Deal Town Council, Town Hall, High Street, Deal, Kent, CT14 6TR.
01304 361999 - deal.town.council@deal.gov.uk - www.deal.gov.uk

To all Committee Members: You are hereby summoned to attend a meeting of the Environment Committee at the Town Hall on **Wednesday 16th August 2023** at 7.15pm to transact the business shown on the agenda below.

Members of the public and press are welcome to attend.

Any member of the public may submit a written statement of no more than 500 words relating to any item on this agenda. These must be received by 10am on Tuesday 15th August 2023 by email to deal.town.council@deal.gov.uk or post to the above address. These statements will be circulated to all present at the meeting and become part of the public record of the meeting, names will be redacted.

Laura Marney – Committee Clerk
Date: 8th August 2023

AGENDA

1	**Chairperson's opening remarks**	Chairperson
2	**Apologies for absence**	Committee Clerk
3	**Declarations of interest**: To receive any declarations of interest from Members in respect of business to be transacted on the agenda.	Attach 1
4	**Public Participation**: Members of the public may make representations, answer questions and give evidence at the meeting in respect of the business on the agenda. This shall not exceed 15 minutes.	
5	**The minutes of the Environment Committee meeting held on Wednesday 14th June 2023 for approval and signing:** Decision required	Attach 2
6	**Town Plan Priorities:** Decision required.	Attach 3
7	**Green Grants:** Decision required.	Attach 4
8	**iTree Survey Report:** Decision required.	Attach 5
9	**Recommendation from Cllr Findley - Ecological Emergency Declaration:** Decision required.	Attach 6
10	**Committee Clerk Report:** Information to note.	Attach 7
	Date of next meeting: 11th October 2023	

Filming and audio recording of Town Council meetings, by representatives of the media and also by members of the public using small media tools, is permitted. Please refer to the council's protocol for recording of meetings for guidance, available to download on www.deal.gov.uk or on request.

Committee members: Cllr Beer, Cllr M Cronk, Cllr D Cronk, Cllr M Eddy, Cllr Bano, Cllr Cullen, Cllr Brookfield, Cllr Findley, Cllr Craggs, Mr David Carey and Ms Bryony Brooks.

ATTACH 1

Declarations of Interest

Disclosable Pecuniary Interest (DPI)

Where a Member has a new or registered DPI in a matter under consideration they must disclose that they have an interest and, unless the Monitoring Officer has agreed in advance that the DPI is a 'Sensitive Interest', explain the nature of that interest at the meeting. The Member must withdraw from the meeting at the commencement of the consideration of any matter in which they have declared a DPI and must not participate in any discussion of, or vote taken on, the matter unless they have been granted a dispensation permitting them to do so. If during the consideration of any item a Member becomes aware that they have a DPI in the matter they should declare the interest immediately and, subject to any dispensations, withdraw from the meeting.

Other Significant Interest (OSI)

Where a Member is declaring an OSI they must also disclose the interest and explain the nature of the interest at the meeting. The Member must withdraw from the meeting at the commencement of the consideration of any matter in which they have declared a OSI and must not participate in any discussion of, or vote taken on, the matter unless they have been granted a dispensation to do so or the meeting is one at which members of the public are permitted to speak for the purpose of making representations, answering questions or giving evidence relating to the matter. In the latter case, the Member may only participate on the same basis as a member of the public and cannot participate in any discussion of, or vote taken on, the matter and must withdraw from the meeting in accordance with the Council's procedure rules.

Voluntary Announcement of Other Interests (VAOI)

Where a Member does not have either a DPI or OSI but is of the opinion that for transparency reasons alone s/he should make an announcement in respect of a matter under consideration, they can make a VAOI. A Member declaring a VAOI may still remain at the meeting and vote on the matter under consideration.

Note to the Code:

Situations in which a Member may wish to make a VAOI include membership of outside bodies that have made representations on agenda items; where a Member knows a person involved, but does not have a close association with that person; or where an item would affect the well-being of a Member, relative, close associate, employer, etc. but not his/her financial position. It should be emphasised that an effect on the financial position of a Member, relative, close associate, employer, etc OR an application made by a Member, relative, close associate, employer, etc would both probably constitute either an OSI or in some cases a DPI.

ATTACH 2

Deal Town Council, Town Hall, High Street, Deal, Kent CT14 6TR
Tel: 01304 361999. Email: deal.town.council@deal.gov.uk

The Minutes of the Environment Committee Meeting held on Wednesday 14th June 2023 at Deal Town Hall at 7.15pm.

Present: Cllr S Beer (Chairperson), Cllr D Cronk, Cllr M Eddy, Cllr B Bano, Cllr S Cullen, Cllr P Findley, Mr D Carey (Co-opted Member)

Officers: Laura Marney (Committee Clerk), Nadine Miller (Climate & Communication Officer)

Other: 0 members of the public

MINUTES

1	**Chairperson's opening remarks.** The Chairperson welcomed everyone to the meeting and read out the fire evacuation procedures and advised Councillors to put their mobile phones on silent.	Chairperson
2	**Apologies for absence:** Cllr M Cronk and Cllr S Brookfield.	Committee Clerk
3	**Declarations of interest**: None received.	
4	**Public Participation**: The Committee Clerk advised a statement had been received by email from a member of the public after the deadline. The Chairperson advised the Committee certain councillors had also been included in this email, and that councillors were at liberty to include points made by the member of the public at agenda item 6.	Committee Clerk/ Chairperson
5	**The minutes of the Environment Committee meeting held on Wednesday 12th April 2023 for approval and signing.** Cllr Eddy advised there was a typo on item 7 and should read "able". Members RESOLVED: To accept the amended minutes of the Environment Committee meeting held on Wednesday 12th April 2023 as a true and accurate record. (P) BB (S) ME. All Agreed. The Chairperson duly signed the minutes.	Chairperson
6	**Thermal Imaging Camera:** Following a lengthy discussion. Members RESOLVED: To remit this agenda item to Full Council. (P) ME (S) SC. 5 For, 1 Against. Motion carried.	Climate Change Officer
7	**Mill Hill Tree Planting:** Following a discussion. Members RESOLVED: To accept the Officer recommendation with an amendment that the Committee Clerk investigates further privately owned sites in Mill Hill, bearing in mind advice from Mr David Carey about care and maintenance. Cllr Bano, Cllr Eddy and Cllr D Cronk to provide the Committee Clerk with the relevant sites and details of who owns the land. (P) SB (S) SC. All Agreed	Committee Clerk/ Councillors
9	**Big Green Week/Clean Air Day:** Member RESOLVED: To note the report. (P) DC (S) ME. All Agreed.	
10	**Committee Clerk Report:** Members RESOLVED: To note the report. (P) DC (S) ME. All Agreed.	
	The Chairperson closed the meeting at 8.07pm.	

ATTACH 3

DEAL TOWN COUNCIL
MEMORANDUM

To: Councillor S Beer – Chairperson of the Environment Committee, Committee members
From: Laura Marney – Committee Clerk
Date: 26th July 2023
Subject: Town Plan - Future Actions

The Town Plan was adopted at the Full Council meeting on the 27th June 2023. Following this decision, the Officers have gone through the Action Plan within it and are separating out the Committee work to be undertaken.

Members will be aware that there are ongoing actions listed within the plan and the work for these continues.

In addition to the ongoing actions please see below the list of work for the Environment Committee that has been prioritised within the plan.

2023/24

Deal Town Council to work with local groups and DDC on a campaign about waste and recycling. *Deal Annual Grant schemes offer support to local organisations.*

The Committee Clerk is exploring ideas with the Climate Change Officer and Town Clerk and will be reaching out to DDC and local groups. Members of the committee will be asked via email to send over any suggestions that they have for consideration. The Committee Clerk is aiming to bring a completed action plan template to the next Environment Committee meeting for discussion.

2023/2026

Deal Town Council to work with DDC, KCC and local organisations to plant trees in urban areas. *Some planting done – more to add.*

The Committee Clerk has been in discussion with Sainsbury's regarding planting on their site, and additional shrubs have been planted in the car park. The manager is keen to build on this. The Committee Clerk has already contacted DDC and KCC and will be meeting with local organisations. She will continue to investigate further options for planting in Deal and will report back to the committee.

2024/2025

Deal Town Council to work with local groups on a campaign to promote planting and maintaining hedges, keeping front gardens green, rewilding etc. *Deal Annual Grants schemes offer support to local organisations. More to be done.*

The Committee Clerk is exploring ideas with the Climate Change Officer and the Town Clerk on how this can be achieved. Members of the committee will be asked via email to send over any suggestions that they have for consideration. The Committee Clerk is aiming to bring a completed action plan template to a future committee meeting for decision.

Recommendation: Members to note the report and feedback suggestions to the Committee Clerk.

Decision required: Members to consider the above.

ATTACH 4

DEAL TOWN COUNCIL
MEMORANDUM

To: Councillor S Beer – Chairperson of the Environment Committee, Committee members
From: Paul Bone – Responsible Finance Officer
Date: 1st August 2023
Subject: Green Grants 2023-2024

In August 2022 the Environment Committee considered trailing a Green Gannt stream as follows:

RESOLVED:
1.That the Environment grant scheme is piloted for 1 year.
2. That a recommendation is made to Full Council to set the budget at £10,000 from the environment budget.
3. That applications are open to Businesses, Schools, Organisations and individuals. The R.F.O will provide guidance to applicants on the limited range of projects eligible for individuals (not domestic heating, insulation or similar as these can be funded elsewhere).
4. That the maximum grant is £1,000.
5. That the applicant must fund a minimum of 20% of the project themselves.
6. That applications will be considered and scored by the Grants sub-committee and recommendations from that committee are made to Full Council
(P) CO (S) ME. All Agreed.
7.Applications will be considered twice a year in line with the Grants committee. (P)SB (S)TB. All Agreed
8. To amend the Grant Application Form as follows;
(1) Pg 2. Your Project, question box 3; What will be the impact on the environment of the project? and how will you know if you have succeeded?. To be split into 2 separate question boxes.
(2) Remove question box 5: Will all the residents of Deal benefit from the project.
(3) Remove question box 6: Will people outside Deal Town Council's area benefit.
9. R.F.O to arrange a publicity campaign to advertise the Grant Scheme.
(P) CO (S) SB. All Agreed.

Full council then RESOLVED:

To accept:

1) *The recommendation from the Environment committee that the budget for the proposed grant scheme is set at £10,000 from the Environment Budget.*
2) *The recommendation to consider that the Environment grants recommended by the Grant Sub-Committee are submitted to Full Council for approval and the grants round will open on the 1st October or as near as possible, and close 2nd week of November.*

(P) SB (S) CO. All Agreed.

In March 2023 Full council then RESOLVED:

That any balance in the Green Grants budget 2022/23 is carried over to 2023/24 (P) CO (S) AF. All Agreed.

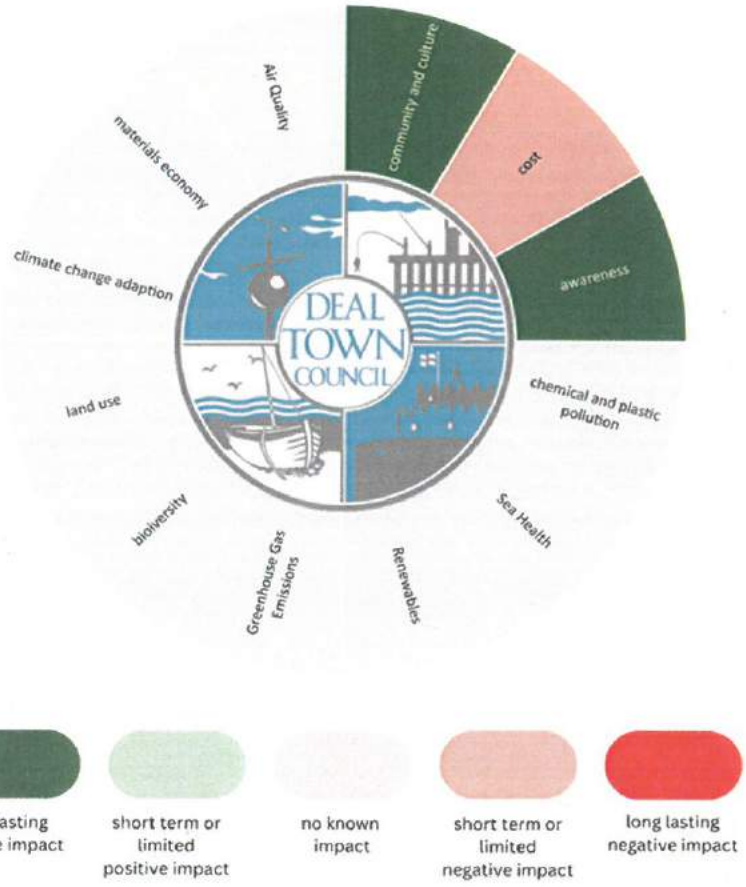
The balance carried forward was: £3,340.

Recommendations:

1) Members to consider and agree the attached draft Green Grant Application form using the £3,340 carried forward from 2022-23.
2) Members to consider and agree that the Green Grant Application forms **(see attached)** are considered in the same way as annual grants with the applications being considered by the Grants subcommittee with their recommendations going to F&GP for final decision.
3) That the application deadlines are the same as for annual grant:
   Round 1: applications must be received by 5pm on **Tuesday 31 October 2023**
   Round 2: applications must be received by 5pm on **Thursday 29 February 2024**

Decisions required: Members to consider the above recommendations.

Green Grants 2023-2024



Deal Town Council Environment Committee 'GREEN GRANT' 2023-24

Appendix 1a Environment Committee GREEN GRANT Application Form

Please add any additional information you want to give us on a separate sheet.

1. Your Name or Organisation		
Name of Business, School or organisation (if applicable)		
Contact name and position in organisation	NAME: POSITION:	
Contact details	ADDRESS: TEL: EMAIL:	
Registered charity / CIO	YES/NO:	Charity No:
Co. Ltd by Guarantee or CIC	YES/NO:	Company No:
Community Group, Club or Association	YES/NO:	Details:
Other	YES/NO:	Details:

Have you received a grant within the last 3 years from Deal Town Council?	YES/NO:

	Year	**Amount**
If YES please provide information		

2. Your Project	
Please describe your project or activity. What will you do? Where? How?	
What is the proposed start and finish date?	**START:** **FINISH:**
What will be the impact on the environment of the project?	
How will you know if you have succeeded?	
If yes what proportion of your beneficiaries live in Deal town?	.....%
Explain what a Deal Town Council grant would be used for, if awarded.	

3. Financial Details	Item	£
Please give the **FULL** cost of your project. Continue on a separate sheet if necessary ***Please see: 'Grant Conditions iii'***		
	Total cash cost	**£**
If applicable, how many volunteer hours are involved? ***Please see: 'Grant Conditions iii'***		
Please list any other 'in kind' contributions and value in **£**. ***Please see: 'Grant Conditions iii'***		
Please give details of other funding applied for **but not yet secured**	**Funding applied from**	
		£
		£
Please give details of other funding **already secured**	**Funding received from**	
		£
		£
		£
Please give details of any cash contribution from yourself or your organisation		**£**
How much grant are you requesting from Deal Town Council?		**£**

Carbon Emission Check Lists

Deal Town Council has made a commitment to become Carbon Neutral by 2025. To help with this and to comply with the Council's Environmental policy, all Grant applications will be scored using the same criteria as for its own projects.

