MEADOWSCAPING

WEST MULTNOMAH
Soil & Water Conservation District

GREENWORKS

Mary Logalbo, Urban Conservationist

Overview

- Why
- The Partnership
- Designing
- Planting
- Maintaining

"We have to raise the bar on our landscapes. In the past, we have asked one thing of our gardens: that they be pretty. Now they have to support life, sequester carbon, feed pollinators and manage water."

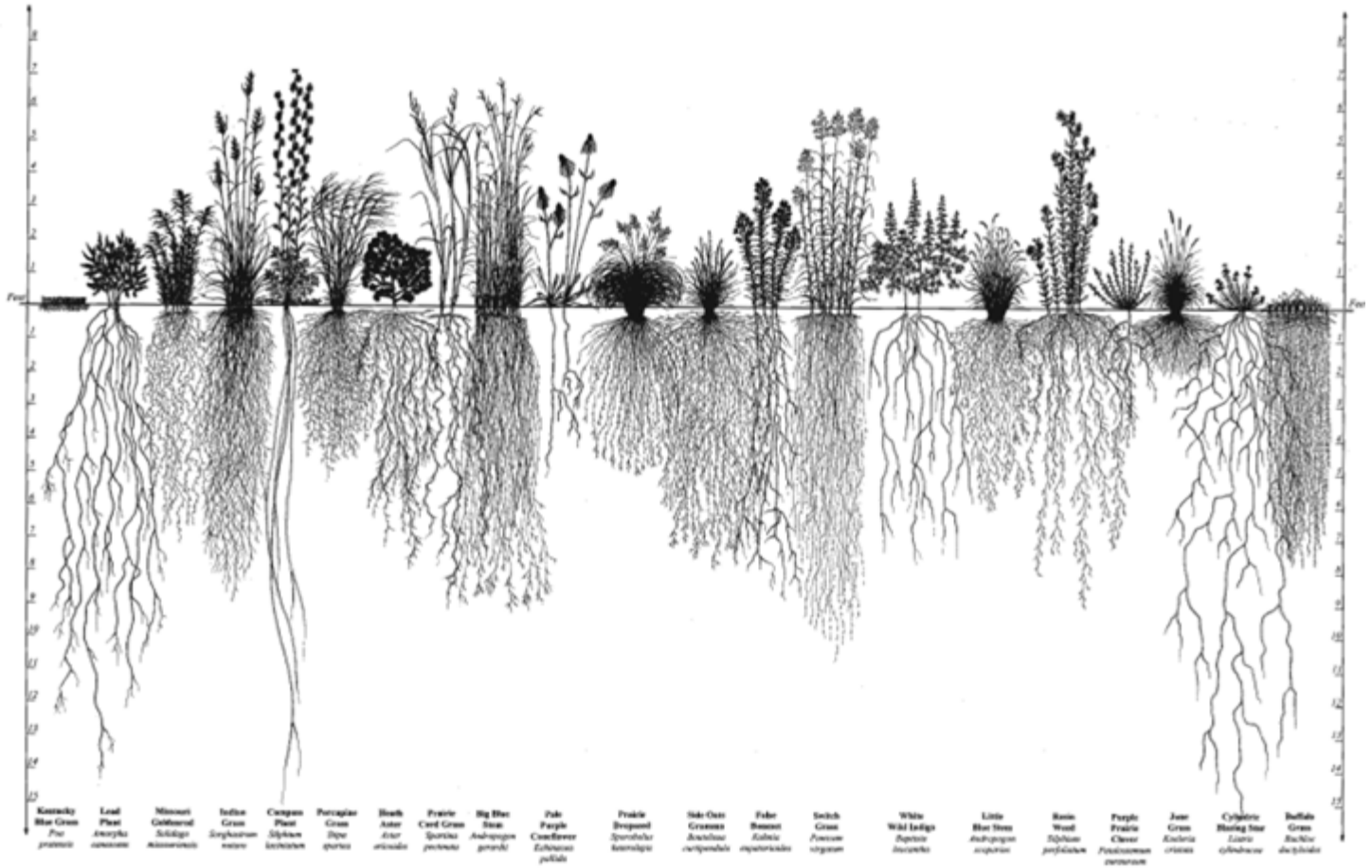
Douglas Talamy, Professor
University of Delaware, 2015

Why convert a lawn?

