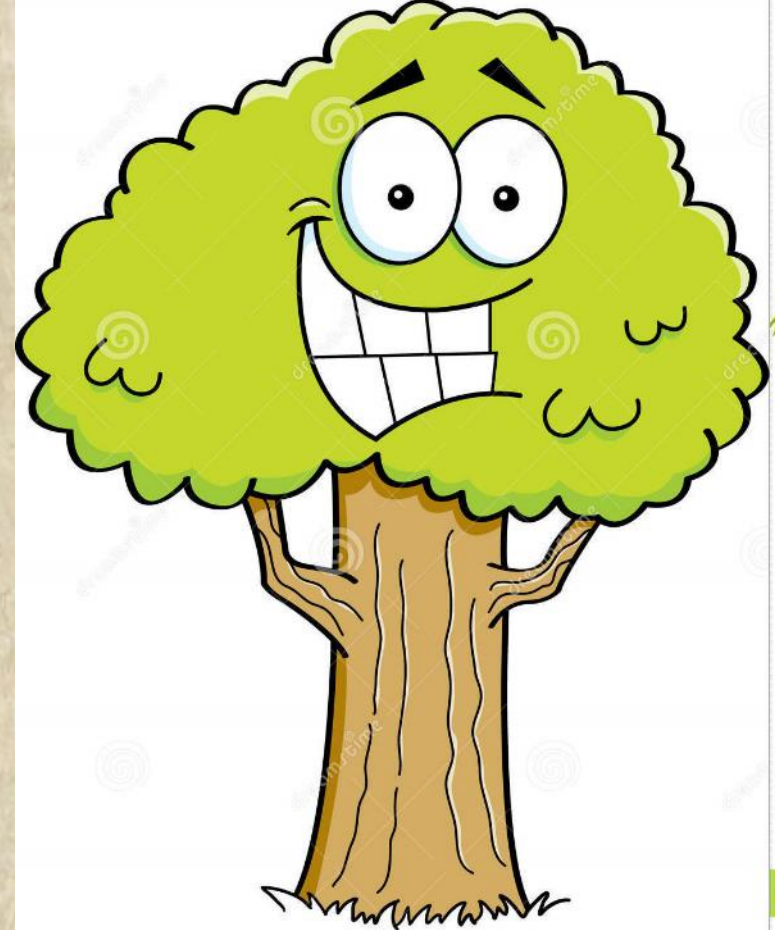




Natural Carbon Sequestration



NJ Forest Service
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Natural Sequestration

“Processes in nature that take carbon from the atmosphere and store it in various forms.”



Definitions

- **Carbon Pools** – Places where carbon is stored
- **Flux** – Processes that transfer carbon from one pool to another
- **Sequestration** – Process of capturing and storing atmospheric carbon dioxide
- **Carbon Leakage** – Carbon lost from actions outside a project as a result of the project

Forests and Sequestration

- Forests are the largest terrestrial carbon sink on Earth
- US EPA estimates US Forests offset $> 11\%$ of US economy-wide C emissions annually

