

CEC Forestry Service overview & Craigmillar Park Nature Strips Project

Ian Morrison
Trees & Woodlands Officer

Parks and Greenspace

• EDINBURGH •
THE CITY OF EDINBURGH COUNCIL

What is the purpose of my job?

- Ensure that the City owned stock of trees in parks, gardens, street walkways and woodlands is safely and effectively managed whilst ensuring the amenity value of the City's treescape is maintained and enhanced...*well what does that actually mean?*

Can you think of one key job performed by the council forestry service?

....PollEverywhere survey

pollev.com/ianmorrison692

Parks and Greenspace

♦ EDINBURGH ♦
THE CITY OF EDINBURGH COUNCIL

Summary of key duties

- Responsibility for publicly owned or adopted for maintenance trees in the SE locality area.
- Maintain systematic inspection procedures – Visual Tree Assessment.
- Employ the use of decay detection analysis tools.
- Implement management plans.
- Ensure compliance with Health and Safety standards of the workforce.
- Dutch Elm Disease survey and sanitation programme.
- Manage enquiries from the general public.
- Provide advice and management recommendations regarding trees on Housing or Children and Families sites.
- Work in conjunction with the Senior Tree Officer to implement replanting throughout city parks.
- Enhance where possible the benefits for trees.
- Income generate.
- Work as part of an emergency standby rota.

Current Forestry Service structure

- Forestry and Natural Heritage Manager
- Senior Trees and Woodlands Officer
- Forestry Team Leader
- Trees and Woodlands Officers x4 (assigned to specific locality).
- Lead Arborists x3
- Arborists x4
- Machine Operators x2
- Seasonal DED surveyors x3 (summer months only)

Trees in the City – Trees and Woodlands Action Plan

http://www.edinburgh.gov.uk//download/downloads/id/1540/trees_in_the_city_action_plan

- The Trees in the City document draws together a number of interrelated strands in regard to Edinburgh's trees into one concise document.
- The report seeks to discharge an outstanding remit from the Transport, Infrastructure and Environment Committee meeting of 13 September 2012. The principal elements of this document are:
 - Policies that will inform how the Council manages trees and woodlands within public ownership or adopted for maintenance.
 - Guidance to inform the public on tree-related matters and on their rights and responsibilities.
 - The Council's response to the Forestry Commission Scotland's Edinburgh and Lothians Forestry and Woodland Strategy 2012-17 (ELFWS) launched in October 2012 which was approved by Planning Committee on 4 October 2012.
 - Recent research evidence of the environmental benefits that trees provide, which have been valued financially using the i-Tree model (shift from selling risk to highlighting and quantifying value).

Aim of Tree Policies

- To set out how the Council will manage, protect and enhance its tree stock;
- To set out the criteria for decisions taken by the City of Edinburgh Council in respect of the management of trees and woodlands, and how work will be prioritised;
- To set out how the Council intends to fulfil its duty of care in respect of public liability;
- To promote positive management of Edinburgh's trees through adoption of good practice;
- To highlight tree protection legislation in the form of Tree Preservation Orders & Conservation Areas;
- To support Edinburgh's Biodiversity Action Plan where appropriate.

Visual Tree Assessment (VTA)

- Inspection approach devised by Prof. Dr. Claus Mattheck
- VTA proceeds in 3 stages:
 1. Visual inspection of the tree for defect symptoms and overall vitality. If there are no signs of a problem the assessment is concluded.
 2. If a defect is suspected on the basis of the symptoms, its presence or absence must be confirmed by thorough examination.
 3. If the defect is confirmed and appears to be cause of concern, it must be measured and the strength of the remaining part of the tree evaluated.

Decay Detection Analysis

PiCUS Tomograph

- Developed and manufactured by **argus electronic gmbh**
- measure the thickness of the residual wall (non-invasively) of trees with internal defects such as cavities or decay. Does this by measuring the velocity of sound waves in wood.
- Provides a cross sectional picture of the internal structure of the tree at the level of examination – a specific colour matrix allows for interpretation of the internal wood structure.

