

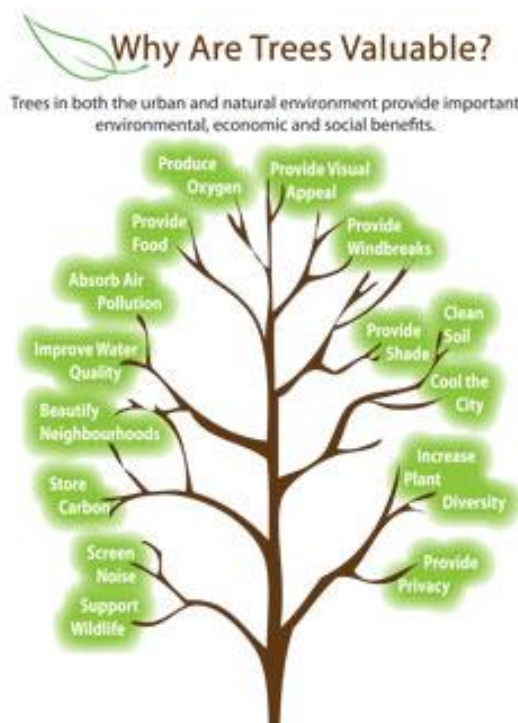
CHALLENGES OF GROWING AN URBAN FOREST IN THE OKANAGAN VALLEY

Blair Stewart, RPF, Cert Arb.

Urban Forestry Supervisor for the City of Kelowna

OUTLINE

- ▶ Background
- ▶ Challenges
- ▶ Strategy
- ▶ Recommendation
- ▶ Going Forward
- ▶ Wrap-up





Kelowna

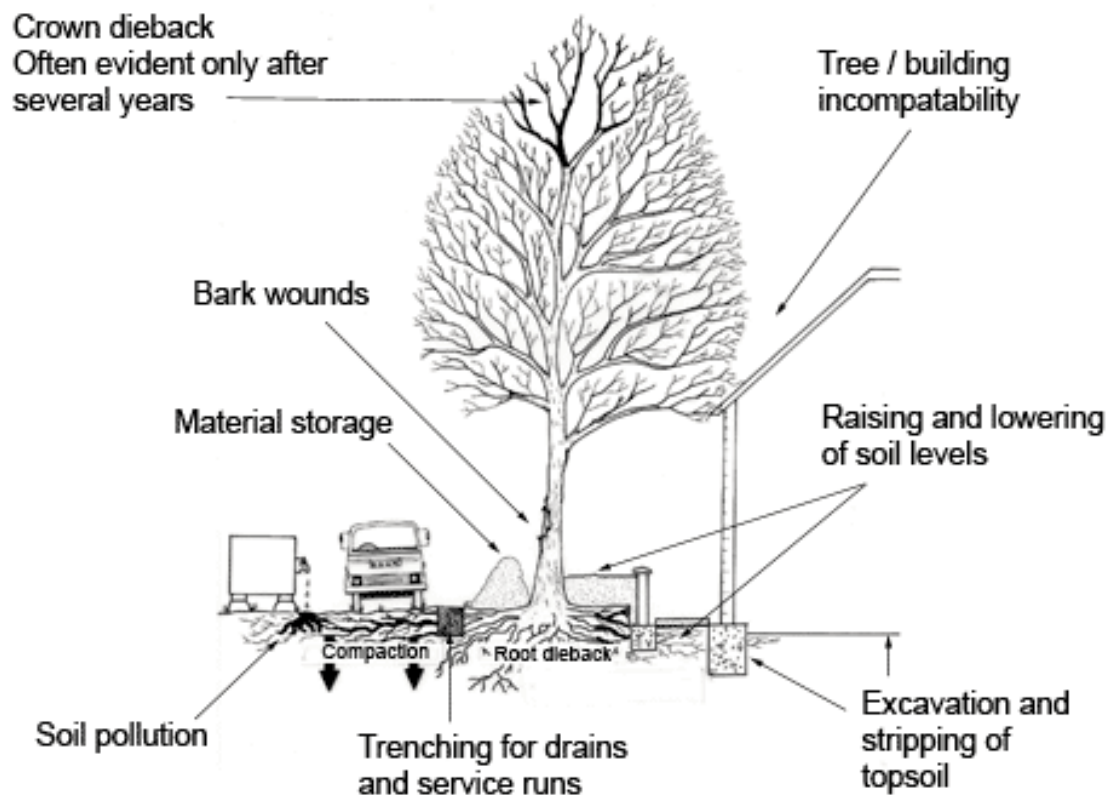
- ▶ 115,000 people
- ▶ Located in rain shadow created by coast mountains
- ▶ 9-12" precipitation
- ▶ Hot summers, "mild" winters (USDA Zone 6)