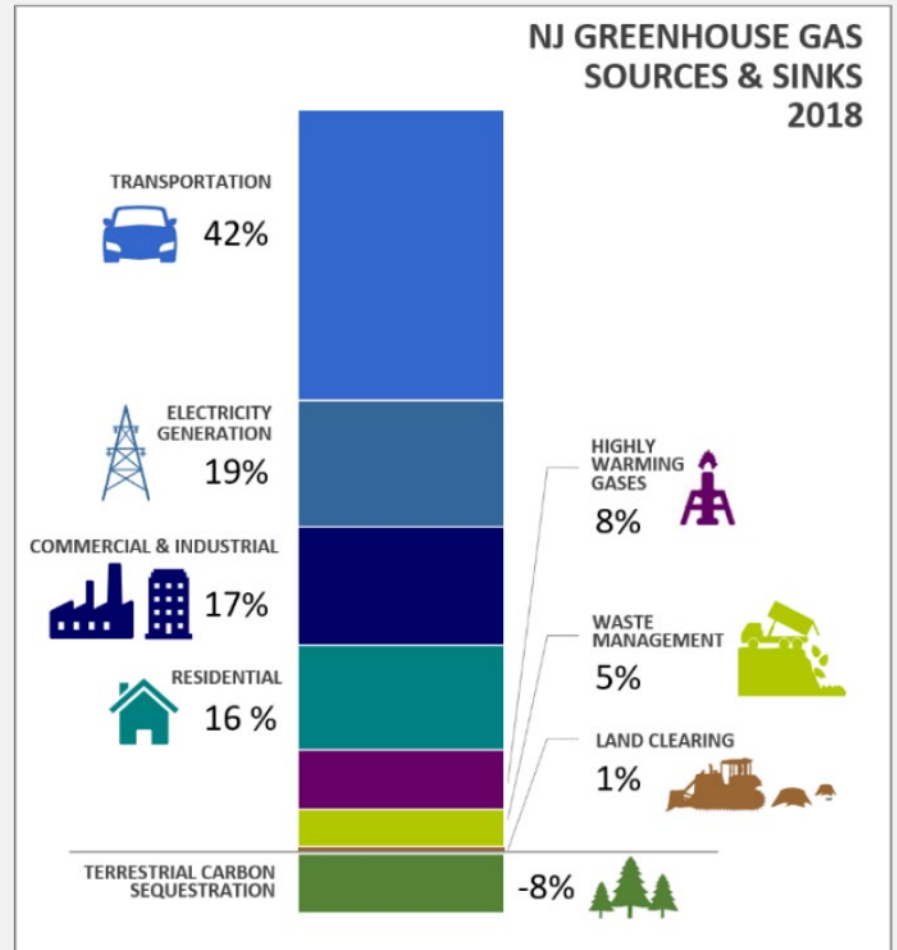


**A tree is 50% Carbon
(human is 20%)**

NJ Carbon Sources and Sinks



NEW JERSEY'S GREENHOUSE GAS SOURCES & SINKS 2018

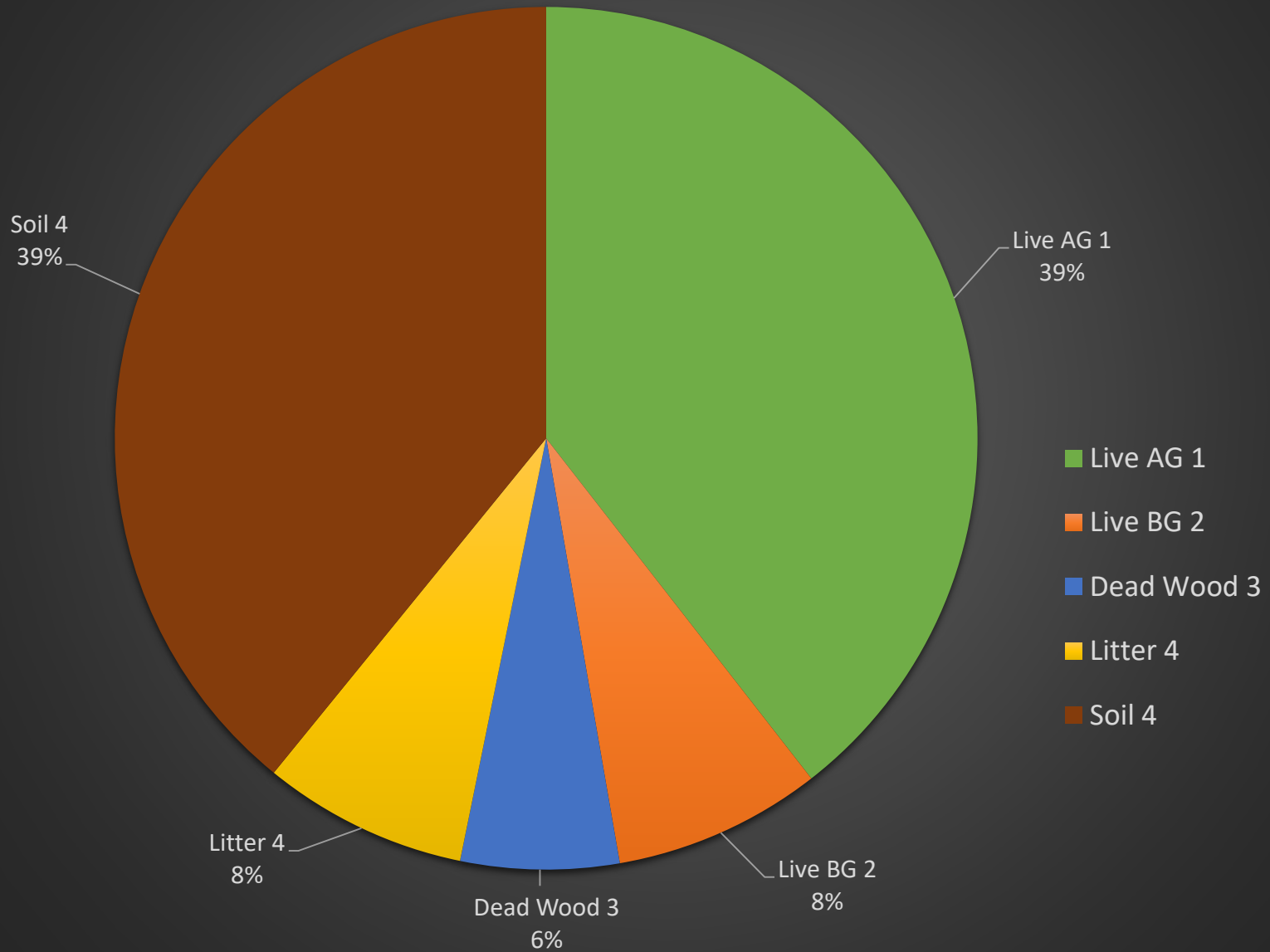


Source: New Department of Environmental Protection. 2018 Greenhouse Gas Emissions Inventory (preliminary results).

NJ is roughly 40% forested!

