EWRG Objection Document

Objection to the Outline Planning Part of HYBRID APPLICATION - Part full / part outline planning application proposing the expansion to the football club stadium to provide up to 7,405 additional seats

Reference: DC/092211

5. WATER, DRAINAGE AND FLOODING

See also:

Part 1: *Introduction*

Part 2: *Site Boundaries*

Part 3: *Ecology & Biodiversity*

Part 3.b. *Visual Evidence*

Part 4: *Community, Health & Education*

Part 6: *Conservation Area*

Part 7: *Alternatives*

Part 8: *Conclusions*

Introduction

This document is Part 5 of a larger document. The full document is titled:

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Reference:

DC/092211

Edgeley Wildlife Reserve Group object to plans to develop the land defined by this document as *EWR* (see Part 1: *Introduction* and Part 2: *Boundaries)* or any disturbance to that land for the purpose of development south of the stadium on the basis of the points raised in the whole document.

In objection to the outline part of the planning application (Ref: # DC/092211) to build a car park; Part 3: *Ecology & Biodiversity* of this document argues for the protection, designation and enhancement of EWR as a nature reserve. It focuses upon legally binding commitments to halt the decline of nature in the UK. Many of those arguments (explained in more depth in Part 3) also considered regulations and policies regarding water, water infrastructure, flooding and drainage.

This part adds to the argument against a car park and in favour of a designated nature reserve on the basis of the impact of developing a car park on the site of a spring fed rivulet which is ecologically connected to the neighbouring reservoirs and exists in an area already prone to serious flooding of houses and streets.

Pure water is a natural resource
In times of trouble it's a national treasure

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5.1. The Area of the Planned Development

5.1.1. Our understanding of the water system in the EWR area.

Clay bed causes high water table.

A: Spring and natural drainage feeds natural spring rivulet.

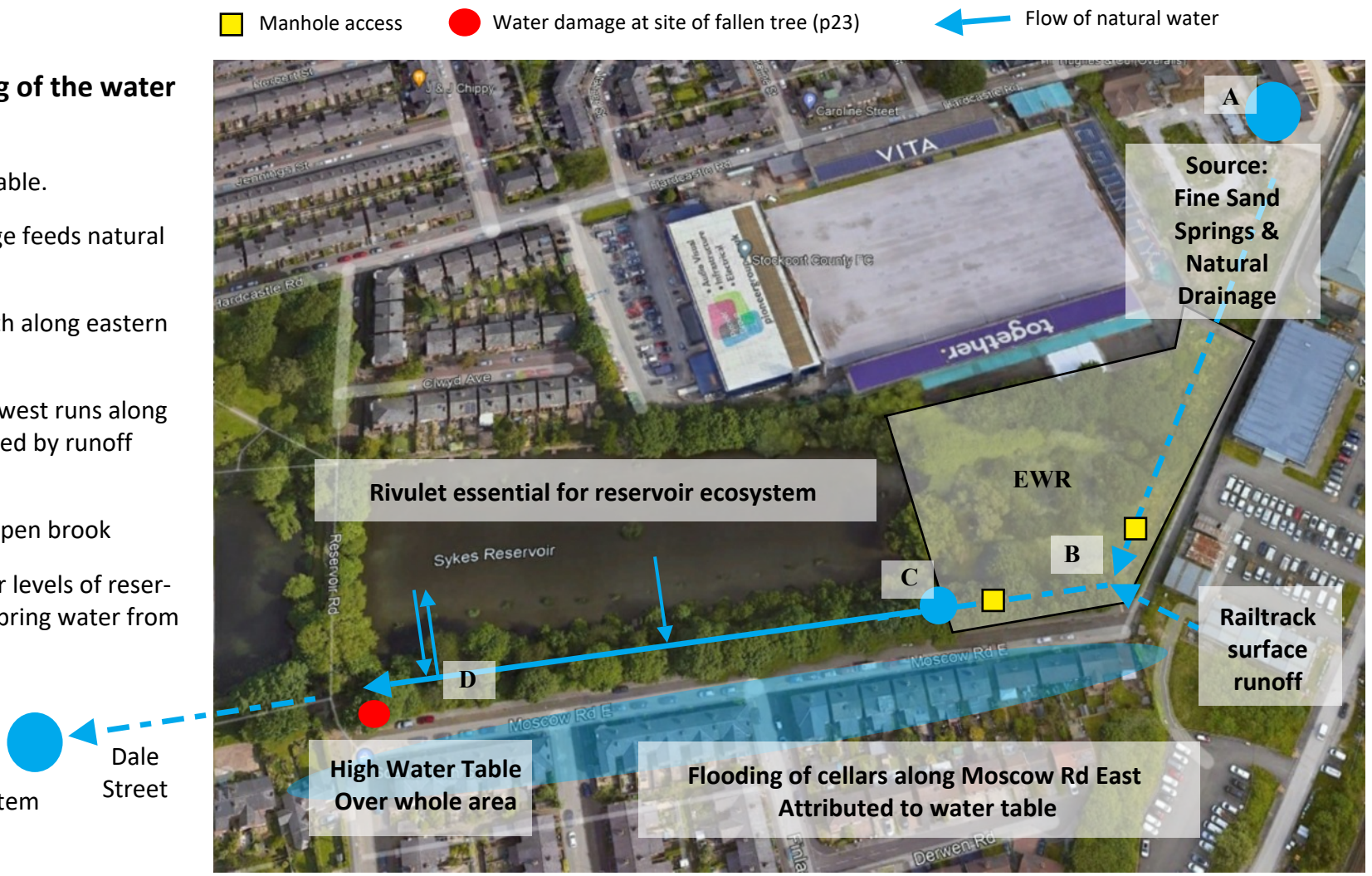
Rivulet is piped north to south along eastern side of EWR.

