Poynton Town Council Response to Planning Application 23/4152M – Poynton Pool Dam Embankment

Introduction

This document is in response to the Technical Memorandum Note prepared by Jacobs and should be read in conjunction with the Town Council's previous submission.

The Technical Memorandum Note once again sets out incorrect information about the risk to people should a dam break occur at Poynton Pool.

It should be noted that the report in table 4.4 from the Initial Options Report (see below) shows that the failure of the dam alone (dry day) would result in an estimated 274 people in the population being impacted and likely loss of life is 0.12. The text included in the table confirms that the Environment Agency do not use the figure of an average of two people being killed which has been quoted widely through the lodged planning documents.

For the purposes of the economics ALARP assessment, the base case likely incremental loss of life provided by the Environment Agency, is adopted as 1.04. In practice in the event of dam failure the public downstream are likely to assign the overall impact of 1.97 lives as being the responsibility of the Undertaker. (Cheshire East council)

Table 4.4 Screening estimate of risk to life (wet day)

Source	Scenario	Number of houses at risk (Note 1)	Maximum/ Time averaged population at risk	Likely loss of life		Property damage £M	Source comment
				No warning	with warning		
Environment Agency 2016 dambreak	Dry day		274/ 184	0.12		6	
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	Incremental wet day		2031/ 1306	1.04		45	

3. Description of the Reservoir

3a Inaccuracies in the planning application documentation

Whilst Jacobs maintain that descriptions in the planning document are 'approximate' the Town Council would reiterate that the description of the dam in the summary options report paints a misleading picture of the dam structure rather than the small ornamental lake it actually is.

Once again inaccurate information regarding the risk to life is cited on page 2. The text introducing the table above (from Jacobs own initial options paper) concedes that the Environment Agency would adopt the loss of a life as 1.04 not 1.97 for likely loss of life.

3b. Flood Risk Assessment lodged with the application exaggerates the risk

The Flood Risk Assessment (BRJ10627-JAC-XX-XX-AS-HY-0100) lodged with the application exaggerates the size of the dam (800m long and 6m high) which inevitably suggests a heightened risk.

3c. The volume of Poynton Pool.

The unknown volume of Poynton Pool is problematic. The Jacobs response makes it clear that reservoir volume is used to estimate peak breach flow. If the peak flows are overestimated because the volume of water in Poynton Pool is lower, then the potential damage must also be less. Less water in Poynton Pool will surely result in less flooding.

3d. Geotechnical properties of the embankment.

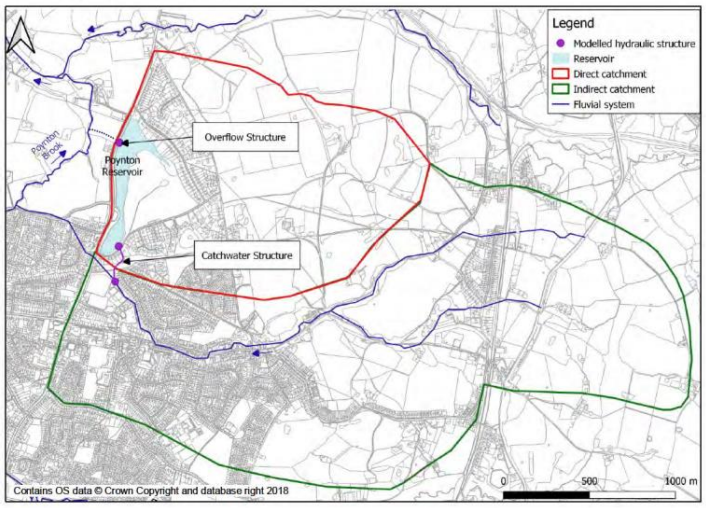
Whilst the s10 report did not require ground investigation of the dam The Flood Study Report (D01 C01) prepared by Jacob's own engineers states "the level of the embankment clay core is unknown. It is recommended that this should be established along with other geotechnical properties of the embankment, in order to quantify the risk of seepage through the dam". The Town Council would encourage Cheshire East to undertake the work as recommended by their own experts. Investigating the properties of the embankment retrospectively by removing the trees is not acceptable. This work should be carried out before any works are undertaken.

3e. Catchment of the dam

It is incorrect to state that the information for the catchment was extracted from a publicly available map. The map of the catchment on the Centre for Hydrology and Ecology is shown below

However, Jacobs have used the following catchment map

Figure 1-2: Poynton Lake Reservoir General Arrangements



Which differs significantly from the publicly available map.