Decay Detection Analysis

PiCUS Tomograph 3

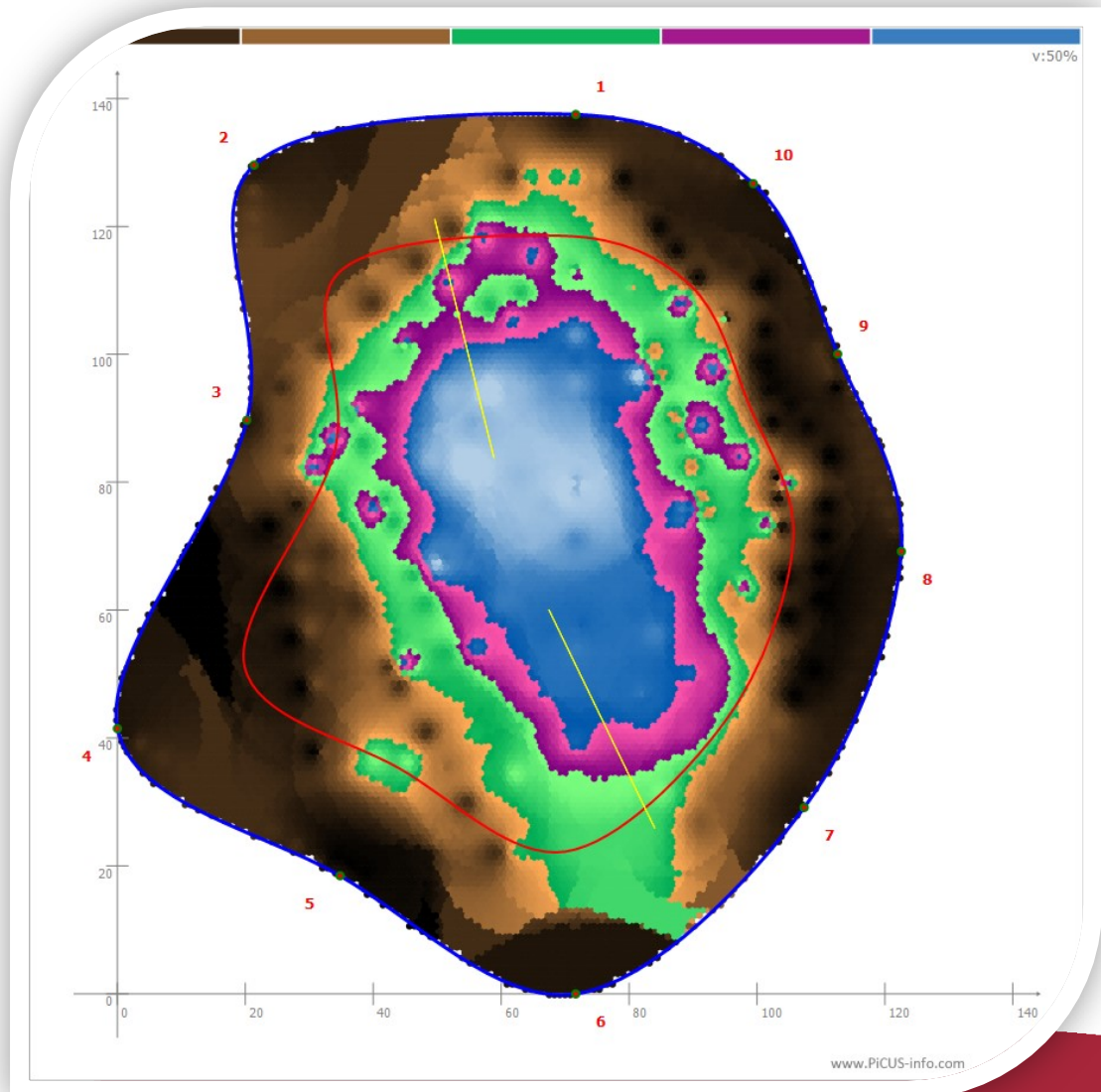


Parks and Greenspace

♦ EDINBURGH ♦
THE CITY OF EDINBURGH COUNCIL

Decay Detection Analysis

- PiCUS Tomograph result – beech with *Pholiota squarrosa*



Decay Detection Analysis

- IML Resi F400-SX
 - Manufactured in north America and distributed in the UK by a company called Sorbus International
 - Simple principle of measuring the drilling resistance. A very narrow gauge drilling needle is inserted into the wood under constant drive.
 - Provides information about the internal structure, inner defects and/or residual walls of a tree at the specific drilling point.
 - More invasive!

