

A wide-angle photograph of the Austin skyline across a river. The skyline includes several prominent skyscrapers, including the Frost Tower. A multi-arched bridge spans the river in the foreground. The scene is captured during the golden hour, with warm lighting and long shadows. The foreground is filled with lush green trees.

Green Infrastructure Working Group: Four Themes for CodeNEXT

March 10, 2015

Four Green Infrastructure Themes

Topics for Discussion

1. Land Cover and Natural Function
2. Integrate Nature into the City
3. Beneficial Use of Stormwater
4. Stormwater Options for Redevelopment/Infill

Council Direction (November 20, 2014)

- Asked that the CodeNEXT focus specifically include green infrastructure & sustainable water management

Land Cover and Natural Function

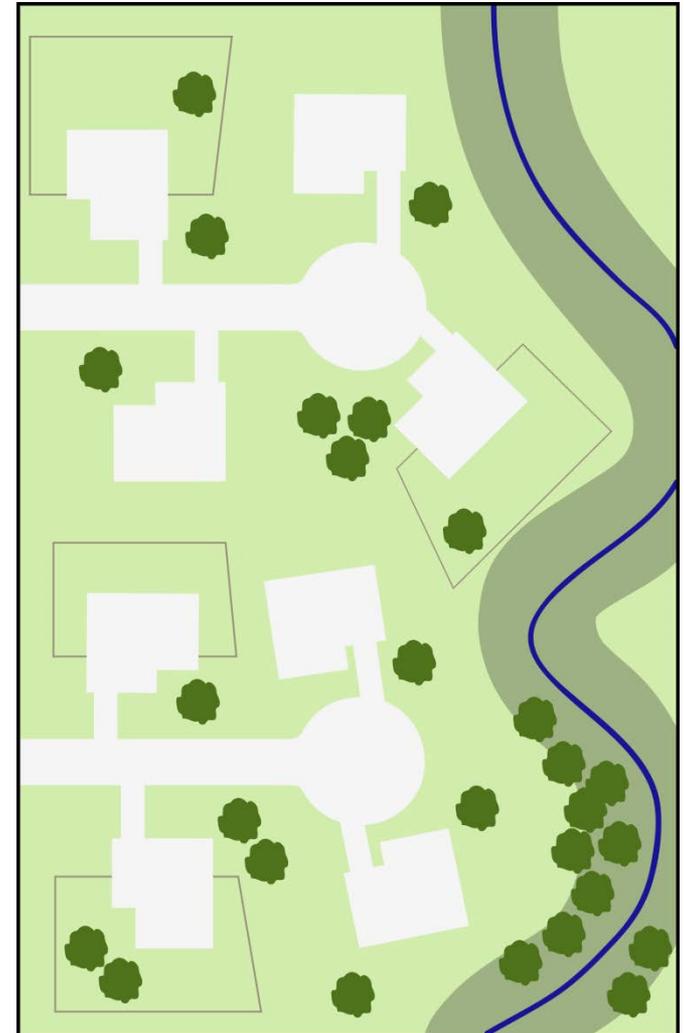
Goals

- Ensure adequate natural function for all sites
 - Protect greenfield sites
 - Restore redevelopment and infill sites
- Promote desirable, purposeful open spaces & connectivity
- Want the design and care of our built environment to take advantage of strengths of both pervious and impervious cover

Land Cover and Natural Function

Challenges

- Low natural function on medium to high impervious sites
- Pervious areas don't necessarily function as intended (e.g., soil compaction)
- Impervious cover limits can produce fragmented landscapes of unconnected, private green spaces
- Application to centers & corridors



Integrate Nature into the City

Goals

- Functional landscapes with multiple benefits (e.g., urban heat island, water conservation, habitat, enhanced public realm)
- Urban forest preservation and replenishment
- Climate resilience and adaptation to drought
- Green transitions between different land uses
- Practical to implement and maintain the ordinance

Integrate Nature into the City

Challenges

- Landscaping code does not apply to dense urban areas (e.g. CBD) or parking lots for remodels
- “Street yard” concept does not work in all contexts
- Inadequate provisions for shade trees & existing trees
- Missed opportunities for onsite infiltration of stormwater and use of non-potable water
- Transitions between land uses (e.g., centers & corridors and adjacent residential) need refining

Beneficial Use of Stormwater

Recap

- Need to address drought & climate change impacts on watershed health and water supply
- Stakeholder meetings (Watershed Protection Ordinance Phase 2) from January to July 2014
- Final Report of the Austin Water Resource Planning Task Force recommended “Tapping into the Cityscape as a Water Supply Source”
- Phase 2 recognized need for requiring infiltration and/or re-use of stormwater on-site for new & re-development (per Maryland et al.)

