



PLNA

Pennsylvania's Green Industry

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The PA Green Industry

\$3rd largest

Ag sector

What business are we in?



A large, leafless tree stands in a forest of other bare trees. The tree's branches are intricate and spread out. The background is a clear blue sky. The image is framed by a green border on the left and right sides. Various benefits of trees are listed in text around the tree.

Oxygen Generator

Air Filter

Energy Saver

Noise Reducer

Stress Reducer

Learning Enhancer

Carbon Sink

Violence Reducer

Healer

Carbon Sequestration

- Trees
 - A mile of highway produces from 2,330 - 3,730 tons per year of CO₂.
 - Tree sequesters 13 lbs. per tree or 2.6 tons per acre per year.
- Meadows, grasses and forbs
 - Acre sequesters 1/3 ton per year

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Water Quality

- CREP is great model
- Extend to highways
- Commercial and residential development
- Storm Water BMP's
- Tree canopy
 - Tree will hold 2/3 of a half inch rain event in its structure.

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Air Quality

- A sixty percent reduction in street level particulates on tree-lined streets vs. streets with no trees
- Reduction in nitrogen dioxide, sulfur dioxide, carbon monoxide, cadmium, chromium, nickel and lead levels
- Reduction in noise by up to 50%
- Cooling effect 20-25%

Biodiversity

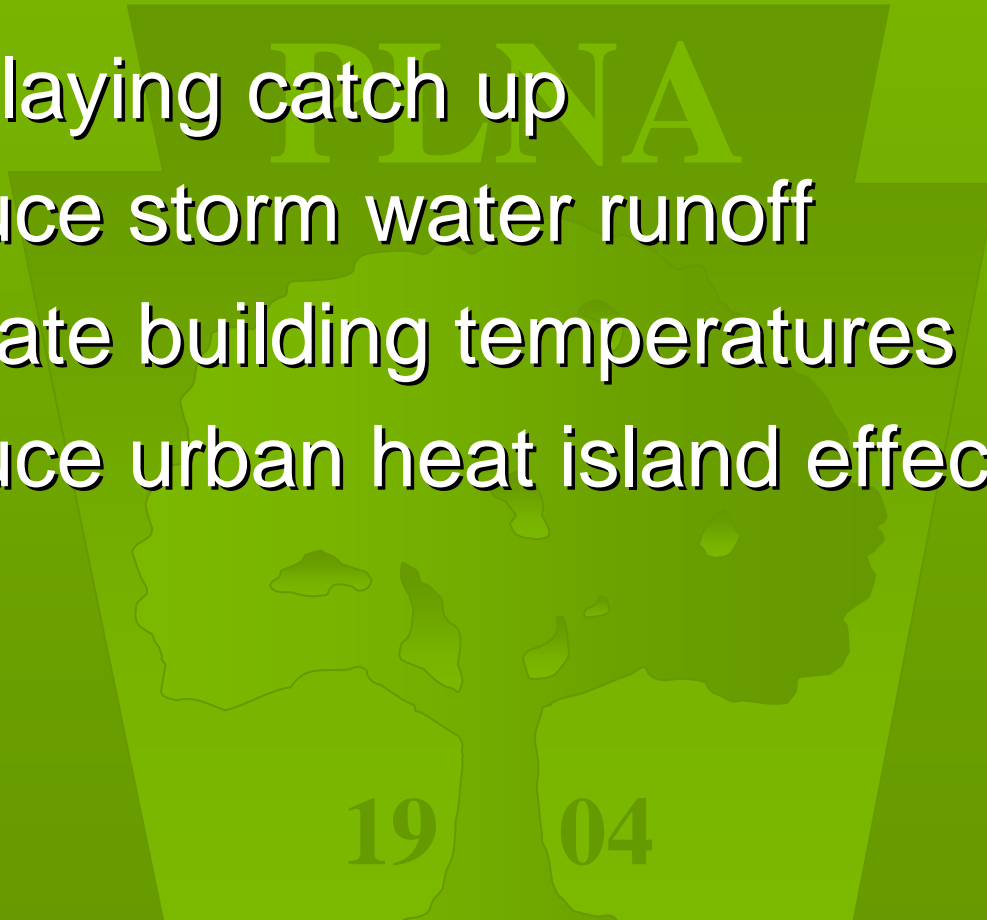
- Plant selection *does* count
- Natives support insects, support birds
- 4 million miles of roads with 60 million acres of right of way
- Residential and commercial development

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Green Roofs

- US playing catch up
- Reduce storm water runoff
- Mediate building temperatures
- Reduce urban heat island effect



Hospitals, Health Care

- Ability to view or have access to green environment:
 - Reduces pain sensation
 - Use fewer drugs in lower doses
 - Lower blood pressure
 - Help patients heal faster
 - Shorter hospital stay

Workplace

- Reduces illness and fatigue
- Improves morale and attitude
- Improves employee satisfaction

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Schools and Children

- Learning is improved
- Children's play is more diverse, and their socialization improves
- Kids with ADD are calmer and able to focus better

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Neighborhoods and Crime

- In neighborhoods with a landscaped environment:
 - Citizens take responsibility for the streets
 - Property crime is reduced
 - Violent crime is reduced

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Summary

- Undervalued the benefits of “green”
- Should include consideration of green elements in any built project

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Thank You!

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