



WASHINGTON STATE DEPARTMENT OF
NATURAL RESOURCES

Growing Healthier Natural Areas:

Embracing Lessons from Other Professions

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Washington State Department of Natural Resources



Ecology



Resilience is:

The capacity of a system to

resist,

withstand,

& recover

from disturbance



TREE ASSET MANAGEMENT in PORTLAND, OREGON



Tree

ure





Asset Management

- Assess the resource/site conditions and needs (inventory)
- Evaluate in-house capacity, skills, expertise, etc.
- Determine financial feasibility
- Set SMART goals:
 - Where are your priority locations?
 - What are the most important tasks?
 - How will they be accomplished?
 - Who is responsible for doing them?
 - When should they be done by?

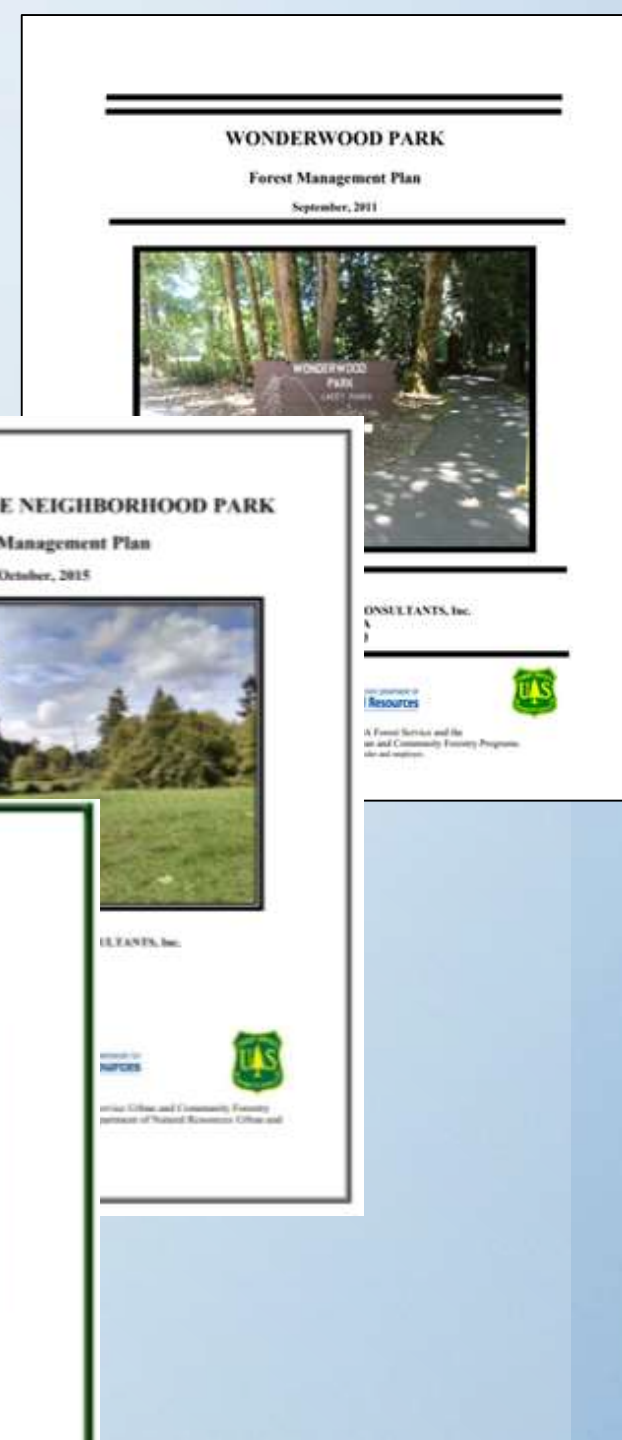


Planning & Management

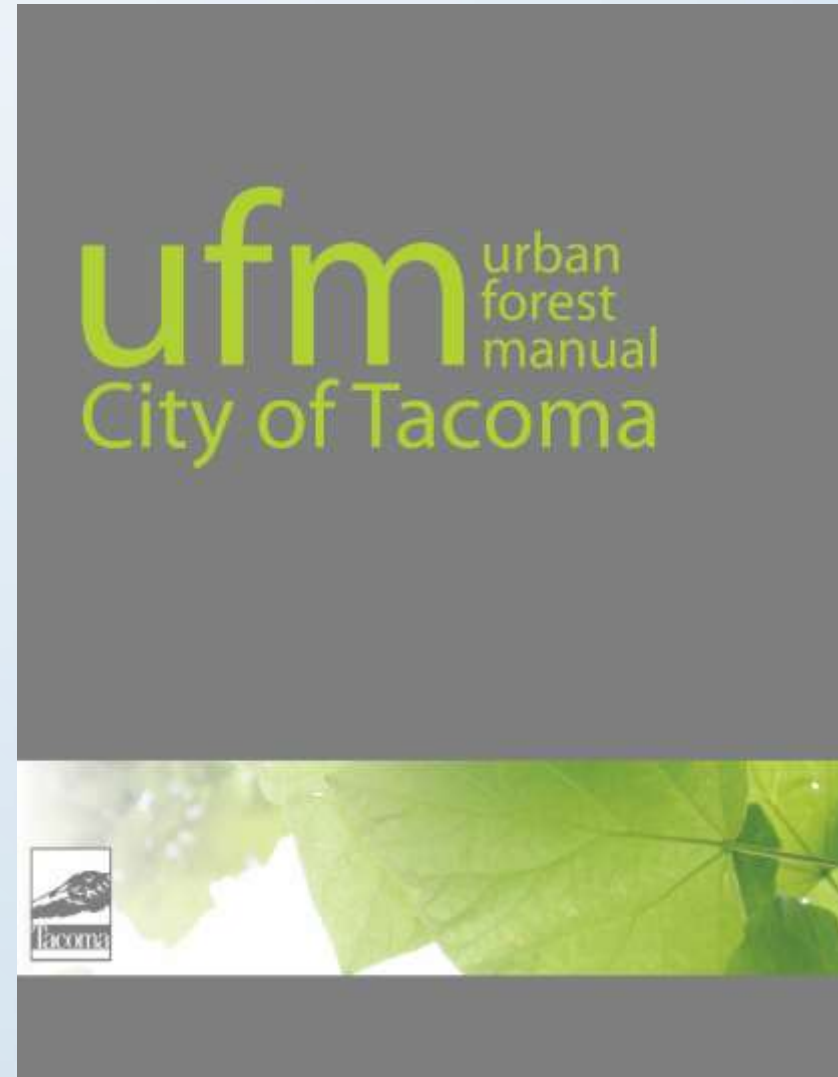
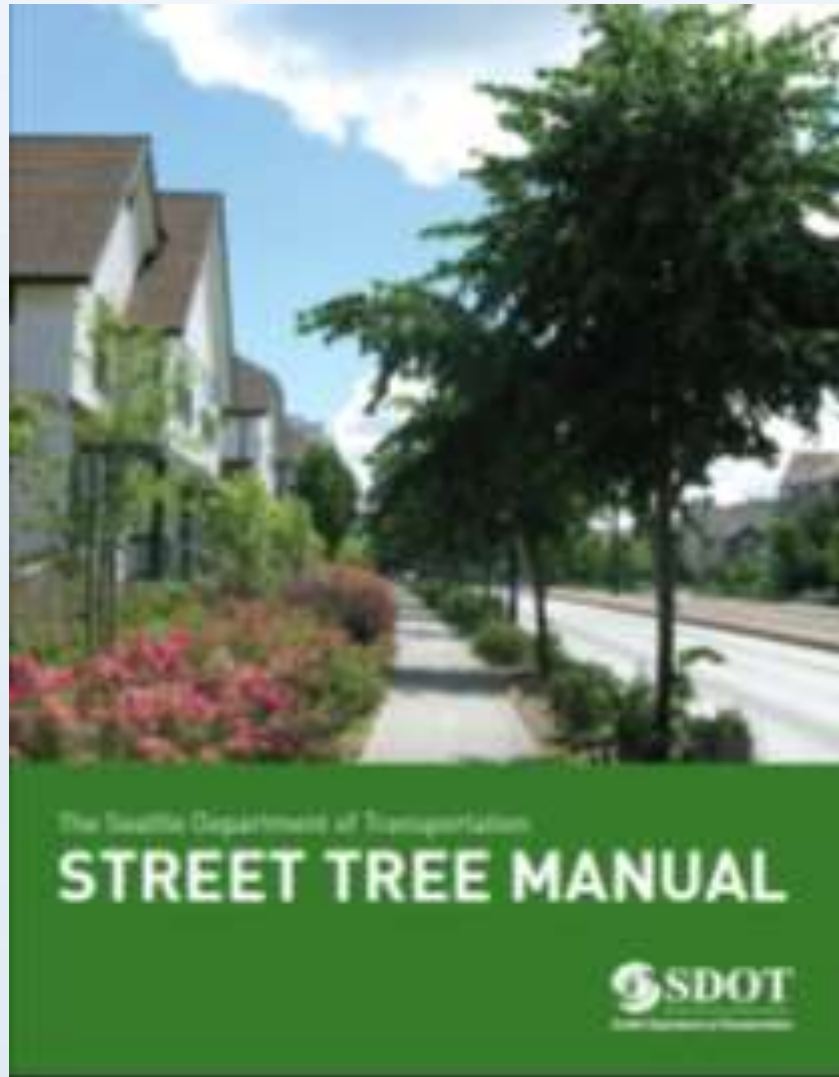
- Site-specific management plans include:

- Site history and context
- Purpose and intent
- Goals and objectives
- Results of the resource assessment
- Methods for prioritization
- Recommendations for action
- Strategies for monitoring and eval.
- Timeline with benchmarks

- Solicit input from stakeholders!!!

