

THE WRAP

EPISODE IV

A NEW BEGINNING

LAND USES AND BEST MANAGEMENT PRACTICES

RESIDENTIAL AND COMMERCIAL DEVELOPMENT

Smart Growth

Infill development

Brownfield redevelopment

Transit Oriented Development (TOD)

Conservation Design

Pollution Prevention

Household Hazardous Wastes

Pollution from Vehicles

Coal Tar and High PAH Sealants

Minimize and Manage Yard Waste in Developed Areas

Pet Waste

Emptying Pools

Residential Snow and Ice Management

SMART GROWTH



- Approach to communities that are socially, economically and environmentally sustainable.
- Promotes development and conservation strategies.
- Provides alternative to urban sprawl, traffic congestion, and disconnected neighborhoods.

Infill development



Focusing new construction on land that is already developed instead of developing on greenfield

- Reduce need for new impervious surfaces
- Reduces urban sprawl
- Reuses existing infrastructure



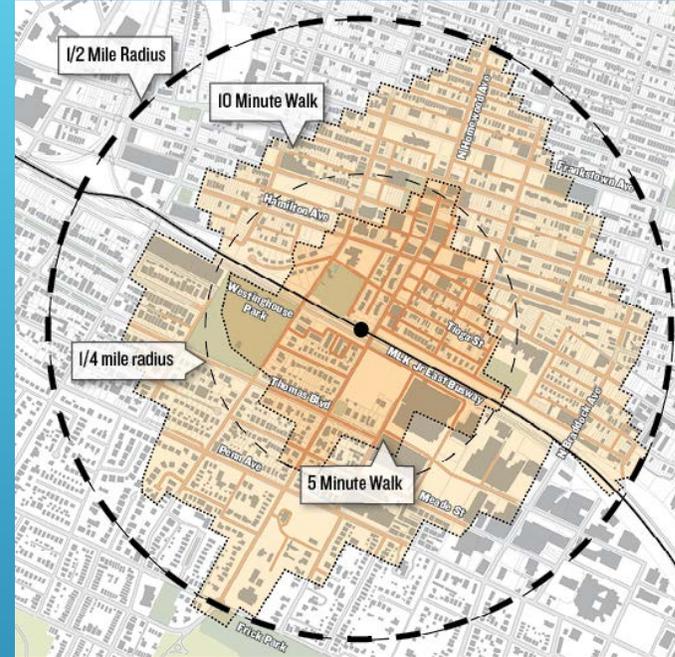
Brownfield re-development



Focusing new construction on land that is contaminated instead of developing on greenfield

- Clean or contain pollution - Improve the local environment and protecting water resources
- Moving abandoned or underused properties into beneficial uses.
- Reducing sprawl and preserving greenspace.

Transit Oriented Development

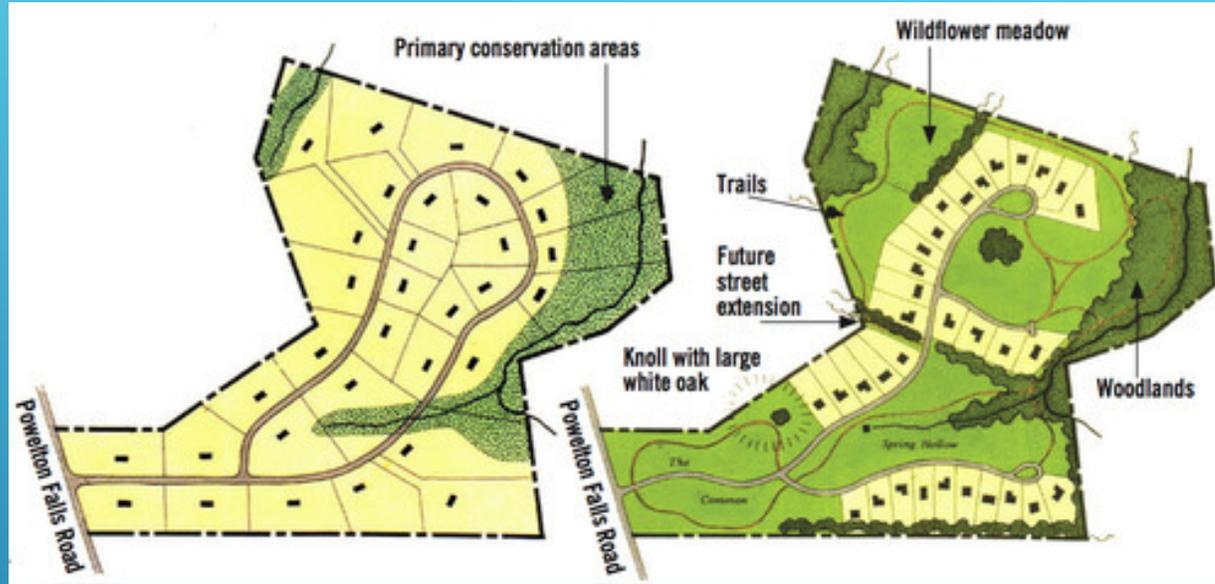


Creating compact, walkable, pedestrian-oriented, mixed-use communities centered around high quality train systems.

- Typically ½ mile radius around a central transit stop
- Corresponds to the distance someone can walk in 10 minutes at 3 mph
- Typically includes mix of commercial, residential, office and entertainment

Conservation Design

Conventional



Conservation Design

Concentrating development on the least environmentally sensitive land

- Seeks to preserve natural features (wetlands, woodlands, streams, steep slopes, prime soils)
- Core tool is clustering to allow same number of lots on smaller footprint
- Typically includes Low Impact Development practices
- Still greenfield development – not every project should be considered smart growth

Pollution Prevention: Household Hazardous Wastes



Many products used every day for tasks such as housework, home improvement, gardening, or car maintenance contain hazardous materials.