B: Piped rivulet bends/turns west runs along south side of EWR and is joined by runoff from Railtrack.

C: Piped rivulet emerges as open brook

D: Sluice gates manage water levels of reservoir which is fed by natural spring water from rivulet

E: Rivulet continues west (possibly attributing to regular flooding in Dale St) and on to the wider river system



The open part of the rivulet running alongside the reservoir gushes like a torrent after heavy rainfall.

5.1.2. UK Waters

Across the UK, only 36% meet ecological standards and are in good enough condition for wildlife. In England, where pressures are greatest, the figure is just 16%.

Ali Morse, Water Policy Manager, The Wildlife Trusts

In Cheshire every single one of our rivers is failing ecological standards [and] we continue to lose wildlife habitats to development ….

Charlotte Harris, Chief Executive, Cheshire Wildlife Trust

What goes into the (head of) the river goes into a mouth

An heir of Caratacus

5.2. Questions For Developers

Are the developers aware that the whole site exists upon natural underground white sand springs and will the club illustrate the following:

- Their knowledge of the existing local water table and its dynamics in relation to drainage
- Their knowledge of the existing local water table and its dynamics in relation to overflow
- Their knowledge of the existing local water table and its dynamics in relation to existing flooding of houses on Moscow Road East attributed to water table
- Their knowledge of the existing local water table and its dynamics in relation to the connection with the ecosystem of the reservoirs
- Their knowledge of the existing local water table and its dynamics in relation to the spring fed rivulet running through EWR which is essential to the functioning of reservoir water levels?
- Their knowledge of the existing local water table and its dynamics in relation to the spring fed rivulet running through EWR and the wider river system
- Their knowledge of the existing local water table and its dynamics in relation to the spring fed rivulet running through EWR and the regular flooding on Dale Street.

Will the developers/club illustrate (in detail) that they have understood and considered in regard to the water drainage, overflow and reservoir sluice system and its relationship to the water table, the natural white sand springs beneath the site, the clay bed and instances of local flooding?

Will the developers/club illustrate (in detail) guarantee that the removal of established trees and undergrowth, and therefore natural drainage (in the form of existing root systems) from a large majority of the currently rewilded site (EWR), will not worsen the flooding of cellars along Moscow Road East and the flooding of Dale Street?

Will the developers/club illustrate (in detail) a guarantee that the removal of established trees and undergrowth, and therefore natural drainage (in the form of existing root systems) from a large majority of the currently rewilded site (EWR), will not add pressure to the spring fed rivulet which is essential to the ecosystem of the reservoirs and the wider river system?

Will the developers/club illustrate in detail where the new drainage will go and will they illustrate in detail (according to their understanding of the local water table, springs, sluice systems, subterranean stream, flooding, how they will protect the the ecosystem/aquatic habitat provided by the reservoirs from polluted run-off, litter and chemicals - both during construction work and after?

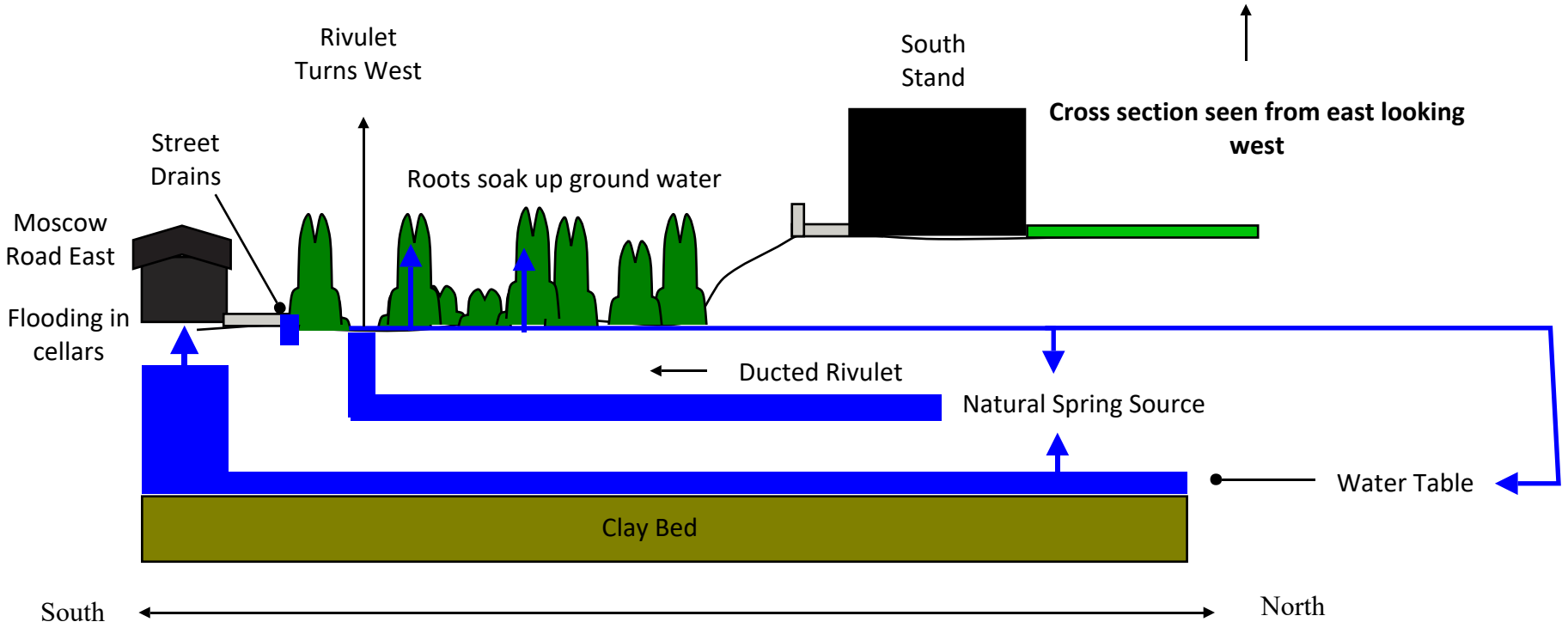
Will the developers/club illustrate in detail and guarantee that drainage will not enter the water table, spring fed rivulet or street drainage system, thereby guaranteeing that flooding of cellars on Moscow Road East will not increase and that the ecosystem of the reservoirs and the wider river system will not be at risk?

