

Arboricultural Implications Assessment

11 June 2011

[90785]

Revision A



Table of Contents

This report has been released electronically and the appendices referred to herein can be found in the annexed zip folder/s as .pdf files. If this report is released in hard copy the appendices will be bound into the back of this report. Plans may be annexed separately as A1 or A0 copies where a bound-in A3 copy is not appropriate.

Executive Summary	3
General Information	4
Tree Survey	5
Arboricultural Implications Assessment	7
Development Background	7
Proposed Development	7
Construction of the Temporary access Road	7
Construction of the Treatment Building	8
Construction of the Permanent Access Road	Error! Bookmark not defined.
Development Footprint & Loss of Trees	8
Recommendations	10
Document Production, Approval and Distribution Record	11

Appendices

Appendix I – July 2010 Survey Schedule

Appendix II – July 2010 Tree Constraints Plan

Appendix III – May 2005 Tree Survey Schedule

Appendix IV – May 2005 Tree Constraints Plan

Appendix V – Landscape Mitigation Proposal Plan

Executive Summary

We are instructed by our client to produce an Arboricultural Implications Assessment for proposed development at Llwyn Onn Water Treatment Plant on individual trees and groups of trees within and adjacent to the site.

Trees within and adjacent to the site have been surveyed by Arbtech Consulting Ltd using a methodology guided by British Standard 5837:2005 'Trees in relation to construction – Recommendations' ("BS5837").

Checklist for Submission to Local Planning Authority

Tree survey	☒
Tree constraints plan	☒
Arboricultural implications assessment	☒
Arboricultural method statement	☒
Tree protection plan	☒

This report and its appendices follow a strategy for arboricultural appraisal intended to assist developers in designing tree protection measures to mitigate any impact where applicable. This revised version takes our clients landscape mitigation proposal plan into consideration. The layout has changed significantly from the indicative layout plan the first version of this report was based on.

It is the conclusion of this report that there may be some short to medium impact from the loss of fourteen category B trees. However, we are informed there is no satisfactory alternative to the development, and extensive landscaping measures are proposed. Furthermore, the loss of trees is unlikely to have a significant impact on the wider landscape. Provided our recommendations are followed and the landscape proposals are carried out, we consider that the scheme will be beneficial to wildlife and the landscape in the long-term.

General Information

Client: Dee Valley Water

Site: Llwyn Onn Water Treatment Plant

Brief proposal description: Construction of new water treatment building

Planning application reference: N/A

Documents referred to:

Document	Reference
Landscape Mitigation Proposals Plan	10 067 0004 Revision P3
British Standard 5837:2005	"BS5837"

*Note – There is some ambiguity in the plans provided and therefore the actual impact may vary slightly from that described. Best endeavors have been made to be accurate. Where there was doubt the assessment has attempted to go beyond what the actual impact may be.

Tree Survey

Survey: Rod Benzies and Alan Thompson are arboricultural surveyors for Arbtech Consulting Ltd. On 18/07/2010 and 24/05/2011 BS5837 they carried out surveys of the trees within impacting distance of the site, and these are appended to this report together with the corresponding Tree Constraints Plans.

Limitations: The survey was made at ground level using visual observation only. Detailed examinations, such as climbing inspections and decay detection equipment were not employed, though may form part of the survey's management recommendations. Measurements were taken using specialist tapes, laser and GPS devices. Where this was not possible, measurements are estimated.

Scope: Pre-development tree surveys make arboricultural management recommendations based exclusively upon the individual tree or group of trees condition relative to their present context (*i.e. not in relation to the proposed development*).

Land use: The site is currently a water treatment plant.

Locality: The site sits just outside of Wrexham. The landscape is semi-rural with woodland, scattered trees and groups of trees are also a key component of the local landscape.

Relative amenity value: The majority of trees surveyed were category B or C with few category A or R trees. Where C category trees are growing in groups or woodlands, their collective value outweighs their individual value.

Condition, age and species diversity: There is a broad range of age class and size of tree on the site. There is a variety of native and naturalized species, and relatively few exotics.

Status: No statutory protection check has been performed.



Further information: A full schedule and plans including the survey data of all individual trees and groups of trees surveyed can be found at Appendices I - IV. Our client's landscape mitigation plan is at Appendix V.