For ease of use, we have created a template for committees to rate 12 categories of impact.

Categories are air quality, materials economy, climate change adaption, land use, biodiversity, Greenhouse Gas Emissions, renewables, sea health, chemical and plastic pollution, education, prosperity and community & culture.

The grades are 1- long lasting positive impact, 2 - short term or limited positive impact, 3 -no known impact, 4 - short term or limited negative impact and 5 - long term negative impact.

This is not scientific but designed for discussion and to guide thinking when decisions are considered.

For each of the 12 categories listed below in **Bold**, please tick the box that shows what you believe to be the environmental impact of your project (please only tick 1 box per line)

		Long lasting positive impact	Short term positive impact	Not known	Short term negative impact	Long term negative impact
1	**Air Quality**					
2	**Materials economy**					
3	**Climate change adaptation**					
4	**Land use**					
5	**Biodiversity**					
6	**Greenhouse gas emissions**					
7	**Renewables**					
8	**Sea health**					
9	**Chemical and plastic pollution**					
10	**Awareness**					
11	**Cost to council**					
12	**Community and culture**					

4. Checklist: Have you provided	Yes/No	If 'No', give the reason
A fully completed application form signed and dated		
If applicable, a copy of your governing document e.g. constitution, set of rules etc. *If supplied within last 3 years please contact the R.F.O first*		.
A copy of your latest bank or building society statement (not applicable to individuals)		
A copy of your latest completed accounts and annual report if it exists (not applicable to individuals)		

Grant Conditions

i. *The grant can only be used for the purpose stated in the application. Deal Town Council reserves the right to reclaim any grant not being used for the specified project/activity.*

ii. *The maximum grant awarded will be £1,000.*

iii. *Any grant awarded will not exceed 80% of the Total Cost of the project. The Total Cost does not have to be the 'cash value' , it can include the 'In Kind' and 'Volunteer Time' relating to the project.*

iv. *Grant applications will be considered for any project improves the impact on the environment such as: Reducing emissions, reducing & recycling plastic use, reducing & recycling waste, environmentally sound packaging, reducing energy and water usage, reducing paper in your business*

v. *Grants awarded will be in support of Deal Town Council's Environmental Policy (Copy Attached)*

vi. *Deal TC allotment holders will be eligible to apply for funding for guttering and water storage through this Grant Scheme. (Grant condition iii above will not apply)*

vii. *Should the organisation disband or the project cease during the grant period Deal Town Council may ask for all or part of the grant to be paid back.*

viii. *Organisations are responsible for ensuring that they comply with all legal and statutory requirements.*

ix. *To be eligible for a grant an organisation shall not discriminate on the grounds of racial origin, gender, disability, age (except for obvious reasons,*

such as becoming a member of a youth club), and political or religious persuasion

x. *If applicable, acknowledgment of the grant received from Deal Town Council is required on documentation, on promotional literature, websites and on social media. The Deal Town Council logo will be supplied on request for this purpose.*

xi. *Deal Town Council will monitor the use of the grant through the Grant Monitoring Form. No further applications will be accepted if there is an outstanding Grant Monitoring Form.*

xii. *Organisations and individuals must contact Deal Town Council before disposing of any equipment or resources purchased or part purchased with Deal own Council grant within 3 years of receiving a grant.*

xiii. *Should any of these conditions not be met it could result in the award being withdrawn, the grant having to be repaid and future grant applications being refused.*

5. Declaration.

I declare that the information given is correct

I have read and agree to adhere to the conditions of the Grant Programme.

Signed ..... **Date** .....

Payee for grant payment (if an individual's name please explain why)	*Name:*
	BANK Details:

Completed forms must be returned to the Responsible Finance Officer, Deal Town Council, Town Hall, High Street, Deal, Kent CT14 6TR. Any enquiries or assistance required in completing this form should be made to the Responsible Finance Officer. Tel: 01304 361999 or e-mail: paul.bone@deal.gov.uk .

The declaration at the end of the application form must be signed and dated, forms sent in electronically require either a scanned copy of the final page with signature or a final signed page to be submitted by post.

All applicants will be advised that their form is being processed within 10 working days of receipt.

For Town Hall use only.	
Date application form received	
Form checked by	
Date application validated by R.F.O.	
Date of committee meetings when application will be considered	
Decision	
Date applicant notified of decision	

Appendix 1b

Environment Committee GREEN GRANT - GRANT Monitoring Form

Under your grant conditions, you are required to submit an end of grant report on what Deal Town Council's grant has been used for, with a breakdown of all the income you received for the project, and all the expenditure incurred.

The grant monitoring form must be submitted **within three months of the project completion date**.

The declaration at the end of form must be signed and dated.

Your Name or Organisation:	
1. Your Grant	
Grant Amount	**£**
Proposed start and finish date	**START:** **FINISH:**
Actual START and FINISH dates	**START:** **FINISH:**
2. Outputs	
Please say whether the impact was as you expected. Feel free to tell us honestly about the project failures as well as successes.	
Acknowledging your grant: If applicable, please send us evidence of where the Deal Town Council logo was included in your reports, posts, promotional materials etc	

3. Financial Details	Item	£
Please give the FULL final cost of your project. Continue on a separate sheet if necessary		
	Total cash cost	**£**
Volunteer Hours		
Other IN KIND value		**£**

4. Declaration.

I declare that the information given is correct

Signed ……. **Date** …….

Completed forms must be returned to the Responsible Finance Officer, Deal Town Council, Town Hall, High Street, Deal, Kent. CT14 6TR.

For assistance in completing this form please contact the Responsible Finance Officer– Tel: 01304 361999 or e-mail: paul.bone@deal.gov.uk

For Town Hall use only.	
Date Monitoring form received:	
Form checked by:	

Appendix 1c

See below the **Environment Committee GREEN GRANT** score sheet **(for applicants' information only)**

Environment Committee GREEN GRANT - SCORE SHEET **Your Name or Organisation:**			
Please score on 1-5 scale (1=weak 5=excellent) PLUS you can award up to 3 Bonus Points if appropriate			
Criteria	Score 1-5	Bonus	Comments
1. How well does the project meet the needs of improving the environment in Deal or reducing the impact on the environment?			
2. Is the project well designed?			
3. Impact – will it affect a wide range or number of people? Will it have a major impact on a limited number?			
4. Is the budget reasonable? Have costs been properly explored?			
5. Is there a suitable level of match funding and/or volunteer time?			
6. **The Environmental Impact section of the application is to be reviewed and the score reflected here.**			

POINTS OUT OF **33** .....

Signature:..... Date: .....

Chair of Grants Committee

Deal Town Council
Environmental Policy

Deal Town Council recognises that we face an unprecedented climate and environmental emergency and have committed to becoming a net zero carbon emitter in our own operations by 2025. We will use our power and influence to protect and improve the environment and encourage and support others to do the same, in addition to fulfilling our statutory environmental responsibilities and complying with all legal and other requirements.

We are committed to transforming Deal into a cleaner, greener and a healthier and more active town - with a high quality built and natural environment. This Environmental Policy supports these goals. It covers all of our activities and estate. Through it we will use our power and influence to protect and improve the environment and make continual improvements in our own environmental performance, as set out below.

We will:

- Promote environmental awareness within the community and work with the local community in partnerships to achieve environmental change
- Reduce the consumption of energy and water across all of our activities
- Minimise the impact of our travel by developing sustainable travel solutions both in our own operations and for the benefit of the people of Deal, in collaboration with other stakeholders
- Continue to improve our performance to prevent all types of pollution and reduce CO2 and other harmful emissions from our activities
- Work to improve the health and wellbeing of the people of Deal through the provision of information and the promotion of home energy efficiency measures, to keep people warm and well, in addition to reducing carbon emissions
- Continue to develop safe walking and cycle rand mobility scooter routes and to promote cycling, scooting and walking around the town, for health as well as the positive environmental benefits
- Work closely with our suppliers and contractors to reduce the social and environmental impact of goods and services by considering such issues as carbon footprint, single use plastics, and fair trade goods
- Use products and materials such as paper efficiently and specify goods that, wherever possible, have a minimal environmental impact in the extraction or sourcing of materials, manufacture, use and disposal

- Minimise the production of waste from our own activities and adhere to the principles of the waste hierarchy - reducing, reusing, recycling or composting wherever possible

- Encourage and support installation and use of renewable energy, battery storage and low carbon technologies in the town

- Protect, conserve and enhance Deal's built environment and distinctive heritage by ensuring that any development is sustainable, with sufficient infrastructure to support it and that all development meets the highest environmental standards

- Protect, conserve and enhance Deal's natural environment and its biodiversity whilst improving our open spaces, public rights of ways and green corridors.

Scope of the Policy

We affect the environment through our services and policies, enforcement of laws and regulations, the choices we make when buying goods and services – as well as our role as a community leader. In recognising the climate and environmental emergency we acknowledge that environmental concerns have primacy over other matters and that radical action is needed to facilitate the change required to avoid the worst impacts of climate change.

Environmental Management

We will set objectives and implement programmes of action to minimise the negative environmental effects and increase the positive effects of our activities. We will take steps to understand and control any risks of harm to the environment resulting from our activities.

Involvement

We will enable the full involvement of Councillors and employees by providing information, training and other support. We will work with our contractors and suppliers to help them improve their environmental performance and ensure that, when working for Deal Town Council, they adopt equivalent environmental standards.

We will encourage the local community and other partners and stakeholders to take action too, through the provision of information and support, as well as advocacy.

ATTACH 5

DEAL TOWN COUNCIL

MEMORANDUM

To: Councillor S Beer – Chairperson of the Environment Committee, Committee members

From: Laura Marney – Committee Clerk

Date: 4th August 2023

Subject: iTree Eco Survey Report

The iTree Eco project was brought to the Environment Committee in October 2020, iTree Eco is a free software suite that helps quantify urban forest structure, function and values. Field data is collected from sample areas which describe the number of species of tree, tree girth, health, leaf area height etc. The data collected is fed into software, it can then provide a number of values, such as carbon storage and sequestration, air pollution removal and storm water attenuation. It also calculates a monetary value of the annual benefits of the urban forest.

Treeconomics was chosen to compile a report from the survey information collected.

The survey by staff, councillors and volunteers was finally completed in December 2022. This information was then loaded onto the iTree ecosystem by the Committee Clerk and sent to Treeconomics at the end of February 2023 for them to collate.

The final iTree Ecosystem Analysis report has now been received from Treeconomics **(see attached full 37 page report).** Agenda item attachment 7 refers to ongoing Tree and Planting projects the Committee is currently undertaking.

The Climate Change Officer has advised the following:

This survey is not a tree count, it gives an estimate of our tree cover. It extrapolates sample data against a set of criteria, some of which are not available for studies outside of the United States.

The report is an analysis of 182 random field plots located across "Deal". In this study, Deal is defined as North Deal, Middle Deal and part of Sholden, part of Eastry, Mill Hill, Ringwould and Walmer.

Other surveys carried out in the UK have been authority specific and used to understand the work and value of trees to help shape planning and policy decisions. Deal Town Council's estate covers our three allotment sites and various planters.

Recommendations:

1) The iTree Ecosystem Analysis report is available on the DTC website and sent to the Council's that participated in this survey for their information.

2) The iTree Ecosystem Analysis report is forwarded to Dover District Council for their reference.

Decision required: Committee members to consider the above recommendations.

i-Tree
Ecosystem Analysis

Deal

Urban Forest Effects and Values
May 2023

Summary

Understanding an urban forest's structure, function and value can promote management decisions that will improve human health and environmental quality. An assessment of the vegetation structure, function, and value of the Deal urban forest was conducted during 2021. Data from 182 field plots located throughout Deal were analyzed using the i-Tree Eco model developed by the U.S. Forest Service, Northern Research Station.

- Number of trees: 21,950
- Tree Cover: 4.2 %
- Most common species of trees: Acer pseudoplatanus, Corylus avellana, Ilex aquifolium
- Percentage of trees less than 6" (15.2 cm) diameter: 12.5%
- Pollution Removal: 11.26 metric tons/year (£85.7 thousand/year)
- Carbon Storage: 26.03 thousand metric tons (£6.58 million)
- Carbon Sequestration: 391.4 metric tons (£99 thousand/year)
- Oxygen Production: -446.9 metric tons/year
- Avoided Runoff: 15.7 thousand cubic meters/year (£18.8 thousand/year)
- Building energy savings: £3,410/year
- Carbon Avoided: 3.418 metric tons/year (£865/year)
- Replacement values: £45.3 million

Metric ton: 1000 kilograms
Monetary values £ are reported in Pound Sterlings throughout the report except where noted.
Pollution removal and avoided runoff estimates are reported for trees and shrubs. All other ecosystem service estimates are reported for trees.
With Complete Inventory Projects, oxygen production is estimated from gross carbon sequestration and does not account for decomposition. Oxygen production in Plot Inventory Projects is estimated from net carbon sequestration.

The estimate of Tree Cover is derived from user estimations of percent tree cover over plots and extrapolated to the whole study area. For more precise tree cover estimates please use i-Tree Canopy or i-Tree Landscape.

For an overview of i-Tree Eco methodology, see Appendix I. Data collection quality is determined by the local data collectors, over which i-Tree has no control. Additionally, some of the plot and tree information may not have been collected, so not all of the analyses may have been conducted for this report.

Table of Contents

I. Tree Characteristics of the Urban Forest

The urban forest of Deal has an estimated 21,950 trees with a tree cover of 4.2 percent. The three most common species are Acer pseudoplatanus (15.5 percent), Corylus avellana (6.2 percent), and Ilex aquifolium (4.3 percent).

