flow pathway through the centre of the site to alleviate siltation pressures and reduce future maintenance costs. The river and pond will be connected, however the inflow connection point will only allow water to flow in above low flow conditions, water will only be allowed to outflow for overflow reasons. This will essentially take the pond offline from the course of the river. With a smaller capacity pond, with likely lower wildfowl nutrient inputs and less connectivity to the river, the water quality of the River Wey should significantly improve once established.

The primary works include dredging the pond before reprofiling the site. A secondary channel flowing through the site will flow round the existing large island and will form a new wetland area, this area maybe seasonal and will provide additional channel capacity on site for high flow events. This may remove the functionality of the island for drier parts of the year and may remove safe island nesting / roosting space for ground nesting bird species. A second backwater and wetland will be formed to the north of the site. Option 2 will aim to significantly diversify the habitats present, providing suitable habitat for a wide array of species and has scope to significantly improve water quality on site. Again, it is understood that carp will be removed and improvements for a range of native fish species as well as various other species groups is planned.

An outline review of ecological receptors including habitats and species groups surveyed for by The Ecology Partnership are reviewed within the table overleaf with regards to both options. Water quality / siltation has been assessed against each option as well as it is an important consideration on site.

Receptor / Consideration	Existing Conditions	Option 1 - Dredging	Option 2 – River Realignment and Pond	Summary
Habitats	The site contains a large pond fed by the River Wey. The pond is surrounded by a mix of scrub and woodland habitats including lowland mixed deciduous woodland and wet woodland, with areas of modified grassland and other neutral grassland as well as tall forbs (herbs). The pond lacked marginal vegetation in any significant area, with small areas restricted to the southwest of the site.	As part of proposals the margins of the waterbody will be regraded, restored with creation of new wetland areas, which will be seeded with marginal plants and reed beds to provide additional valuable native habitat onsite. Existing woodland to the south west is to be enhanced with wet woodland species. Low level dead hedging will be installed to restrict access to the pond edge to leave some areas less disturbed by the public and restrict access for invasive species such as Canada geese. This will occur around the pond edge, but also notably within the large island. This island is utilised by a large number of Canada geese currently who are contributing to poor quality of the pond and surrounding habitats. The dead hedging on the island will be undercut with small gullies to allow small waterfowl to still safely access the large island for nesting. A new small island will be created to provide additional safe nesting habitat for birds. Large areas of open water will be left with minimal change to the waterbody apart from gaining improved depth through silt removal. Banks will also be stabilised from erosion.	This option will provide a wide range of habitat within the site. Creation of a section of new river, a smaller better managed and structured pond, extensive wetland areas and new marginal vegetation as well as new woodland planting and an expanded large island will occur. However, the large island area will be less functional as an island during low river flow along the newly formed channels. The site will be more resistant to erosion. The uplift of large areas of existing pond habitat, which is indicated as being in poor condition to ecologically valuable habitat will aim to have an uplift in biodiversity value.	Both options will lead to the enhancement of habitats present at the site. Option 1 will largely keep the characteristics of the existing site, whilst providing enhancement and features to address notable problems. The addition of marginal vegetation and reed bed will provide some additional interest and valuable habitat to the site. Option 2 gives a greater scope for ecological habitat diversification and will change the site more dramatically from its current form. A greater diversity of habitats and native plants will provide a much larger habitat range of value to wildlife species.