- **Wildlife & Biodiversity**
- **Water & Air Quality**
- **Water Conservation**
- **Natural Heritage**
- **Lower Maintenance Options**

Andrena (Mining Bee) on Goldfields (Lasthenia californica).
Photo Credit: Mace Vaughn, Xerces Society

Stormwater Management & Carbon Sequestration



Credit: Natural Resources Conservation Service (NRCS) Illinois Native Plant Guide: Root Systems of Prairie Plants.

Pacific NW Urban Meadowscaping (PNUM)

Columbia Land Trust

XERCES SOCIETY for Invertebrate Conservation

PORTLAND PARKS & RECREATION

Mark Griswold Wilson, M.Sc.
URBAN ECOLOGY

ENVIRONMENTAL SERVICES
CITY OF PORTLAND
working for clean rivers

NRCS
Natural Resources Conservation Service

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Metro

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Program Components

- Demonstration Sites
- Plant Materials
- Educational Program
- Educational Materials
- Signage

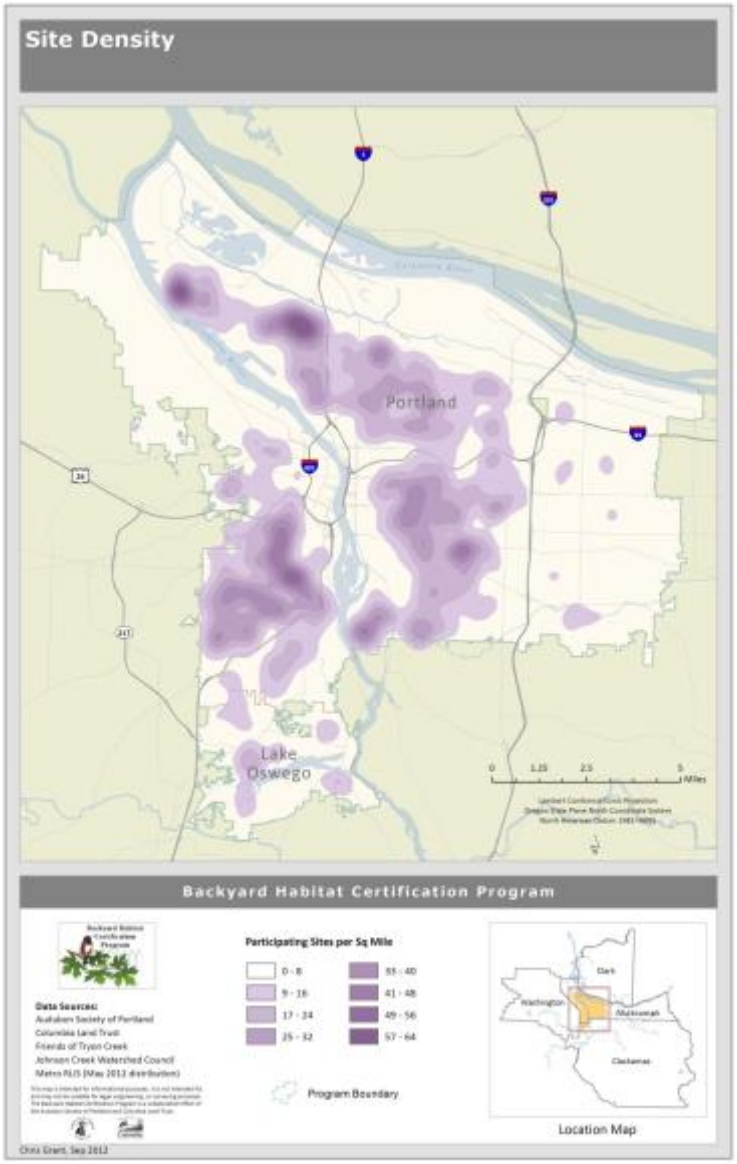
Portland Urban Meadowscaping Pilot

Demonstration Sites

- Analyzing site parameters (i.e. soils, aspect, etc.)
- Site prep methods
- Seed & plug mixes
- Maintenance
- Turf alternative, annual or sustained meadow?