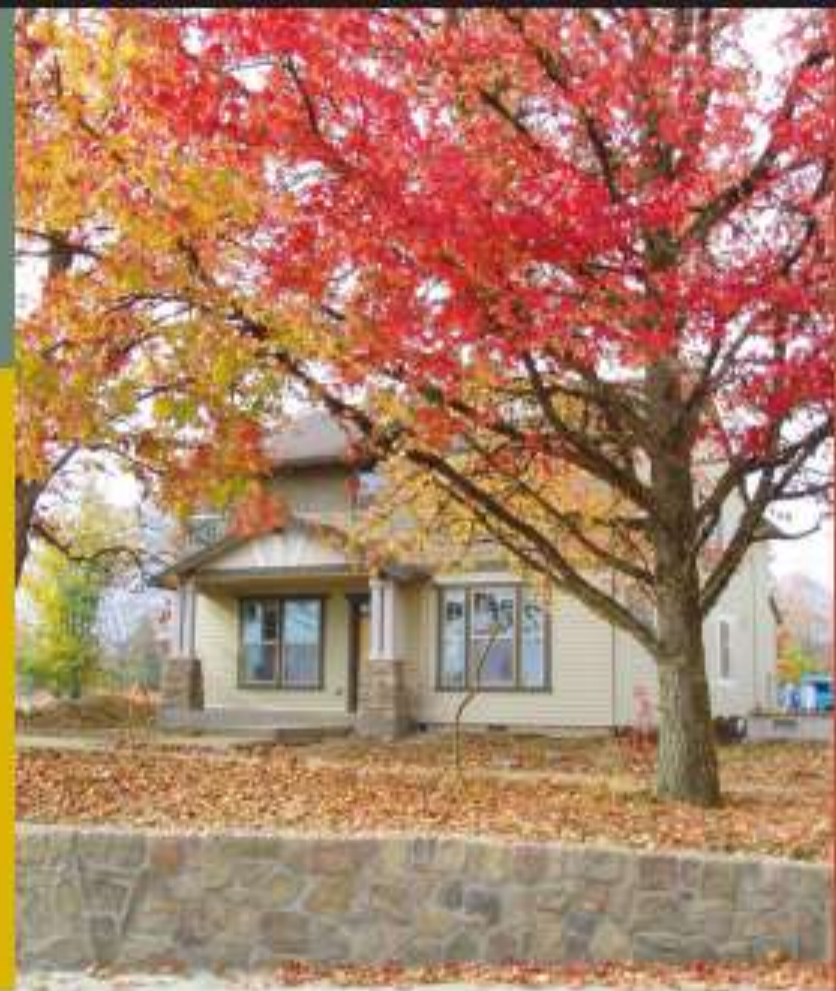


Policies, Standards, Best Practices



EM 8994 木 December 2009

Oregon State | Extension
UNIVERSITY | Service



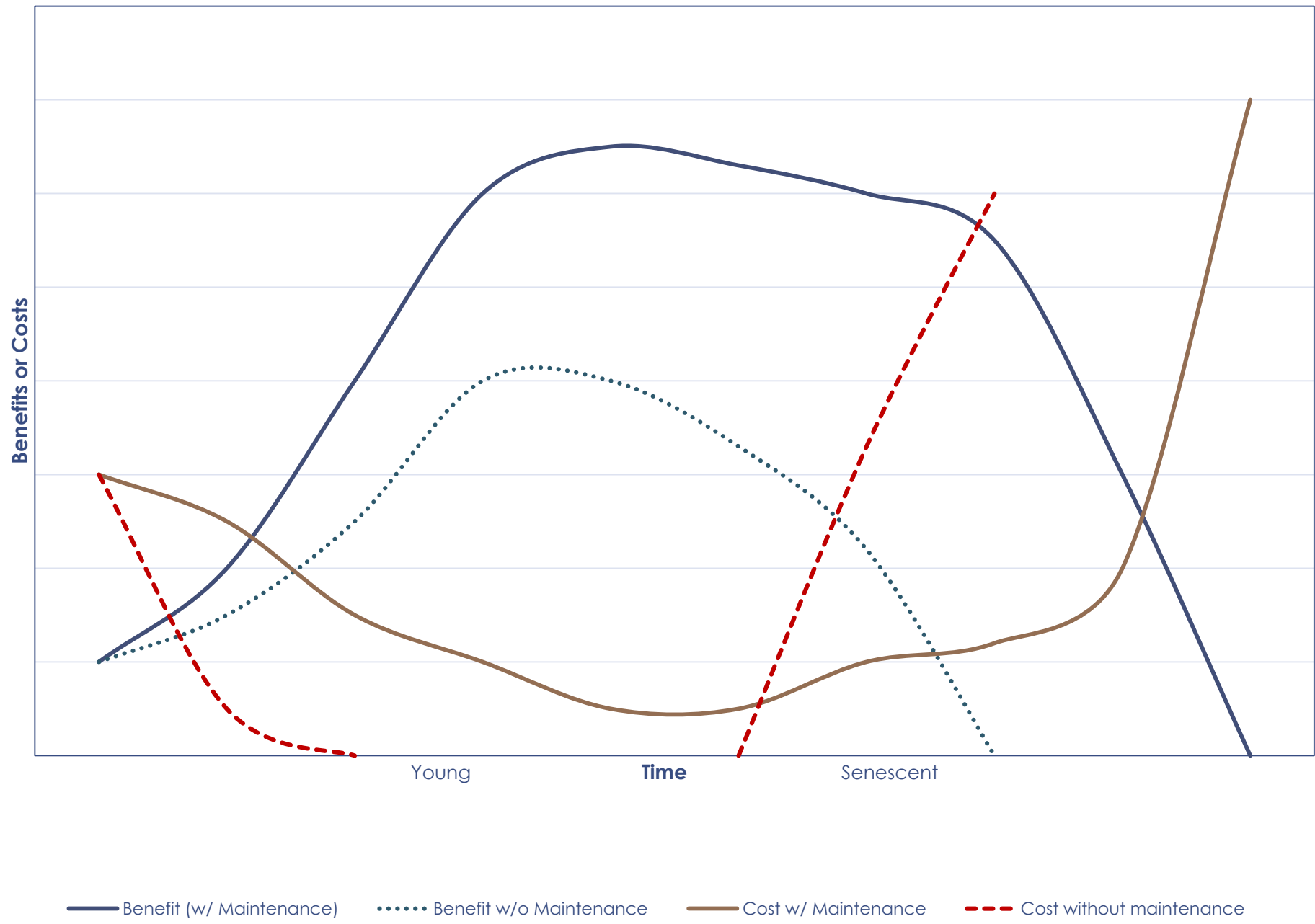
Tree Protection on Construction and Development Sites

A Best Management Practices Guidebook for the Pacific Northwest





Costs & Benefits over Tree's Lifetime* (Conceptual)





Ponderosa Pine

(*Pinus ponderosa*)

This 26-inch tree gives back

\$159*

overall annual benefits/year, including:

Energy Savings:

Reduces your electric bill
by 97 kilowatt hours

Health Benefits:

Cleans the air you
breathe by reducing
carbon dioxide by 510 lbs

Stormwater:

Intercepts 3,356 gallons
of rainwater

Property values:

Raises property values
by \$52 this year

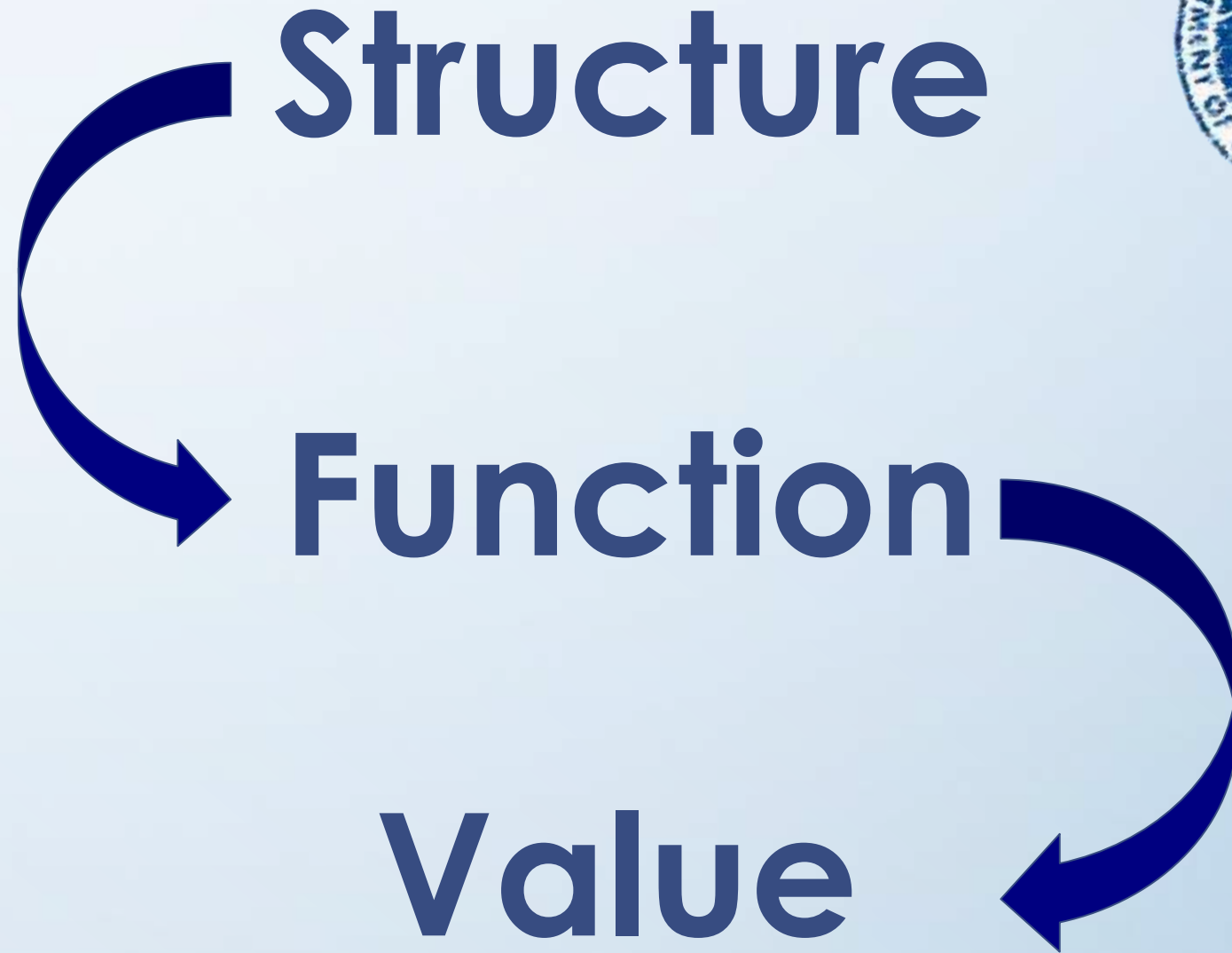


If this tree is cared for and grows to 31 inches,
it will provide \$190 in annual benefits.
*\$238/year in overall benefits if located in a residential area.