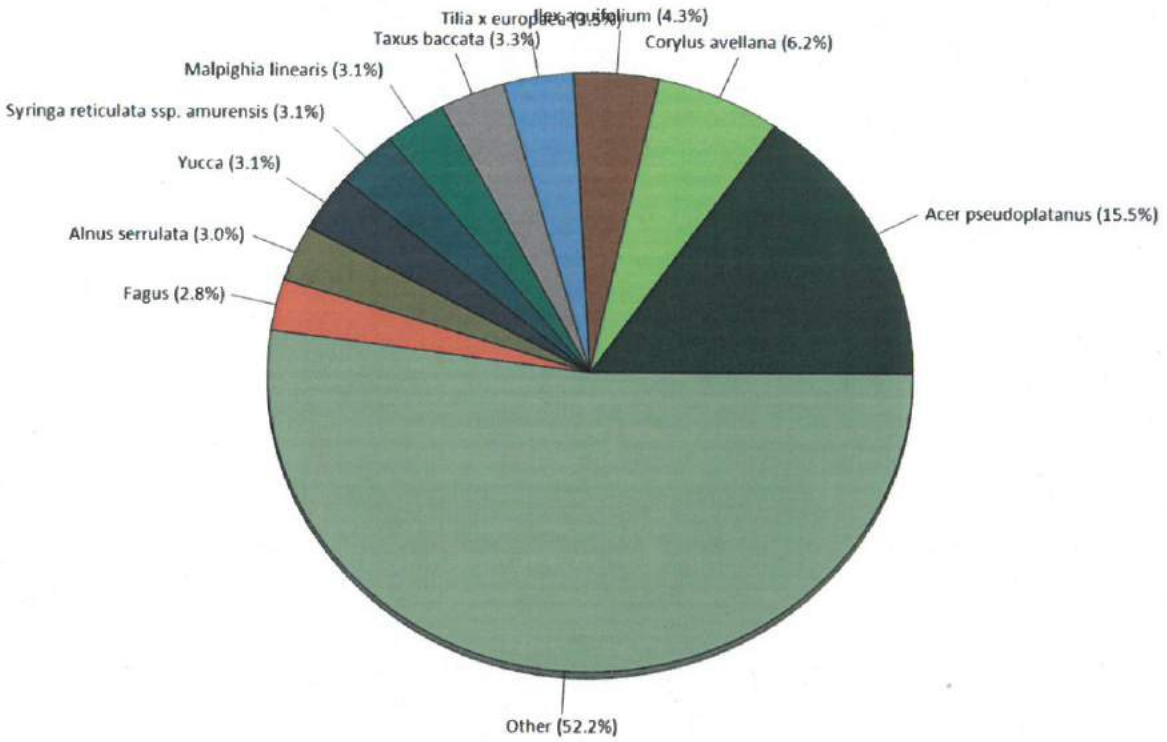


Figure 1. Tree species composition in Deal

The overall tree density in Deal is 11 trees/hectare (see Appendix III for comparable values from other cities). For stratified projects, the highest tree densities in Deal occur in North Deal followed by Mill Hill and Walmer.

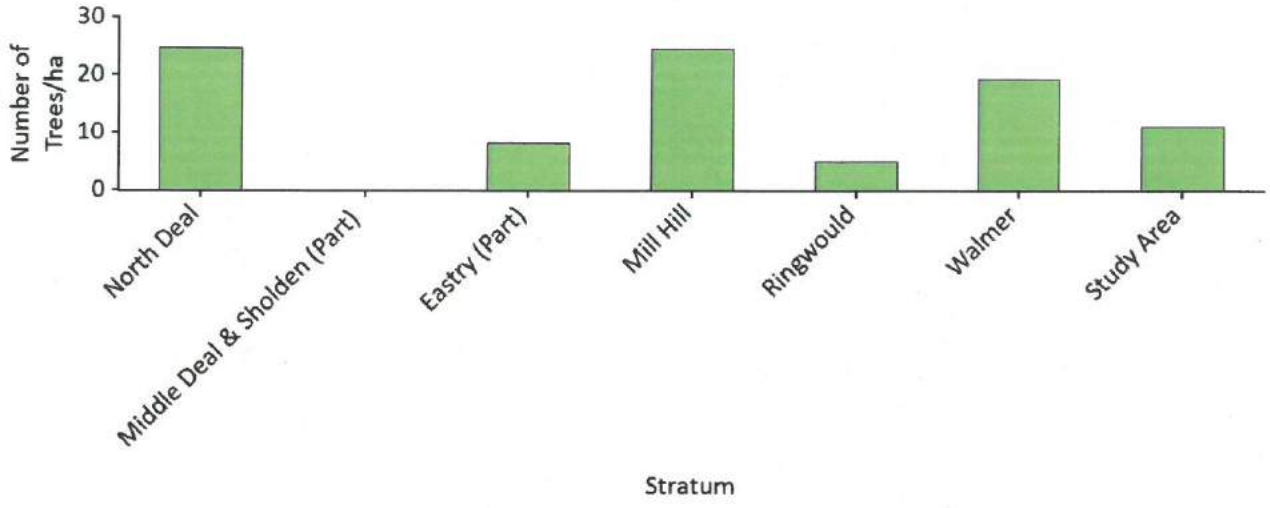


Figure 2. Number of trees/ha in Deal by stratum

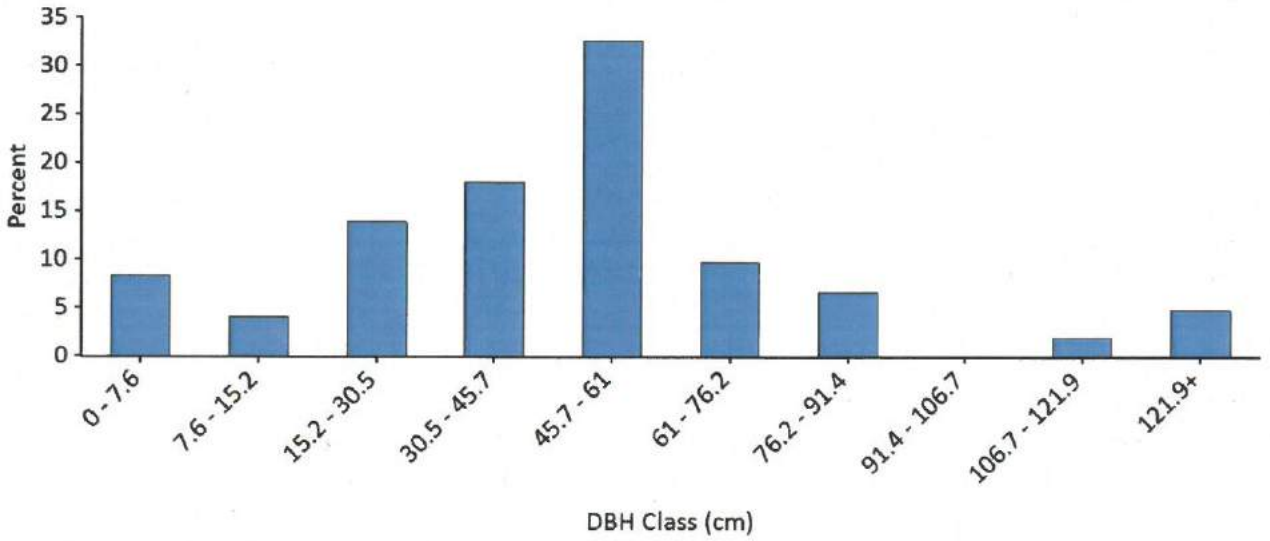


Figure 3. Percent of tree population by diameter class (DBH - stem diameter at 1.37 meters)

Urban forests are composed of a mix of native and exotic tree species. Thus, urban forests often have a tree diversity that is higher than surrounding native landscapes. Increased tree diversity can minimize the overall impact or destruction by a species-specific insect or disease, but it can also pose a risk to native plants if some of the exotic species are invasive plants that can potentially out-compete and displace native species. In Deal, about 14 percent of the trees are species native to Europe. Most trees have an origin from Europe & Asia (33 percent of the trees).

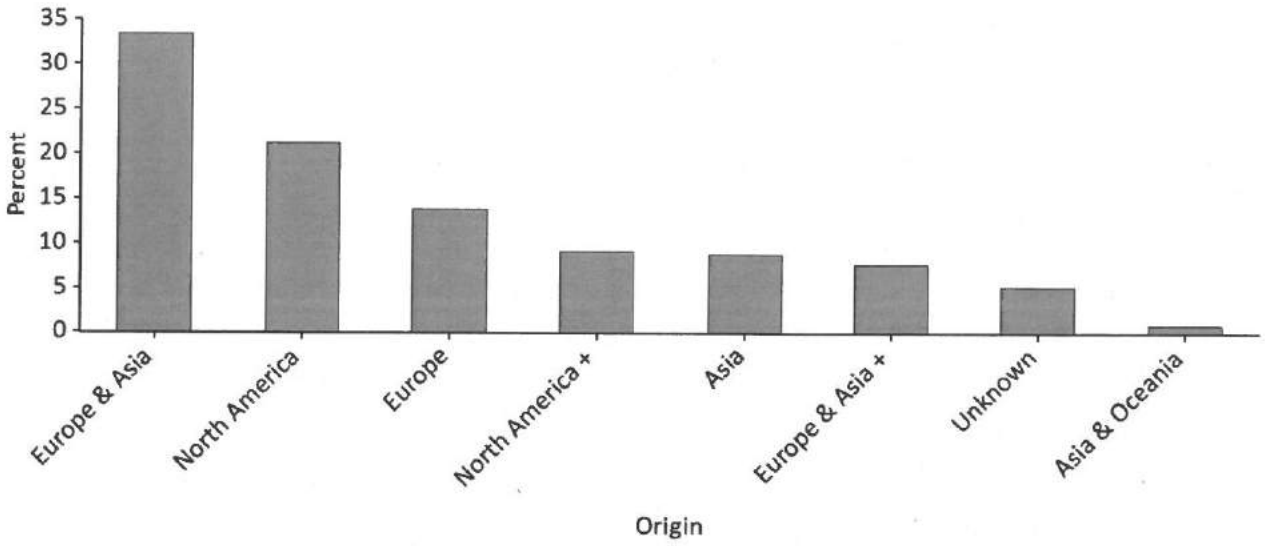


Figure 4. Percent of live tree population by area of native origin, Deal

The plus sign (+) indicates the tree species is native to another continent other than the ones listed in the grouping.

Invasive plant species are often characterized by their vigor, ability to adapt, reproductive capacity, and general lack of natural enemies. These abilities enable them to displace native plants and make them a threat to natural areas.

II. Urban Forest Cover and Leaf Area

Many tree benefits equate directly to the amount of healthy leaf surface area of the plant. Trees cover about 4.2 percent of Deal and provide 358.1 hectares of leaf area. Total leaf area is greatest in Ringwould followed by Mill Hill and Walmer.

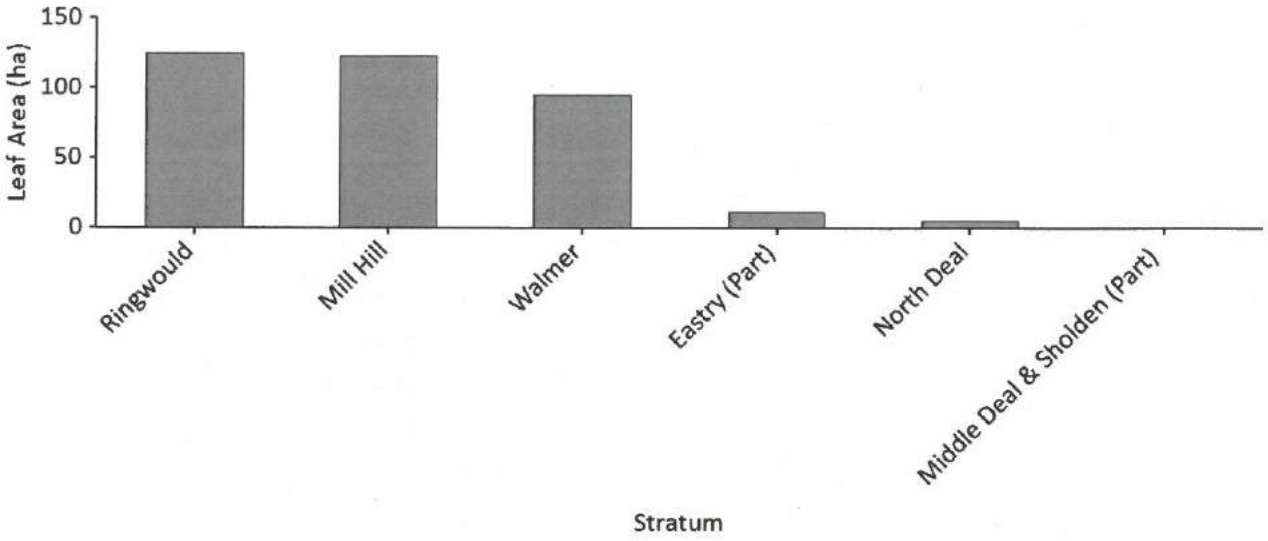


Figure 5. Leaf area by stratum, Deal

In Deal, the most dominant species in terms of leaf area are Acer pseudoplatanus, Tilia x europaea, and Alnus serrulata. The 10 species with the greatest importance values are listed in Table 1. Importance values (IV) are calculated as the sum of percent population and percent leaf area. High importance values do not mean that these trees should necessarily be encouraged in the future; rather these species currently dominate the urban forest structure.

Table 1. Most important species in Deal

Species Name	*Percent Population*	*Percent Leaf Area*	*IV*
Acer pseudoplatanus	15.5	36.7	52.2
Tilia x europaea	3.5	16.8	20.3
Alnus serrulata	3.0	13.4	16.5
Platanus	2.3	6.8	9.1
Corylus avellana	6.2	1.0	7.2
Taxus baccata	3.3	2.6	5.9
Aesculus hippocastanum	2.5	3.3	5.8
Fagus	2.8	2.8	5.6
Ilex aquifolium	4.3	0.4	4.7
Fraxinus excelsior ssp. excelsior	2.3	2.0	4.3

Common ground cover classes (including cover types beneath trees and shrubs) in Deal include buildings, water, other impervious, rock, bare soil, unmaintained grass, and duff/mulch, impervious covers such as tar, and cement, and herbaceous covers such as grass, and herbs (Figure 6). The most dominant ground cover types are Grass (53.9 percent) and Building (12.2 percent).

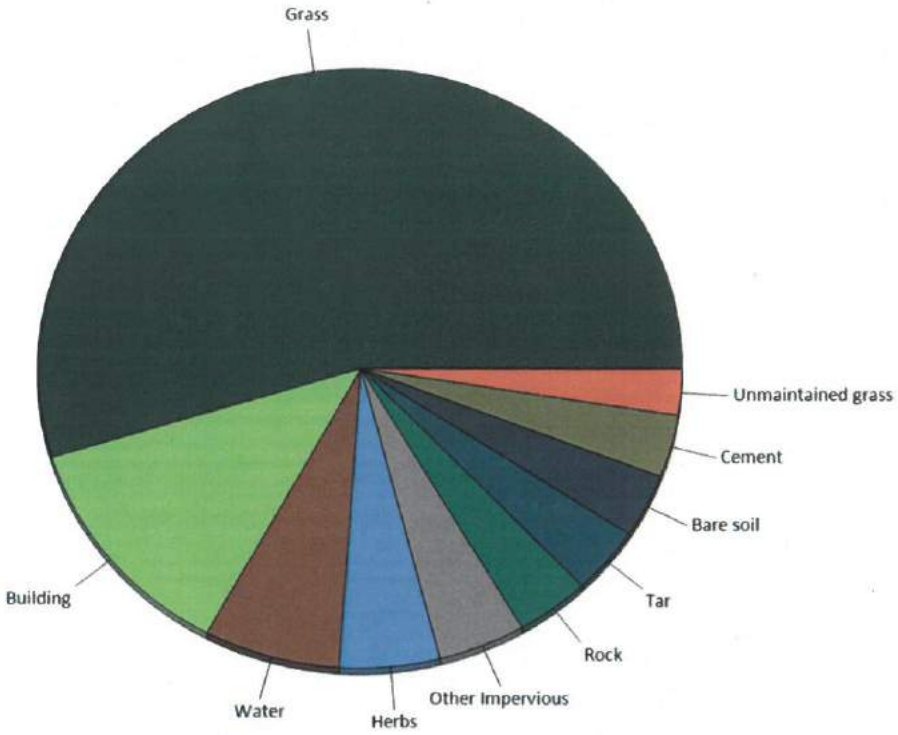


Figure 6. Percent of land by ground cover classes, Deal

III. Air Pollution Removal by Urban Trees

Poor air quality is a common problem in many urban areas. It can lead to decreased human health, damage to landscape materials and ecosystem processes, and reduced visibility. The urban forest can help improve air quality by reducing air temperature, directly removing pollutants from the air, and reducing energy consumption in buildings, which consequently reduces air pollutant emissions from the power sources. Trees also emit volatile organic compounds that can contribute to ozone formation. However, integrative studies have revealed that an increase in tree cover leads to reduced ozone formation (Nowak and Dwyer 2000).