> An Eligible situation for Bleach Ground or Print Field in which there are a number of **Fine White Sand Springs with a Rivulet capable of Turning Wash Wheels** etc. The Grounds lie very contiguous to the populous Manufacturing Town of Stockport where Bleachers and Printers are both much wanted and every encouragement will be given to good tenant
>
> **Manchester Mercury, 27th November 1792**

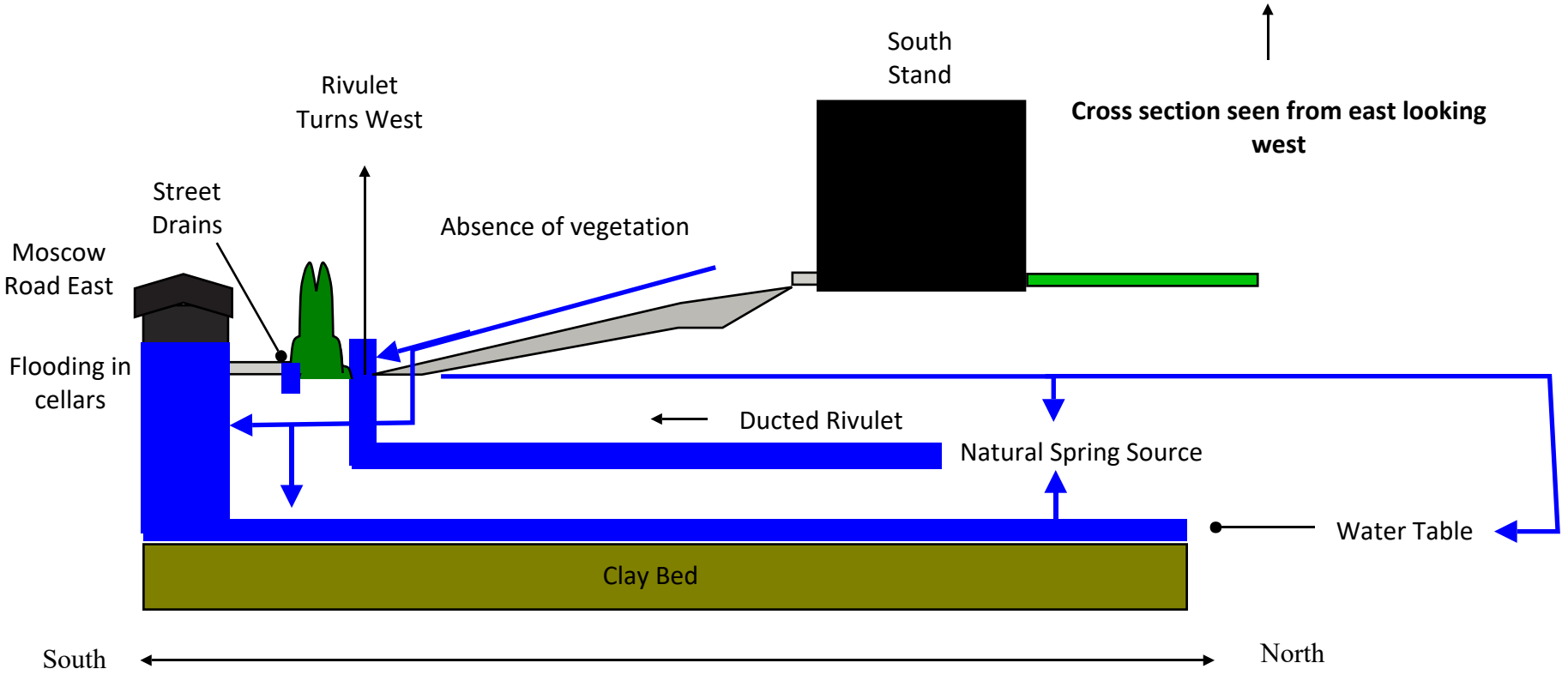
5.3. Schematic Diagrams of the Local Water System

The following diagrams illustrate potential changes and threats to the local water system with the construction of a car park upon EWR.
Threats include increase of water table pressure, increase of rivulet pressure, street drainage pressure and negative biodiversity impacts upon the reservoir ecosystem, wider river system, and on already existing local flooding (including into homes).

