

Technical Note

Project Mayfield
Subject Ecology Assessment of proposed slide structure
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00	Ecology Assessment of proposed slide structure	JR	13/12/2021	PO

1 Introduction

1.1 Background

This Technical Note has been prepared by Buro Happold to provide a high-level assessment of potential impacts on ecology which may arise due to the addition of a children's play slide into the play section of the Mayfield Park. The slide is proposed to cross the River Medlock, with an access footbridge crossing north-south, and the slide then crossing back south-north at the river's eastern extent in the Park.

As design changes to the Park have arisen since the scheme was consented under application ref. 124972/FO/2019, the assessment of change, and potential impacts thereof, are undertaken against the latest design iteration for the Park, rather than that presented within the consented scheme.

Consultation on the proposed changes to include the slide over the River Medlock were made with the Environment Agency. Through this consultation, concerns were raised about the potential impact of varying aspects of the slide on the ecology of the riparian corridor, particularly in consideration of the biodiversity improvements and enhancements included within the scheme. Key concerns raised, and to be assessed within this report, are:

- Change in green space and loss of planting as a result of the slide towers' footprints;
- Noise impact from use of the slide over the river corridor; and
- Overshadowing of the riparian habitat and bankside vegetation from the slide towers, slide and crossing footbridge.

1.2 Proposed Mayfield Park and river corridor

Prior to the inclusion of the slide, the Mayfield Park design had been updated from that presented within the consented scheme. This has separately been assessed for potential changes to the original impact assessment produced to support the planning application, and identified that the updated Park design continues to deliver significant biodiversity enhancements, both in terms of a quantified net gain approach, as well as through the provision of features and habitats of benefit to wildlife in and around Manchester.

One of the key ecological enhancements provided by the Park is the improved treatment of the River Medlock, with an adjusted approach to the use of the previously brick-walled and partially culverted heavily engineered treatment. The Park scheme now incorporates areas of naturalised banks, and a wildscape area that will allow for flooding outside of the channel in times of higher rainfall events. These changes have allowed for the reintroduction of wetland planting, the areas of which have been directed by the results of hydro-morphology modelling, predicting annual fluctuations in the water levels.

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The soft landscaping strategy was designed to provide a predominantly native species planted, ecologically sensitive edge to the river, both where banks were naturalised but also in areas where river walls were retained. Figure 1-1 identifies the broad planting types across the Park, including along the river edge.

The assessment of the changes to the Park design from the consented scheme considered that the changes to the Park design would continue to deliver significant benefits to the River Medlock and its role as an ecological corridor.