Pollution removal[1] by trees and shrubs in Deal was estimated using field data and recent available pollution and weather data available. Pollution removal was greatest for ozone (Figure 7). It is estimated that trees and shrubs remove 11.26 metric tons of air pollution (ozone (O3), carbon monoxide (CO), nitrogen dioxide (NO2), particulate matter less than 2.5 microns (PM2.5), particulate matter less than 10 microns and greater than 2.5 microns (PM10*)[2], and sulfur dioxide (SO2)) per year with an associated value of £85.7 thousand (see Appendix I for more details).

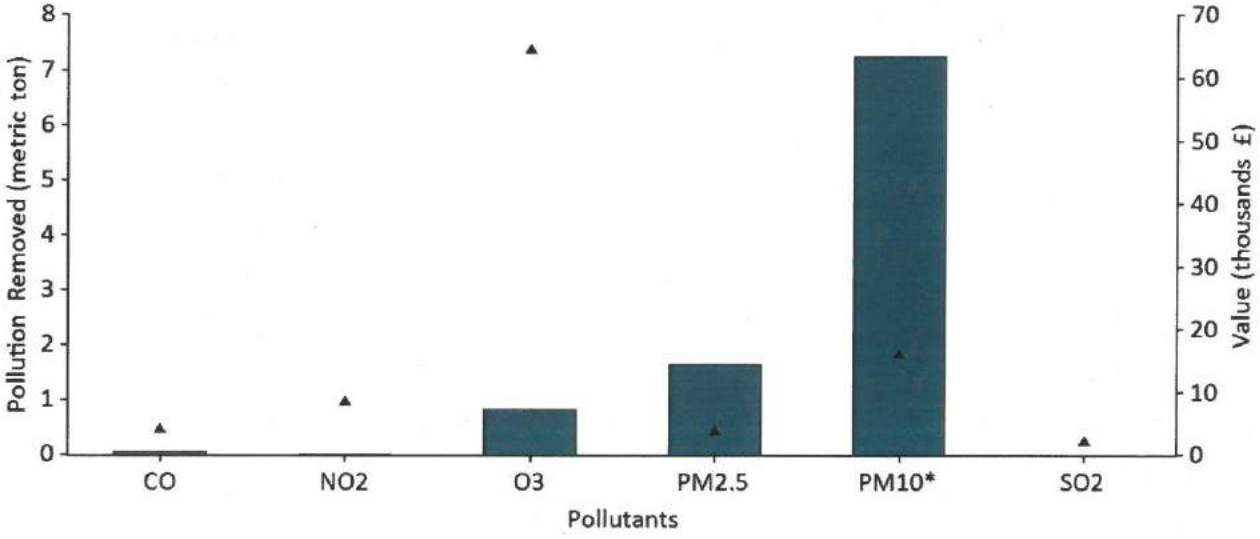


Figure 7. Annual pollution removal (points) and value (bars) by urban trees and shrubs, Deal

[1] PM10* is particulate matter less than 10 microns and greater than 2.5 microns. PM2.5 is particulate matter less than 2.5 microns. If PM2.5 is not monitored, PM10* represents particulate matter less than 10 microns. PM2.5 is generally more relevant in discussions concerning air pollution effects on human health.

[2] Trees remove PM2.5 and PM10* when particulate matter is deposited on leaf surfaces. This deposited PM2.5 and PM10* can be resuspended to the atmosphere or removed during rain events and dissolved or transferred to the soil. This combination of events can lead to positive or negative pollution removal and value depending on various atmospheric factors (see Appendix I for more details).

In 2021, trees in Deal emitted an estimated 943.1 kilograms of volatile organic compounds (VOCs) (195.1 kilograms of isoprene and 748 kilograms of monoterpenes). Emissions vary among species based on species characteristics (e.g. some genera such as oaks are high isoprene emitters) and amount of leaf biomass. Sixty- two percent of the urban forest's VOC emissions were from Alnus serrulata and Acer pseudoplatanus. These VOCs are precursor chemicals to ozone formation.[3]

General recommendations for improving air quality with trees are given in Appendix VIII.

[3] Some economic studies have estimated VOC emission costs. These costs are not included here as there is a tendency to add positive dollar estimates of ozone removal effects with negative dollar values of VOC emission effects to determine whether tree effects are positive or negative in relation to ozone. This combining of dollar values to determine tree effects should not be done, rather estimates of VOC effects on ozone formation (e.g., via photochemical models) should be conducted and directly contrasted with ozone removal by trees (i.e., ozone effects should be directly compared, not dollar estimates). In addition, air temperature reductions by trees have been shown to significantly reduce ozone concentrations (Cardelino and Chameides 1990; Nowak et al 2000), but are not considered in this analysis. Photochemical modeling that integrates tree effects on air temperature, pollution removal, VOC emissions, and emissions from power plants can be used to determine the overall effect of trees on ozone concentrations.

IV. Carbon Storage and Sequestration

Climate change is an issue of global concern. Urban trees can help mitigate climate change by sequestering atmospheric carbon (from carbon dioxide) in tissue and by altering energy use in buildings, and consequently altering carbon dioxide emissions from fossil-fuel based power sources (Abdollahi et al 2000).

Trees reduce the amount of carbon in the atmosphere by sequestering carbon in new growth every year. The amount of carbon annually sequestered is increased with the size and health of the trees. The gross sequestration of Deal trees is about 391.4 metric tons of carbon per year with an associated value of £99 thousand. Net carbon sequestration in the urban forest is about -167.6 metric tons. See Appendix I for more details on methods.

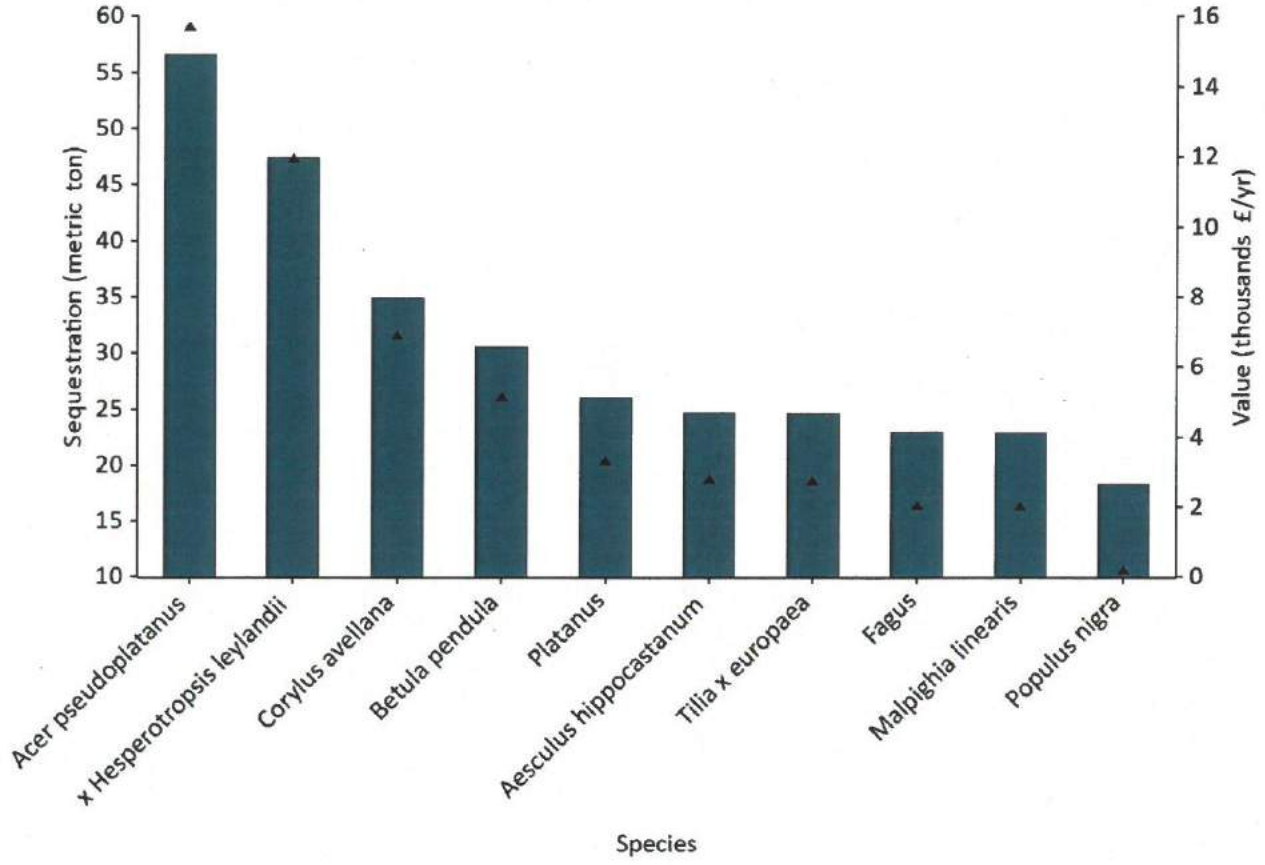


Figure 8. Estimated annual gross carbon sequestration (points) and value (bars) for urban tree species with the greatest sequestration, Deal

Carbon storage is another way trees can influence global climate change. As a tree grows, it stores more carbon by holding it in its accumulated tissue. As a tree dies and decays, it releases much of the stored carbon back into the atmosphere. Thus, carbon storage is an indication of the amount of carbon that can be released if trees are allowed to die and decompose. Maintaining healthy trees will keep the carbon stored in trees, but tree maintenance can contribute to carbon emissions (Nowak et al 2002c). When a tree dies, using the wood in long-term wood products, to heat buildings, or to produce energy will help reduce carbon emissions from wood decomposition or from fossil-fuel or wood-based power plants.

Trees in Deal are estimated to store 26000 metric tons of carbon (£6.58 million). Of the species sampled, Acer

pseudoplatanus stores and sequesters the most carbon (approximately 11.4% of the total carbon stored and 15.1% of all sequestered carbon.)

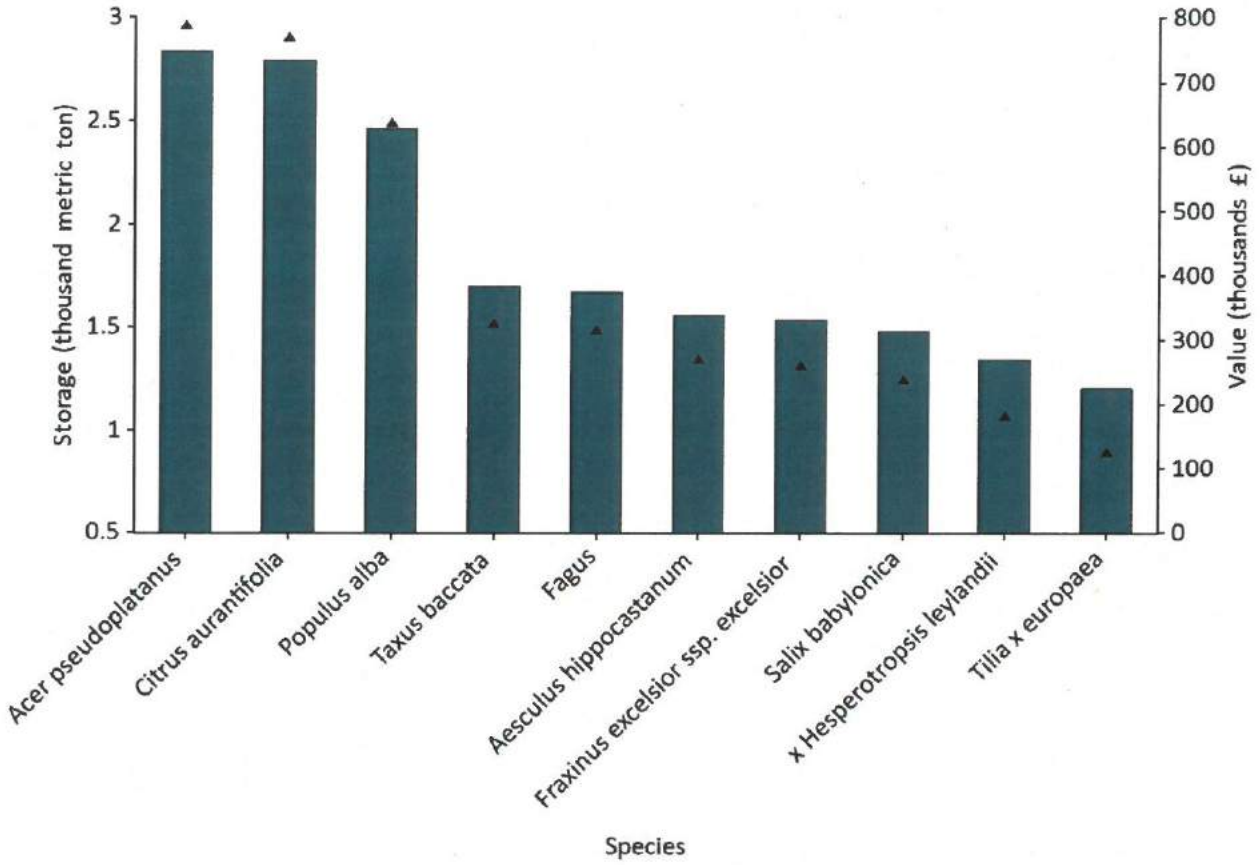


Figure 9. Estimated carbon storage (points) and values (bars) for urban tree species with the greatest storage, Deal

V. Oxygen Production

Oxygen production is one of the most commonly cited benefits of urban trees. The net annual oxygen production of a tree is directly related to the amount of carbon sequestered by the tree, which is tied to the accumulation of tree biomass.

Trees in Deal are estimated to produce -446.9 metric tons of oxygen per year.[4] However, this tree benefit is relatively insignificant because of the large and relatively stable amount of oxygen in the atmosphere and extensive production by aquatic systems. Our atmosphere has an enormous reserve of oxygen. If all fossil fuel reserves, all trees, and all organic matter in soils were burned, atmospheric oxygen would only drop a few percent (Broecker 1970).

Table 2. The top 20 oxygen production species.