5.3.1. Effects Today / Before Development



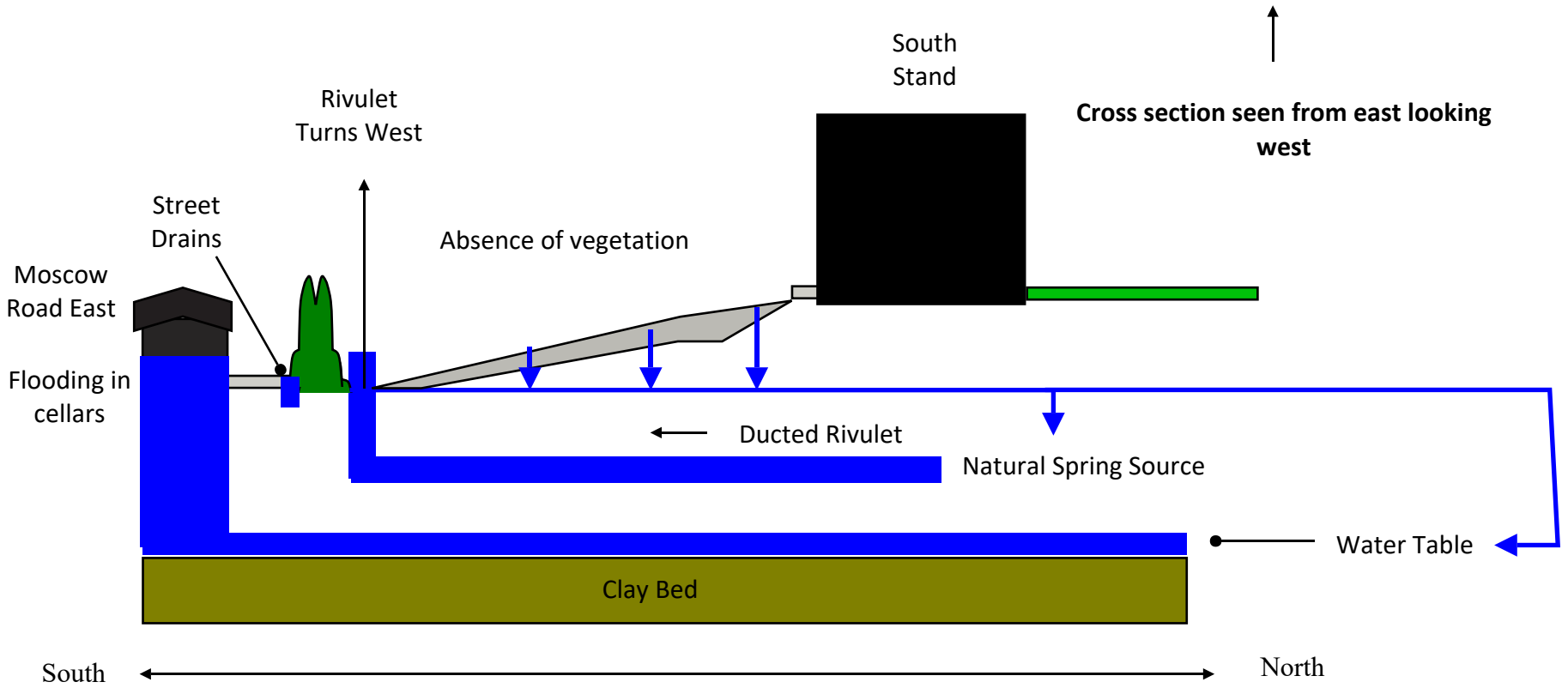
5.3.2. Effect of Runoff After Development



Increased pressure on/from water table makes flooding on Moscow Road East worse

Increased pressure on natural spring rivulet puts pressure on system of reservoirs and westward toward Dale Street.