Habitat Connectivity

Photo Credit: Marissa Aurora Dorais
Portland Parks & Recreation
Willamette River Stewardship Coordinator | City Nature



Sourcing Plant Materials

- Questions to ask:
  - Native?
  - Sourcing?
  - Neonicotinoids?
- Wholesale orders
- Seed packet distribution
- Retail “outreach”

Photo credit: Gaylen Beatty, CLT

Photo credit: Erica stokes, WMSWCD

- Neonicitinoids: http://www.xerces.org/wp-content/uploads/2013/06/NeonicsInYourGarden.pdf

The Meadowscaping Handbook

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Photo credit: Bob Hansen

Table of Contents

1. Introduction 1

2. Planning Your Urban Meadow 7

3. Designing and Selecting Plants for Your Urban Meadow 13

4. Site Preparation 21

5. Installing Your Urban Meadow 29

6. Maintaining Your Urban Meadow 33

7. Appendix 37

- A – Soil Testing 38
- B – Urban Meadow Planting Templates and Sketches 40
- C – Illustrative Plant Guide and Comprehensive Plant Lists 56
- D – Wildflower Bloom Time Chart 68
- E – Seeding Information 71
- F – Native Plant Nurseries and Seed Producers 77
- G – Pollinators Found in Urban Portland Gardens 81
- H – Pacific Northwest Prairie and Oak Resources 82
- I – References 86

Site Planning

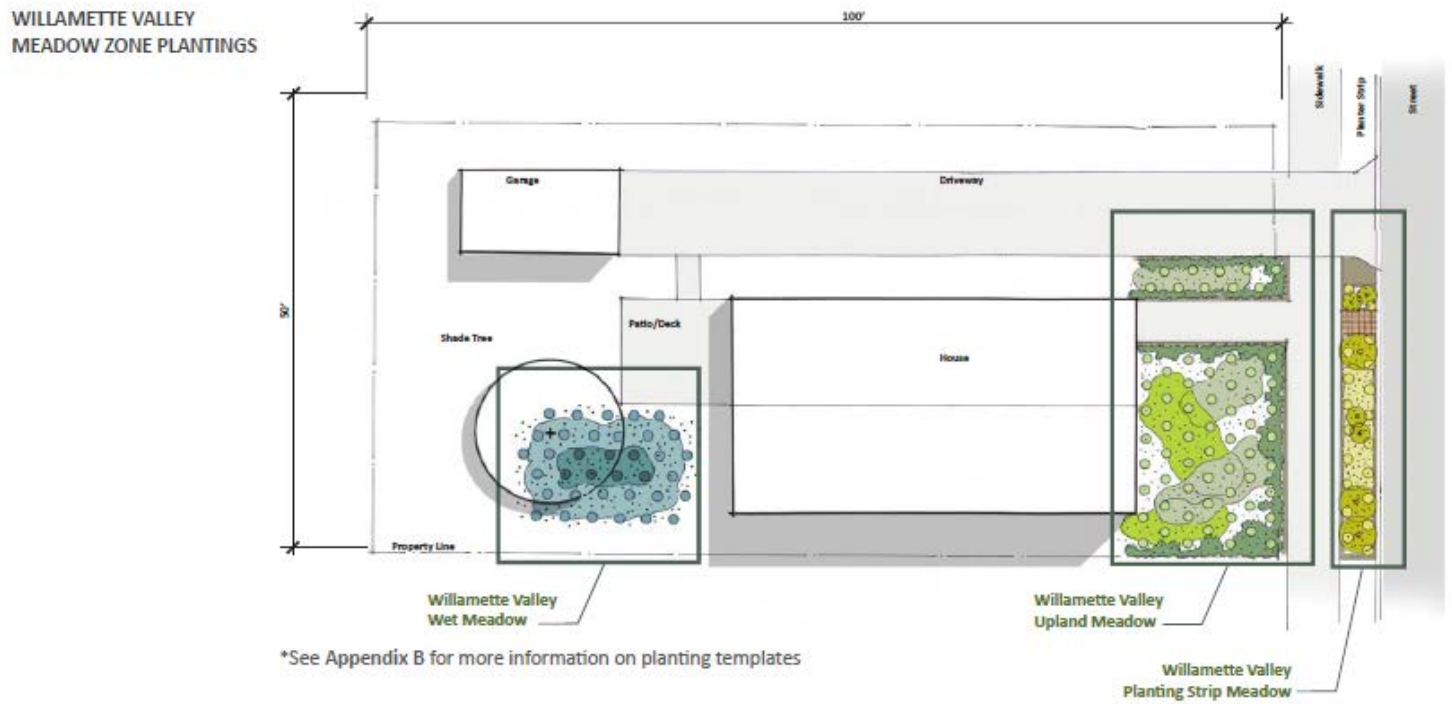
- Project Goals
  - Aesthetics
  - Lower Maintenance
  - Wildlife Habitat
  - Stormwater Treatment
- Project Type
  - Low Lying Groundcover
  - Native Grass Alternative
  - Meadowscape

Site Planning

- Resources & Constraints
  - Labor
  - Tools
  - Materials
  - Budget
- Inventory & Analyze Site
  - Slope
  - Shade
  - Weeds
  - Pressures
  - Human Needs
  - Soil Type & Moisture

Consider unused spaces…

Photo credit: Bob Hansen, Corvallis



Graphic Credit: GreenWorks

Project Design

- Choose appropriate & available plants https://wmswcd.org/types/native-plants/
- Consider 3 Bloom Times & 1 Bunchgrass
- Careful of bullies!