Species	*Oxygen (metric ton)*	*Net Carbon Sequestration (metric ton/yr)*	*Number of Trees*	*Leaf Area (hectare)*
x Hesperotropsis leylandii	114.99	43.12	580	2.57
Corylus avellana	75.07	28.15	1,361	3.69
Betula pendula	62.80	23.55	193	0.41
Platanus	50.79	19.05	497	24.41
Malpighia linearis	40.68	15.25	681	0.43
Tilia x europaea	37.15	13.93	773	60.17
Fagus	28.67	10.75	606	10.16
Populus nigra	27.57	10.34	331	1.61
Macromeles tschonoskii	26.62	9.98	413	0.31
Laburnum alpinum	26.17	9.81	387	0.58
Persea	24.61	9.23	331	0.24
Liriodendron tulipifera	19.65	7.37	166	1.71
Fagus grandifolia	15.78	5.92	497	3.61
Sorbus aucuparia	15.06	5.65	193	0.18
Yucca	13.70	5.14	681	0.14
Magnolia	13.01	4.88	193	0.29
Eucalyptus	10.64	3.99	166	0.04
Ilex aquifolium	9.58	3.59	938	1.39
Fagus sylvatica	9.52	3.57	193	4.44
Prunus laurocerasus	7.24	2.71	359	1.16

[4] A negative estimate, or oxygen deficit, indicates that trees are decomposing faster than they are producing oxygen. This would be the case in an area that has a large proportion of dead trees.

VI. Avoided Runoff

Surface runoff can be a cause for concern in many urban areas as it can contribute pollution to streams, wetlands, rivers, lakes, and oceans. During precipitation events, some portion of the precipitation is intercepted by vegetation (trees and shrubs) while the other portion reaches the ground. The portion of the precipitation that reaches the ground and does not infiltrate into the soil becomes surface runoff (Hirabayashi 2012). In urban areas, the large extent of impervious surfaces increases the amount of surface runoff.

Urban trees and shrubs, however, are beneficial in reducing surface runoff. Trees and shrubs intercept precipitation, while their root systems promote infiltration and storage in the soil. The trees and shrubs of Deal help to reduce runoff by an estimated 15.7 thousand cubic meters a year with an associated value of £19 thousand (see Appendix I for more details). Avoided runoff is estimated based on local weather from the user-designated weather station. In Deal, the total annual precipitation in 2013 was 22.1 centimeters.

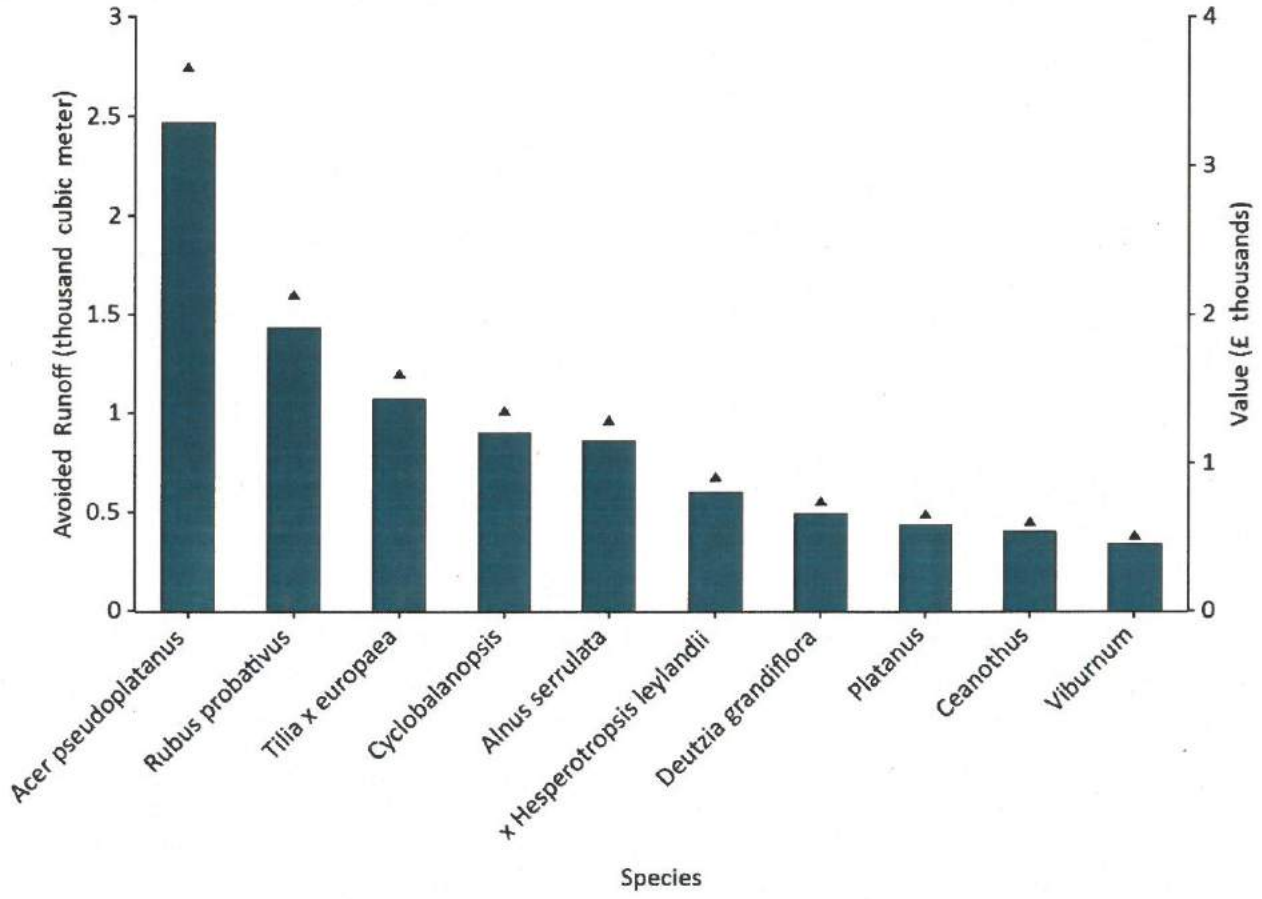


Figure 10. Avoided runoff (points) and value (bars) for species with greatest overall impact on runoff, Deal

VII. Trees and Building Energy Use

Trees affect energy consumption by shading buildings, providing evaporative cooling, and blocking winter winds. Trees tend to reduce building energy consumption in the summer months and can either increase or decrease building energy use in the winter months, depending on the location of trees around the building. Estimates of tree effects on energy use are based on field measurements of tree distance and direction to space conditioned residential buildings (McPherson and Simpson 1999).

Trees in Deal are estimated to reduce energy-related costs from residential buildings by £3,410 annually. Trees also provide an additional £865 in value by reducing the amount of carbon released by fossil-fuel based power plants (a reduction of 3.42 metric tons of carbon emissions).

Note: negative numbers indicate that there was not a reduction in carbon emissions and/or value, rather carbon emissions and values increased by the amount shown as a negative value.[5]

Table 3. Annual energy savings due to trees near residential buildings, Deal

	Heating	*Cooling*	*Total*
MBTU[a]	5	N/A	5
MWH[b]	-1	24	22
Carbon Avoided (metric tons)	0	4	3

[a]MBTU - one million British Thermal Units

[b]MWH - megawatt-hour

Table 4. Annual savings [a](£) in residential energy expenditure during heating and cooling seasons, Deal

	Heating	*Cooling*	*Total*
MBTU[b]	67	N/A	67
MWH[c]	-195	3,534	3,339
Carbon Avoided	-23	887	865

[b]Based on the prices of £149.254 per MWH and £14.2830000399829 per MBTU (see Appendix I for more details)

[c]MBTU - one million British Thermal Units

[c]MWH - megawatt-hour

[5] Trees modify climate, produce shade, and reduce wind speeds. Increased energy use or costs are likely due to these tree-building interactions creating a cooling effect during the winter season. For example, a tree (particularly evergreen species) located on the southern side of a residential building may produce a shading effect that causes increases in heating requirements.

VIII. Replacement and Functional Values

Urban forests have a replacement value based on the trees themselves (e.g., the cost of having to replace a tree with a similar tree); they also have functional values (either positive or negative) based on the functions the trees perform.

The replacement value of an urban forest tends to increase with a rise in the number and size of healthy trees (Nowak et al 2002a). Annual functional values also tend to increase with increased number and size of healthy trees. Through proper management, urban forest values can be increased; however, the values and benefits also can decrease as the amount of healthy tree cover declines.

Urban trees in Deal have the following replacement values:

- Replacement value: £45.3 million
- Carbon storage: £6.58 million

Urban trees in Deal have the following annual functional values:

- Carbon sequestration: £99 thousand
- Avoided runoff: £18.8 thousand
- Pollution removal: £85.7 thousand
- Energy costs and carbon emission values: £4.27 thousand

(Note: negative value indicates increased energy cost and carbon emission value)

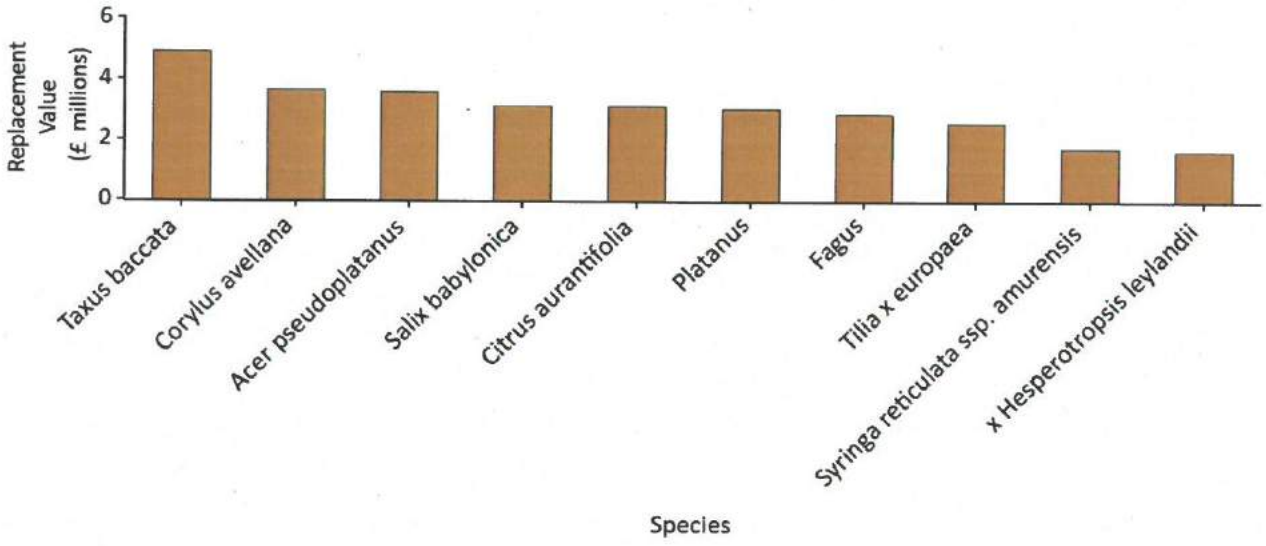


Figure 11. Tree species with the greatest replacement value, Deal

[1] Replacement value in the United Kingdom is calculated using the same procedure as the U.S. (Nowak et al 2002a). Base costs and species values are derived from The Royal Institute of Chartered Surveyors and Barchams and Hillers catalogues and applied to all places in the UK.

IX. Potential Pest Impacts

Various insects and diseases can infest urban forests, potentially killing trees and reducing the health, replacement value and sustainability of the urban forest. As pests tend to have differing tree hosts, the potential damage or risk of each pest will differ among cities.Fifty-three pests were analyzed for their potential impact.

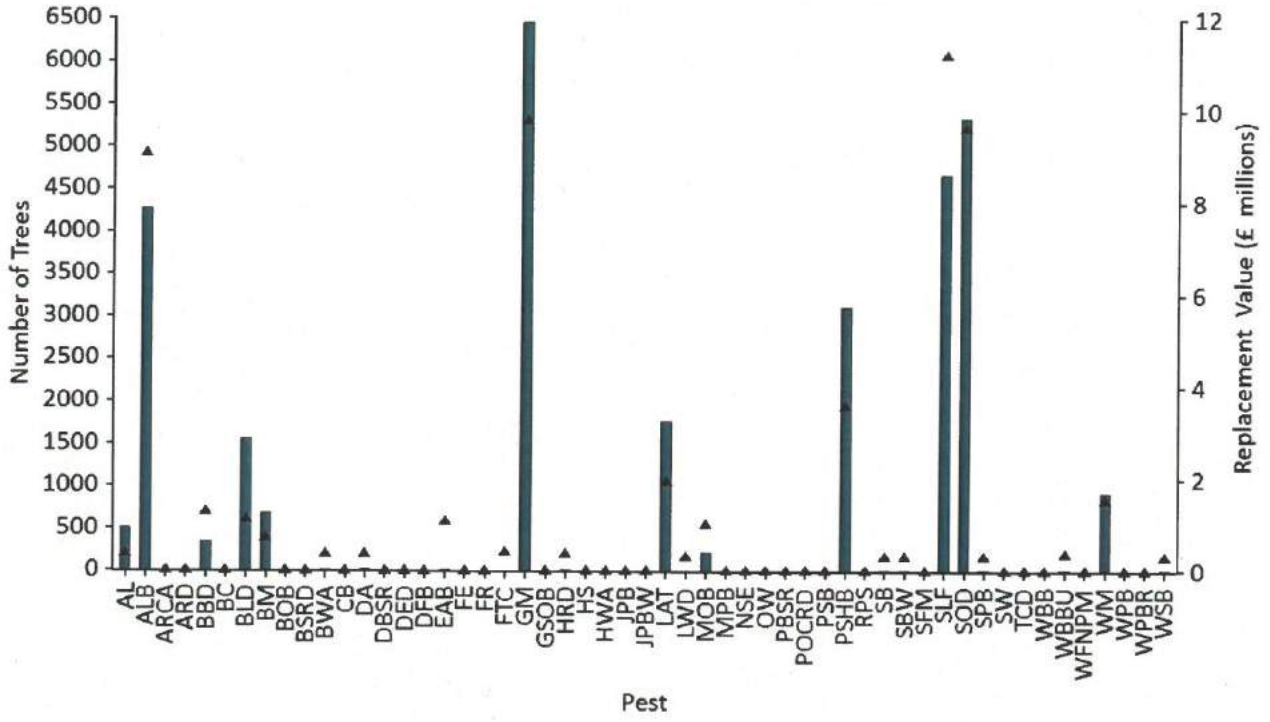


Figure 12. Number of trees at risk (points) and associated compensatory value (bars) by potential pests, Deal

Aspen leafminer (AL) (Kruse et al 2007) is an insect that causes damage primarily to trembling or small tooth aspen by larval feeding of leaf tissue. AL has the potential to affect 0.9 percent of the population (£922 thousand in replacement value).

Asian longhorned beetle (ALB) (Animal and Plant Health Inspection Service 2010) is an insect that bores into and kills a wide range of hardwood species. ALB poses a threat to 22.4 percent of the Deal urban forest, which represents a potential loss of £7.88 million in replacement value.

Aspen Running Canker (ARCA) poses a threat to 0.0 percent of the Deal urban forest, which represents a potential loss of £0 in replacement value.

Armillaria Root Disease (ARD) poses a threat to 0.0 percent of the Deal urban forest, which represents a potential loss of £0 in replacement value.

Beech bark disease (BBD) (Houston and O'Brien 1983) is an insect-disease complex that primarily impacts American beech. This disease threatens 3.1 percent of the population, which represents a potential loss of £634 thousand in replacement value.

