

Diversity by Design **Forest Restoration**



We can grow trees on the West Coast!

- CWH - Wet and productive
- CDF - Driest, warmest and most urbanised zone in BC - Also supports the greatest number of plants and animals at risk



Species at Risk in our Forests

- Western Screech Owl
- Olive-sided Flycatcher
- Oregon Forest Snail
- Pacific Sideband
- Western Toad
- Townsends big-eared Bat
- Trowbridge Shrew
- Spotted Owl
- Marbled Murrelet



Planning for Success

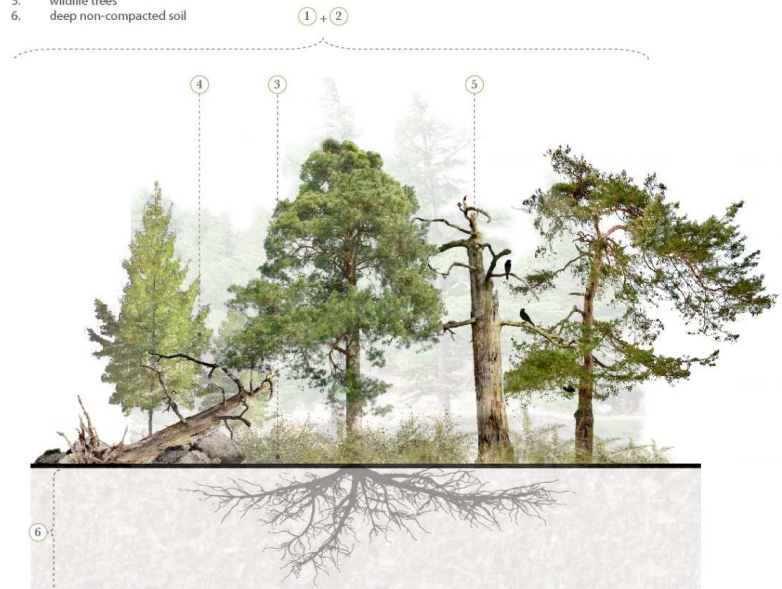
- UNDERTSANDING THE SYSTEMS: living and non-living components
- MINIMIZE IMPACTS: Manage disturbance and agents of change
- SECURE THE BUILDING BLOCKS: Restore the foundation for healthy ecosystem function
- REPAIR THE FABRIC: Establish plant communities
- INCLUDE HABITAT FEATURES: Provide species specific habitat features
- MONITOR AND MEASURE: Adapt to challenges and evaluate success

Understand the Systems

- Physical – Soils, topography, hydrology
- Biological – Invasives, wildlife, plant and tree health
- Social – Land use, recreation, pets, vandalism

FEATURES OF A HEALTHY FOREST ECOSYSTEM

1. multiple tree species and sizes
2. diverse stand structure
3. diverse ground vegetation
4. large downed wood
5. wildlife trees
6. deep non-compacted soil



Minimize Impacts

- Invasive Species
- Forest Pest and Disease
- Wind, frost, snow, sunscald
- Erosion/geotechnical stability
- Land development
- Stormwater/flood risk
- Climate change
- Vandalism
- Pollution



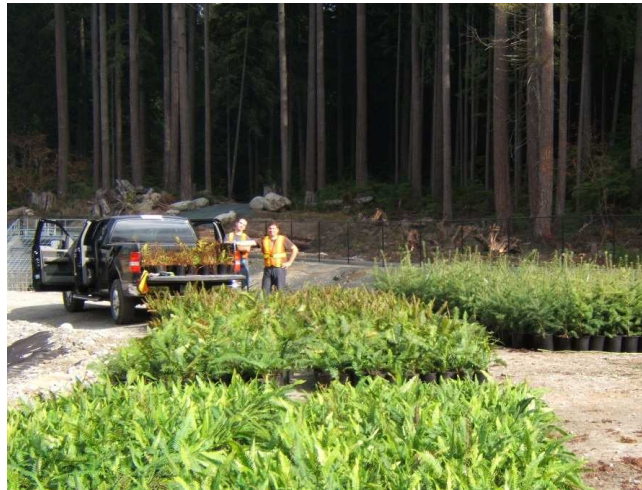
Secure the Building Blocks

- Soil, soil, soil
 - Native vs processed
 - Compaction – don't paint yourself into a corner
 - To mulch or not to mulch
- Water
- Erosion and sediment control