5.3.3. Effect of Absorbtion After Development

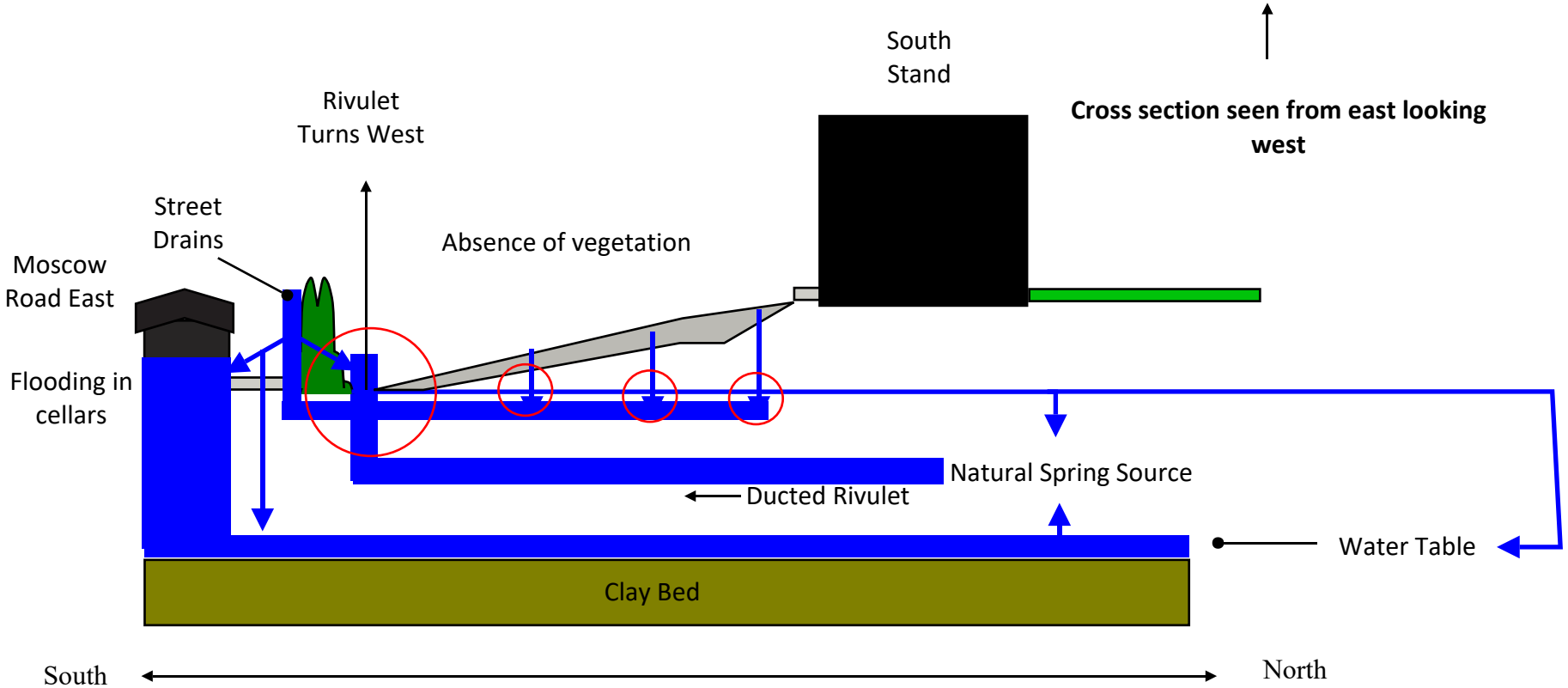


Increased pressure on/from water table makes flooding on Moscow Road East worse

Increased pressure on natural spring rivulet puts pressure on system of reservoirs and westward toward Dale Street.

5.3.4. Effect of Using Street Drainage After Development

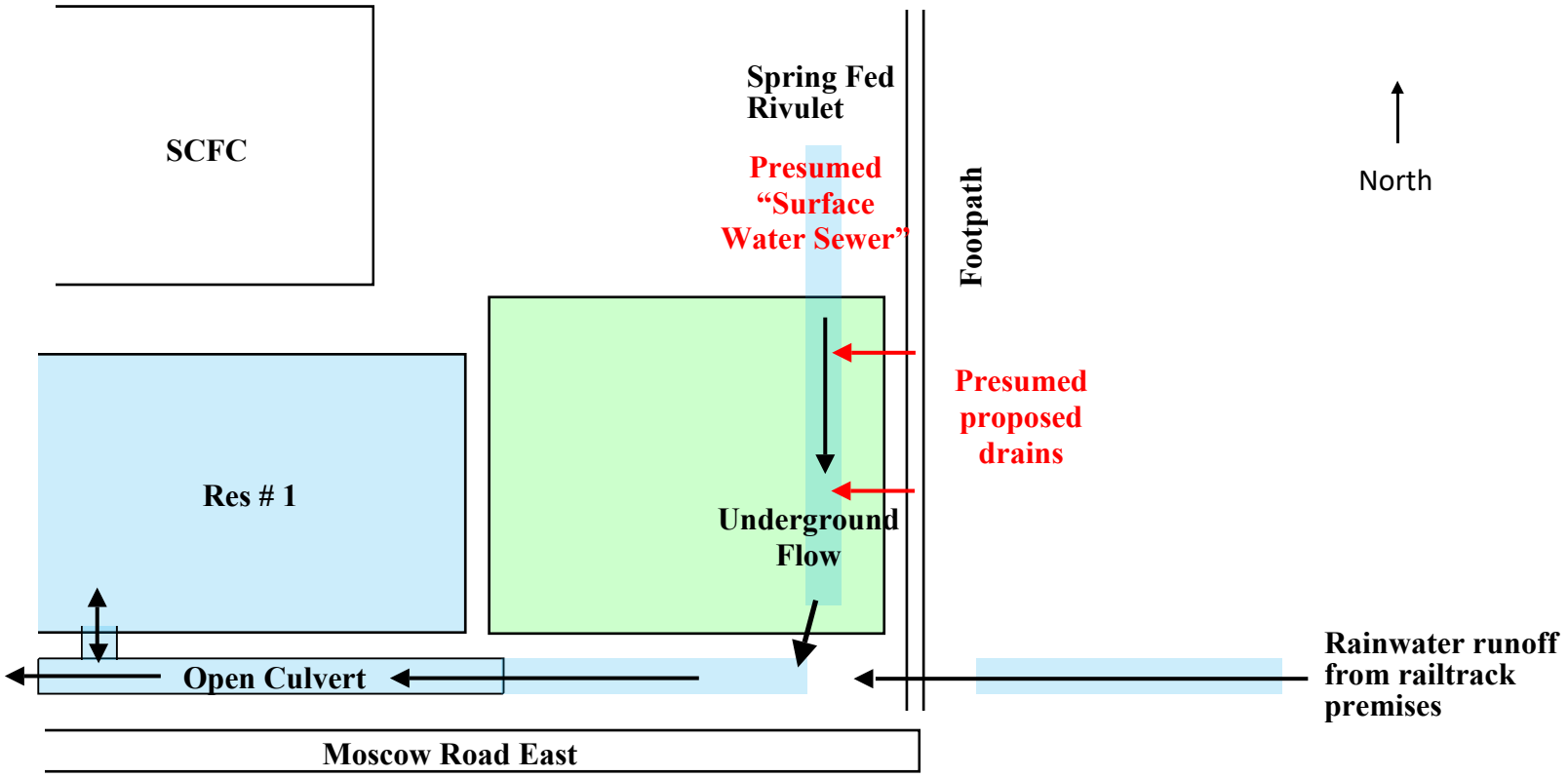
How will drainage routes bypass natural spring source fed rivulet?