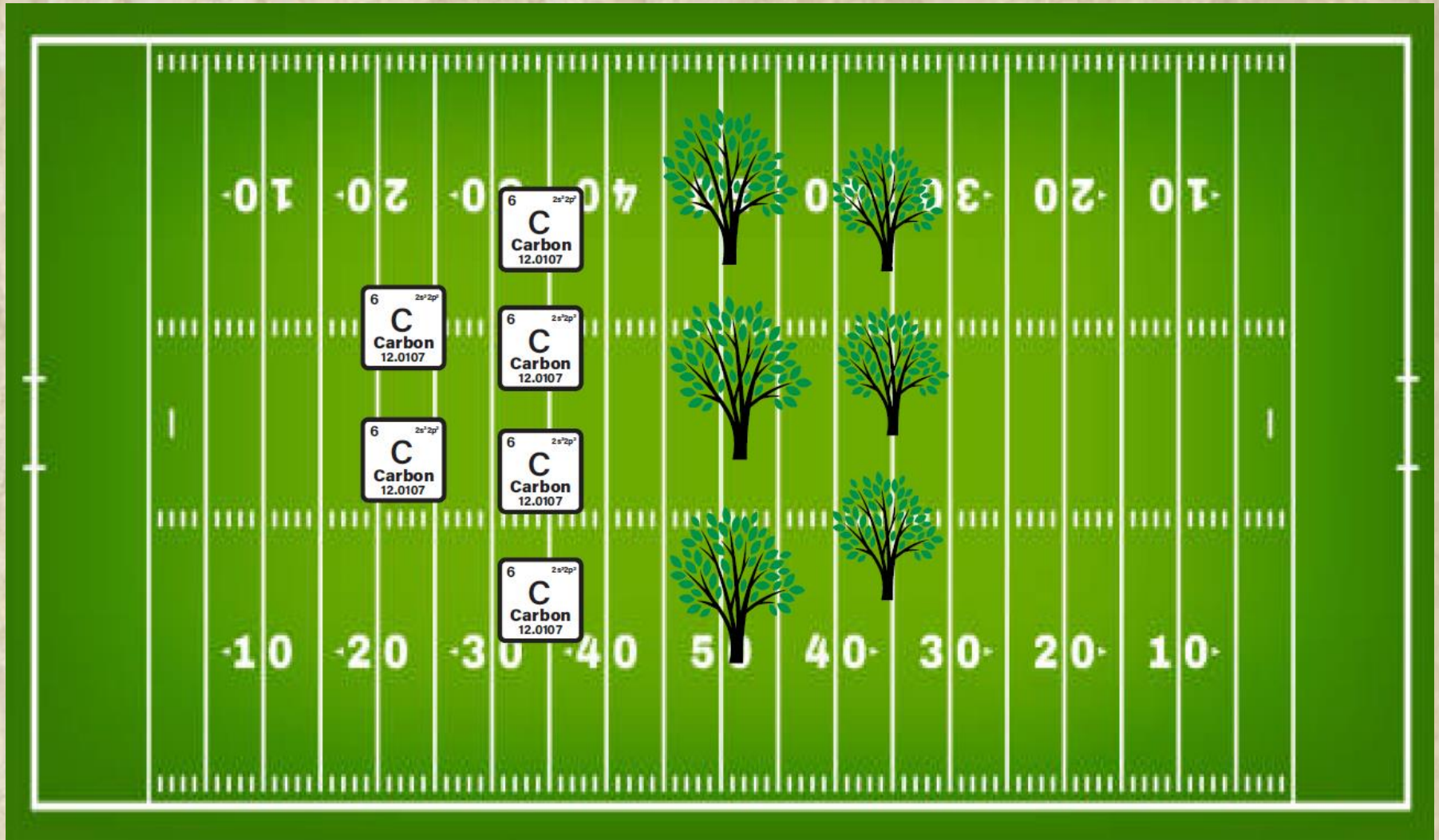


NJ Forest Carbon Pools 2018

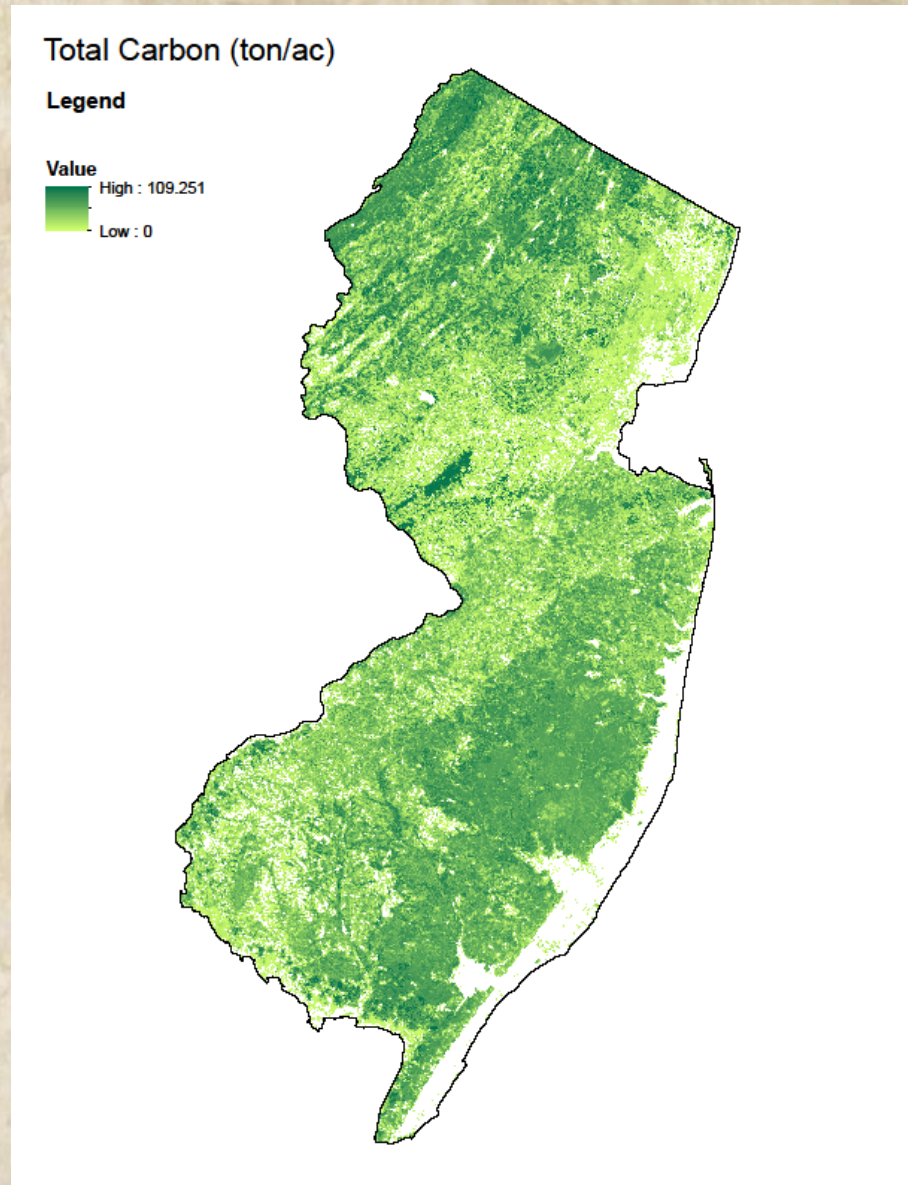


What can we do?

Offensive and Defensive strategies for making the most of natural sequestration



Good Forest Mgt is Good C Mgt!