Arboricultural Implications Assessment

There are a number of issues to be addressed in an arboricultural implications assessment, and broadly these are as follows –

- The effect and extent of the proposed development within root protection areas of retained trees;
- The potential conflicts of the proposed development with canopies of retained trees; and
- The likelihood and reasonableness of any future remedial works to retained trees, beyond that which would have been scheduled in the course of ordinary management.

Development Background

There are several structures on the site including treatment and storage buildings. There are also sludge lagoons and storage reservoirs. The access is along a driveway off Cefn Drive.

Special Note: One of the three exemptions of a tree preservation order is detailed planning consent. Further, BS5837 does not take account of statutory protection in its survey criteria weighting. For these reasons, no distinction will be drawn between trees with and/or without statutory protection.

Proposed Development

The proposed development can be broken down into 2 components, the temporary access road and the new buildings. The arboricultural impact of each is described below. The majority of trees on site will not be affected by development. All other retained trees must have as much of their canopy and Root Protection Areas fenced off as possible where they are near construction works. However, due to the size of the site it may not be necessary to protect all trees.

Construction of the Temporary access Road

A number of category C trees will require removal to install the temporary access road, namely T5 - T7, T15, T10, T16 - T24, T38 and T39.

This will have an impact on the edge of woodland to the north of the site. No Category A trees are affected and only one Category B tree (T94) could be harmed due to incursion into the Root Protection Area. However, with an appropriate design and Arboricultural Method Statement for its installation, the impact on this tree can be mitigated.

It will be necessary to protect the roots of trees T8, T9, T12, T13, T14, T10, T11, T25, T26, T27, T28, T29, T30, T31, T33 and T95. It is likely that root protection areas of these trees will extend beyond the tree protective fencing and therefore there is scope for damage to these trees. It may also be necessary to prune these trees in order to install tree protective fencing. Ground protection must be installed where there is any incursion of the development footprint into any root protection area as indicated on the Tree Constraints Plan.

Construction of the new buildings to the South of the Site

This marginally impacts on the crown and Root Protection Areas of T4, T132, and T134 — all category C trees, and Category B trees T137 and T160. Any harmful impact is likely to be very minor, and can be mitigated with a mix of minor pruning, specially engineered foundations, protective barrier fencing and ground protection where access is required into the Root Protection Area.

Our client is proposing to remove trees T110 – T129 to facilitate construction. Of these all are Category B, except for T112, T113, T123, T125, T127 and T129, which are category C.

Retained trees adjacent to the development will require protection with a mix of ground protection where access is required to Root Protection Areas, but where possible, the whole of the Root Protection Area should be fenced off in accordance with BS 5837 “Trees in Relation to Construction”

Development Footprint & Loss of Trees

This proposal requires the loss of fourteen Category B trees. BS 5837 requires retention of Category B trees where possible. Our client has informed us that there is no

satisfactory alternative to the proposed layout, and therefore the number of trees requiring removal cannot be avoided. In total 36 trees require removal.

Landscape Mitigation Proposals

Our client is proposing extensive landscaping measures to mitigate the impact of the development. Broadly these measures include:

- Meadow Planting
- Shelterbelt Planting

The exact number of trees to be established is unclear from the plan. Numerous areas of planting are indicated, with trees at 1m spacing. It is clear that the ratio of new trees to ones removed is far in excess of two for one. In the long term the proposed landscaping will become a more effective screen to the current and proposed development than the existing landscaping. The species choice is native, which is appropriate for the site and purpose of the planting.

The colours of the largest building proposed will be olive green / brown to help it blend in to the surroundings.

Recommendations

In our experience it is likely that in order to achieve planning permission the Local Planning Authority will require a Tree Protection Plan and Arboricultural Method Statements in accordance with BS5837 that address the potential arboricultural impact highlighted in this report.

The Landscape Mitigation Proposals Plan was produced after the original version of this report that was based on an outline proposal. This revised version includes this latest plan in Appendix V. As a result, we have re-assessed the impact with this more accurate data and amended this report accordingly. However, prior to submission of the Landscape Mitigation Plan to the Local Planning Authority, it will be necessary to bring it up to date with this report. The plan should therefore be amended to show trees T18, T19, T22, T23 and T24 to be removed.

Consideration should be given to the potential for impact on protected wildlife such as nesting birds or bats to be present in trees to be pruned or removed. Before carrying out any tree works, it is recommended that a basic ecological survey is carried out.

Document Production, Approval and Distribution Record

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Status	Issue #	Editor	Position	Date
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Final	2.0	Nick Watkins	Project Manager	12/06/2011

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