Repair the Fabric – Planting a Community

- Species selection – know your winners
 - Pioneer vs climax
 - Plan for climate change
- Size – root/shoot ratio balance



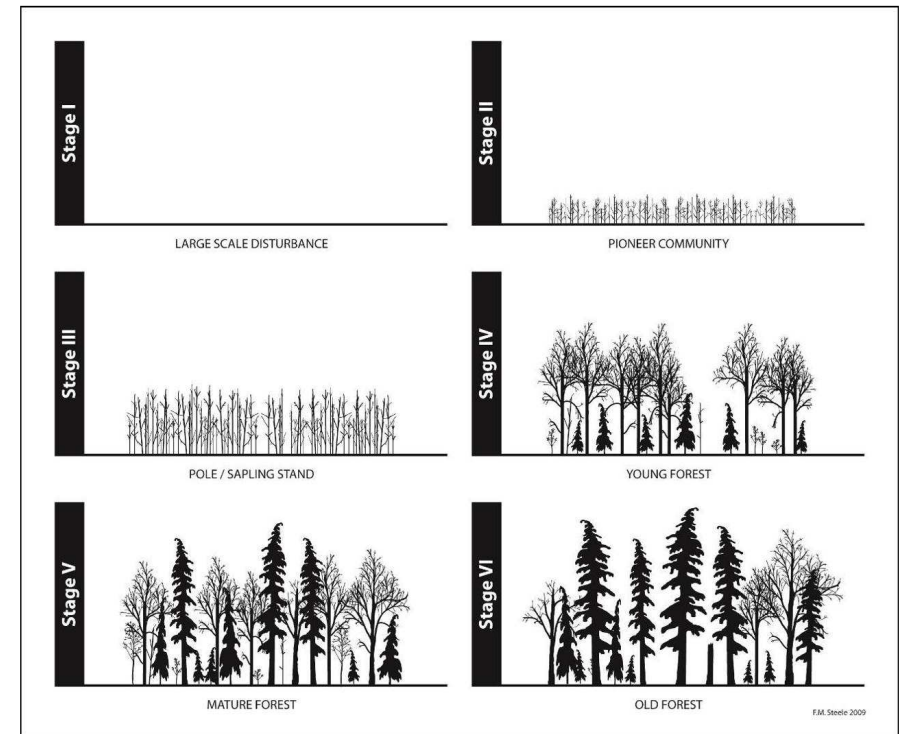
Repair the Fabric – Planting a Community

- Density
 - How dense is too dense?
 - Account for natural regeneration
- Distribution – don't create competition
- Timing – fall is fantastic
- Protection – beavers, deer, voles



Following Natures Path

- Forest Succession is effective
- But requires patience and planning



Habitat Features

- Downed or Large Woody Debris
- Wildlife Trees
- Artificial structures
- Cover for prey
- Perches for predators
- Nesting boxes
- Rock piles
- Brush piles



Habitat Features



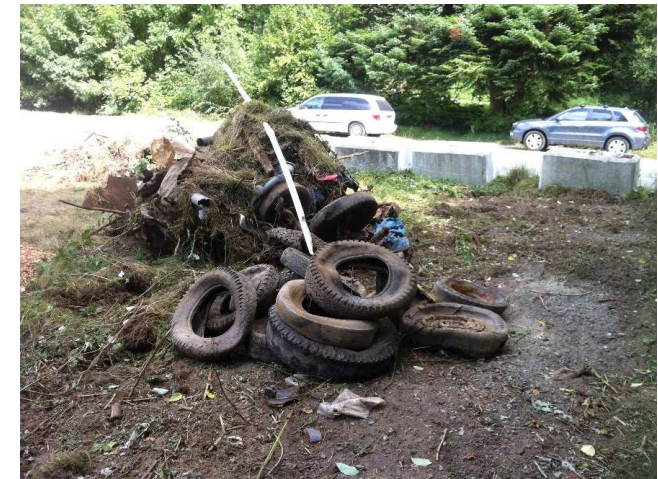
Monitor and Measure

- Watch
- Learn
- Adapt













THANK YOU.

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