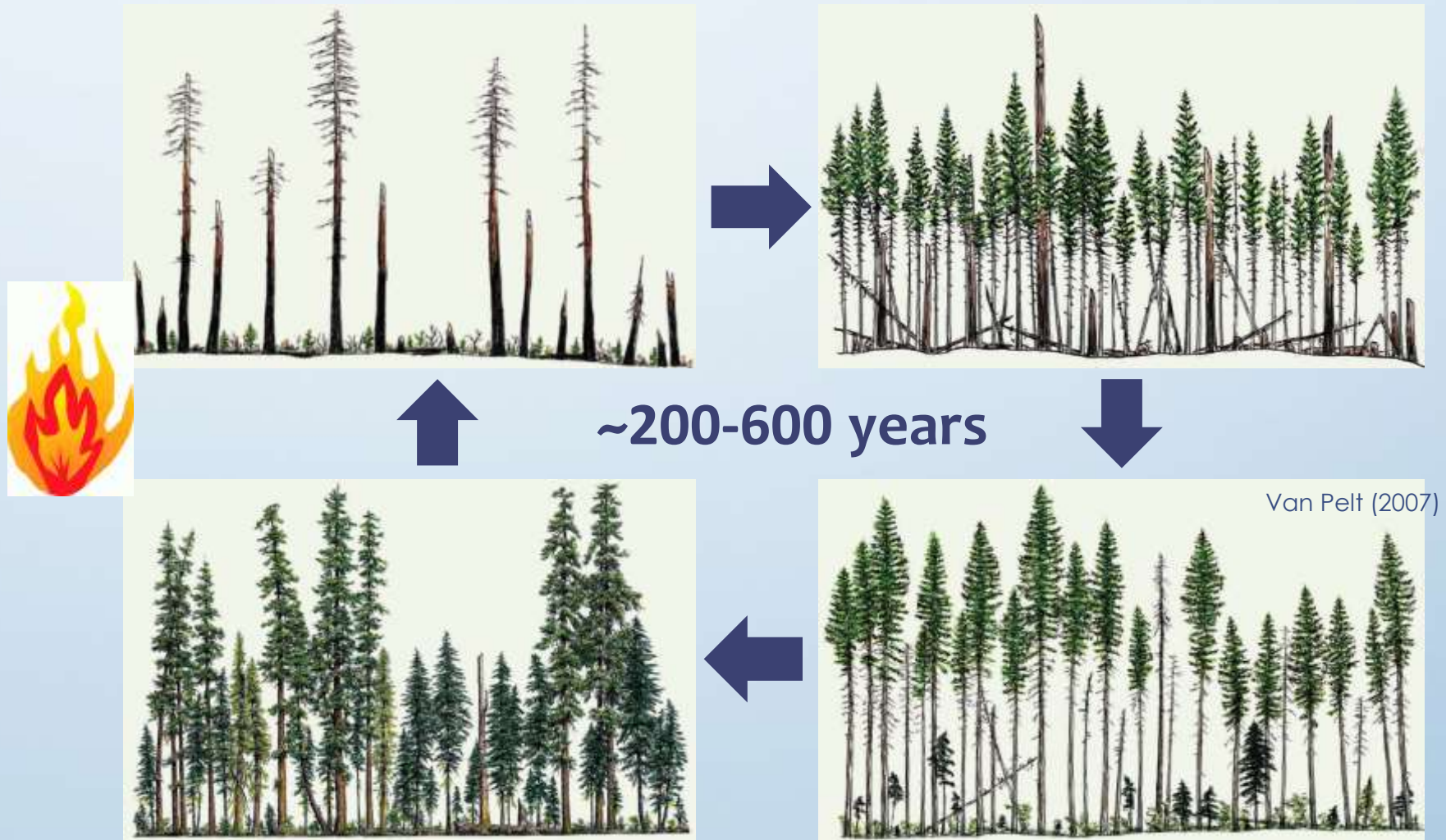
EVERY TREE COUNTS



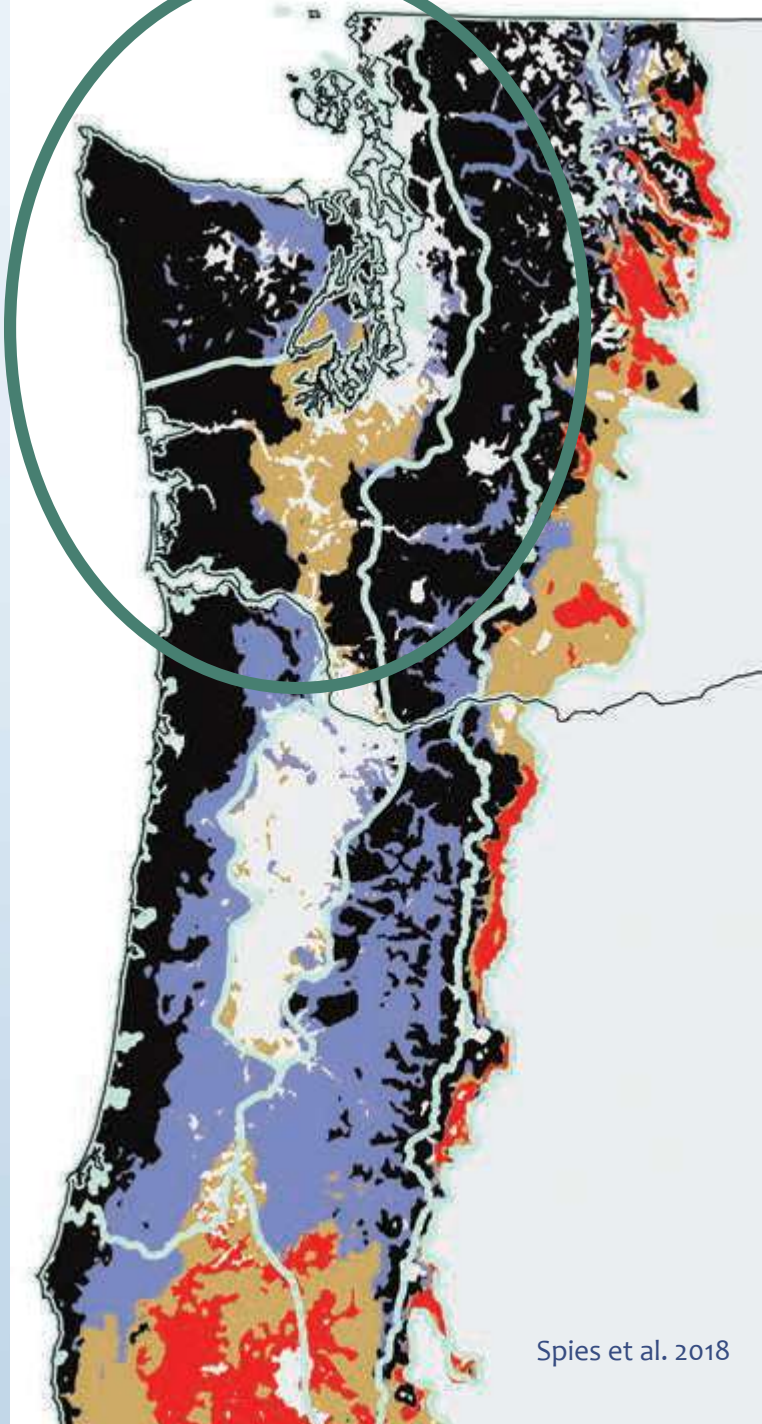
Forestry 101:



Life & times of a Doug-fir/hemlock forest



Characteristic fire rotation and severity (historical)