Butternut canker (BC) (Ostry et al 1996) is caused by a fungus that infects butternut trees. The disease has since caused

significant declines in butternut populations in the United States. Potential loss of trees from BC is 0.0 percent (£0 in replacement value).

Beech Leaf Disease (BLD) poses a threat to 2.8 percent of the Deal urban forest, which represents a potential loss of £2.87 million in replacement value.

Browntail Moth (BM) poses a threat to 1.8 percent of the Deal urban forest, which represents a potential loss of £1.26 million in replacement value.

Bur Oak Blight (BOB) poses a threat to 0.0 percent of the Deal urban forest, which represents a potential loss of £0 in replacement value.

Black Stain Root Disease (BSRD) poses a threat to 0.0 percent of the Deal urban forest, which represents a potential loss of £0 in replacement value.

Balsam woolly adelgid (BWA) (Ragenovich and Mitchell 2006) is an insect that has caused significant damage to the true firs of North America. Deal could possibly lose 0.9 percent of its trees to this pest (£23.3 thousand in replacement value).

The most common hosts of the fungus that cause chestnut blight (CB) (Diller 1965) are American and European chestnut. CB has the potential to affect 0.0 percent of the population (£0 in replacement value).

Dogwood anthracnose (DA) (Mielke and Daughtrey) is a disease that affects dogwood species, specifically flowering and Pacific dogwood. This disease threatens 0.9 percent of the population, which represents a potential loss of £35.3 thousand in replacement value.

Douglas-fir black stain root disease (DBSR) (Hessburg et al 1995) is a variety of the black stain fungus that attacks Douglas-firs. Deal could possibly lose 0.0 percent of its trees to this pest (£0 in replacement value).

American elm, one of the most important street trees in the twentieth century, has been devastated by the Dutch elm disease (DED) (Northeastern Area State and Private Forestry 1998). Since first reported in the 1930s, it has killed over 50 percent of the native elm population in the United States. Although some elm species have shown varying degrees of resistance, Deal could possibly lose 0.0 percent of its trees to this pest (£0 in replacement value).

Douglas-fir beetle (DFB) (Schmitz and Gibson 1996) is a bark beetle that infests Douglas-fir trees throughout the western United States, British Columbia, and Mexico. Potential loss of trees from DFB is 0.0 percent (£0 in replacement value).

Emerald ash borer (EAB) (Michigan State University 2010) has killed thousands of ash trees in parts of the United States. EAB has the potential to affect 2.7 percent of the population (£12 thousand in replacement value).

One common pest of white fir, grand fir, and red fir trees is the fir engraver (FE) (Ferrell 1986). FE poses a threat to 0.0 percent of the Deal urban forest, which represents a potential loss of £0 in replacement value.

Fusiform rust (FR) (Phelps and Czabator 1978) is a fungal disease that is distributed in the southern United States. It is particularly damaging to slash pine and loblolly pine. FR has the potential to affect 0.0 percent of the population (£0 in replacement value).

Forest Tent Caterpillar (FTC) poses a threat to 1.0 percent of the Deal urban forest, which represents a potential loss of £5.6 thousand in replacement value.

The gypsy moth (GM) (Northeastern Area State and Private Forestry 2005) is a defoliator that feeds on many species causing widespread defoliation and tree death if outbreak conditions last several years. This pest threatens 24.2 percent of the population, which represents a potential loss of £11.9 million in replacement value.

Infestations of the goldspotted oak borer (GSOB) (Society of American Foresters 2011) have been a growing problem in southern California. Potential loss of trees from GSOB is 0.0 percent (£0 in replacement value).

Heterobasidion Root Disease (HRD) poses a threat to 0.9 percent of the Deal urban forest, which represents a potential loss of £23.3 thousand in replacement value.

Hemlock Sawfly (HS) poses a threat to 0.0 percent of the Deal urban forest, which represents a potential loss of £0 in replacement value.

As one of the most damaging pests to eastern hemlock and Carolina hemlock, hemlock woolly adelgid (HWA) (U.S. Forest Service 2005) has played a large role in hemlock mortality in the United States. HWA has the potential to affect 0.0 percent of the population (£0 in replacement value).

The Jeffrey pine beetle (JPB) (Smith et al 2009) is native to North America and is distributed across California, Nevada, and Oregon where its only host, Jeffrey pine, also occurs. This pest threatens 0.0 percent of the population, which represents a potential loss of £0 in replacement value.

Jack Pine Budworm (JPBW) poses a threat to 0.0 percent of the Deal urban forest, which represents a potential loss of £0 in replacement value.

Quaking aspen is a principal host for the defoliator, large aspen tortrix (LAT) (Ciesla and Kruse 2009). LAT poses a threat to 4.8 percent of the Deal urban forest, which represents a potential loss of £3.26 million in replacement value.

Laurel wilt (LWD) (U.S. Forest Service 2011) is a fungal disease that is introduced to host trees by the redbay ambrosia beetle. This pest threatens 0.8 percent of the population, which represents a potential loss of £7.69 thousand in replacement value.

Mediterranean Oak Borer (MOB) poses a threat to 2.5 percent of the Deal urban forest, which represents a potential loss of £414 thousand in replacement value.

Mountain pine beetle (MPB) (Gibson et al 2009) is a bark beetle that primarily attacks pine species in the western United States. MPB has the potential to affect 0.0 percent of the population (£0 in replacement value).

The northern spruce engraver (NSE) (Burnside et al 2011) has had a significant impact on the boreal and sub-boreal forests of North America where the pest's distribution overlaps with the range of its major hosts. Potential loss of trees from NSE is 0.0 percent (£0 in replacement value).

Oak wilt (OW) (Rexrode and Brown 1983), which is caused by a fungus, is a prominent disease among oak trees. OW poses a threat to 0.0 percent of the Deal urban forest, which represents a potential loss of £0 in replacement value.

Pine black stain root disease (PBSR) (Hessburg et al 1995) is a variety of the black stain fungus that attacks hard pines, including lodgepole pine, Jeffrey pine, and ponderosa pine. Deal could possibly lose 0.0 percent of its trees to this pest (£0 in replacement value).

Port-Orford-cedar root disease (POCRD) (Liebhold 2010) is a root disease that is caused by a fungus. POCRD threatens 0.0 percent of the population, which represents a potential loss of £0 in replacement value.

The pine shoot beetle (PSB) (Ciesla 2001) is a wood borer that attacks various pine species, though Scotch pine is the preferred host in North America. PSB has the potential to affect 0.0 percent of the population (£0 in replacement value).

Polyphagous shot hole borer (PSHB) (University of California 2014) is a boring beetle that was first detected in California. Deal could possibly lose 8.8 percent of its trees to this pest (£5.75 million in replacement value).

Red Pine Scale (RPS) poses a threat to 0.0 percent of the Deal urban forest, which represents a potential loss of £0 in replacement value.

Spruce beetle (SB) (Holsten et al 1999) is a bark beetle that causes significant mortality to spruce species within its range. Potential loss of trees from SB is 0.8 percent (£13.6 thousand in replacement value).

Spruce budworm (SBW) (Kucera and Orr 1981) is an insect that causes severe damage to balsam fir. SBW poses a threat to 0.8 percent of the Deal urban forest, which represents a potential loss of £13.6 thousand in replacement value.

Subalpine Fir Mortality (SFM) poses a threat to 0.0 percent of the Deal urban forest, which represents a potential loss of £0 in replacement value.

Spotted Lanternfly (SLF) poses a threat to 27.7 percent of the Deal urban forest, which represents a potential loss of £8.61 million in replacement value.

Sudden oak death (SOD) (Kliejunas 2005) is a disease that is caused by a fungus. Potential loss of trees from SOD is 23.8 percent (£9.85 million in replacement value).

Although the southern pine beetle (SPB) (Clarke and Nowak 2009) will attack most pine species, its preferred hosts are loblolly, Virginia, pond, spruce, shortleaf, and sand pines. This pest threatens 0.8 percent of the population, which represents a potential loss of £13.6 thousand in replacement value.

The sirex woodwasp (SW) (Haugen and Hoebeke 2005) is a wood borer that primarily attacks pine species. SW poses a threat to 0.0 percent of the Deal urban forest, which represents a potential loss of £0 in replacement value.

Thousand canker disease (TCD) (Cranshaw and Tisserat 2009; Seybold et al 2010) is an insect-disease complex that kills several species of walnuts, including black walnut. Potential loss of trees from TCD is 0.0 percent (£0 in replacement value).

Western Bark Beetle (WBB) poses a threat to 0.0 percent of the Deal urban forest, which represents a potential loss of £0 in replacement value.

Western Blackheaded Budworm (WBBU) poses a threat to 0.9 percent of the Deal urban forest, which represents a potential loss of £23.3 thousand in replacement value.

Western Five-Needle Pine Mortality (WFNPM) poses a threat to 0.0 percent of the Deal urban forest, which represents a potential loss of £0 in replacement value.

Winter moth (WM) (Childs 2011) is a pest with a wide range of host species. WM causes the highest levels of injury to its hosts when it is in its caterpillar stage. Deal could possibly lose 3.8 percent of its trees to this pest (£1.7 million in replacement value).

The western pine beetle (WPB) (DeMars and Roettgering 1982) is a bark beetle and aggressive attacker of ponderosa and Coulter pines. This pest threatens 0.0 percent of the population, which represents a potential loss of £0 in replacement value.

Since its introduction to the United States in 1900, white pine blister rust (Eastern U.S.) (WPBR) (Nicholls and Anderson 1977) has had a detrimental effect on white pines, particularly in the Lake States. WPBR has the potential to affect 0.0 percent of the population (£0 in replacement value).

Western spruce budworm (WSB) (Fellin and Dewey 1986) is an insect that causes defoliation in western conifers. This

pest threatens 0.8 percent of the population, which represents a potential loss of £13.6 thousand in replacement value.

Appendix I. i-Tree Eco Model and Field Measurements

i-Tree Eco is designed to use standardized field data from randomly located plots and local hourly air pollution and meteorological data to quantify urban forest structure and its numerous effects (Nowak and Crane 2000), including:

- Urban forest structure (e.g., species composition, tree health, leaf area, etc.).
- Amount of pollution removed hourly by the urban forest, and its associated percent air quality improvement throughout a year.
- Total carbon stored and net carbon annually sequestered by the urban forest.
- Effects of trees on building energy use and consequent effects on carbon dioxide emissions from power sources.
- Replacement value of the forest, as well as the value for air pollution removal and carbon storage and sequestration.
- Potential impact of infestations by pests, such as Asian longhorned beetle, emerald ash borer, gypsy moth, and Dutch elm disease.

Typically, all field data are collected during the leaf-on season to properly assess tree canopies. Typical data collection (actual data collection may vary depending upon the user) includes land use, ground and tree cover, individual tree attributes of species, stem diameter, height, crown width, crown canopy missing and dieback, and distance and direction to residential buildings (Nowak et al 2005; Nowak et al 2008).

During data collection, trees are identified to the most specific taxonomic classification possible. Trees that are not classified to the species level may be classified by genus (e.g., ash) or species groups (e.g., hardwood). In this report, tree species, genera, or species groups are collectively referred to as tree species.

Tree Characteristics:

Leaf area of trees was assessed using measurements of crown dimensions and percentage of crown canopy missing. In the event that these data variables were not collected, they are estimated by the model.

An analysis of invasive species is not available for studies outside of the United States. For the U.S., invasive species are identified using an invasive species list for the state in which the urban forest is located. These lists are not exhaustive and they cover invasive species of varying degrees of invasiveness and distribution. In instances where a state did not have an invasive species list, a list was created based on the lists of the adjacent states. Tree species that are identified as invasive by the state invasive species list are cross-referenced with native range data. This helps eliminate species that are on the state invasive species list, but are native to the study area.

Air Pollution Removal:

Pollution removal is calculated for ozone, sulfur dioxide, nitrogen dioxide, carbon monoxide, particulate matter less than 2.5 microns, and particulate matter less than 10 microns and greater than 2.5 microns. PM2.5 is generally more relevant in discussions concerning air pollution effects on human health.

Air pollution removal estimates are derived from calculated hourly tree-canopy resistances for ozone, and sulfur and nitrogen dioxides based on a hybrid of big-leaf and multi-layer canopy deposition models (Baldocchi 1988; Baldocchi et al 1987). As the removal of carbon monoxide and particulate matter by vegetation is not directly related to transpiration, removal rates (deposition velocities) for these pollutants were based on average measured values from the literature (Bidwell and Fraser 1972; Lovett 1994) that were adjusted depending on leaf phenology and leaf area. Particulate removal incorporated a 50 percent resuspension rate of particles back to the atmosphere (Zinke 1967). Recent updates (2011) to air quality modeling are based on improved leaf area index simulations, weather and pollution processing and interpolation, and updated pollutant monetary values (Hirabayashi et al 2011; Hirabayashi et al 2012; Hirabayashi 2011).

Trees remove PM2.5 and PM10* when particulate matter is deposited on leaf surfaces (Nowak et al 2013). This

deposited PM2.5 and PM10* can be resuspended to the atmosphere or removed during rain events and dissolved or transferred to the soil. This combination of events can lead to positive or negative pollution removal and value depending on various atmospheric factors. Generally, PM2.5 and PM10* removal is positive with positive benefits. However, there are some cases when net removal is negative or resuspended particles lead to increased pollution concentrations and negative values. During some months (e.g., with no rain), trees resuspend more particles than they remove. Resuspension can also lead to increased overall PM2.5 and PM10* concentrations if the boundary layer conditions are lower during net resuspension periods than during net removal periods. Since the pollution removal value is based on the change in pollution concentration, it is possible to have situations when trees remove PM2.5 and PM10* but increase concentrations and thus have negative values during periods of positive overall removal. These events are not common, but can happen.

For reports in the United States, default air pollution removal value is calculated based on local incidence of adverse health effects and national median externality costs. The number of adverse health effects and associated economic value is calculated for ozone, sulfur dioxide, nitrogen dioxide, and particulate matter less than 2.5 microns using data from the U.S. Environmental Protection Agency's Environmental Benefits Mapping and Analysis Program (BenMAP) (Nowak et al 2014). The model uses a damage-function approach that is based on the local change in pollution concentration and population. National median externality costs were used to calculate the value of carbon monoxide removal (Murray et al 1994).

For international reports, user-defined local pollution values are used. For international reports that do not have local values, estimates are based on either European median externality values (van Essen et al 2011) or BenMAP regression equations (Nowak et al 2014) that incorporate user-defined population estimates. Values are then converted to local currency with user-defined exchange rates.

For this analysis, pollution removal value is calculated based on the prices of £984 per metric ton (carbon monoxide), £982 per metric ton (ozone), £146 per metric ton (nitrogen dioxide), £53 per metric ton (sulfur dioxide), £34,170 per metric ton (particulate matter less than 2.5 microns), £34,687 per metric ton (particulate matter less than 10 microns and greater than 2.5 microns).