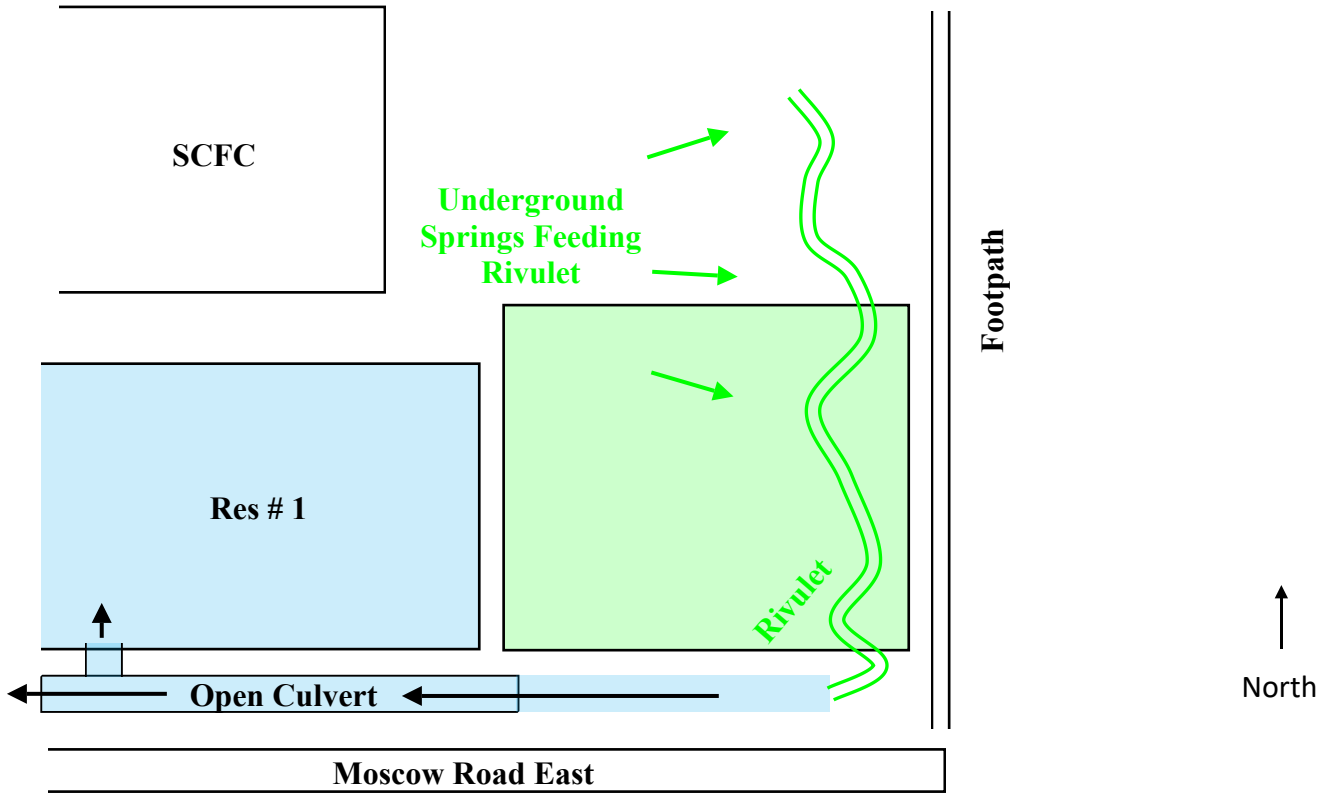
Increased pressure on street drains /can not guarantee will not avoid water table making flooding on Moscow Road East worse

Increased pressure on natural spring rivulet puts pressure on system of reservoirs and westward toward Dale Street.

5.3.5. Overview of Local Natural Water System 1



5.3.6. Overview of Local Natural Water System 2



5.4. Policies: Biodiversity Strategy and Water

5.4.1. Biodiversity Strategy - Impact on flooding on residents and communities & relevance to stockport

The impacts of flooding on residents, communities and commercial businesses are wide-ranging; from the obvious physical damage and associated costs, and significant disruption to lives and businesses, to the less well-recognised impacts on psychological health and emotional wellbeing of those affected or at risk. Flash-flooding, from both rivers and surface water, is expected to become more frequent in future years. Alongside flood-risk management strategies by public bodies, actions associated with the recovery of nature in Manchester can deliver added benefits to help address flooding. Changing the management regime of some of our urban green spaces can reduce the impact of flooding while also delivering positive outcomes for nature's recovery. Similarly, actions by residents in their gardens – particularly a reduction in the area of impermeable surfaces – will minimise flood-risk and support nature's recovery. Alongside flooding, climate change is also increasing drought risk which poses environmental risks to our water bodies and wetlands, as well as wider threats to our terrestrial habitats.