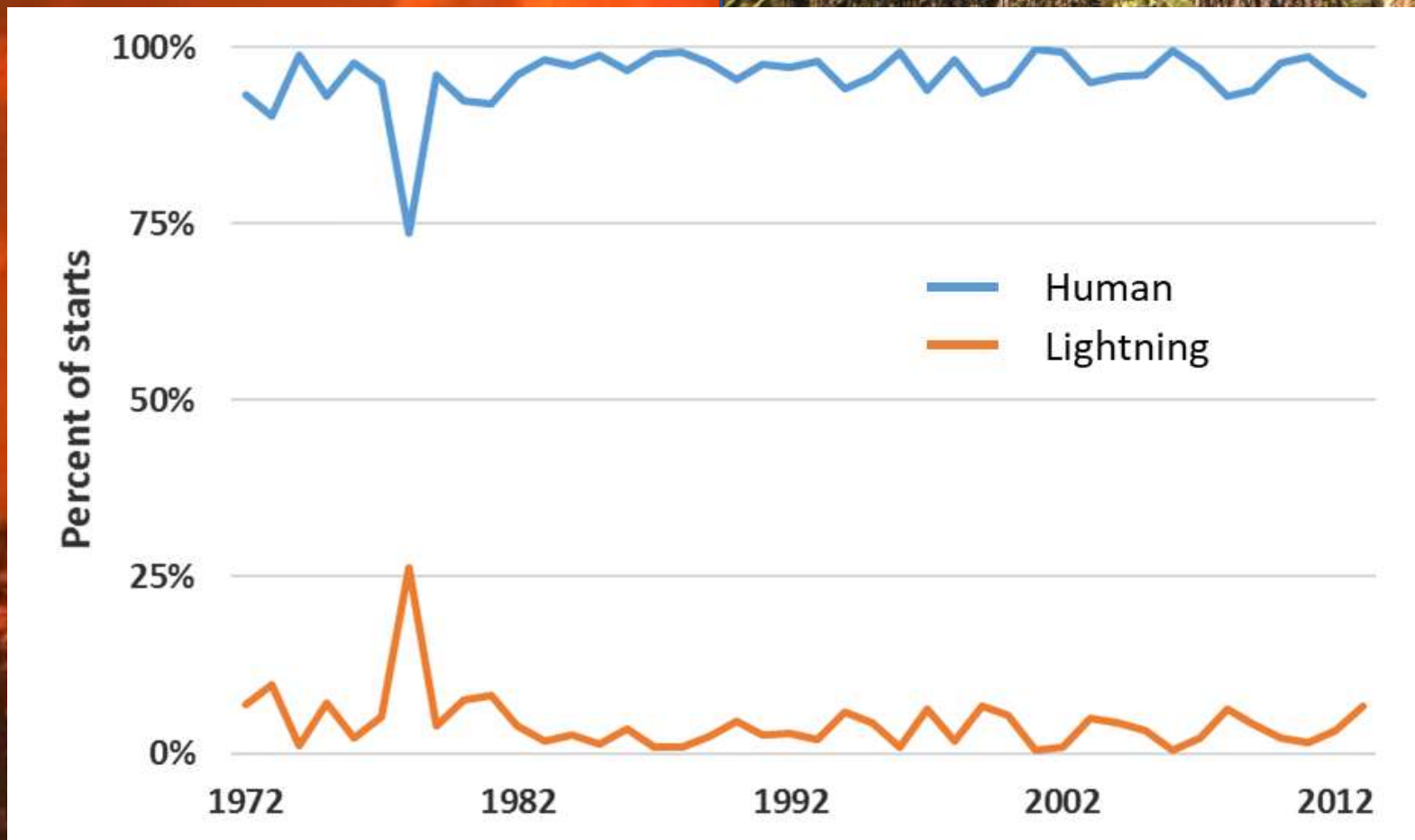
Spies et al. 2018

Infrequent – high severity

**Moderately frequent –
mixed severity**

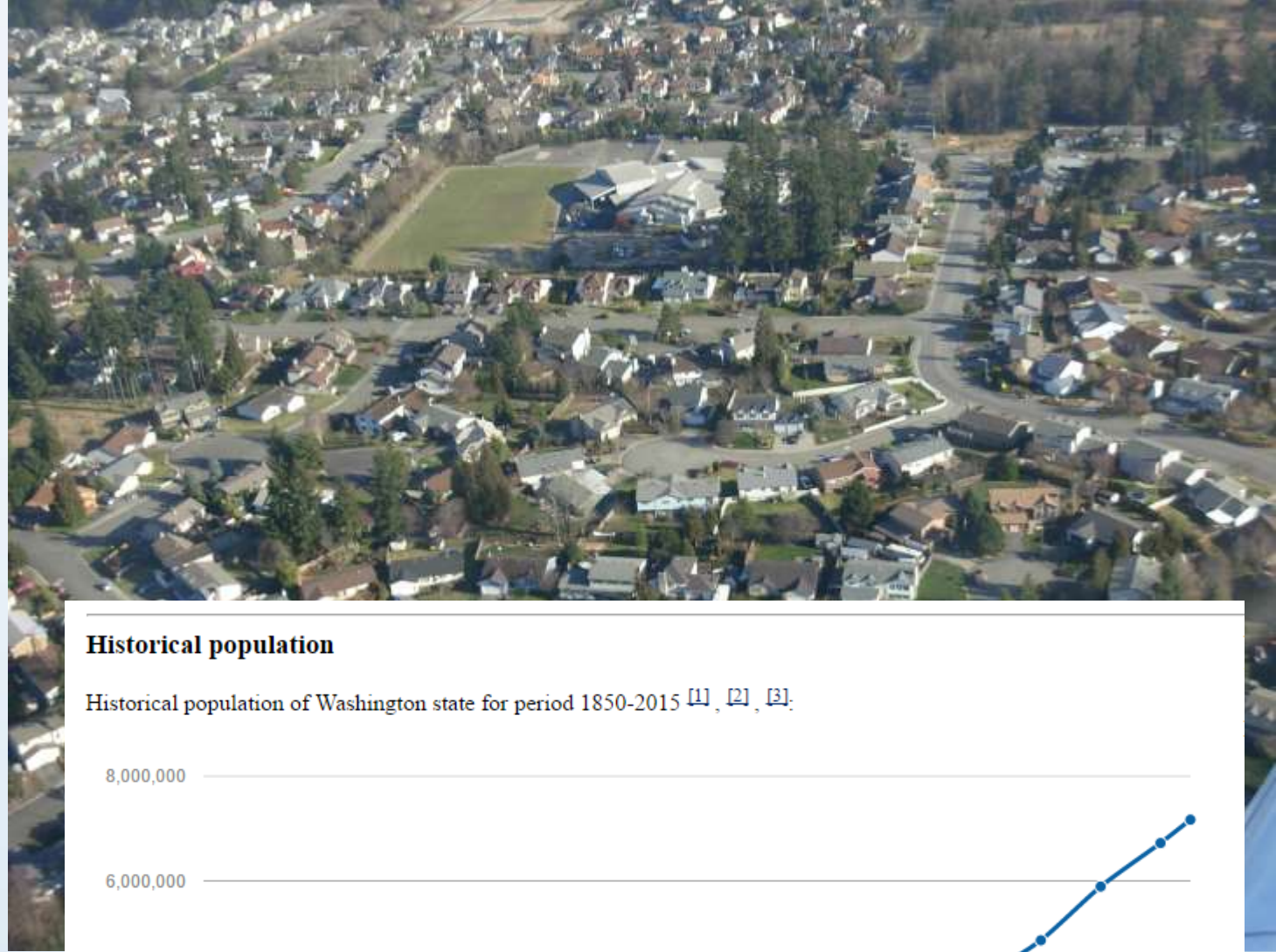
Frequent – mixed severity

Very frequent – low severity



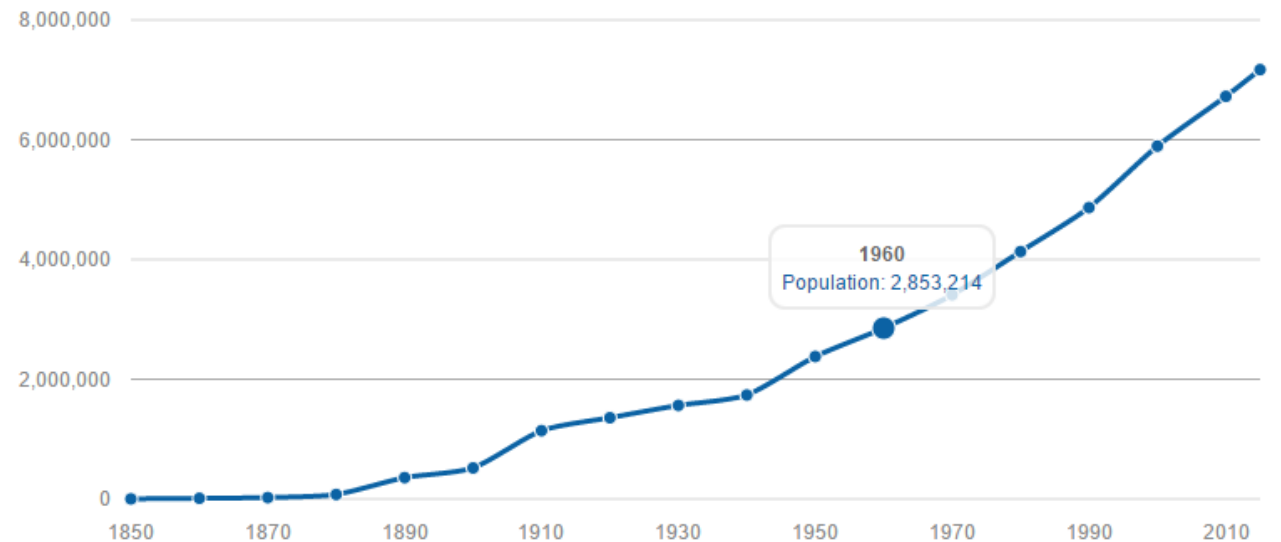
Urbanization in Washington

- Washington is the 2nd smallest western state by land area; 2nd highest population of western states
- More than 60% of state's pop lives in an incorporated municipality (2010 Census)
- 90% lives in an area identified as 'urban' (2010 census)
- Currently 7M people in WA; projections are 9M by 2040
- Equivalent of 10 new cities the size of Tacoma or Spokane by 2040



Historical population

Historical population of Washington state for period 1850-2015 [\[1\]](#), [\[2\]](#), [\[3\]](#).



Communications

- Know your audience
- Use key messages
- Be explicit and concise
- Use accessible language
- Be aware of timing
- Embrace social media
- Elevator Speech





Topping hurts trees.

It costs more long-term, it's unsafe and shortens the life of a tree. Proper pruning costs less, reduces storm damage and helps trees live longer. For more information, visit dnr.wa.gov/urbanforestry



PUBLIC SERVICE MESSAGE BROUGHT TO
YOU BY WASHINGTON STATE DEPARTMENT
OF NATURAL RESOURCES, URBAN &
COMMUNITY FORESTRY, IN PARTNERSHIP
WITH THE U.S. FOREST SERVICE