Carbon Storage and Sequestration:

Carbon storage is the amount of carbon bound up in the above-ground and below-ground parts of woody vegetation. To calculate current carbon storage, biomass for each tree was calculated using equations from the literature and measured tree data. Open-grown, maintained trees tend to have less biomass than predicted by forest-derived biomass equations (Nowak 1994). To adjust for this difference, biomass results for open-grown urban trees were multiplied by 0.8. No adjustment was made for trees found in natural stand conditions. Tree dry-weight biomass was converted to stored carbon by multiplying by 0.5.

Carbon sequestration is the removal of carbon dioxide from the air by plants. To estimate the gross amount of carbon sequestered annually, average diameter growth from the appropriate genera and diameter class and tree condition was added to the existing tree diameter (year x) to estimate tree diameter and carbon storage in year x+1.

Carbon storage and carbon sequestration values are based on estimated or customized local carbon values. For international reports that do not have local values, estimates are based on the carbon value for the United States (U.S. Environmental Protection Agency 2015, Interagency Working Group on Social Cost of Carbon 2015) and converted to local currency with user-defined exchange rates.

For this analysis, carbon storage and carbon sequestration values are calculated based on £253 per metric ton.

Oxygen Production:

The amount of oxygen produced is estimated from carbon sequestration based on atomic weights: net O2 release (kg/yr) = net C sequestration (kg/yr) × 32/12. To estimate the net carbon sequestration rate, the amount of carbon sequestered

as a result of tree growth is reduced by the amount lost resulting from tree mortality. Thus, net carbon sequestration and net annual oxygen production of the urban forest account for decomposition (Nowak et al 2007). For complete inventory projects, oxygen production is estimated from gross carbon sequestration and does not account for decomposition.

Avoided Runoff:

Annual avoided surface runoff is calculated based on rainfall interception by vegetation, specifically the difference between annual runoff with and without vegetation. Although tree leaves, branches, and bark may intercept precipitation and thus mitigate surface runoff, only the precipitation intercepted by leaves is accounted for in this analysis.

The value of avoided runoff is based on estimated or user-defined local values. For international reports that do not have local values, the national average value for the United States is utilized and converted to local currency with user-defined exchange rates. The U.S. value of avoided runoff is based on the U.S. Forest Service's Community Tree Guide Series (McPherson et al 1999; 2000; 2001; 2002; 2003; 2004; 2006a; 2006b; 2006c; 2007; 2010; Peper et al 2009; 2010; Vargas et al 2007a; 2007b; 2008).

For this analysis, avoided runoff value is calculated based on the price of £1.20 per cubic meter.

Building Energy Use:

If appropriate field data were collected, seasonal effects of trees on residential building energy use were calculated based on procedures described in the literature (McPherson and Simpson 1999) using distance and direction of trees from residential structures, tree height and tree condition data. To calculate the monetary value of energy savings, local or custom prices per MWH or MBTU are utilized.

For this analysis, energy saving value is calculated based on the prices of £149.25 per MWH and £14.28 per MBTU.

Replacement Values:

Replacement value is the value of a tree based on the physical resource itself (e.g., the cost of having to replace a tree with a similar tree). Replacement values were based on valuation procedures of the Council of Tree and Landscape Appraisers, which uses tree species, diameter, condition, and location information (Nowak et al 2002a; 2002b). Replacement value may not be included for international projects if there is insufficient local data to complete the valuation procedures.

Potential Pest Impacts:

The complete potential pest risk analysis is not available for studies outside of the United States. The number of trees at risk to the pests analyzed is reported, though the list of pests is based on known insects and disease in the United States.

For the U.S., potential pest risk is based on pest range maps and the known pest host species that are likely to experience mortality. Pest range maps for 2012 from the Forest Health Technology Enterprise Team (FHTET) (Forest Health Technology Enterprise Team 2014) were used to determine the proximity of each pest to the county in which the urban forest is located. For the county, it was established whether the insect/disease occurs within the county, is within 400 kilometers of the county edge, is between 400 and 1210 kilometers away, or is greater than 1210 kilometers away. FHTET did not have pest range maps for Dutch elm disease and chestnut blight. The range of these pests was based on known occurrence and the host range, respectively (Eastern Forest Environmental Threat Assessment Center; Worrall 2007).

Relative Tree Effects:

The relative value of tree benefits reported in Appendix II is calculated to show what carbon storage and sequestration,

and air pollutant removal equate to in amounts of municipal carbon emissions, passenger automobile emissions, and house emissions.

Municipal carbon emissions are based on 2010 U.S. per capita carbon emissions (Carbon Dioxide Information Analysis Center 2010). Per capita emissions were multiplied by city population to estimate total city carbon emissions.

Light duty vehicle emission rates (g/mi) for CO, NOx, VOCs, PM10, SO2 for 2010 (Bureau of Transportation Statistics 2010; Heirigs et al 2004), PM2.5 for 2011-2015 (California Air Resources Board 2013), and CO2 for 2011 (U.S. Environmental Protection Agency 2010) were multiplied by average miles driven per vehicle in 2011 (Federal Highway Administration 2013) to determine average emissions per vehicle.

Household emissions are based on average electricity kWh usage, natural gas Btu usage, fuel oil Btu usage, kerosene Btu usage, LPG Btu usage, and wood Btu usage per household in 2009 (Energy Information Administration 2013; Energy Information Administration 2014)

- CO2, SO2, and NOx power plant emission per KWh are from Leonardo Academy 2011. CO emission per kWh assumes 1/3 of one percent of C emissions is CO based on Energy Information Administration 1994. PM10 emission per kWh from Layton 2004.
- CO2, NOx, SO2, and CO emission per Btu for natural gas, propane and butane (average used to represent LPG), Fuel #4 and #6 (average used to represent fuel oil and kerosene) from Leonardo Academy 2011.
- CO2 emissions per Btu of wood from Energy Information Administration 2014.
- CO, NOx and SOx emission per Btu based on total emissions and wood burning (tons) from (British Columbia Ministry 2005; Georgia Forestry Commission 2009).

Appendix II. Relative Tree Effects

The urban forest in Deal provides benefits that include carbon storage and sequestration, and air pollutant removal. To estimate the relative value of these benefits, tree benefits were compared to estimates of average municipal carbon emissions, average passenger automobile emissions, and average household emissions. See Appendix I for methodology.

Carbon storage is equivalent to:

- Amount of carbon emitted in Deal in 18 days
- Annual carbon (C) emissions from 20,300 automobiles
- Annual C emissions from 8,320 single-family houses

Carbon monoxide removal is equivalent to:

- Annual carbon monoxide emissions from 5 automobiles
- Annual carbon monoxide emissions from 13 single-family houses

Nitrogen dioxide removal is equivalent to:

- Annual nitrogen dioxide emissions from 152 automobiles
- Annual nitrogen dioxide emissions from 69 single-family houses

Sulfur dioxide removal is equivalent to:

- Annual sulfur dioxide emissions from 2,810 automobiles
- Annual sulfur dioxide emissions from 7 single-family houses

Annual carbon sequestration is equivalent to:

- Amount of carbon emitted in Deal in 0.3 days
- Annual C emissions from 300 automobiles
- Annual C emissions from 100 single-family houses

Appendix III. Comparison of Urban Forests

A common question asked is, "How does this city compare to other cities?" Although comparison among cities should be made with caution as there are many attributes of a city that affect urban forest structure and functions, summary data are provided from other cities analyzed using the i-Tree Eco model.

I. City totals for trees

City	% Tree Cover	Number of Trees	Carbon Storage (metric tons)	Carbon Sequestration (metric tons/yr)	Pollution Removal (metric tons/yr)
Toronto, ON, Canada	26.6	10,220,000	1,108,000	46,700	1,905
Atlanta, GA	36.7	9,415,000	1,220,000	42,100	1,509
Los Angeles, CA	11.1	5,993,000	1,151,000	69,800	1,792
New York, NY	20.9	5,212,000	1,225,000	38,400	1,521
London, ON, Canada	24.7	4,376,000	360,000	12,500	370
Chicago, IL	17.2	3,585,000	649,000	22,800	806
Phoenix, AZ	9.0	3,166,000	286,000	29,800	511
Baltimore, MD	21.0	2,479,000	517,000	16,700	390
Philadelphia, PA	15.7	2,113,000	481,000	14,600	522
Washington, DC	28.6	1,928,000	477,000	14,700	379
Oakville, ON , Canada	29.1	1,908,000	133,000	6,000	172
Albuquerque, NM	14.3	1,846,000	301,000	9,600	225
Boston, MA	22.3	1,183,000	290,000	9,500	257
Syracuse, NY	26.9	1,088,000	166,000	5,300	99
Woodbridge, NJ	29.5	986,000	145,000	5,000	191
Minneapolis, MN	26.4	979,000	227,000	8,100	277
San Francisco, CA	11.9	668,000	176,000	4,600	128
Morgantown, WV	35.5	658,000	84,000	2,600	65
Moorestown, NJ	28.0	583,000	106,000	3,400	107
Hartford, CT	25.9	568,000	130,000	3,900	52
Jersey City, NJ	11.5	136,000	19,000	800	37
Casper, WY	8.9	123,000	34,000	1,100	34
Freehold, NJ	34.4	48,000	18,000	500	20

II. Totals per hectare of land area

City	Number of Trees/ha	Carbon Storage (metric tons/ha)	Carbon Sequestration (metric tons/ha/yr)	Pollution Removal (kg/ha/yr)
Toronto, ON, Canada	160.4	17.4	0.73	29.9
Atlanta, GA	275.8	35.7	1.23	44.2
Los Angeles, CA	48.4	9.4	0.36	14.7
New York, NY	65.2	15.3	0.48	19.0
London, ON, Canada	185.5	15.3	0.53	15.7
Chicago, IL	59.9	10.9	0.38	13.5
Phoenix, AZ	31.8	2.9	0.30	5.1
Baltimore, MD	118.5	25.0	0.80	18.6
Philadelphia, PA	61.9	14.1	0.43	15.3
Washington, DC	121.1	29.8	0.92	23.8
Oakville, ON , Canada	192.9	13.4	0.61	12.4
Albuquerque, NM	53.9	8.8	0.28	6.6
Boston, MA	82.9	20.3	0.67	18.0
Syracuse, NY	167.4	23.1	0.77	15.2
Woodbridge, NJ	164.4	24.2	0.84	31.9
Minneapolis, MN	64.8	15.0	0.53	18.3
San Francisco, CA	55.7	14.7	0.39	10.7
Morgantown, WV	294.5	37.7	1.17	29.2
Moorestown, NJ	153.4	27.9	0.90	28.1
Hartford, CT	124.6	28.5	0.86	11.5
Jersey City, NJ	35.5	5.0	0.21	9.6
Casper, WY	22.5	6.2	0.20	6.2
Freehold, NJ	94.6	35.9	0.98	39.6

Appendix IV. General Recommendations for Air Quality Improvement

Urban vegetation can directly and indirectly affect local and regional air quality by altering the urban atmosphere environment. Four main ways that urban trees affect air quality are (Nowak 1995):

- Temperature reduction and other microclimate effects
- Removal of air pollutants
- Emission of volatile organic compounds (VOC) and tree maintenance emissions
- Energy effects on buildings

The cumulative and interactive effects of trees on climate, pollution removal, and VOC and power plant emissions determine the impact of trees on air pollution. Cumulative studies involving urban tree impacts on ozone have revealed that increased urban canopy cover, particularly with low VOC emitting species, leads to reduced ozone concentrations in cities (Nowak 2000). Local urban management decisions also can help improve air quality.

Urban forest management strategies to help improve air quality include (Nowak 2000):

Strategy	*Result*
Increase the number of healthy trees	Increase pollution removal
Sustain existing tree cover	Maintain pollution removal levels
Maximize use of low VOC-emitting trees	Reduces ozone and carbon monoxide formation
Sustain large, healthy trees	Large trees have greatest per-tree effects
Use long-lived trees	Reduce long-term pollutant emissions from planting and removal
Use low maintenance trees	Reduce pollutants emissions from maintenance activities
Reduce fossil fuel use in maintaining vegetation	Reduce pollutant emissions
Plant trees in energy conserving locations	Reduce pollutant emissions from power plants
Plant trees to shade parked cars	Reduce vehicular VOC emissions
Supply ample water to vegetation	Enhance pollution removal and temperature reduction
Plant trees in polluted or heavily populated areas	Maximizes tree air quality benefits
Avoid pollutant-sensitive species	Improve tree health
Utilize evergreen trees for particulate matter	Year-round removal of particles

Appendix V. Invasive Species of the Urban Forest

Invasive species data is only available for the United States. This analysis cannot be completed for international studies because of a lack of necessary data.

Appendix VI. Potential Risk of Pests

Pest range data is only available for the United States. This analysis cannot be completed for international studies because of a lack of necessary data.

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ATTACH 6

DEAL TOWN COUNCIL

MEMORANDUM

To: Councillor S Beer – Chairperson of the Environment Committee, Committee members

From: Councillor P Findley

Date: 1st August 2023

Subject: **Declaration of Ecological Emergency**

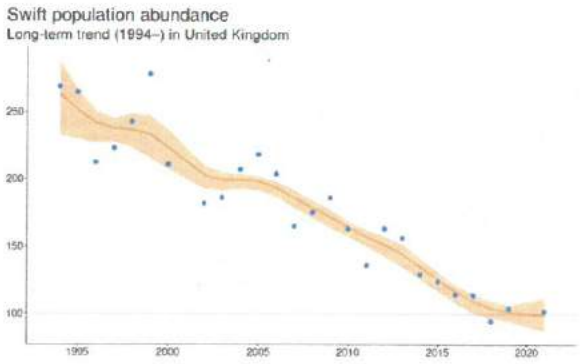
There are an overwhelming series of scientific studies and evidence produced. I present below, a selection of statistics –

For the **Deal** National Grid 10-km square TR35 the **British Trust for Ornithology** "Doorstep Birds" project (2023, via the data collection app Bird Track and their Bird Atlas research) records that, since 1970 –

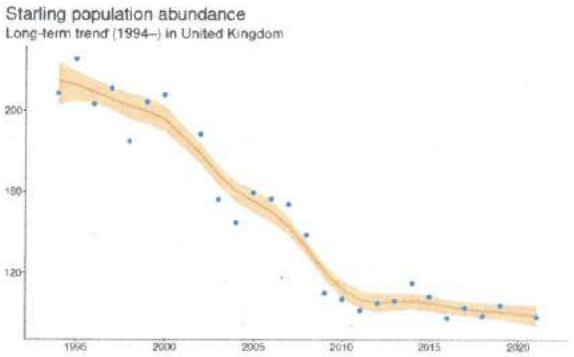
- 19 species of breeding bird species lost from the Deal area, including Tree Sparrow, Black Redstart and Whinchat.
- 24 species are recorded as declining including more familiar birds such as Swift, House Martin, Song Thrush, Mistle Thrush, Starling, House Sparrow, Greenfinch and Goldfinch.
- A few species are increasing, such as Collared Dove, Feral Pigeon, Lesser Black-backed Gull and Magpie.