4.Supporting Documentation

4a Out of date references

The Summary Options Paper specifically states that the optioneering work was based on the findings of reports, however, these reports had a number of inaccuracies including a significant overestimate of risk and have been subsequently amended by Jacobs. We note that Jacobs claim that these documents are not considered necessary for the planning application. However, for clarity and transparency is the current report based on the inaccurate superseded documents or the amended versions of those documents? This should be made clear in the Summary Options Paper.

4b Missing appendices

The Initial Options Report available on the website referred to in response 4b contains the 2019 Topographic Survey at Appendix A. However, the report itself states that a site visit was carried out in May 2021 to undertake further topographic work. This survey is not available in the Initial Options Report or on the Poynton Pool Scheme's webpage.

In addition, appendix E and F are blank. These documents should be made available to the public, the Planning Officer and to the Committee.

5. Proposed Works

5a. Contradiction in freeboard height

In order for the public and committee members to be able scrutinise this planning applications, all documents should be rechecked for contradictions and inaccuracies and amended (tracked changes) versions of the documents should be published.

5b Flooding at two locations along the dam

The Town Council's question in relation to the increased water levels and how this might impact on flooding on the southern part of the dam.The Flood Risk Assessment confirms that following the works the water level within the reservoir will increase by 0.18m during the 1%, 0.1% and 0.01% AEP design flood events. Will the increased water levels result in even more flooding in the area to the south of the proposed works?

This question has not been addressed in the response and we would ask Jacobs to provide a response.

5c. Additional flooding to properties

Whilst Jacobs may feel that the change to flood risk on Anglesey Drive is not material. Residents are likely to disagree with this sentiment. It is untrue that residents of Anglesey Drive were consulted. A snip of the planning portal website shows that only one property on Angley Drive was contacted as part of the planning application.

Neighbours Notified

Address
BENTLEA, LONDON ROAD NORTH, POYNTON, STOCKPORT, CHESHIRE, SK12 1BX
CRANFORD, LONDON ROAD NORTH, POYNTON, SK12 1BX
Kensington, London Road North, POYNTON, POYNTON, SK12 1BX
WAYSIDE, LONDON ROAD NORTH, POYNTON, SK12 1BX
THE WHITE HOUSE, LONDON ROAD NORTH, POYNTON, STOCKPORT, CHESHIRE, SK12 1BX
BARLOW FOLD LODGE, LONDON ROAD NORTH, POYNTON, STOCKPORT, CHESHIRE, SK12 1BX
54, LONDON ROAD NORTH, POYNTON, STOCKPORT, CHESHIRE, SK12 1BY
Anglesey View, 1D, ANGLESEY DRIVE, POYNTON, STOCKPORT, CHESHIRE, SK12 1BT

The Town Council would re-iterate its concerns that residents who will be directly impacted by the works were not consulted. Residents have expressed concerns regarding the ditch, the potential for increased flooding to their properties as a result of the changes in the water levels together and proposed mitigation to install flap valves.

5d. Flood maps showing the extent of flooding to properties after the work is completed.

The Town Council would repeat its call for flow maps showing the extent of flooding before and after the work are completed given the increase to the water levels in Poynton Pool. This is a crucial piece of information which will provide certainty to local residents about how their properties might be affected by the works. The planning application should be deferred until this evidence is available.

6. Historic flooding

6a Conflicting figures for return periods.

The response fails to address any of the concerns raised by the Town Council. The Town Council is very familiar with the concept of return periods having experienced numerous incidents of flooding. We note that no explanation has been as to where the 1 in 30 chance figure comes from when the background documents cite different figures. The Town Council would repeat its request that that the Planning Officer and the Strategic Planning Committee requests the origin of this figure information where the 1 in 30 figure has come from.

In any event, if the correct figure for dam overtopping is a 1 in 30 (3.3%) chance, then the pool will have overtopped on multiple occasions as the Town has experienced significant rainfall far in excess of a 1 in 30 return period on multiple occasions. The Technical Memorandum Note continues to suggest that such events have not happened and that is why no overtopping has been witnesses at the pool. This is factually incorrect. It should be noted that Poynton was significantly impacted by the Toddbrook event referred to in the report and a major incident had to be declared. The rain event leading to the incident at Toddbrook and flooding is detailed in the ‘Cheshire East S19 flood investigation report on Catchments of: Poynton Brook, River Dean, River Bollin, Harrop Brook and tributary of Toddbrook’.

