

# **Watershed Protection Ordinance (WPO): Summary of Proposed Draft Ordinance**

**Introducing proposed code changes for  
the Watershed Protection Ordinance to  
kick off the second round of  
Stakeholder meetings.**

**December 14, 2012**

# **Meeting Objectives**

**Present proposed code changes for the Watershed Protection Ordinance (WPO Phase 1).**

**Present the full WPO schedule.**

**Gather stakeholder feedback on main items for further discussion.**

# Meeting Agenda

- **Introductions [5 min.]**
- **Staff Presentation [90 min.]**
  - **WPO Council Resolution & Imagine Austin context\***
    - 1. Creek Protection**
    - 2. Floodplain Protection**
    - 3. Development Patterns & Greenways**
    - 4. Improved Stormwater Controls**
    - 5. Mitigation Options**
    - 6. Simplify Regulations where possible;  
Minimize Impacts to Develop Land**
    - 7. Work with Travis County and neighboring communities**
- **Full Group Feedback / Wrap-Up [25 min.]**
  - **Next Steps/Schedule**

**\* Resolution #20110113-038**



# Imagine Austin Priority Programs

**1. Invest in  
Compact &  
Connected**

**8. Align Code**

**3. Workforce  
Development**

**5. Creative  
Economy**

**2. Sustainably  
Manage Water  
Resources**

**4. Green  
Infrastructure**

**6. Household  
Affordability**

**7. Healthy  
Austin**



# **Key Themes**

- **Importance of riparian areas & floodplains**
- **Lessons learned in Austin & beyond**
- **Prevention is affordable; repairs are not**
- **Best watershed science needed**
- **Simplicity and complexity**
- **A sustainable future: green infrastructure; compact development; connectivity; health**
- **Balance environmental protection & development opportunity**