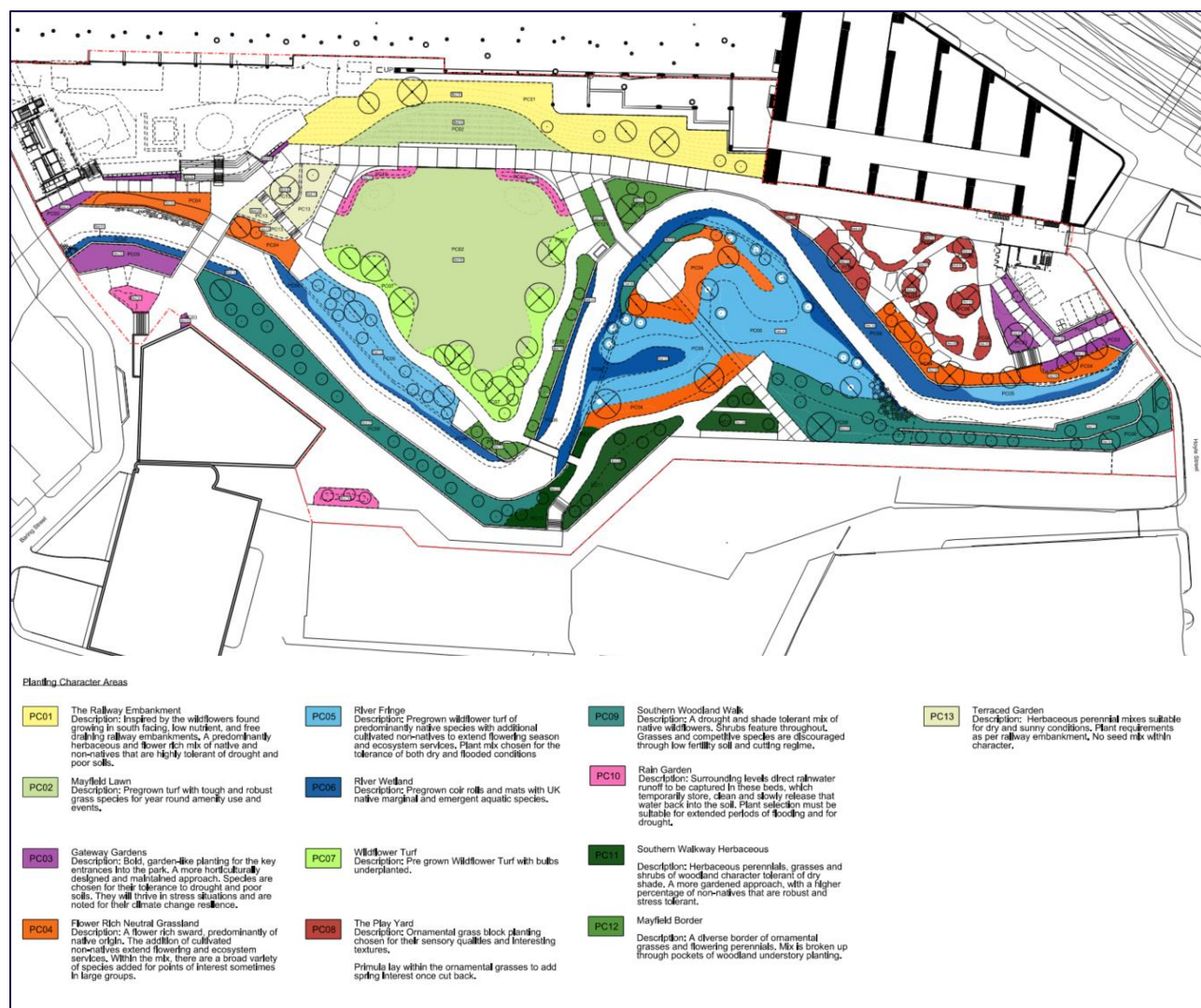


Figure 1-1 Mayfield Park landscape design as proposed prior to slide inclusion

1.3 Proposed changes

The proposed changes to the Park to be assessed within this Technical Report relate specifically to the inclusion of a new children's playpark slide. The structure is proposed to cross the River Medlock at the eastern end of the Park. The slide structure will include two supporting towers, one either side of the river, with a footbridge crossing from the northern side to the southern side, and the slide then crossing back. It is understood that the slide will not be accessible from the southern side, and the foot bridge from the northern side will need to be used to access the slide to cross the river. The proposed location for the slide, and its associated tower structures, is illustrated in Figure 1-2.

The locations of the towers do fall within areas previously proposed for predominantly native planting on both the northern and southern sides of the river, illustrated as broad planting types PC04 Flower Rich Neutral Grassland to the north and the PC09 Southern Woodland Walk to the south in Figure 1-1.



Figure 1-2 Plan indicating the proposed location of the new slide across the River Medlock in the east of the Park

2 Impact assessment

2.1 Change in green space and loss of planting

The structure of the slide and its supporting elements is situated entirely above the river corridor. No part of the slide will be installed within the river, within areas of riparian wetland planting at the water's edge or on the adjacent naturalised northern bank. The structures will be placed on areas above retaining wall structures, and so the slide will not result in the loss of any habitat within the river corridor, or habitat directly connected to the river on the naturalised bank. It is understood that construction and future maintenance of the slide will be undertaken from the bank side and will not require works to be undertaken from the river, reducing the potential for impacts on the riparian environment.

It is acknowledged that the footprint of the towers for the slide will occupy areas that were previously intended to be part of the soft landscaping in the absence of the slide. To the south of the river, the footprint of the slide tower will be approximately 7m², which will result in a direct loss which cannot be regained in this area due to the constrained space between the river to the north and the footpath to the south. The PC09 planting area totals 1,672m² along the southern area of the river. The planting has been assessed as a shade-tolerant grassland mix with shrubs and bulbs interspersed through the layer to provide a woodland-type mix amongst planted trees. The loss of 7m² of this planting is not considered significant, and would result in less than 1% of this planting type being lost from the proposed Park. Additionally, the inclusion of the tower in this area doesn't result in the severance of habitat as the width of the PC09 planting area allows the vegetation to continue around the tower, maintaining connectivity.