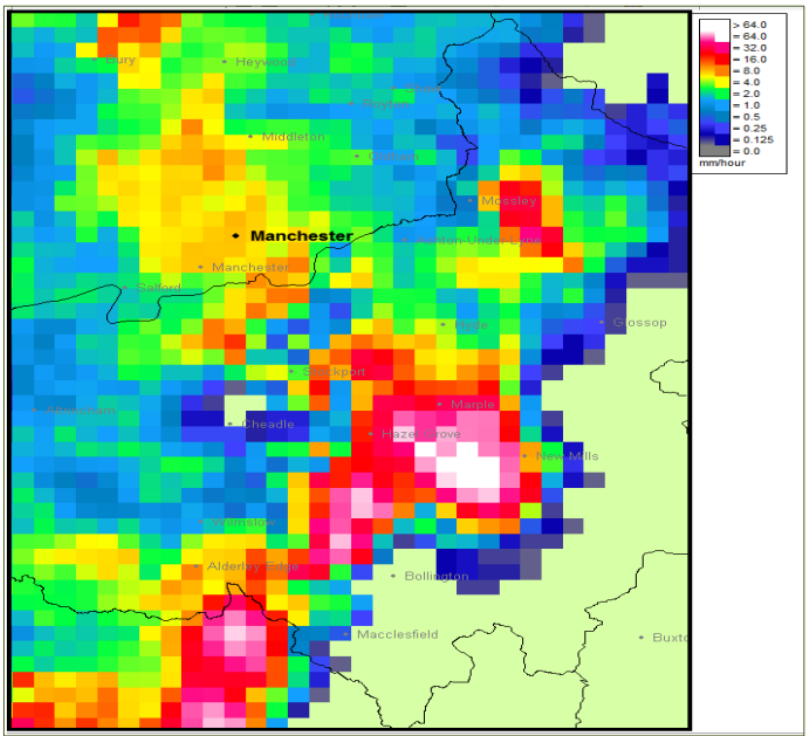
6b Previous flooding was at a different watercourse

This again is factually incorrect. The Section 19 Report investigating the flooding in 2019 confirms that areas surrounding and adjacent to Poynton Pool were confirmed to have flooded but there were no reports of flooding from Poynton Pool “A number of unnamed ordinary watercourses drain into Poynton Pool, the bifurcation stream from Park Lane stream and others along South Park Drive, Anglesey Drive and from the pond on Towers Road. In these areas flooding was reported from various mechanisms including surface water, sewer and ordinary watercourse.”

In addition, there were two significant flooding events exceeding the 1% AEP in 2016. Areas G and H which experience flooding are identified in the s19 report are partially within the Poynton Pool Catchment Area (as defined by Jacobs but interestingly not within the smaller catchment area cited on the Centre for Ecology and Hydrology)

From the hydrad image it is clear to see that this rainfall fell within the catchment

Figure 2 Hydrad Image; 11th June 2016



The antecedent conditions were “In summary, the available data indicates that the ground conditions were heavily saturated and more saturated than average in June 2016 in the Poynton area. These saturated ground conditions mean that more surface water runoff than typical for the time of year would have been generated for any given rainfall event, with a greater potential for rapid surface water flooding and prompt increases in river levels.”

As with the extreme event in 2019 there were no reports of overtopping at Poynton Pool. Within living memory no one can recall the Pool overtopping despite 26 floods happening in Poynton between 2011 and 2017.

7. Risk

7a Clarification required as to why, there is a current risk of the dam failing

The response has misinterpreted the information the Town Council requested. We did not ask **why** there was a risk of failure, we asked for the current risk of the dam failing i.e please quantify the risk of the dam failing (for example and annual chance of 1 in 100 or 1 in 1,000).

The Summary Options paper does not set out the current risk of the dam failing. The Executive Summary of the Report states that “improvements are therefore needed to the dam to reduce the likelihood of it failing in an extreme weather event”. If the document is silent on what the risk of failure is, how is it possible to assess that the

improvements will reduce the likelihood of the dam failing. Please provide the probability of the dam failing as is and then the probability of the dam failing after the works have been completed.

