

TREES and NATIVE PLANTS

- I. **Pollutant of concern/issue (what and why)** – nutrients, pesticides, insecticides. These degrade habitat, reduce recreational value, and increase water treatment costs. Thermal pollution degrades stream habitat. Excess runoff (quantity) contributes to erosion and carries pollutants to streams.
- II. **Audience:** homeowners, neighborhood associations, garden clubs, lawn and tree care companies
- III. **Resources** – lists available media, articles, and programs posts that specifically address the concern and are tied to stormwater (water quantity or quality). References and resources are included with the articles and posts. These are also compiled in Section IV with other relevant reference materials.

SOCIAL MEDIA and ARTICLES			
Season	Artl	Title/Description	Social Media Content
Sp, F	X	<p>Trees and Temps <u>TM:</u> trees help reduce the temperature of stormwater runoff</p> <p><i>Note: Article and media description can be modified for spring or fall applications</i></p>	<p>Thinking about planting a tree (<i>for Arbor Day or this fall</i>)? Consider a location that will maximize your energy savings and help decrease thermal pollution to our streams, then select the right tree for that location.</p> <p>References and Resources: HO-114 Planting Container-Grown Trees and Shrubs in Your Landscape Tree Care: The Planting Hole (website, see other resources below) Trees for Energy Conservation – National Cooperative Extension website (see other resources, below for link) From the Ground Up – How to Plant a Tree (Audio – see below)</p>
Sp	X	<p>Plant for Pollinators <u>TM:</u> Native plants require fewer chemical inputs and are drought tolerant so conserve water.</p>	<p>Tired of trying to keep the grass green? Consider converting part of your lawn to a native plant garden for pollinators. Native plants are adjusted to our environmental conditions so they require no fertilizer, have few pest issues, and rarely need watering. This conserves our drinking water supply and reduces runoff of chemicals into the environment. Once established you will have a low maintenance garden that provides habitat for pollinators and hours of entertainment for you and your family.</p> <p>References and Resources: Link to bee friendly trees and shrubs: https://entomology.ca.uky.edu/files/bee_friendly_shrubs_and_trees_handout.pdf FOR-98: Attracting Butterflies with Native Plants</p>

			http://www2.ca.uky.edu/agcomm/pubs/for/for98/for98.pdf Kentucky Pollinator Handbook https://efotg.sc.egov.usda.gov/references/public/KY/KPH5a.pdf
Sp	X	Arbor Days in April TM: Plant and care for trees for long term growth potential to increase ecosystem benefits.	Well maintained, mature trees add value to your home. They also provide additional cost benefits of increased energy savings and reduced pollution to our waterways. Before selecting your tree, remember right tree, right place.
F,W	X	Conserve the Canopy TM: Large trees reduce runoff through improved infiltration, transpiration, and interception.	Large, mature trees are an asset to you and your community. They increase neighborhood property values and play an important role in reducing air and water pollution and stormwater runoff. Have your trees assessed by a professional and perform pruning in the dormant seasons.
F, Sp	X	No More Mulch Mounds TM: Mature trees provide many ecosystem services including reduced runoff. Improper mulching can reduce their life span.	When you care for your trees you are caring for your community. Ensure that you are using proper mulching techniques to encourage healthy, long-term growth. Healthy, mature trees have larger canopy cover and more well-developed root systems than their juvenile counterparts. This makes them more effective at improving infiltration, reducing stormwater runoff temperatures, and lowering summer cooling costs.

Sp=spring, Su=Summer, F=Fall, W=winter; TM=target message

PROGRAMS
Urban Forest Initiative (UFI) has several toolkits available online including Adopt a Tree, Tree Inventorying, and Urban and Community Forestry. There is also a guide to initiate Tree Week in your community which is held annually each fall. (Link to the UFI website homepage: https://ufi.ca.uky.edu/)

IV. References and Other Resources

Publications:

HO-114: Planting Container-Grown Trees and Shrubs in Your Landscape

HO-45: Pruning Landscape Trees

HO-121: Ecosystem Services of Landscape Plants: A Guide for Consumers and Communities

FOR-98: Attracting Butterflies with Native Plants

FOR-112: Riparian Buffer Strips

ID-185: Planting a Riparian Buffer

ID-242: Central Kentucky Backyard Stream Guide

EPA, Stormwater to Street Trees <https://nepis.epa.gov/Exe/ZyPDF.cgi/P100H2RQ.PDF?Dockey=P100H2RQ.PDF>

Center for Watershed Protection, The Role of Urban Trees in Stormwater Management https://www.cwp.org/wp-content/uploads/2017/01/cwp_rr_jan17.7.pdf

Woody Shrubs for Stormwater Retention Practices, Northeast and Mid-Atlantic Regions, 2nd Edition (Cornell, pub – good background and overview, good plant list though some not suitable for KY).

http://www.hort.cornell.edu/uhi/outreach/pdfs/woody_shrubs_stormwater_hi_res.pdf

Audio/Video:

From the Ground UP – How to Plant a Tree

<https://news.ca.uky.edu/audio/ground-how-plant-tree-audio>

Websites:

Urban Forest Initiative - website provides toolkits and ideas for engaging communities, including mulching events, adopt-a-tree, and tree week. <https://ufi.ca.uky.edu/>

Trees for Energy Conservation – National Cooperative Extension website

<https://trees-energy-conservation.extension.org/>

Tree Care: The Planting Hole – Urban Forest Initiative website

<https://ufi.ca.uky.edu/treetalk/tree-planting-hole>

UK Hort website with links to information on plant care <https://www.uky.edu/hort/document-list-home-woody-plant>

Link to bee friendly trees and shrubs: https://entomology.ca.uky.edu/files/bee_friendly_shrubs_and_trees_handout.pdf

Link to Kentucky Pollinator Handbook <https://efotg.sc.egov.usda.gov/references/public/KY/KPH5a.pdf>

V. Faculty Resources

Rick Durham

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Mary Arthur

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VI. For MS4 Communities. The following are examples of potential measures/evaluation methods to be used if working with the MS4 coordinator on a trees/native plants program.

MCM1: Public Outreach

Number of educational materials developed and distributed (emails, print, website, social media/reach or followers)

Number of events, attendance, and engagement

Number of PSAs, articles or press releases

Number of homeowners attending educational workshops

Number of partnerships established with community organizations

Number of partnerships established with local businesses

MCM2: Public Participation (examples of potential measures)

Number of participants responding to surveys

Number of participants planting a tree

Number of participants planting native species

Number of participants converting turf area to alternative landscape (pollinator, edible landscape, etc)

Number of participants adopting a tree

Number of likes/shares or other responses to media