# Suburban Watersheds

**54% of Austin's  
jurisdiction**

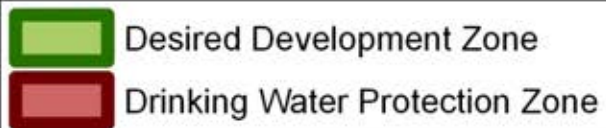
Water  
Supply  
Suburban

Water  
Supply  
Rural

Urban

Barton  
Springs  
Zone

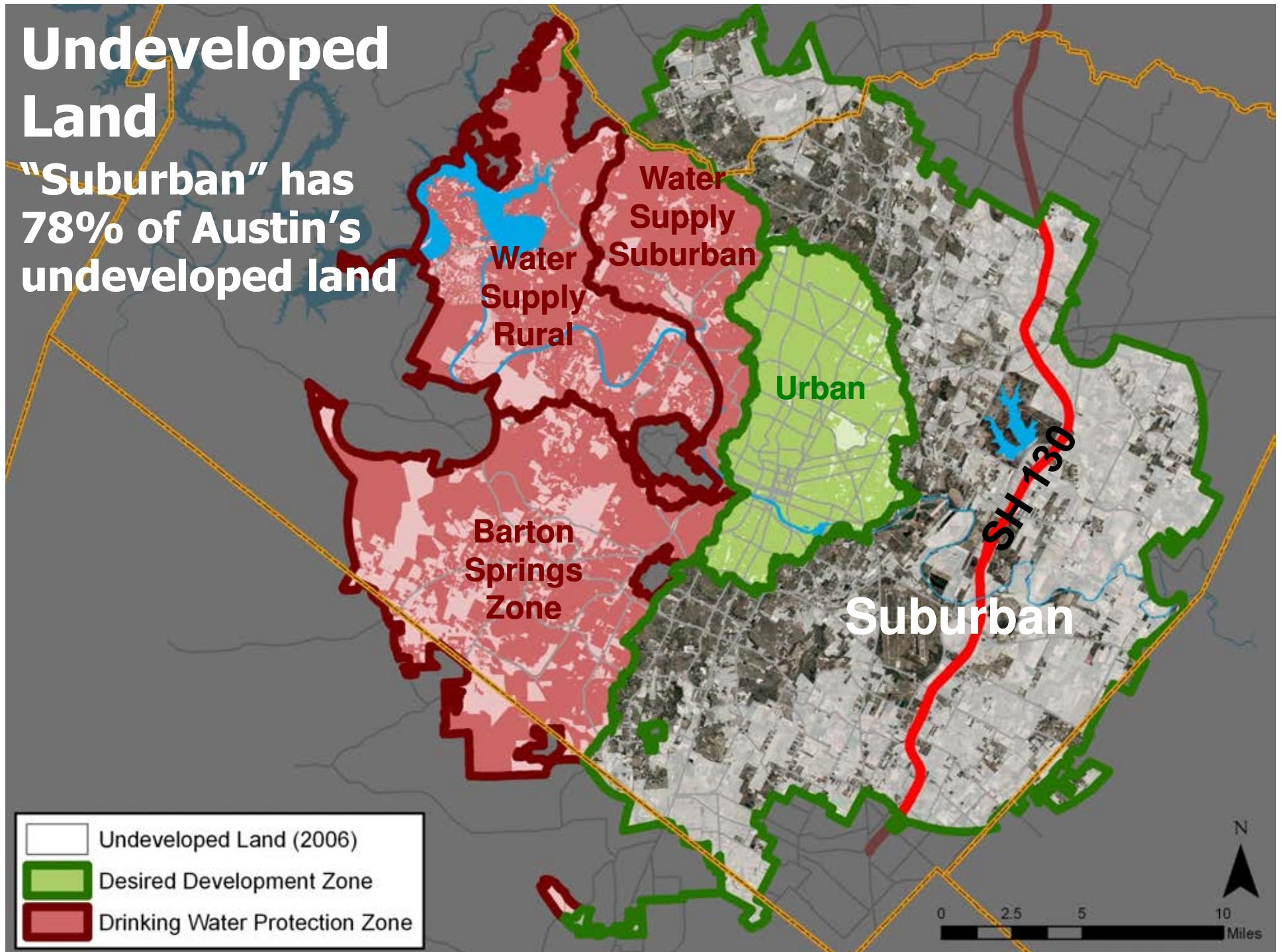
**Suburban**





# Undeveloped Land

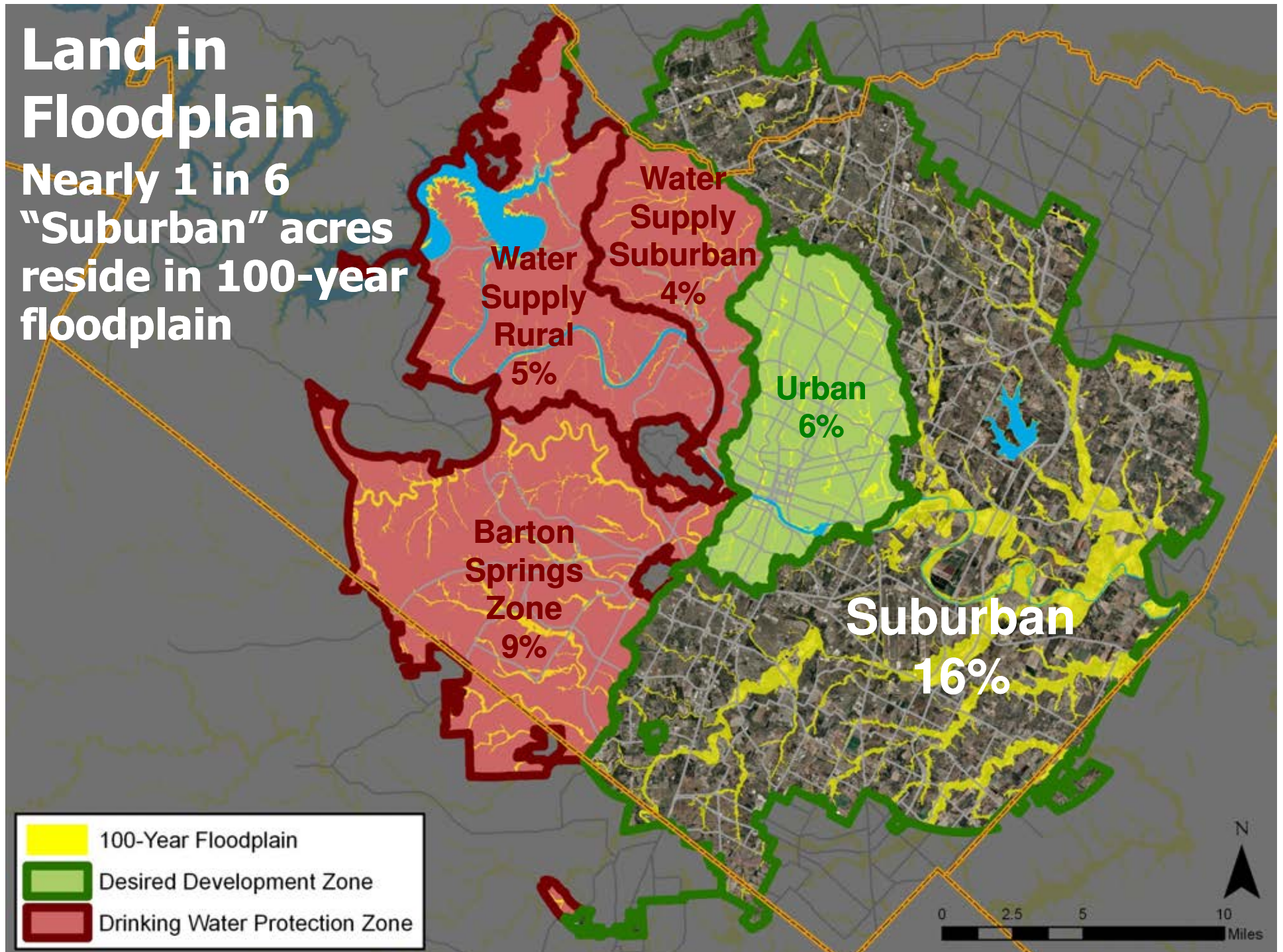
"Suburban" has  
78% of Austin's  
undeveloped land