To the north of the river, the assessment of habitat change is less straight forward as the playpark, as a whole, has been redesigned to incorporate a variety of larger, connected play structures as illustrated in Figure 2-1. Due to the tower and the slide exit area being situated to the north, the take from the previously proposed planting is larger than to the south, with approximately 9.5m² of area removed which was previously proposed to be a neutral grassland wildflower mix with shrubs and trees. However, due to the playpark redesign, it is actually, as a whole, now delivering more planting, with an uplift from the previously proposed 889m² to 957m². This uplift is above that lost as a result of the tower and slide exit structures. The redesign of the playpark, and addition of extra planting area, has created a larger buffer to the river corridor at its eastern extent where the Park meets the Hoyle Street culvert. This will create a more graded naturalistic area at where the river enters the Park.

Similarly to the southern side of the river, the exclusion of any slide structure from the naturalised bank on the northern side of the river promotes maintaining a continual corridor of habitat along the river. This bank, with its lower aspect from the play park will likely provide a more appealing corridor for wildlife movement than the habitat that is closer to the playpark and so its retention and protection from any built elements of the slide is considered to minimise impacts.

Having reviewed the proposed changes as a result of the slide's inclusion, it is not considered that it would result in a significant loss of planting in comparison to the previously assessed scheme. Additionally, the redesign of the playpark area may have provided some further enhancements at the most eastern extent of the river.

2.2 Noise impacts

Whilst there will be noise associated with the slide, it is not considered that it will create a significant increase given the proposed use of the surrounding area as an urban park. The area to the north of the river at the slides location was a proposed playpark in the previously assessed scheme, whilst the rest of the Park is providing a variety of usage types, including a temporary event space on the Mayfield Lawn.

The noise from the slide is likely to be concentrated to certain times and will not be constant through the day or year. It is not considered to likely cause a significant increase above what would be occurring throughout the Park from other uses neighbouring the river and so is not perceived to be likely to result in a significant impact above the previous scheme without the slide.

2.3 Overshadowing of the riparian habitat

The towers and crossing bridge have been designed to have a relatively open structure which will allow light to pass through them, rather than creating a hard shadow on the adjacent river and vegetation, as illustrated in Figure 2-1.

Discussion with the project landscape architects highlights that they do not perceive that a change in planting type will be required, and the area of bank around the southern tower was considered likely to be shaded prior to the slide inclusion due to the stepped retaining structures at this part of the site. Additionally, planting along the southern edge within the PC09 planting area include a number of scattered trees which will provide a similar shading effect which has been accounted for within the planting design of the Park.



Figure 2-1 Illustration of the slide, tower and connecting bridge proposed construction type.

Both the slide and the crossing footbridge appear to be less wide than the bridge structures included elsewhere in the Park across the river. These bridges, combined with the slide, will total significantly less cover of the river than the previous Baring Street culvert which has been almost entirely removed as a result of the redevelopment of the Park.

In line with the Landscape and Ecology Management Plan, the planting incorporated across the park will be subject to monitoring and maintenance as it establishes with one of the aims to identify where planting may be failing and need replacing. As part of this, any failing of riparian wetland planting would be identified. Should it be concluded that this has resulted due to the presence of the slide and its associated structures, then a more shade tolerant mix can be added into the planting to address this and maintain a continuation of planting along the river edge in this area.

3 Conclusion

The inclusion of the proposed slide and its associated structures has been assessed for its potential impacts in comparison to the previously proposed scheme in the absence of the slide. The assessment has reviewed the location of the slide, with regards to the proposed habitat and biodiversity enhancements at this location. The construction type of the slide and supporting structures has also been reviewed. The assessment concludes that whilst the slide will result in the removal of a small area of planting, its inclusion within the Park design will not have a significant impact on the proposed enhancements to the river corridor. It is anticipated that with the inclusion of the slide, the Park will continue to deliver a significant gain for biodiversity.