The **British Trust for Ornithology** has conducted counts of the population of our birds for many years and here are some of the graphs for a range of Deal's urban bird species –

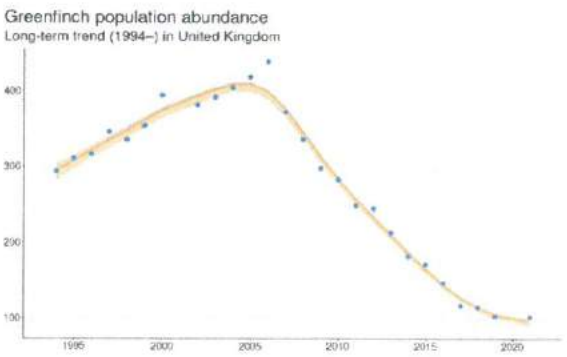
Common Swift (*Apus apus*)



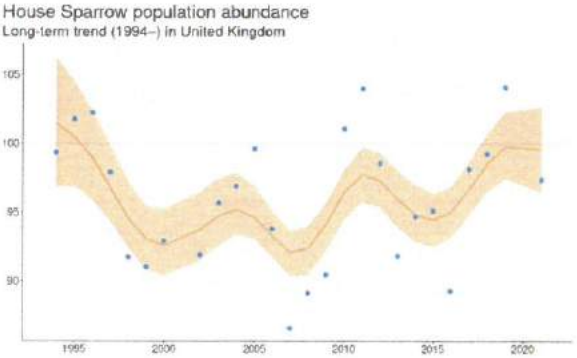
Starling (*Sternus vulgaris*)



Greenfinch (*Carduelis chloris*)

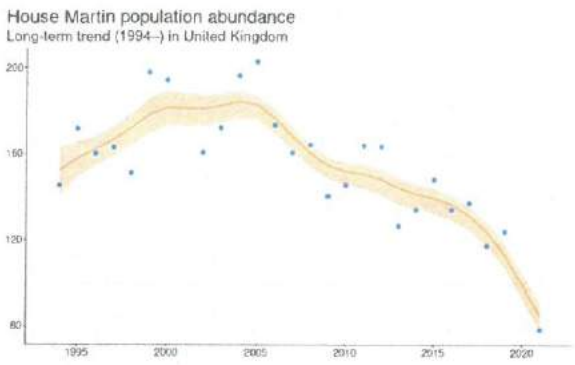


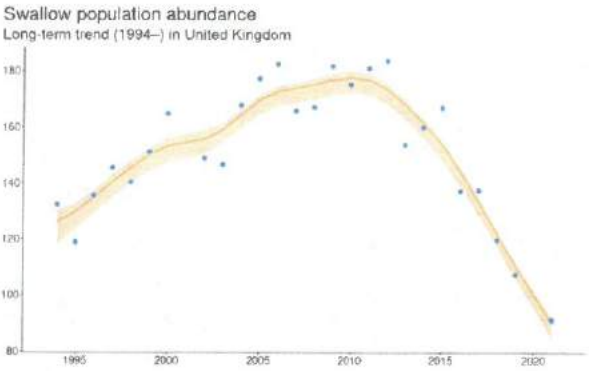
House Sparrow (*Passer domesticus*)



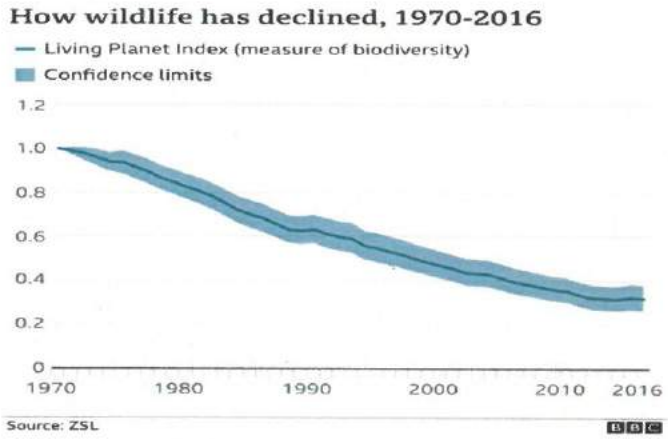
House Martin (*Delichon urbica*)

Swallow (*Hirundo rustica*)





The BTO Breeding Bird survey also records other wildlife levels and has found that Rabbits have declined by 67% and the Red Fox by 48%. As a contrast, the alien Eastern Gray Squirrel, to give its proper name, has increased by 30%.



The "Living Planet Report" by the **BBC** records the state of our wildlife thus –

The **State of the World's Plants and Fungi 2020 report** from **Royal Botanic Gardens** Kew estimated that 39.4% of plants are now threatened with extinction. This is a jump from one in five plants thought to be at risk in Kew's 2016 report. The COVID-19 pandemic has highlighted the relationship between people and nature.

The **World Wild Fund for Nature** reports that since 1970, around the world we've lost: 60% of wild invertebrates and up to 76% of insects.

The **Mammal Society**, with the **University of Sussex**, has found that – There has been alarming declines in some mammal species in the UK - five of seven species of small mammals assessed were found to have declined by an average of 1.2-2.8% *each year* between 1970 and 2016. Some species, previously thought not to be at risk are now of high concern requiring immediate conservation action.

The **Royal Society for the Protection of Birds** notes the following – Nature conservation improves the quality of people's lives. Nature has the power to boost our health, happiness and wellbeing. Protecting wildlife benefits society: it provides the resources to sustain and enhance our health; it offers educational opportunities; it contributes to the regeneration of sustainable communities and it supports and generates economic activity. To be sustainable, communities need green infrastructure – where it is not available, we need to create wildlife-rich green space.

UK Government's Environmental Improvement Plan 2023 notes that Local Nature Recovery Strategies (LNRS) are a key component of the Environment Act 2021. The aim of a LNRS is to set out how to deliver nature recovery across England. The Guidance and Regulations for LNRS was published by Defra on 23 March 2023. Local nature recovery strategy statutory guidance (publishing.service.gov.uk)

The **Wildlife Trusts UK** provides the following information about the decline in our insect populations – In the UK, our insect populations have suffered drastic declines, which are set to have far-reaching consequences for both wildlife and people. With a third of our food crops pollinated by insects, and as many as 87% of our plants pollinated by animals (and in the majority

by insects) there is a lot to lose. Much of our wildlife, be it birds, bats, reptiles, amphibians, small mammals or fish, rely on insects for food. Without them, we risk the collapse of our natural world. A report, *Insect Declines and Why They Matter*, published in November 2019 by an alliance of Wildlife Trusts in the south-west, brought together evidence that showed the loss of 50% or more of our insects since 1970, and the shocking reality that 41% of the Earth's remaining five million insect species are now 'threatened with extinction'.

Research by the **Marine Conservation Society UK** has found that 49% of marine organisms have declined with over-fishing, pollution and climate change the principal causes. Walmer beach zone and the offshore environment are suffering at this moment. Many local groups have experience of this.

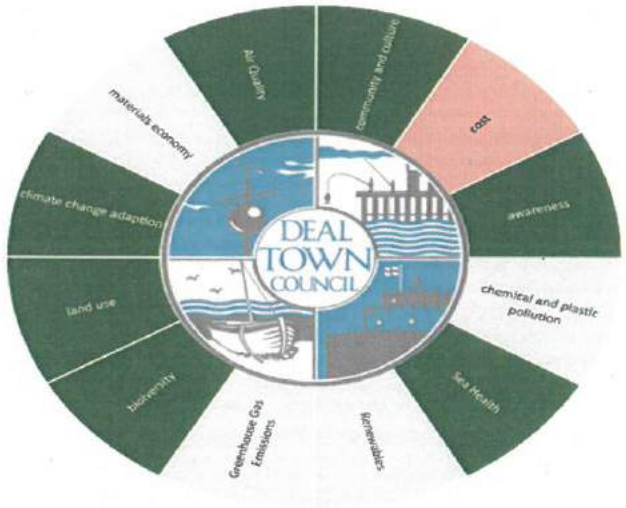
Butterfly Conservation has found that – In the UK, long-term trends show that 80% of butterfly species have decreased in abundance or distribution, or both since the 1970s. On average, UK butterflies have lost 6% of their total abundance at monitored sites and 42% of their distribution over the period 1976-2019.

Our own **Kent Wildlife Trust** has found that we have lost 60% of our insects over the last 20years.

Recommendation: The Environment Committee resolves to propose a Declaration of an Ecological Emergency to Full Council and refer this resolution and its implementation to the Environment Committee so that it may - oversee and develop the Councils approach to nature protection and recovery, seek to increase community engagement and work with partners to develop a **Local Nature Recovery Strategy**.

Decision required: Committee to consider the above recommendation.

An ecological emergency declaration



July 2023

ATTACH 7

DEAL TOWN COUNCIL

MEMORANDUM

To: Councillor S Beer – Chairperson of the Environment Committee, Committee members

From: Laura Marney – Committee Clerk

Date: 7th August 2023

Subject: Committee Clerk Report

Please see below updates for information only.

Water Harvesting – Allotments

Following on from my last update in June, the initial budget of £3,179.00 was not used in full for this project, therefore, phase two was initiated, letters/emails were sent out again to allotment holders who did not previously request a water butt.

We received requests for another 24 butts, these have now been delivered to the allotment holders at our allotment sites at Park Avenue, Mill Road and Golf Road.

We have now issued 50 water butts in total to allotment holders, which will hold 10,000 litres of water.

In light of our Water Harvesting project, the Committee Clerk is looking to invite a representative from Southern Water to be a guest speaker regarding Water Saving/Management at a future Environment Committee meeting.

Trees & Planting

Following on from previous Environment Committee resolutions, Deal Town Council have liaised extensively with KCC and DDC on the availability to plant on their land. DTC have managed to get the following trees planted in the Deal area:

- 1 x 38/40 Forelands Square
- 1 x 22/24 Forelands Square
- 1 x 3/5 Marlborough Road
- 1 x 9 Marlborough Road
- 2 x 123 St Richards Road (grass verge side)
- 9 x Avenue of trees at Victoria Park

Deal Town Council has 10 Planters located along the seafront North of the Royal Hotel, 5 Planters in South Street, 8 Planters in the High Street, 1 at Alfred Square and 2 at Mill Hill. During the past year all these have been planted with sustainable plants, trees, and shrubs. This has led to a reduction in the planting budget required for future years.

The Committee Clerk is now currently investigating planting on privately owned land in the Deal area as advised by Dover District Council.

Sainsbury's – Urban Planting

Following on from the meeting the Committee Clerk had with the new Store Manager regarding the placing of the "No Idling" posters, the Committee Clerk mentioned that the previous Store Manager was going to look in to planting on the site.

Sainsburys had already agreed in previous communications with the Town Clerk to tidy up their outside space and plant in the following areas **(see map overleaf):**

Area 1: Two saplings.
Area 2: To in-fill the hedge line. They advise they are not going to put trees here as they could damage the wall and the kerb line if they grow too big.
Area 3: Will be left as is.
Area 4: A small bush will be put here. There is already a tree here and the roots are quite taken so will be difficult to put anything bigger in this space.
Area 6: Will in fill with bushes.
Area 7&8: Will be left as is as there is buddleia etc here which is good for the environment. The manager has asked the team, to tidy it up.

The new Sainsbury's Store Manager has replied with the following:

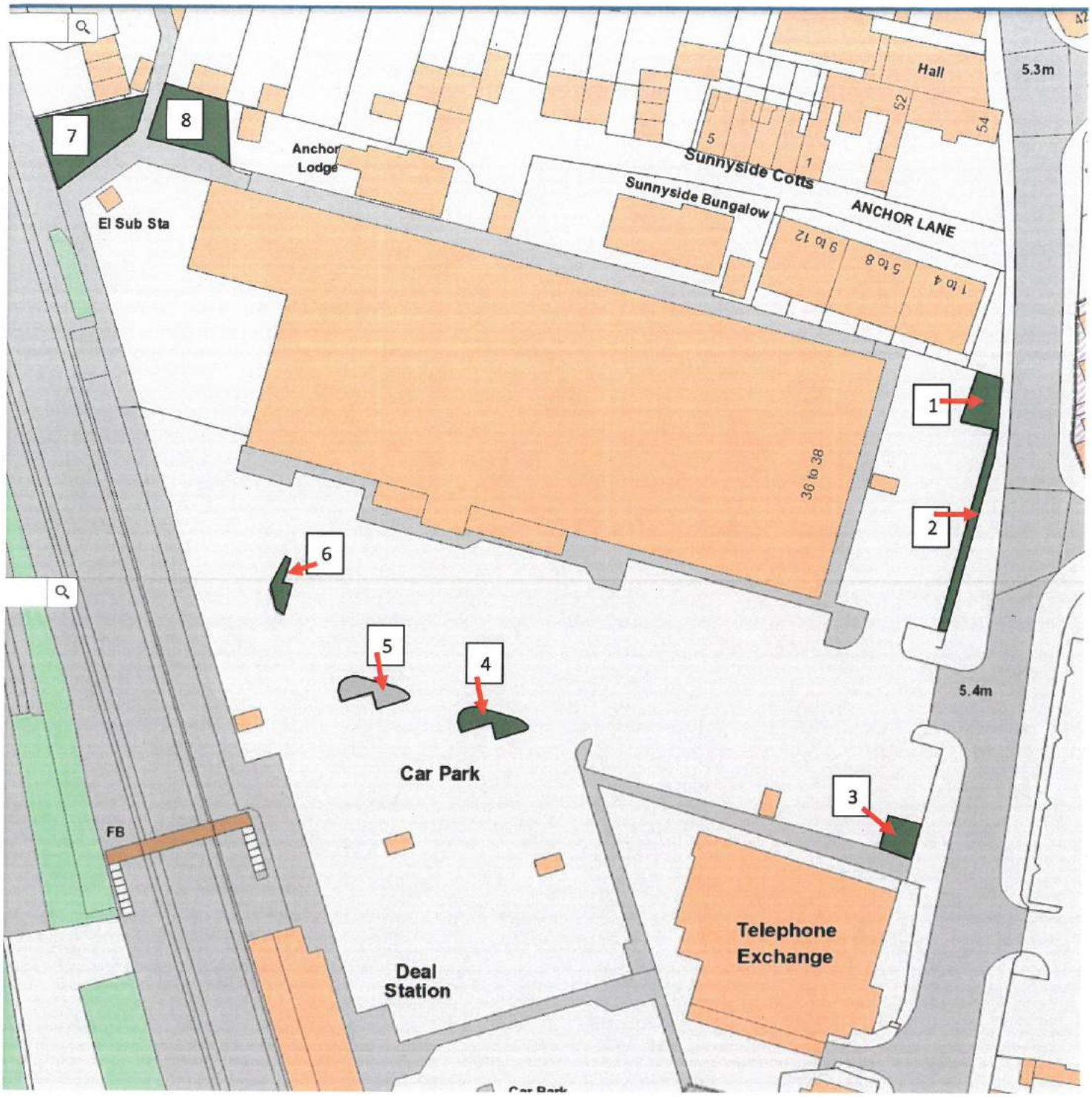
Hope you are well.

I have reviewed the planting information and I can confirm the works have been done, the bushes are still very small but have been told they will take a couple of years to get up to size etc.

I have challenged that some work has not been done or has been damaged by a lorry, will come back to you when I know more.

Hope that helps.

The Committee Clerk will bring back an update to a future Environment Committee meeting.



Area identified that cannot be used.

Green areas