CHALLENGES

- ▶ Construction and maintenance
- ▶ Weather and Climate
- ▶ Fuel management
- ▶ Forest Health
- ▶ Culture / public perception

CONSTRUCTION DAMAGE

► example



CONSTRUCTION/ MAINTENANCE DAMAGE CONT.



*What came
first the tree
or the
sidewalk...?*

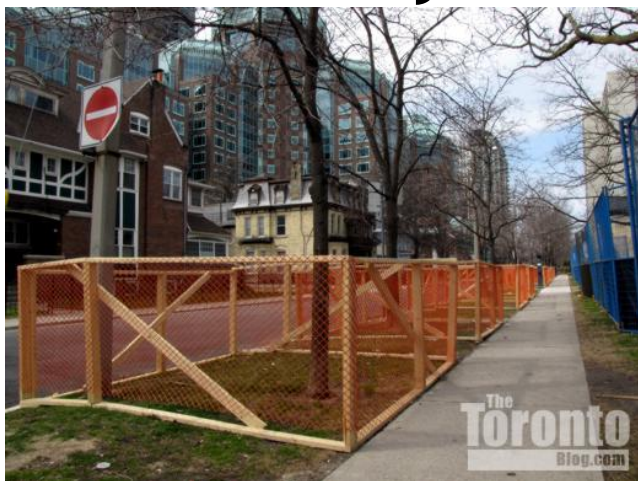
TREE DECLINE

DUE TO LACK OF TREE PROTECTION DURING CONSTRUCTION



TREE PROTECTION

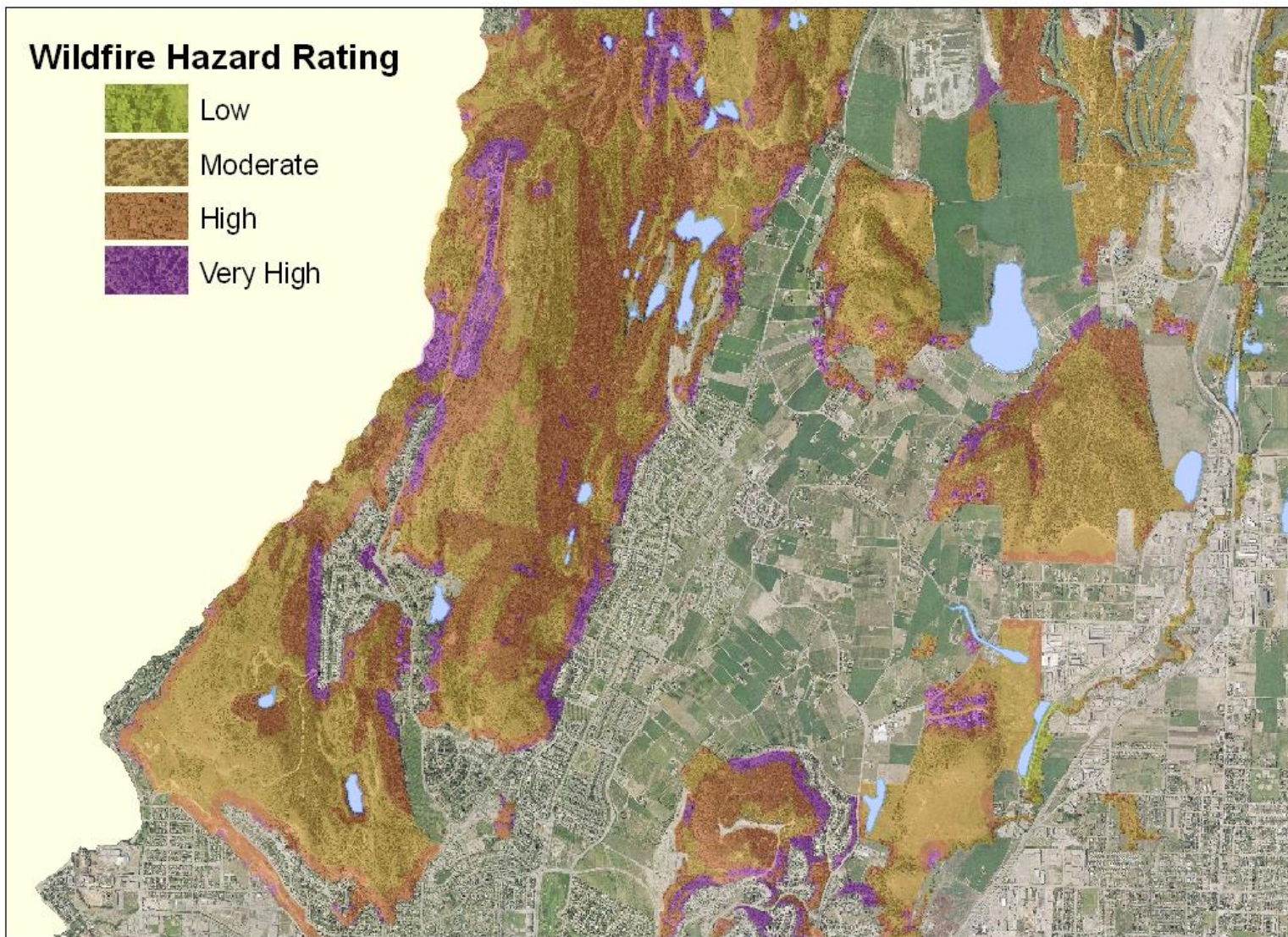
- ▶ Current bylaw does not protect all trees
- ▶ Emphasis on construction zones
- ▶ Significant, rare, heritage trees
- ▶ Show by example



CLIMATE AND WEATHER

- 
- ▶ Arid climate
 - ▶ Limited tree species
 - ▶ Tough growing conditions

Wildfire Hazard Rating



Okanagan Mountain Park Fire



45,000 residents were evacuated



Images courtesy of Don McPhail - Okanagan Mountain Fire

239 homes destroyed



Images courtesy of Don McPhail - Okanagan Mountain Fire

FUEL MODIFICATION

A F T E R



B E F O R E



FOREST HEALTH

- ▶ Pine Beetle (MPB, WPB)
- ▶ Spruce Budworm
- ▶ Tussock Moth
- ▶ Hazardous trees
- ▶ Weather (wind, hail, snow e



TREE SCREENING



NUTRIENT DEFICIENCIES



CULTURAL PRACTICES



SUSTAINABLE URBAN FOREST STRATEGY

- Phase 1: Literature Review
 - ▶ City from Canada and around the world
- ▶ Phase 2: Recommendations
- ▶ Implementation

RECOMMENDATIONS

- ▶ Planting Programs
- ▶ Improve tree inventory systems
- ▶ Strengthen tree planting standards
- ▶ Tree maintenance Standards
- ▶ Tree Protection Bylaw update

GOING FORWARD

- ▶ Policy and planning changes to protect canopy
- ▶ Community engagement
 - ▶ Volunteer planting projects (Girl Guides, TD etc)
 - ▶ Door hanger program (comments or concerns)
- ▶ Grant funding - supplement annual planting

TREE PLANTING

- ▶ Community tree planting program
- ▶ NeighborWoods: Grant funding provides trees at reduce cost
 - ▶ Residents buy tree for their property
- ▶ Educate and inform residents about our urban forest and proper planting techniques



A photograph of a forest floor. In the center, a dark, hollowed-out log sits on the ground. Inside the log, a small, bright green sprout with many thin needles is growing. The surrounding ground is covered with dry pine needles, twigs, and some green grass. The text "THANK YOU" is overlaid in white, bold, sans-serif font across the top of the log.

THANK YOU

Blair Stewart
bstewart@kelowna.ca