Media



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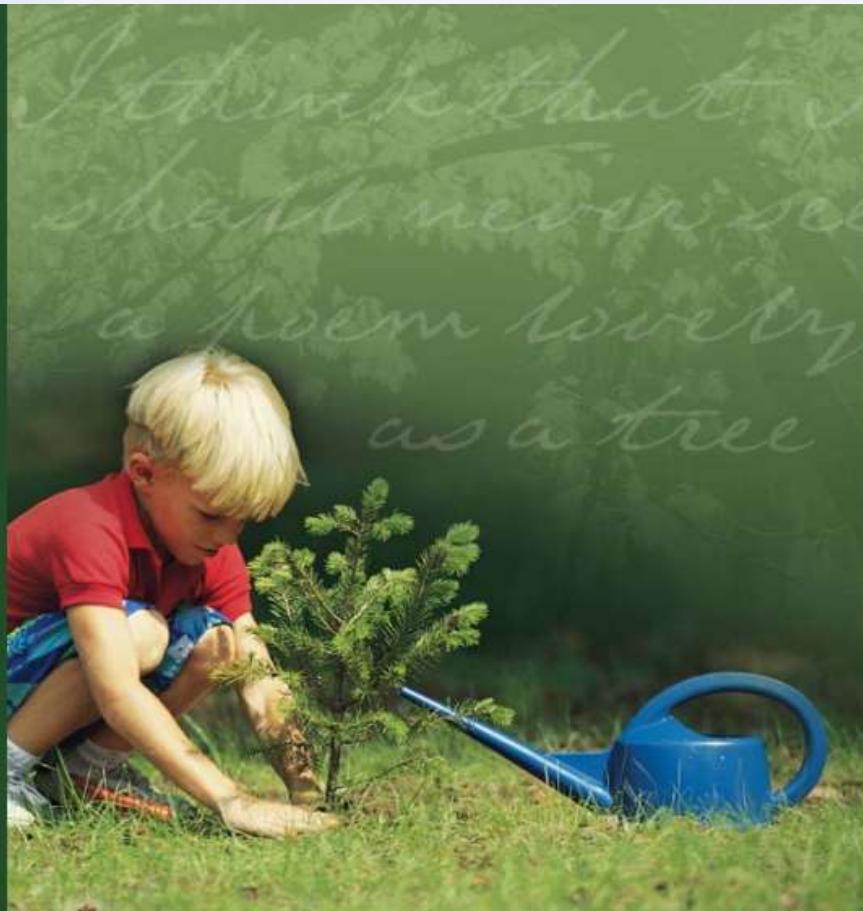


Marketing

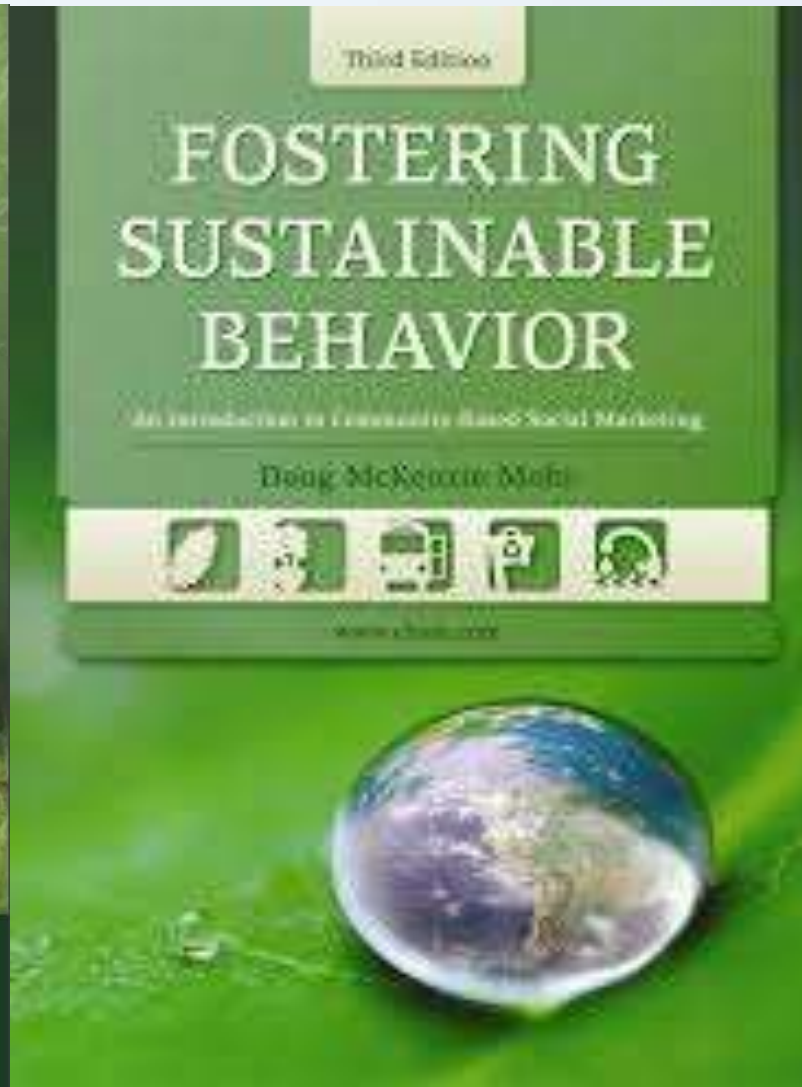
- Advertising is used to:
 - Inform
 - Persuade
 - Remind
- Key Messages vs Slogans
- Repetition
- Branding



Social Marketing



PLANTING THE SEEDS OF SUCCESS
Marketing the Community Forest



What is Social Marketing?

Social Marketing is a process that uses traditional marketing principles and techniques to influence citizen behaviors that benefit society as well as the individual.

Changing Citizen Behaviors

Education • Marketing • Law



W EVANS SCHOOL OF PUBLIC POLICY & GOVERNANCE
UNIVERSITY of WASHINGTON

evans.uw.edu/centers-projects



Adapted from Everett Rogers, Jay Maguire, Mike Reinhold, Dave Ward, Kristen Gouley

Economics

- Cost vs. Value vs. Investment
- Economics is a social science
- Economics is the study of human behavior and incentives





www.dnrtreelink.wordpress.com



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