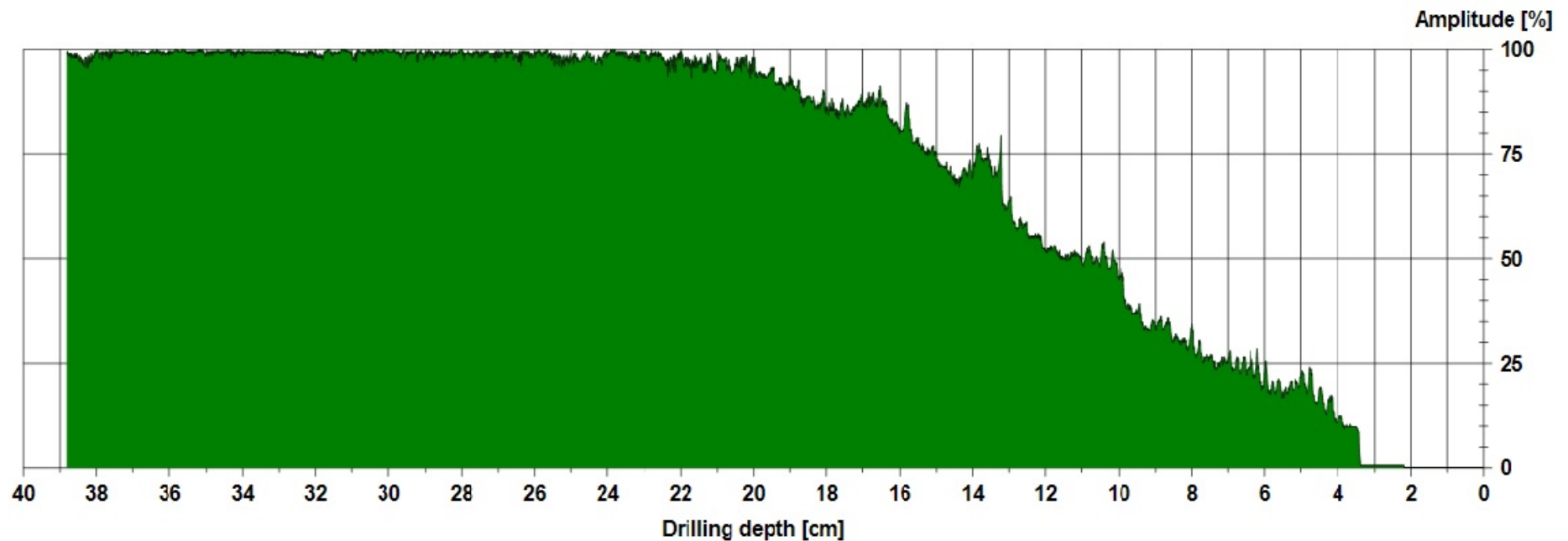
IML Resi comparison - drilling sound wood.

Measuring / object data

Measurement no. :	7	Tilt :	---	Name :	
Drilling depth :	38,81 cm	Avg. curve :	off		
Wood species :	Hard (2)	Diameter :			
ID number :	OAK B05628 (GRANGE LOAN) E50MM	Level :			
Date :	09.06.2017	Direction :			
Time :	13:05:23	Object species :			
Advance :	49 cm/min	Location :			

Cavity detector

Start / stop level :	---
Maximum start depth :	---
Mode :	---
Level / width :	---
Start / stop :	---
Resulting length :	---
Cavity :	---