Water Quality and Siltation	Results from the aquatic invertebrate survey indicated that the water quality of the pond was poor (polluted or impacted habitat) as part of the BWMP assessment. It is noted that the main drivers of the poor water quality are from the large number of waterfowl on site, including Canada geese. The droppings from large numbers of birds as well as excess food dropping into the pond from feeding are considered to be largely driving the poor conditions. Carp introduced to the pond are present within the pond which are bottom feeding fish that uproot water plants, resuspend stored nutrients and pollutants in the silt and cause turbid water conditions to persist. In addition, with the river flow slowing on site, sediment carried into the pond are deposited within the water body which includes any pollutants that enter the pond. The silt also significantly reduces the capacity and function of the waterbody overtime, leading to extensive costly dredging work. In addition, a surface drain enters the pond at the north east, which will bring run off into the water column from the surrounding road network. The pond warms water onsite, leading to warmer water temperatures within the chalk	The dredging of the pond will remove silt and associated pollutants from the pond. The design will aim to manage silt entering the waterbody with the incorporation of the silt trap as well as the pollution control feature around the surface inflow. It is not understood to what extent dredging of the main waterbody maybe required in the future. Measures put in place to restrict access for breeding Canada geese will look to reduce impacts of this invasive species and will look to reduce nutrient levels in the waterbody. Public feeding will unlikely be stopped although feeding areas will be more focused. Invasive carp species will be removed from the waterbody which will reduce turbidity and may promote more aquatic plant growth, which in turn may allow for greater invertebrate numbers and make the pond more resilient against algal blooms.	The restoration of the river will aim to significantly improve the water quality of the site and of the stretch of the River Wey. Flow rates will improve through the site through the new river channel, meaning a much-reduced build-up of nutrients and pollutants on site. Water warming within the river course will be reduced with constant river flow. Whilst a pond will be present on site connected to the river, the smaller size of the new waterbody will likely support a smaller waterfowl population which cause water quality issues. The pond will not always be connected to the river meaning that there will be periods of time where no pond water will be entering the river system. A raised marginal reed bed around the entrance of the land sewer drain within the pond will look to settle and filter pollutants before entering the main pond body. A silt trap will be installed at the site inflow to manage silt flowing through the site. Again, silt and pollution measures will be put in place around the surface water drain inflow The combination of this and a new stretch of river should significantly improve the siltation problem at site and future maintenance costs.	Both options will improve the water quality onsite. Option 1 will aim to retain the pond but improve on the current situation. Dredging will restore the pond and increase capacity. Measures will be put in place to manage silt and nutrient / pollutants on site. Dependent on the success of the silt trap further dredging maybe required across the wider waterbody in future. Continued pooling of water with wildfowl impacts and public feeding will likely persist limiting potential improvements to water quality on site. Option 2 is aimed at improving water quality more significantly providing a much more sustainable resolution to water quality and siltation issues. The installation of a new river course in particular has the potential to significantly restore a healthier river ecosystem.

	stream sections downstream which may alter typical chalk stream ecology.			
Amphibians	Survey work focused on the legally protected great crested newt which are found to be likely absent from the site. This is understandable due to the species preference of small breeding ponds free of dense populations of predatory fish and waterfowl who uproot and eat plants for which they lay their eggs. Common frog and toad were recorded using terrestrial habitat on site during ecological survey work. These are thought to be present in relatively low numbers.	The habitat available for common amphibians will largely stay the same under proposals for this option, although the creation of marginal wetlands may allow for more sheltered breeding opportunities if water levels and conditions allow. Restriction of access to the large island from geese species as well as the installation of hibernacula on site will aim to provide more suitable terrestrial habitat for amphibians on site.	This proposal will aim to provide increased habitat for amphibians onsite. New wetland areas of the site will allow for new potential breeding opportunities for the species if water levels and conditions persist as well as increased areas to forage and shelter within. New wooded habitats and hibernacula will increase terrestrial habitat for amphibians to forage and shelter onsite.	Both options will improve the habitat available for amphibians. Option 1 will aim to provide increased marginal / terrestrial vegetation habitat for foraging and shelter. There is potential for some additional breeding habitat if conditions persist. Option 2 would provide more new foraging and shelter opportunities for amphibians onsite with creation of greater areas of wetland habitat. If pools can be created within these areas, then new breeding habitat maybe achievable, along with areas of new marginal vegetation if suitable conditions persist. This option provides a greater increase in diverse habitat for amphibians to exploit.
Bats - Roosting	The proposals largely focus upon existing aquatic habitat. Trees identified as having bat roosting potential should ideally be retained within final proposals. If these are to be removed, then appropriate survey work will be required. Emergence survey work of a tree	Trees with roosting potential should be retained. If further survey work finds an active roost in a tree that will be impacted, appropriate mitigation will be devised and licencing gained. The scheme will look to increase overall	Trees with roosting potential should be retained. If further survey work finds an active roost in a tree that will be impacted, appropriate mitigation will be devised and licencing gained. The scheme will look to increase	Both schemes would aim to retain bat roost potential trees around the edges of the pond. If any of these trees are to be removed, then suitable survey and if required licencing would

