

Speech for Beheer and Verkeer Meeting
Agenda point: Groencompensatie 2017

Bomenridders Groningen
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1. Understanding The Value of the Urban Tree Canopy: Compensation needs to be part of the municipality's overall urban forestry strategy. The first and most important question to be asked before a compensation plan can be devised is:

What are the YEARLY CANOPY TOTALS OF OUR URBAN FOREST?

Here is one statistic, which proves to us why we must understand more about trees and green infrastructure based upon more complex criteria than pure numbers:

"A 75cm tree in Toronto intercepts ten times more air pollution, can store up to 90 times more carbon and contributes up to 100 times more leaf area to the City's tree canopy than a 15cm tree" ("Every Tree Counts").



2. Urban Canopy Coverage Totals: The municipality does not keep yearly records of the number of trees removed per year versus number of trees planted per year so monitoring this is the first requirement if we are to come up with a viable compensation plan. Further in terms of compensation, we now know that simple numbers (1 tree to 1 tree) don't reflect the overall benefits that trees deliver since they don't tell us anything about *total mass and/or canopy*. So compensating one tree for another, regardless of size and age, is a *misrepresentation* of the meaning of compensation. What are we compensating for? To answer this, we must begin to understand not only the total numbers of trees, but their size (total mass), species, health condition, and most importantly their **total canopy (the amount of foliage covering the urban landscape)**? In short, the field of urban forestry demands that municipalities begin to register and monitor their urban forest in terms of total canopy coverage. This is especially important because if we do not understand and monitor these totals – we will unwittingly lose a significant resource in the fight against climate change and in our desire to *maintain biodiversity, environmentally healthy, climate mitigating, culturally significant, and psychologically healthy* environments in Groningen. The green compensation strategy of the municipality must also reflect greater knowledge of the importance of green in terms of *good air quality, storm water filtration, and green house gas (carbon) absorption*? Finally the green compensation plan must promote the goal of first **PRESERVING** the urban forest in light of the challenges of population growth and urban development, which will always try to push out green spaces for growth and development in the cheapest way possible.



3. Green Compensation: With the aid of scientific studies on the climate fighting role of mature trees and large green spaces, we can now effectively calculate how much green house gas emissions are absorbed, how much oxygen is produced and how much storm and rain water is absorbed. From these studies (see iTreeTools), we know that large stature trees are at the very least *10 times more valuable* than young, smaller trees. The compensation of our trees and green spaces based upon size and tree cover demands that these statistics be figured into our compensation strategy.

4. Compensation Advice by the Bomenridders: The new green compensation plan (*Groencompensatieregeuling 2017*) advises compensating according to either a financial green contribution paid by either the city or by development corporations according to wood mass (meters squared) or by replacing green or trees in a 1 to 1 ratio. This is a slight improvement but it doesn't do nearly enough, especially since we know that large trees are from *10 to 100 times more valuable* than young trees. Therefore, the gemeente should always advocate for **preservation** over cutting a tree, especially with larger trees. It is clear that the gemeente does not do enough to motivate building projects that are designed with utmost tree and green preservation as a priority.

If a tree must be removed, based upon actual data of environmental, economic and ecological value for different sized trees, we advise:

1. LARGEST trees with a trunk circumference *greater than 200* centimeters: **15 to 1** replacement
2. LARGE trees between *100 and 200* centimeters circumference: **10 to 1** replacement
3. MEDIUM trees between *50 and 100* centimeters: **5 to 1** replacement
4. SMALL trees *less than 50*: **2 to 1** replacement

This way there is always extra incentive to first preserve a tree before removing it.

5. BEA of Proposed Plan: In the **BEA** (*boom effect analyse*), the criteria for evaluating the worth of a tree are highly outdated. These don't anywhere include the climate fighting, pollution absorbing, and greenhouse gas emissions sequestration potential of different sizes, ages, and species of trees. We believe that the very first criteria for evaluating a tree should be the tree's contribution to the urban forest and to a **sustainable future**. Such core sustainability criteria are:

1. CO2 sequestration (carbon monoxide, ozone...) in kg
2. Oxygen produced in kg
3. Large Particulate Matter absorbed in kg
4. Storm water filtered
5. Financial costs saved because of heating and cooling (Trees heat in winter and cool in summer)
6. Then the other already mentioned criteria should be considered: groenstructuur, esthetisch waarde, vervangbaarheid, monumentale boom, zeldzaamboom...
7. The distance of a tree to a building should *not* be a factor unless the tree's proximity is dangerous – but trees near buildings are excellent sustainable elements and they are also an attribute for a building's structure.

These criteria can all be measured using contemporary tools and aerial data such as google maps with the program **iTreeTools**.

Sources

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