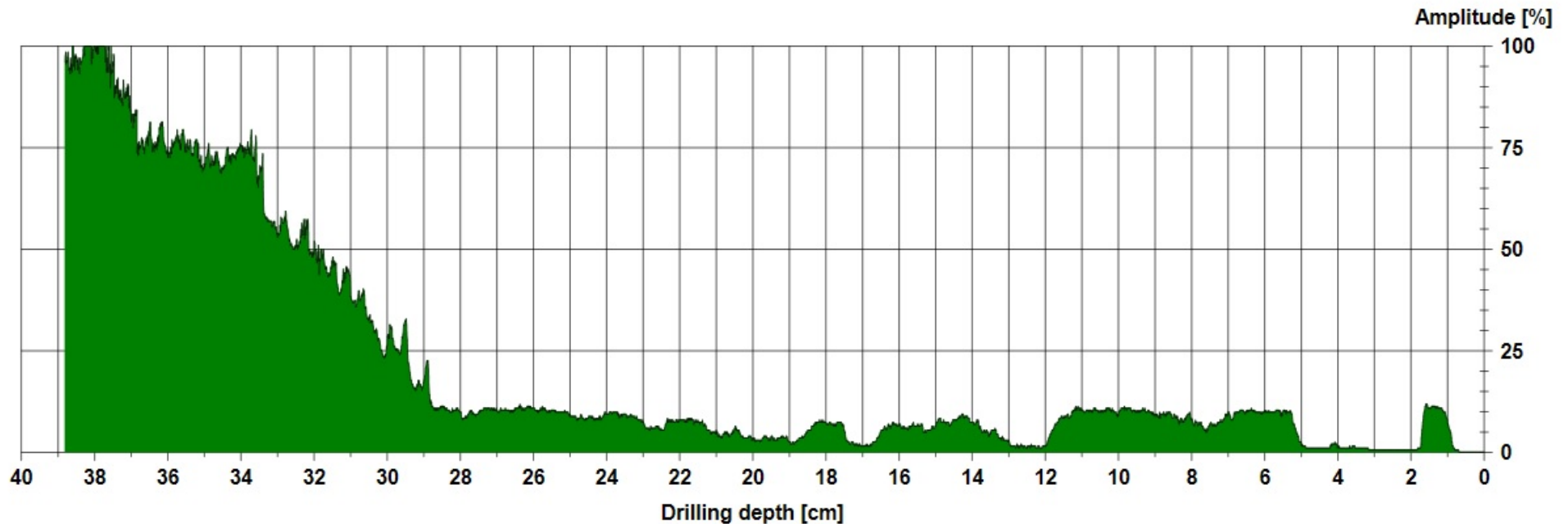
IML Resi comparison - drilling modified/decayed wood.

Measuring / object data

Measurement no. :	15	Tilt :	---	Name :
Drilling depth :	38,81 cm	Avg. curve :	off	
Wood species :	Hard (2)	Diameter :		
ID number :	OAK B05628 (GRANGE LOAN) SW50MM	Level :		
Date :	09.06.2017	Direction :		
Time :	13:33:23	Object species :		
Advance :	46 cm/min	Location :		

Cavity detector

Start / stop level :	---
Maximum start depth :	---
Mode :	---
Level / width :	---
Start / stop :	---
Resulting length :	---
Cavity :	---



Dutch Elm Disease (DED)

- There are estimated to be 15,000 elm trees in Edinburgh.
- Many of these trees are extremely rare hybrids/cultivars.
- Elms are often the grandest specimen trees in our city parks.
- They are being attacked and killed by Dutch elm disease fungal pathogen *Ophiostoma novo-ulmi*.
- This pathogen is mainly spread by the *Scolytus* (elm bark beetle vector).
- To monitor and combat the spread of this disease the city's elm trees are surveyed each summer.
- Infected trees needing to be removed are marked with an orange cross.
- Attempt to save certain elms is done by pruning out infected limbs – these are marked with an orange spot.
- The council survey and sanitation programme has now been running continually for almost 40 years.

Parks and Greenspace

Replanting the city

- Forestry Service seek to replace every tree that is lost. At present this objective is a long way from being met.
- Up until recently standards were purchased from an external nursery supplier.
- In recent years budget has been removed for tree planting.
- Creation of small tree nursery within the existing Inch Nursery depot.
- The Senior Trees and Woodlands Officer instigated the creation of the nursery and all forestry service staff have had involvement in its construction.
- Maintenance of the nursery trees is shared between all tree officers.

Emergency service

- Provide an emergency standby rota, to ensure that the Council is able to respond on a 24hour a day, 365 day a year basis to deal with all out of hours emergency tree work events. This includes all public and festive holidays.



Craigmillar Park Nature Strips Project

- Tree survey
- Planning works
- Community involvement
- Funding/available resources –woodland trust free tree packs

<https://www.woodlandtrust.org.uk/plant-trees/free-trees/>

Final thought

- What do trees mean to you? pollev.com/ianmorrison692
- Living things in their own right.
- Connection to our past/legacy for our future.
- Integral component of life and character of our city.

Many Thanks.

Parks and Greenspace

♦ EDINBURGH ♦
THE CITY OF EDINBURGH COUNCIL