	identified as having roosting potential close to the existing outflow to the north found no evidence of use within 2025 survey work.	roosting space at the site with the incorporation of bat boxes on site.	overall roosting space at the site with the incorporation of bat boxes on site.	be sought with agreed mitigation. Overall, both schemes would include the installation of new bat boxes within suitable retained trees to increase roosting provision on site.
Bats – Foraging and Commuting	Three nighttime bat walk surveys were undertaken in 2025, these identified that the most consistently used sections of the site by bats were along the northern and western edges of the site as well as above the open water immediately north of the large island. At least eleven bat species were recorded using the site during the static monitoring undertaken in 2025 with pipistrelle species dominating activity on site. Daubenton's bats which are linked to aquatic habitat were the third most recorded species on site and favour open water habitat.	The pond will be dredged prolonging the functionality of the waterbody and water quality should be improved through the incorporation of silt traps, exclusion of certain areas of the site from geese and the introduction of marginal reedbeds to act as pollutant filters, in particular around the surface drain inflow. An increase in water quality should improve available habitat for aquatic invertebrates, some of which will be available food sources for bats, such as flies and midges. Additional new wetland habitat will be incorporated into proposals which will provide additional habitat for invertebrates, for which bats prey upon.	Although the site will change more under these proposals, the habitats on site will diversify providing new habitat for different species of invertebrates for which bats prey. Although the river course is to be reinstalled an area of extensive open water habitat will remain on site for bats to forage above and drink from. The new river course and wetland areas will provide important habitat for bats to forage. The water quality on site will likely significantly improve with the reinstallation of the river, which should significantly improve habitat for aquatic habitat for invertebrates some of which bats will prey from. New woodland planting will provide good additional habitat.	Both schemes will look to enhance the site overall for foraging and commuting bats. Option 1 takes the current form of the site and looks to enhance it without making significant changes. Likely improvements in water quality and marginal vegetation creation will provide added benefits to the existing bat assemblage. Option 2 will change the site more significantly, with a reduction in open water habitat, for which Daubenton's favour, although a sizeable pond will be retained. The creation of additional woodland, wetlands, river as well as a retained pond area will diversify the available habitat for all bat species present on site. This scheme will take longer to construct which may have longer short-term impacts but should provide a wider invertebrate resource for bats to prey upon boosted by

				better habitats and better water quality.
Breeding Birds	Survey work in 2025 recorded 20 probable or confirmed breeding species at the pond. Five species are of conservation concern (Amber listed), although these are relatively common and widely distributed. In total 40 species were recorded at the pond or interacting with it. Measures will be put in place through timings and sensitive working practices to minimise disturbance on breeding birds at the site.	Timings and working practices to minimise disturbance on breeding birds to be employed as part of works. The characteristics of the site will remain largely the same. Habitat on site will be diversified with the creation of new marginal habitat which will provide new foraging and nesting opportunities for the existing assemblage and may attract additional species. Restrictions for larger geese species such as Canada geese will be put in place on site to reduce the impact of this larger invasive species. Provision can be made to still allow access to the historical swan nest on the south island. Additional bird boxes will be added to trees onsite.	Timings and working practices to minimise disturbance on breeding birds to be employed. This proposal will change the site more characteristically. However, the habitat on site will be diversified more extensively to provide additional ecological niches for different species. The inclusion of both river and pond on site diversifies the habitat for waterfowl , although the amount of open water and island space for safe ground nesting will be reduced, particularly as the proposed second channel may not flow at lower flow rates. The island retained within the new pond area will continue to provide some island nesting habitat. Additional bird boxes will be added to trees onsite. There will also likely be a longer works period for this option which may have a longer short-term impact on site.	Both schemes aim to provide a range of habitats for breeding birds post development. Option 1 will have least impact upon breeding birds, and the pond will largely stay characteristically the same. Restrictions on larger geese species will be put in place to try to help water quality and plant health on site and provide additional habitat for alternative species. Existing habitats will be improved and diversified. Option 2 will change the site more radically so the long-term impact upon the bird assemblage is less predictable. However, the site will provide a wider range of habitats on site diversifying the niches for a range of species. It is noted that there will be less available open water, and island nesting capacity within this proposal, which will likely change the bird assemblage more notably. Short term impacts maybe longer on site, although mitigation will be implemented throughout works.

Wintering Birds	Thirty-seven bird species were recorded on site during the 2024-25 survey work. It was considered that the species present are all likely resident species and therefore the site is not an important resource for winter migrants. However, the site does provide foraging and roosting opportunities to a wide range of birds throughout the winter months.	The proposals will have some short-term impacts upon wintering birds if works are timed over these months, which is favourable to disturbance to breeding birds. Sensitive working practices put in place where required. The characteristics of the site will remain largely the same. Habitat on site will be diversified with the creation of new marginal habitat which will provide new foraging and nesting opportunities. Restrictions for larger geese species such as Canada geese will be put in place on site to reduce the impact of this larger invasive species and also create opportunities for other species that maybe outcompeted.	The proposals will have some short-term impacts upon wintering birds if works are timed over these months, which is favourable to disturbance to breeding birds. Sensitive working practices put in place where required. This proposal will change the site more characteristically. However, the habitat on site will be diversified to provide additional ecological niches for different species. The inclusion of both river and pond on site diversifies the habitat for aquatic species, although the amount of island space for safe ground roosting will be reduced, particularly as the proposed second channel may not flow at lower flow rates.	Both options are likely to present some disruption to wintering birds at the site if works are timed through these months. However, both options provide long-term provisions for wintering bird assemblages onsite and look to diversify habitat types present. Option 1 will have least impact upon wintering birds, and the pond will largely stay characteristically the same. Restrictions on larger geese species will be put in place to try to help water quality and plant health on site and provide additional habitat for alternative species. Option 2 will change the site more radically so the long-term impact upon the bird assemblage is less predictable. However, the site will provide a wider range of habitats on site diversifying the niches for different species. It is noted that there will be less available open water, and island roosting capacity within this proposal which may alter the bird assemblage.
Reptiles	A reptile survey was undertaken at the pond. No reptiles were found during the survey, however a single	Recommended avoidance measures will be followed on site	Recommended avoidance measures will be followed on site	Both options will enhance the site for reptiles.