Regarding the average of two people killed fails to make it clear that these figures are for dam failure on a wet day event. Jacobs initial options report BRJ10627 – J470-DOC-001/004 notes that the "the other important factor in evaluation of the potential impact of dam failure on a wet (relevant to spillway capacity) is the flood would be happening anyway even with no dam failure".

It should be noted that the report in table 4.4 from the Initial Options Report (see below) shows that the failure of the dam alone (dry day) would result in an estimated 274 people in the population being impacted and likely loss of life is 0.12. The text included in the table confirms that the Environment Agency do not use the figure of an average of two people being killed which has been quoted widely through the lodged planning documents. Jacobs have already published the screening estimate of risk to life so this information is already publicly available. (see below)

For the purposes of the economics ALARP assessment, the base case likely incremental loss of life provided by the Environment Agency, is adopted as 1.04. In practice in the event of dam failure the public downstream are likely to assign the overall impact of 1.97 lives as being the responsibility of the Undertaker. (Cheshire East council)

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7b (mislabelled 7a) Errors in Jacobs Report

Jeremy Benn was instructed at the start of this process and before many of the documents were available.

The report from David Ball must be read in it's entirity. His conclusions make it clear that the proportionality assessment carried out by Jacobs

- Excludes externatlities including environmental impacts, public health, heritage and amenity.
- The approach fails to givan an daccount of uncertainty in its estimates. The consideration of uncertainties could have a major impact on determinations of proportionality

- The approach inserts gross disproportion factor of five into its cost benefti calculations which distorts the findings.

The Technical note states that the economic assessment showed that the works are proportionate. However, this was based on the 3c upper scheme costing £0.54M. The cost is now estimated to be £1.34M and this is highlighted in footnote 14 to paragraph 5.4. (this has been selectively omitted from the box in the Technical footnote) In addition, the remainder of paragraph 5.4 as well as paragraphs 5.5-5-9 have also been omitted where Professor Ball interrogates the data accuracy and implications.

7b. Section 4.3.2 of the Planning Statement states in relation to Flood Risk that "the residual risk from breach failure is significantly reduced by the proposed works". Please confirm what is the

- Current risk
- The residual risk after the works
- The reduction of risk

However, the Flood Risk Assessment lodged with the application states at page 21 that "The residual risk of dam failure/breaching is considered to remain negligible". No figures are provided in the Flood Risk Assessment in relation to the residual risk of dam failure/breaching. The Town Council would question whether more proportionate work to reduce a negligible risk should be considered by Cheshire East Council.

5.4 The Planning Officer and the Strategic Planning Board are asked to consider the report of Professor Ball, (Appendix A) who is a risk management expert regarding the risk assessments, the risk to life and the proportionality of the work.

8. Trees

8.1 Whether trees increase the likelihood of failure

We would reiterate that the assertions made in the Planning Statement that "The existing trees along the dam embankment also pose dam resilience safety concerns, as tree roots can damage the embankment dam structure retaining the reservoir and increase the likelihood of structural failure of the dam, which therefore increase the risk of flooding downstream due to dam failure" are not consistent with the section 10 report quoted which confirms that as the trees have been in existence for many years, it is **acceptable** (our emphasis) provided that the trees are managed in a proper manner."

This view was echoed in the earlier 2005 report which stated "The upper part of the upstream face is not protected from erosion in a formal manner but tree roots do help to prevent erosion of the fill material" and further "The extensive tree roots are

mostly preventing erosion of the bank and where erosion is occurring it is in the open areas.

The Annual Supervising Engineers Reports in 2019, 2021 and 2022 states "Fortunately, the crest is very wide and there does not appear to be a risk of the entire crest width being damaged by a fallen tree along the upstream face" this statement casts doubt on the assertion that the trees increase the likelihood of structural failure".

8b The Town Council would once again draw the Strategic Planning Board and the Planning Officer's attention to the arboricultural objection (appendix B) which should be read in conjunction with the Tree Survey commissioned by Poynton Town Council (appendix C) and valuation of the trees undertaken on behalf of the Town Council (appendix D). The Town Council believes that the Arboricultural Impact Assessment (AIA) is inaccurate in that it fails to identify a number of trees and undervalues many of the trees present. While it is claimed by the applicant's agents that only two trees are Grade A, a report commissioned by Poynton Town Council from a professional arborist has confirmed that 34 trees are actually Grade A. These trees have enormous value, both for their appearance as part of a historic landscape and as an essential part of the ecology and biodiversity of Poynton Pool and Park.