Porous Pavement

Filter Strips

Rain Garden Medians

Rain Gardens

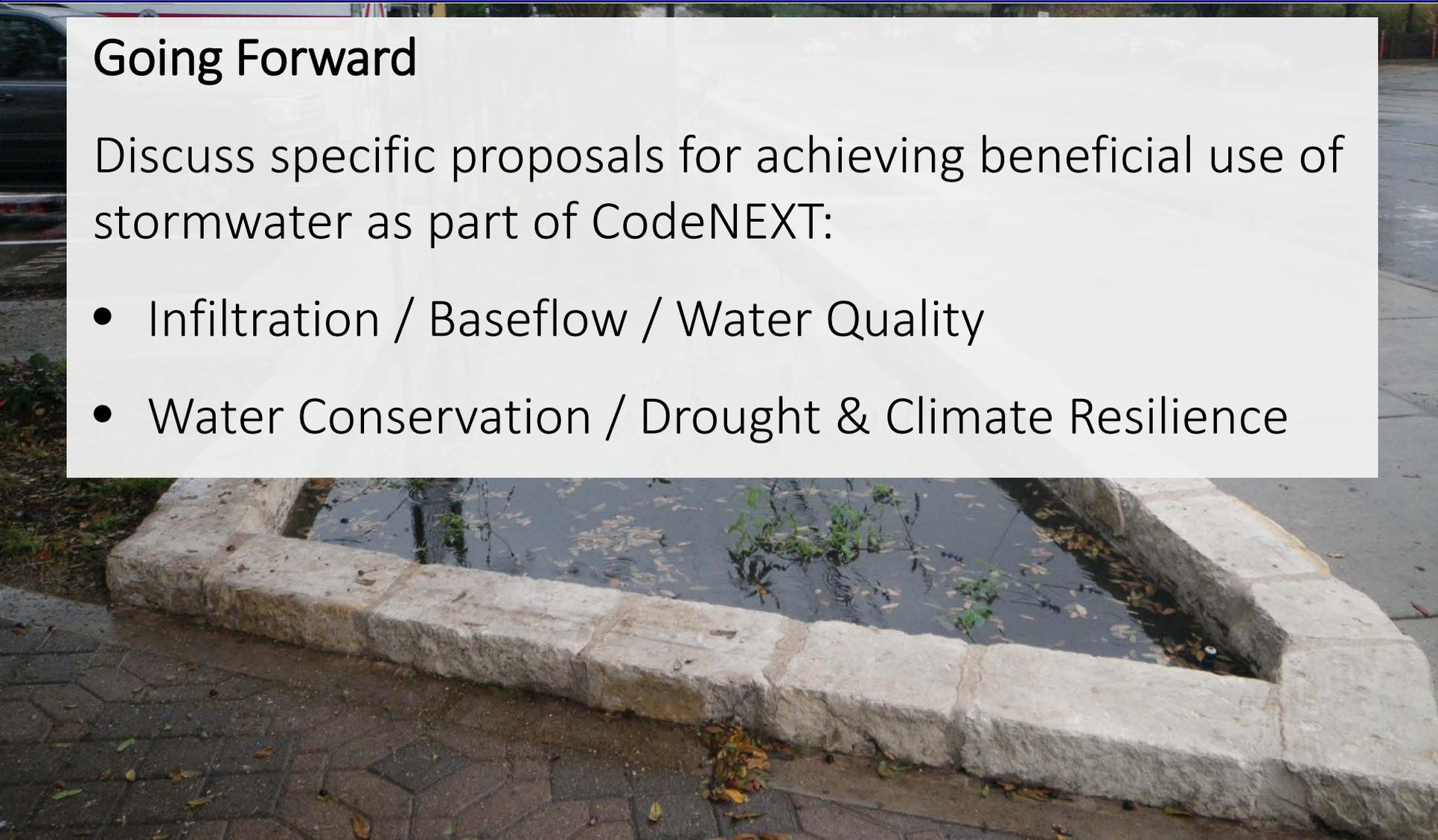
Rainwater Harvesting

Beneficial Use of Stormwater

Going Forward

Discuss specific proposals for achieving beneficial use of stormwater as part of CodeNEXT:

- Infiltration / Baseflow / Water Quality
- Water Conservation / Drought & Climate Resilience



Stormwater Options for Redevelopment/Infill

Goals

- Provide additional flexibility and options to enhance water quality for redevelopment and infill
- Address longstanding problems due to development without sufficient flood controls and/or drainage conveyance

Del Curto Rd and Bluebonnet Ln

Stormwater Options for Redevelopment/Infill

Challenges

- Payment-in-lieu for water quality only allowed within Urban Watersheds; new role of green controls
- Code does not require flood mitigation if impervious cover is not increased and downstream conveyance is not further impaired (S. Lamar case study)
- Long-term ownership and maintenance of green infrastructure

Green Infrastructure Working Group Schedule

Kickoff	Jan. 30
Land Cover & Natural Function	Feb. 20
Integrate Nature into the City	Mar. 13
Beneficial Use of Stormwater	Apr. 10
Stormwater Options for Redevelopment & Infill	Apr. 24
Wrap Up	May 15

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