	slow worm was incidentally recorded during other survey work at the site in June 2025. This is the only record of reptiles using the site. Slow worm are terrestrially based and are likely to be more associated with the grassland, scrub, tall forb and wooded areas around the site. Slow worm are commonly found in garden habitat as well as railway embankments which were both present close to where the reptile was recorded. No grass snake, which are semi-aquatic were recorded during survey work. The site is considered to support a low population of reptiles, with one species recorded on site.	Available habitat will largely stay the same for reptiles, however new marginal planting and reed bed planting will provide additional habitat for species that may colonise the site such as grass snake, which are semi-aquatic. Hibernacula creation will increase hibernation habitat for reptiles.	This proposal will provide extensive terrestrial habitat creation on site to support reptile species, such as slow worm which have been recorded on site and possible colonists such as grass snake which are associated with wetland and aquatic habitats. Hibernacula creation will increase hibernation habitat.	Option 1 will aim to improve opportunities for reptiles onsite, although it is anticipated that suitable habitat for slow worm will largely be unimpacted as part of works, where small sections are to be impacted reasonable avoidance measures will be utilised. Option 2: Again, the majority of slow worm habitat is not anticipated to be impacted. Reasonable avoidance measures will be utilised where sections are. Habitats on site will be diversified more widely with this proposal which may provide more available habitat for reptile species.
Invertebrates	As part of the survey work undertaken in 2026, the site recorded 209 species of invertebrates. 7 notable species were recorded on site. From analysis of the five specific assemblage types (SATs) on site, all were found to be in an unfavourable condition. It was noted however that there was a relatively diverse assemblage within the draw down zone around the pond edge. The aquatic invertebrates which are a key indication of water quality on site was interpreted as through the BWMP system with a score of 14,	The proposals will aim to improve water quality onsite by removing silt and associated nutrient / pollutants. The silt traps will provide managed features to prevent silt build up in the future. Wetland and reed bed planting around the surface drain is aimed to remove pollutants through filtration before entering the pond. Measures to restrict access to breeding Canada geese will also aim to tackle excess nutrients in the water. Focusing public access around the site edges is aimed to reduce areas where public feeding will occur. All these measures are aimed to improve water quality on site	The restoration of the course of this section of the river will aim to significantly improve water quality on site and is aimed at improving water quality downstream. The channel creation will allow the site to free drain and will create important habitat for river invertebrates associated with sections of chalk streams and will resolve the water warming issue on site An area of pond will also be retained to provide habitat for associated invertebrate species. Significant areas of marginal planting and wetland creation will diversify the site to provide	Again, both proposals will aim to enhance the invertebrate population on site. Option 1 will look to aim to improve water quality and management of the waterbody to benefit invertebrates, however continued pooling of water with wildfowl impacts and public feeding will likely persist limiting potential improvements to aquatic habitat. New marginal habitat creation will provide additional niches.

	which indicates poor (polluted or impacted habitat). There is significant scope to improve the invertebrate assemblage on site.	and in turn should improve the invertebrate population of the waterbody. New areas of marginal vegetation and berms will also provide additional habitat niches around the pond edges for invertebrates. Dead hedging and logs from any trees removed to facilitate works will provide additional dead wood habitat on site for invertebrate use. This option will look to diversify and improve the quality of habitat available for invertebrates and has the potential to improve the assemblage present.	additional habitat whilst retaining important scrub and woodland habitats. Any trees removed to facilitate works can be turned into log piles to provide dead wood habitat onsite. Dead hedging of areas will also provide dead wood habitat on site for invertebrates. New woodland planting will also provide additional habitat to invertebrates. This scheme has the potential to significantly improve the invertebrate population on site.	Option 2 has a bigger scope to diversify the invertebrate population on site through habitat creation and improving water quality on site. This option will also look to resolve warming water on site.