

# TECHNICAL NOTE

**Job Name:** Little Stour

**Job No:** 331101000.100.00061

**Date:** 27<sup>th</sup> June 2022

**Prepared By:** Catherine Stent, Senior Arboriculturalist

**Subject:** Summary of Little Stour tree survey results.

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## Overview

Southern Water are proposing a new bypass off-take and barage within a stream south of Nargate Street, Littlebourne, Canterbury. The works will take place in close proximity to an existing crack willow tree (T1). Stone footings of an existing structure were removed from the bank, exposing structural roots of the tree. Stantec were then asked to investigate any potential damage that may have occurred to the tree and that may occur as a result of proposed works to install further stonework into the bank.

This assessment sets out the results of the arboricultural survey and recommended actions.

## Methodology

An assessment of the impacted tree was carried out in accordance with BS 5837:2012 the results of which are presented in the schedule of trees (Figure 2) below.

The tree was numbered, species recorded by common name, tree dimensions including overall canopy dimensions, tree height, and stem measurements were recorded. Canopy spread was measured against the cardinal compass points. Crown height, age class, and physiological and structural condition were assessed. Stem diameters were measured using diameter tape. Tree heights and canopy spreads were taken using a laser range finder and clinometer. No soil samples were collected or soil analysis undertaken.

During the survey, the tree was given a quality category according to its arboricultural, landscape, cultural or environmental value. The categories used are 'A' (high value); 'B' (moderate value); 'C' (low value) and 'U' (very low value). The tree was also visually assessed using Visual Tree Assessment (VTA) (Mattheck and Breloer, 1994).

A plan indicating the approximate location of the tree is presented below, showing the recommended root protection areas (RPA) and a representation of the crown spread coloured according to BS5837:2012 categories. RPA's and tree canopy measurements and calculations are recorded within the tree survey schedule.

The site was visited on 16<sup>th</sup> June 2022. Weather conditions were dry and sunny.

## Analysis

### Tree Survey

During the survey one individual tree was recorded (T1). The location of the tree is shown in Figure 1 and survey details in Figure 2 below. Photos are shown in Figures 3, 4 and 5.

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Figure 1. Showing location of T1.

#	Species	dbh	Height (m)	Life Stage	Estimated Remaining Contribution (years)	Category Grading	Root Protection Area		Comments
							(m <sup>2</sup> )	(radius in m)	
T1	Crack willow	940	16	Mature	<10	U	399.7	11.3	Large decay cavities on all sides. Trunk sounds hollow. Large limbs growing on decaying trunk. Likely to collapse in near future

Figure 2. Schedule of trees recorded.

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Figure 3: Tree T1 photographed from the south looking north.



Figure 4: Cavities at limb removal/failure points on south side of stem



Figure 5: Cavities and decay at base on north side of stem

Willow T1 is located in the rear garden of Littlebourne Water Mill approximately 86m west of the main house and 11m south of Nargate Street to the north. The tree is mature and in poor structural condition. Several large cavities were identified on the north and south sides of the stem and resonated hollow when struck. Decay appeared to be progressive with wood discolouration and low levels of reaction growth. The decayed stem supports a heavy canopy with long limbs and healthy leaf growth which increases the likelihood of failure.

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A search of Council records using the Canterbury City Council online Tree Preservation Order Map (<https://opendata.canterbury.gov.uk/maps/tree-preservation-orders>) shows that the tree is not subject of a Tree Preservation Order (TPO). The tree is located within the Wickambreaux Conservation Area, and therefore six weeks notification of any tree works proposals must first be received in writing by Canterbury City Council before any works are carried out.

### Conclusion/Recommendation

The tree (T1) should be removed for reasons of sound arboricultural management. There is a history of failed willows within the same line of trees south of Nargate Street. The tree is in poor condition with several large cavities on all sides of the stem which increases the likelihood of collapse.

The cost of special construction measures would be disproportionate to the value of the tree considering its limited life expectancy. Proposed works should take place after the tree has been removed as further damage to the rooting environment may increase the likelihood of failure.

Since the tree is at the end of the tree line the additional exposure caused to nearby trees will be minimal and it is not anticipated that pruning or pollarding of further trees within the tree line will be necessary as a result of the removal of T1.

The tree should be removed within six months from the date of survey.

The tree is within Wickambreaux Conservation Area, therefore six week's notice of any tree works proposals must be received in writing to Canterbury City Council before any works are carried out.


## Document Control Sheet

**Project Name:** Little Stour

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**Report Title:** Summary of Little Stour tree survey results

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Revision	Date	Description	Prepared	Reviewed	Approved
A	27/06/2022	For information	MC	CS	CB

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