Diversity is key

- Composition
- Age
- Structure



Offensive Carbon Strategies



Afforestation and Reforestation



Forest Restoration/Enhanced Sequestration





Wood products
help fight
climate change.

#ItTakesAForest

ITTAKESAFOREST.CA

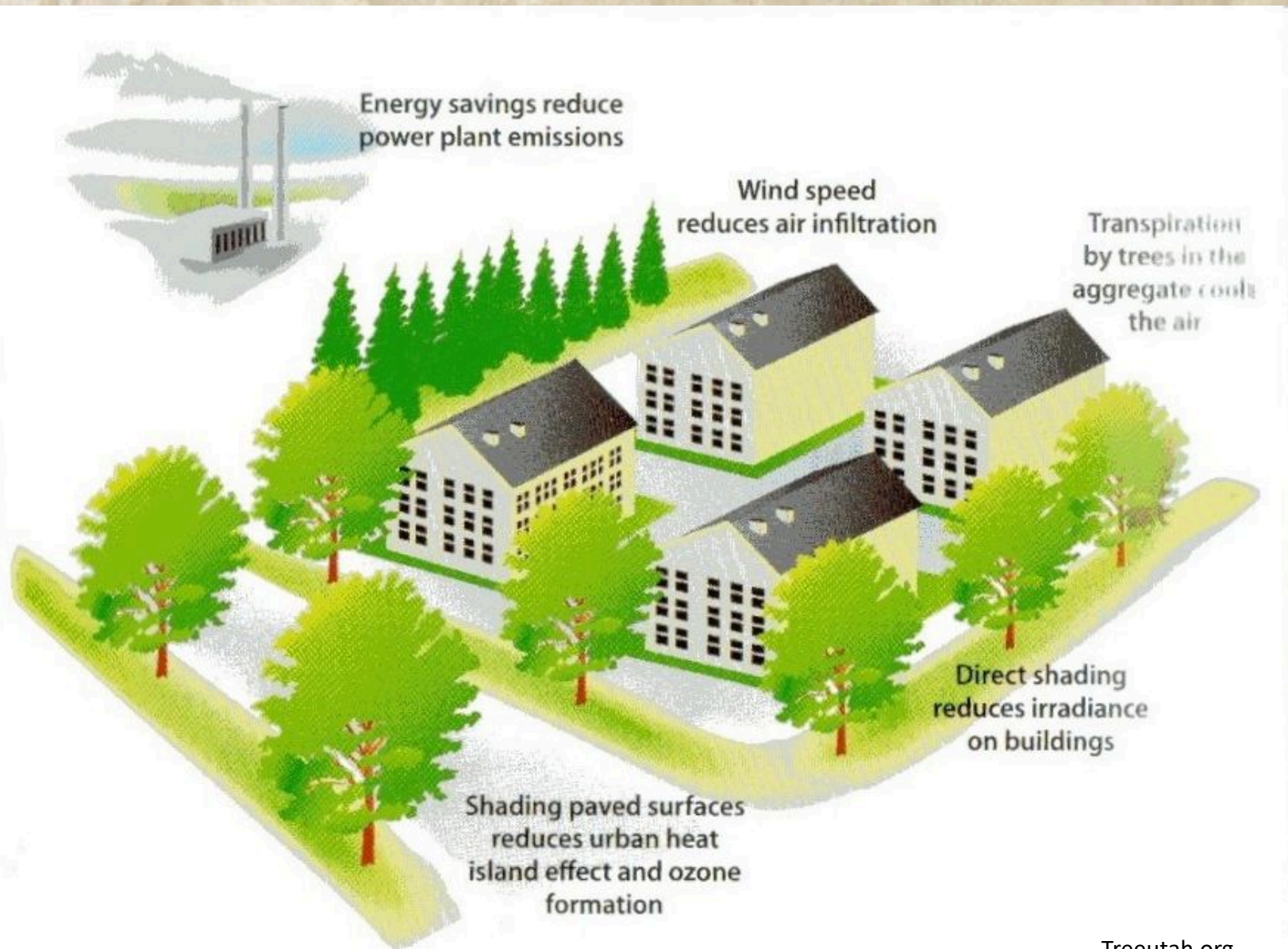
LEARN MORE

Proforestation



Matthew Betts, Oregon State University. Public domain

Decreased Energy Demand



Defensive Carbon Strategies



Avoided Conversion



Avoided Emissions





Questions?