Manchester Biodiversity Strategy 2022-2030

5.4.2. NPPF: Planning and Flood Risk

Refer to *Review of policy for development in areas at flood risk Date: July 2021* **/**
The Environment Agency / Defra / Ministry of Housing Communities and Local Government

165. **Inappropriate development in areas at risk of flooding** should be avoided by directing development away from areas at highest risk (whether existing or future). Where development is necessary in such areas, the development should be made safe for its lifetime without increasing flood risk elsewhere.

166. Strategic policies should be informed by a strategic flood risk assessment, and should manage flood risk from all sources. They should consider cumulative impacts in, or affecting, local areas susceptible to flooding, and take account of advice from the Environment Agency and other relevant flood risk management authorities, such as lead local flood authorities and internal drainage boards.

167. All plans should apply a sequential, risk-based approach to the location of development – taking into account all sources of flood risk and the current and future impacts of climate change – so as to avoid, where possible, flood risk to people and property. They should do this, and manage any residual risk, by:

a) applying the sequential test and then, if necessary, the exception test as set out below;

b) safeguarding land from development that is required, or likely to be required, for current or future flood management;

c) using opportunities provided by new development and improvements in green and other infrastructure to reduce the causes and impacts of flooding, (making as much use as possible of natural flood management techniques as part of an integrated approach to flood risk management); and

d) where climate change is expected to increase flood risk so that some existing development may not be sustainable in the long-term, seeking opportunities to relocate development, including housing, to more sustainable locations.

168. The aim of the sequential test is to steer new development to areas with the lowest risk of flooding from any source. Development should not be allocated or permitted if there are reasonably available sites appropriate for the proposed development in areas with a lower risk of flooding. The strategic flood risk assessment will provide the basis for applying this test. The sequential approach should be used in areas known to be at risk now or in the future from any form of flooding.

169. If it is not possible for development to be located in areas with a lower risk of flooding (taking into account wider sustainable development objectives), the exception test may have to be applied. The need for the exception test will depend on the potential vulnerability of the site and of the development proposed, in line with the Flood Risk Vulnerability Classification set out in Annex 3.

170. The application of the exception test should be informed by a strategic or site-specific flood risk assessment, depending on whether it is being applied during plan production or at the application stage. To pass the exception test it should be demonstrated that:

a) the development would provide wider sustainability benefits to the community that outweigh the flood risk; and

b) the development will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall.

171. Both elements of the exception test should be satisfied for development to be allocated or permitted.

172. Where planning applications come forward on sites allocated in the development plan through the sequential test, applicants need not apply the sequential test again. However, the exception test may need to be reapplied if relevant aspects of the proposal had not been considered when the test was applied at the plan-making stage, or if more recent information about existing or potential flood risk should be taken into account.

173. When determining any planning applications, local planning authorities should ensure that flood risk is not increased elsewhere. Where appropriate, applications should be supported by a site-specific flood-risk assessment*. Development should only be allowed in areas at risk of flooding where, in the light of this assessment (and the sequential and exception tests, as applicable) it can be demonstrated that:

a) within the site, the most vulnerable development is located in areas of lowest flood risk, unless there are overriding reasons to prefer a different location;

b) the development is appropriately flood resistant and resilient such that, in the event of a flood, it could be quickly brought back into use without significant refurbishment;

c) it incorporates sustainable drainage systems, unless there is clear evidence that this would be inappropriate;

d) any residual risk can be safely managed; and

e) safe access and escape routes are included where appropriate, as part of an agreed emergency plan.

Applications for some minor development and changes of use should not be subject to the sequential or exception tests but should still meet the requirements for site-specific flood risk assessments set out in footnote*.

A site-specific flood risk assessment should be provided for all development in Flood Zones 2 and 3. In Flood Zone 1, an assessment should accompany all proposals involving: sites of 1 hectare or more; land which has been identified by the Environment Agency as having critical drainage problems; land identified in a strategic flood risk assessment as being at increased flood risk in future; or land that may be subject to other sources of flooding, where its development would introduce a more vulnerable use.

175. Major developments should incorporate sustainable drainage systems unless there is clear evidence that this would be inappropriate. The systems used should:

a) take account of advice from the lead local flood authority;

b) have appropriate proposed minimum operational standards;

c) have maintenance arrangements in place to ensure an acceptable standard of operation for the lifetime of the development; and

d) where possible, provide multifunctional benefits.

NPPF 2023, p46-51

5.4.3. Biodiversity 2020: Water Management

Priority action: Align measures to protect the water environment with action for biodiversity, including through the river basin planning approach under the EU Water Framework

Directive 2.20
There are opportunities for seeking more integrated delivery of environmental outcomes through aligning water management with action on biodiversity.