Flower Species - common name *(scientific name)*	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
western buttercup *(Ranunculus occidentalis)*			yellow					
shooting star *(Dodecatheon hendersonii)*			pink					
western trillium *(Trillium ovatum)*			white to purple					
meadow checkerbloom *(Sidalcea campestris)*				light pink				
woodland strawberry *(Fragaria vesca ssp. Brachteata)*				white to pink				
Oregon iris *(Iris tenax)*				purple				
camas *(Camassia leichtlinii or quamash)*				blue				
western columbine *(Aquilegia formosa)*				red				
fringecup *(Tellima grandiflora)*				greenish-white to reddish				
varileaf phacelia *(Phacelia heterophylla)*					white			
lance selfheal *(Prunella vulgaris)*						purple		
slender cinquefoil *(Potentilla gracilis)*						yellow		
harvest brodiaea *(Brodiaea elegans)*						purple		
salebrosa goldenrod *(Solidago canadensis var. salebrosa)*						yellow		

Bunchgrass Species - common name *(scientific name)*	Height at maturity (ft)
blue wildrye *(Elymus glaucus)*	3
California brome *(Bromus carinatus)*	3
tufted hairgrass *(Deschampsia caespitosa)*	3
Roemer's fescue *(Festuca roemeri)*	2
California fescue *(Festuca californica)*	3

Aesthetic Considerations

- Small palate for small place
- Strategically locate “anchor plants”
- Clump species
- Consider clear dividers of plant groupings
- Seasonal interest

A Dynamic Landscape

Danthonia californica

Ranunculus occidentalis & Camassia

Site Preparation

- Minimum: spring – fall prep
- Organic:
  - Sod cutter + hand weeding + top dressing of "native" soil
  - Sheet mulching + hand weeding + top dressing of "native" soil
  - Solarizing + hand weeding + top dressing of "native" soil
  - ~~Scalping + hand weeding alone not enough~~
  - ~~Flaming and/or Organic Herbicides won't kill grass roots~~
- Spring spray + early fall spray + hand weeding

Photo Credit: Jennifer D'Avanzo, GreenWorks

Photo: http://thinkbluemarin.wordpress.com/

Photo Credit: Nancy Lee Adamson, The Xerces Society

Meadow Establishment Strategies

- Start w/ plugs (perennial forbs & bunchgrasses) – strategically seed in annuals
- Clump like species (3-5)
- ~2 foot spacing
- Scratch in seed in fall
- Fencing

PERSPECTIVE SKETCH OF URBAN MEADOW DESIGN TEMPLATE LOCATIONS

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		Common Name *Scientific Name*	Moisture Regime	Exposure	Height x Width	Width	Time of Bloom
FORBS		farewell-to-spring *Clarkia amoena*			2.5′	2′	June - July
		grand collomia *Collomia grandiflora*			18″	18″	May - July
		Columbia tickseed *Coreopsois tinctoria v. atkinsoniana*			2′	12″	May - July
		Oregon sunshine *Eriophyllum lanatum*			2′	18″	June - August
		western alpine strawberry *Fragaria virginiana v. platypetala*			6″	12″	April - July

Photo Credit (top to bottom): Mary Bushman, BES, Mary Bushman; Terry Glase; Mary Bushman; Thomas L Muller

Maintenance

- Watering
- Disturbance for meadows
- Plan to weed “bullies”
- Many annuals will self sow
- Bare spots love weeds
- Avoid disturbance during primary nesting season: April 15th – August 1st

Challenges & Resources

- Public perception
- Tall grass ordinance
- Maintenance
- Plant costs & availability
- Grass identification

Opportunities

- Further analyze
  - BMPs
  - Stormwater
  - Carbon sequestration
  - Hybrid options
  - Pollinators
- Community Engagement

Thank You!

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The Meadowscaping Handbook:

https://wmswcd.org/wp-content/uploads/2016/04/Meadowscaping_Publication_Complete_LR.2.pdf?2f460d

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