8c Policy ENV 6 in the Site Allocation and Development Policy Document adopted by Cheshire East Council in 2022 is clear in the use of CAVAT to value the loss of trees "Contributions to off-site replacement trees will be calculated using an appropriate cost equivalent replacement calculation agreed with the council, such as capital asset valuation of amenity trees (CAVAT). Compensation for the loss of woodland due to the impact of development shall be calculated in accordance with the DEFRA biodiversity offsetting metric referred to in Policy ENV 2 'Ecological implementation'.

The valuation of the trees at Poynton Pool indicated a CAVAT value of just over £3million. The Town Council believes that the loss of the trees should be appropriately valued and that this should be taken into consideration when conducting the cost to save a life as set out in the initial Jacobs options report and to off site replacement of the trees.

6.5 The Town Council would urge the Cheshire East Trees Officer to fully review the reports submitted by the Town Council in relation to the trees which will be impacted by these works.

9. Planning Considerations

9a. The proposed development is in conflict with local planning policies

The Town Council does not agree that the policy is not in conflict with the Cheshire East Local Plan (CELP), Poynton Neighbourhood Plan and the Cheshire East SADPD. The Cheshire East Local Plan specifically identifies Poynton Pool as a Site of Biological Importance / Local Wildlife Site.

The Cheshire East Local Plan confirms that Poynton Pool and nearby woodland is a "key nature conservation site" with a "prominent environmental designation" as a Site of Biological Importance / Local Wildlife Site.

The description of Poynton Pool in the Cheshire East Local Plan disproves any claims that it is "a non-designated Site of Biological Importance (SBI)." Paragraph 2.24 of the CELP makes clear that the site has an "environmental designation" and is a "key nature conservation site."

Site Allocations and Development Policies Document (SADPD)
Poynton Pool and Park are part of the Core Area of the Ecological Network in Cheshire East as shown in Figure 4.1 in the SADPD, and Paragraph 4.5 states:

"The ecological network will assist in the provision of nature conservation and ecosystem services that are essential for sustainable development, including water management, carbon capture and access to nature with associated recreational and health benefits."

Paragraph 4.6 of the SADPD states:
"Core areas contain concentrations of habitats that are rare or important because of the wildlife they support and areas of irreplaceable natural habitat such as ancient woodland, glacial meres and peatlands, which are impossible to re-create. They include protected wildlife sites … local wildlife sites (LWS) and UK priority habitats. Buffer zones are incorporated into the core areas and protect the individual sites and habitats from external adverse impacts such as pollution and disturbance."

As Cheshire East have identified Poynton Pool and Park in their Site Allocations and Development Policies Document (SADPD) as a Core Area of the Ecological Network, clearly any development that inflicts major damage to the environment should be rejected.

Planning Policy: More generally, the proposed development conflicts with numerous policies in the Cheshire East Local Plan (CELP), Poynton Neighbourhood Plan (PNP) and the Cheshire East SADPD.

Poynton Town Council urges Cheshire East to reject the application from Jacobs (on behalf of Cheshire East) for this proposed scheme of works at Poynton Pool and Park. They are contrary to numerous policies (see below) in the Cheshire East Local Plan, Poynton Neighbourhood Plan and the SADPD.

9c. Loss of cultural heritage

The Town Council would draw to the attention of the Planning Officer and the Strategic Planning Board to the Development Manager Archaeologist for Cheshire making the following comments in relation to the previous EIA screening application.

"Thank you for consulting APAS on this EIA scoping application, having reviewed the supporting documentation along with the information held on the Cheshire Historic Environment Records, I note that heritage is considered in the screening letter under

cultural heritage, however this focuses heavily on the built heritage of the surrounding area and not the potential archaeology which may be impacted by this proposed development.

Poynton Pool is visible on the first edition OS Map of the area (1873) forming part of the pleasure gardens associated with Poynton Towers and therefore may have below ground remains which will need to be addressed within the supporting documentation for any formal proposal for these works.

It is accepted that the effect of the proposals on the archaeological significance of the area is unlikely to be sufficient to trigger a requirement for an EIA but as noted above the area may have below ground archaeological remains relating to its use of a pleasure garden and potentially remains relating to the earlier use of Poynton towers as a residence. Further study of historic maps, aerial photographs, LIDAR, and readily available secondary sources will almost certainly reveal other features of interest which, where affected by development works, may require further evaluation and mitigation.