Directive 2.21
Water is highly relevant to conservation of biodiversity both in terms of the quality and quantity of water that is available to support the survival of water dependent species and wetland habitats. The Government is committed to protecting water ecosystems to achieve good ecological status through a river basin planning approach, under the EU Water Framework Directive. We will reduce water pollution, building on action under regulations such as the Nitrates Directive and the Urban Waste Water Treatment Directive, which control some causes of water pollution. We need to increase the rate of progress towards good ecological status by working at catchment level to involve interested parties and address the pollution sources that are causing water bodies to fail.
We will develop a strategy to identify and address the most significant diffuse sources of water pollution from non-agricultural sources. We will reduce the impact of land management on water by ensuring pollution and flood risk is addressed at source, through targeted risk-based enforcement of existing regulatory instruments, and beyond this by identifying where land can be managed to deliver multiple benefits, including improving water quality, flood alleviation and biodiversity

Priority action: Continue to promote approaches to flood and erosion management which conserve the natural environment and improve biodiversity

We will encourage research and innovative practices which help us understand how we can more effectively reduce the risk of flooding and erosion to people and property through working with natural processes.

Biodiversity 2020: p27

5.4.4. National Planning Policy Framework

Conserving And Enhancing The Natural Environment Planning policies and decisions should contribute to and enhance the natural and local environment by:

a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);

b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;

c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;

D) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;

e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and

f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.
Policies and decisions should reflect understanding for the need to protect and enhance sites of biodiversity.
Protection and enhancement is not the same as mitigation and compensation.

Policies and decisions should reflect an understanding of the wider benefits of natural capital and ecosystem services for local communities such as Edgeley.
Policies and decisions should consider prevention of contributions toward soil, air, water or noise pollution or land instability. In the case of EWR that would entail the consideration of the natural spring fed rivulet which is ecologically connected to the reservoirs and the wider river system.
Policies and decisions would also consider the effect of noise and light on any areas of habitat retained by car parks or piecemeal areas created in mitigation.

In regard to stability of land, policies and decisions should also require consideration of a car park sloping toward said rivulet and water system and the risk of increasing flow pressure westward (including Dale Street) an area already subject to flooding.
In regard to stability of land, policies and decisions should also require consideration of a car park sloping toward houses whose cellars are already subject to flooding subject to water table.

More about the effects of this development on the ecology of the local water system can be found in Part 3: (*Ecology & Biodiversity*)

5.4.5. Scoping

5.4.5.a. The Environment Agency

In reply to the EA Environment scoping request in relation to this planning application, The Environment Agency's reply made the following statements:

> The NPPF takes a precautionary approach to land contamination. Before the principle of development can be determined, land contamination should be investigated to see whether it could preclude certain development due to **environmental risk or cost of remediation**.
>
> Site investigation and remediation strategy reports may be required for submission with a planning application for **sensitive land use** types or where significant contamination, or **uncertainty**, is found.
>
> [End 2 Protection Zones] indicate that an area is **very sensitive to pollution risks due to the proximity of drinking water sources** and the way **underground water flows.** In these areas we consider it inappropriate for development to discharge foul or surface water into the ground.
>
> Please note that the National Planning Policy Framework (NPPF) recognises that the planning system should conserve and enhance the environment by minimising impacts on and providing net gains for biodiversity. If significant harm resulting from a development cannot be avoided, adequately mitigated, or as a last resort compensated for, **planning permission should be refused.**
>
> We recommend that applicants **ensure** that opportunities to **ensure biodiversity is enhanced** in **and around** developments are identified and incorporated into the proposed development.
>
> We encourage **river restoration** and working with **natural river processes** to ensure sustainable development.
>
> **Sylvia Whittingham, Planning Advisor**

Summary

Investigation should be made in regard to environmental risks of building a car park upon EWR. Environmental risks include changes to and impacts upon a water system ecologically linked to the reservoir system and the wider river system.

The ecosystem of the reservoir (any water body in the UK), with all of its aquatic life and the cultural and economic activity of a community, should render acknowledgment of its sensitivity.

Until the club, planners and/or council establish answers to the questions found in Chapter **5.2 , p6** (*Questions for Developers*) of this document (Part 5: *Water, Drainage & Flooding*) it must stand that uncertainty remains concerning any impacts upon the ecosystem which development of EWR may incur, especially in view of government commitments to restore rivers and work with natural river processes.

During investigation, if Stockport Metropolitan Borough Council identify connection to drinking water with the water system at EWR then the water course running through EWR should be established as a drinking water **source.** If not already, Stockport Metropolitan Borough Council should consider having EWR and the reservoir water system designated as an End 2 Protection Zone. The ecology of the reservoirs and the integrity of the biodiversity system (river system) should be considered with huge concern.

The Environment Agency recommends that in order for biodiversity to be enhanced the plans should identify and consider the areas around developments .

Without the questions raised by Part 5: (Water, Drainage & Flooding) being answered; it cannot be assessed as to whether significant harm to the reservoirs and the wider water system may result from the development in question. Therefore; the outline part of the planning application (Ref #: DC/092211) should be refused.

More about the effects of this development on the ecology of the local water system can be found in Part 3: (*Ecology & Biodiversity*)

See page 4

A tree (over 110 years old) fell at the end of Moscow Road East in 2024.

Due to water erosion, the remaining cavity has eroded the hole further.

We see the fine sand layer and we see old (brick) infrastructure.

The water's height is indicative of the surface of the underlying clay bed.

This hole is approximately 6 meters from the open rivulet beside the reservoir and the same distance from sluice gates.

This shows the damage and potential impact of the removal of trees upon a sensitive environment and upon underlying ground which comprises of natural springs and natural water courses..