Green Infrastructure Codes and Ordinances

Abby Hall EPA Headquarters

Office of Policy, Economics and Innovation

- Preserve: Protect and enhance natural features, such as undisturbed forests, meadows, wetlands, and other natural areas.
- Recycle: Recycle land by directing development to already degraded land, e.g., parking lots, vacant buildings, abandoned malls.
- Reduce: Reduce land consumption and development footprint by using land efficiently.
- Reuse: Capture and reuse stormwater by directing it back into the into the ground through infiltration, evapotranspiration, or reuse.

Preserve

- Preserve large, continuous areas of open space
- Preserve sensitive ecological areas



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Recycle

■ Direct development to already degraded lands



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Reduce Imperviousness



Low Density



Higher Density

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Green Infrastructure













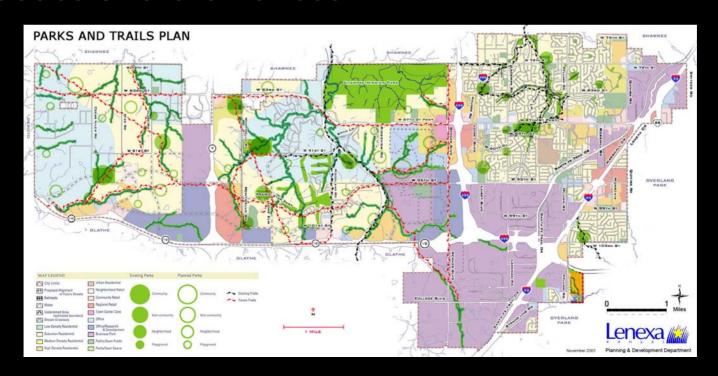






Comprehensive Program

- Land use planning
- Land acquisition and capital investments
- Internal policies
- Codes and ordinances



EPA's Water Quality Scorecard

- Drivers of impervious cover at regional, neighborhood, site scales
- Requires cooperation and conversation between numerous departments
- Identifies 21 broad policy areas across 5 different municipal departments
- More than 230 different policies, codes, or incentives a local government could implement

4 Ways to Impact Change

- Adopt Plans
- Remove Barriers
- Create Incentives
- Enact Regulations









- Protect Natural Resources and Open Space
- 2. Promote Compact Development and Infill
- Design Complete, Smart Streets that Reduce Imperviousness
- 4. Encourage Efficient Parking Supply
- 5. Green Infrastructure On Site

1. Protect Natural Resources and Open Space

- Natural Resource Protection
- Open Space Protection
- Tree Protection





2. Promote Compact Development and Infill

- Support Infill and Redevelopment
- Direct Development to Existing Infrastructure
- Encourage Mixed-Use Development



3. Design Complete, Smart Streets

- Street Design
 - Context sensitive solutions
 - Narrow streets
 - Driveway location/design
- GreenInfrastructureDesigns
 - Standards and Design Criteria
 - Construction
 - Maintenance





4. Encourage Efficient Parking Supply

- Reduce Parking Requirements
- Transportation Demand Management
- Minimize Stormwater from Parking Lots



5. Green Infrastructure On Site

- Green Infrastructure Practices
 - Allowed for residential management
 - Required for new developments
- Maintenance and Enforcement
 - Monitoring, tracking and maintenance protocols



The Green Factors 0.8 ${\tt SEATTLE} {\it \times} green \, factor$ 0.7 SEATTLE GREEN FACTOR: Maximizes vegetation potential in rights-of-way representation in the second s 0.6 Rewards tree preservation > Rewards larger species of trees 0.5 Rewards low water use Rewards landscapes visible to passersby > Provides flexibility for developer to meet the code 0.4 0.3 0.2 0.1

Medium

to Large Trees

Permeable

Paving

Green Roots

Plantings under 3'

with Deeper Solls

Vertical Green Walls

Open Water Feature

Protected

Trees

Bonus +0.1: For drought tolerant landscapes and for landscapes visible from the right-of-way.

Grass

Pavers

Taller Shrubs

Small to

Medium Trees

Ground

Cover

Asphat

Concrete

Conventional Roof

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http://picasaweb.google.com/buildgreeninfrastructure