This advice has been prepared in line with the guidance contained in Paragraph 194, Section 16 (Conserving and Enhancing the Historic Environment) of the National Planning Policy Framework (Revised 2021), published by the Department for Communities and Local Government and Managing Significance in Decision-Taking in the Historic Environment, Historic Environment Good Practice Advice in Planning: 2 (Historic England 2015)."

The expansion of the Heritage Assessment to include the consideration of the archaeological features was deemed as "essential" by the Development Manager Archaeologist, however, no further assessment has taken place. The Town Council would strongly urge that an archaeological assessment of the site as set out above should be undertaken as a matter of urgency in order to protect any features of historic and archaeological significance.

The Town Council does not believe that the impact on the Boathouse is slight, we believe that the impact will be extensive and would draw attention to the following relevant Policies: Cheshire East Local Plan

- SE7 (The Historic Environment)

Poynton Neighbourhood Plan:

- EGB15 (Heritage Assets),
- EGB20 (Non-designated Heritage Assets),
- EGB21 (Protecting and Enhancing Non-Designated Heritage Assets)
- EGB22 (Development within the setting of a listed building).

SADPD:

- HER1 (Heritage Assets)
- HER7 (Non-designated heritage assets).

evaluation work and mitigation that may be required should the development proceed.

9c.

Jacobs state in their response that only half the trees will be removed, by their own admission this is not a true reflection of the works that will be carried out. As set out in the Environmental Assessment Report vegetation will be cleared for the full length of the works. This includes the removal of at least 31 trees, partial removal of two groups of trees (no detail has been provided as to how much of the groups of trees will be removed, pruning to include crown lifting of 44 trees and removal of all shrubs and other vegetation. The removal of the vegetation on the western side of Poynton Pool, bordering London Road North will increase traffic noise, and environmental disturbance or pollution, affecting residents of nearby homes.

The Town Council does not accept that there will be no effect on noise sensitive receptors once the construction is completed. The current trees and understory provide an important barrier to noise. No shrubs or trees will be allowed to regrow in two areas of the site totalling 80m long. In addition, the Aboricultural Impact Assessment concedes that only 6 trees will not be impacted by the works. The removal and substantial pruning of the trees will have a significant impact on noise, which will be irreversible in large part. As set out in the Environmental Impact Report section 6.7 even after 15 years there will be two permanently cleared areas and the canopy will have only partially closed.

Relevant Policies: Cheshire East Local Plan:

- SD1 (Sustainable development),
- SD2 (Sustainable development in Cheshire East),
- SE1 (Design),
- SE5 (Trees, hedges and woodlands),
- SE12 (Pollution and land containment).

SADPD:

- HOU12 (Amenity)

9d. Impact on the Cheshire East Landscape Character Assessment, Cheshire East Borough Council (LUC 2018) identifies Poynton Park within LCA 5 Wooded Estates and Meres: LCA 11a Adlington.

This document specifically identifies Poynton Park as a high quality feature (page 50 Environmental Impact Report). The Town Council does not agree with the summary of the Environmental Impact Report that there would be a barely perceptible change on the LCA 11a Adlington. There will be permanent removal of vegetation from two strips of land of at least 80m which is nearly 17% of the development site. In addition, 34 trees and 10 groups of trees will have their crowns lifted to 5m and two further groups will be partially removed. After 15 years it is accepted in the reports that the canopy will have only partially closed, and this is without additional loss of trees which will be impacted and pushed into terminal decline by the work.

The Town Council would reiterate its request that a 3D visual street scene is produced showing existing and the proposed street scene following tree and vegetation removal, crown lifting and pruning for both 1 year post construction and 15 years post construction. Trees which are identified as likely to be lost as a result of the construction work should also be shown.

The Town Council considers highly relevant the comment of the Cheshire East Principal Forestry and Arboricultural Officer on application 21/5509M (Erection of three dwelling houses at the former Council Road Depot, London Road North, Poynton) which borders the west side of Poynton Pool:

"… the loss of trees within the site would have a significant impact on the wider amenity of the area …"

We would refer the Planning Officer and the Strategic Planning Board's attention to the Town Council's original submission and the section entitled 'Legal Obligations' which has in the main not been addressed by this Technical Memorandum Note. We do note believe that the proposed mitigation is suitable.