- Exhibit one or more of the following properties: ignitable, corrosive, reactive, or toxic.
- Usually marked: CAUTION, WARNING, DANGER, or POISON.
- Completely use up product, or dispose of at 1 of 4 regional Hazardous Waste Facilities
- Refer to McHenry County Green Guide for Hazardous Waste Facility locations or
- Consult with the McHenry County Department of Health for more detailed information

Coal Tar and High PAH Sealants



Some blacktop sealers are made from coal tar containing extremely high concentrations of a known carcinogen called polycyclic aromatic hydrocarbon (PAH)

- PAHs cause cancer, mutations, birth defects, and/or death in fish and wildlife.
- Sealant particles and dust can wash into waterways or be tracked into homes
- Use safer alternatives such as emulsion based sealants
- County, municipalities, schools should policies against use of coal tar/high PAH sealants
- Homerule municipalities should consider a ban

Yard Waste



In a developed environments nutrients from landscape waste often flow offsite with stormwater

- Landscape waste can be a source of pollution in water bodies
- Mow grass/leaves with mulching mower and let them stay on the lawn as natural fertilizer
- Compost yard waste on your property away from wetlands, water bodies, or storm drains
- Dispose of leaves/landscape debris by bagging or setting out for curbside collection

Pet Waste



All pet waste should be safely disposed of to prevent negative impacts to people, other animals or the environment, including waterways and groundwater

- May contain pathogens that can pose health risks
- Also contains nitrogen and phosphorus that can pollute water
- Pet waste, including used kitty litter, should be bagged & disposed of with household trash
- Or consider taking kitty litter waste to a professionally managed organic composting facility

Emptying Pools



Pools have chlorinated water that can impact waterways and is toxic to fish and wildlife

- Chemically de-chlorinate, or stop chlorinating & keep exposed to sunlight days before draining
- Don't drain water into storm drains, drainage ditches, wetlands or neighbors property
- Direct drainage across your lawn, not driveway, over a period of several days

More Like This

Residential Snow & Ice Management



Chemical deicers can pollute water and is toxic to vegetation, fish and wildlife

- No deicer is environmentally friendly
- Physically remove as much snow as possible before applying deicer (don't try to burn off w/deicer)
- Deicer needs to be wet to work, so limit reapplications
- Use the right deicer for the correct temperature

WATER INFRASTRUCTURE

GREEN INFRASTRUCTURE

Green Infrastructure for Stormwater Management

*** *Stormwater BMPs/Low Impact Development (LID)* ***

Landscaping with Native Vegetation

Raingardens

Bioswales

Naturalized Detention Basins

Sediment Forebays

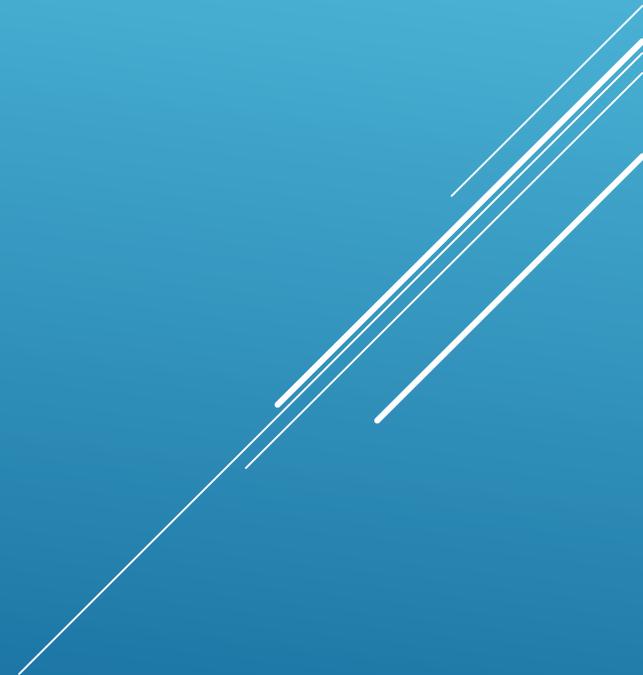
Permeable Paving

Green roofs

Rain barrels

Stormwater Treatment Train

Green Infrastructure Maintenance



LAND USES AND BEST MANAGEMENT PRACTICES

INDUSTRIAL DEVELOPMENT

Industrial Stormwater Best Management Practices

Non-Structural BMPs

Avoid and Minimize Exposure

No Exposure

Storm-Resistant Shelters

Good Housekeeping

Maintenance Program

Spill Prevention and Response Procedures

Deicer Storage

Soil Erosion Prevention, Sediment Control, and Runoff Management

Non-Stormwater Discharges

Dust Control

Mercury Minimization Plan

Employee Training Program

INDUSTRIAL DEVELOPMENT (Continued)

Structural BMPs

Discharge Diversions

Constructed Infiltration System

Bioswales

Biofiltration/Bioretenion (Raingardens)

Sediment Forebay

Stormwater Detention Basins

Constructed Wetland Detention Basins/Naturalized Detention Basins)

Constructed Media/Sand Filters

Proprietary Treatment Systems

Hydrodynamic separators (Oil and Grit Separators)

Catch Basin Media Inserts

Filtration Systems

Infiltration Systems

WATER RESOURCES ACTION PLAN (WRAP)

Send comments or suggested edits to

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LEAVE SAFE, SUSTAINABLE WATER FOR FUTURE GENERATIONS



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