# Land in Floodplain

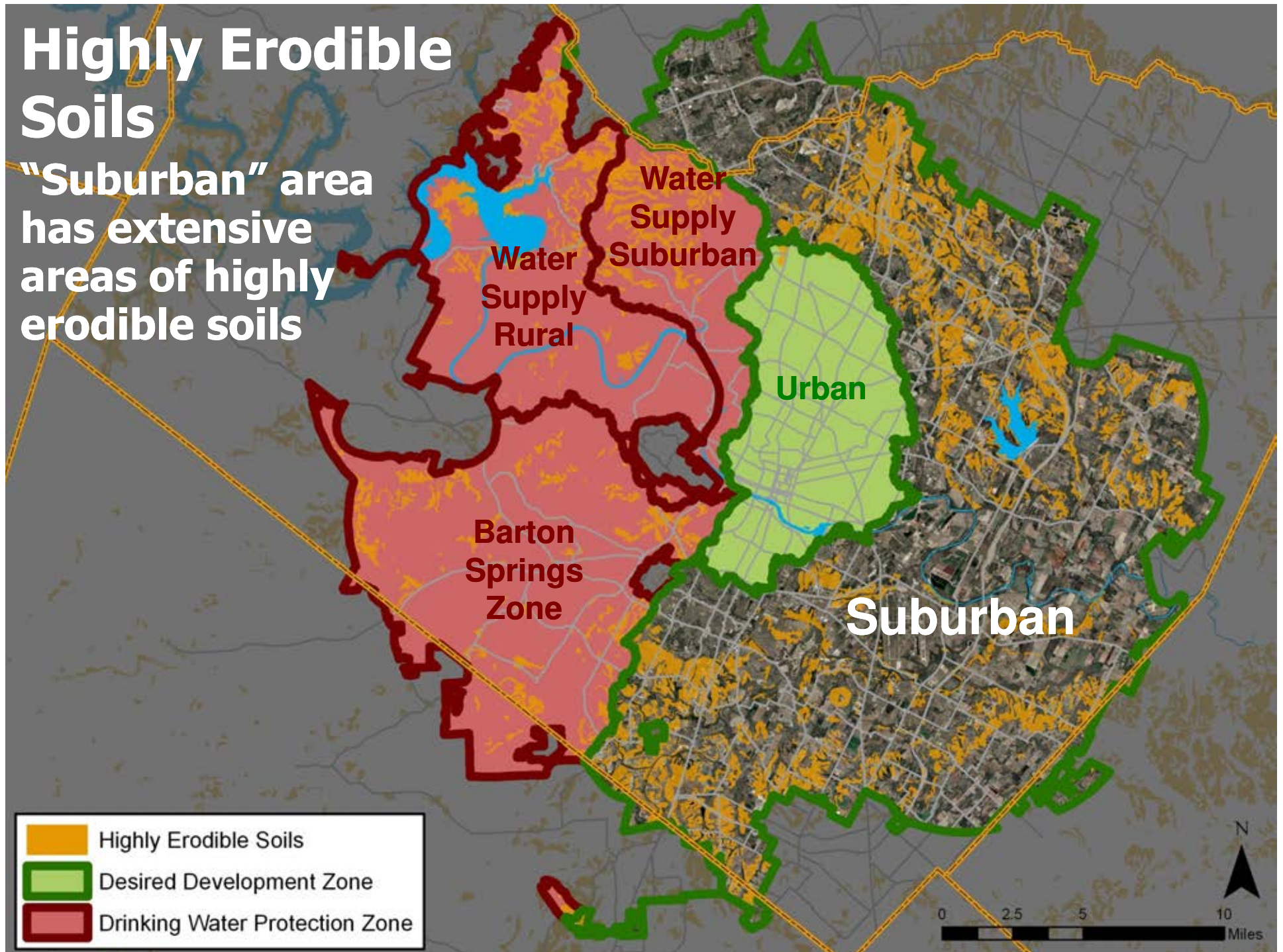
Nearly 1 in 6  
"Suburban" acres  
reside in 100-year  
floodplain





# Highly Erodible Soils

“Suburban” area has extensive areas of highly erodible soils



# **Proposed Code/Criteria to Revise**

- **LDC 25-8 Environment**
- **LDC 25-7 Drainage**
- **Title 30-5 ETJ Environment**
- **Title 30-4 ETJ Drainage**
- **LDC 25-2 Zoning**
- **LDC 25-1 General Requirements**
- **Environmental Criteria Manual**
- **Drainage Criteria Manual**

**LDC = Land Development Code**



# Description of Phases

- **Phase 1**
  - **Main components of resolution discussed during the stakeholder process (e.g., headwater buffers, floodplain protection)**
- **Phase 2**
  - **Structural stormwater control options (volume-based hydrology, pay-in-lieu, etc.)**
  - **Mitigation**
  - **Redevelopment options**
- **Phase 3**
  - **Imagine Austin Code Revisions**
  - **Centers & Corridors**

# Creek Protection

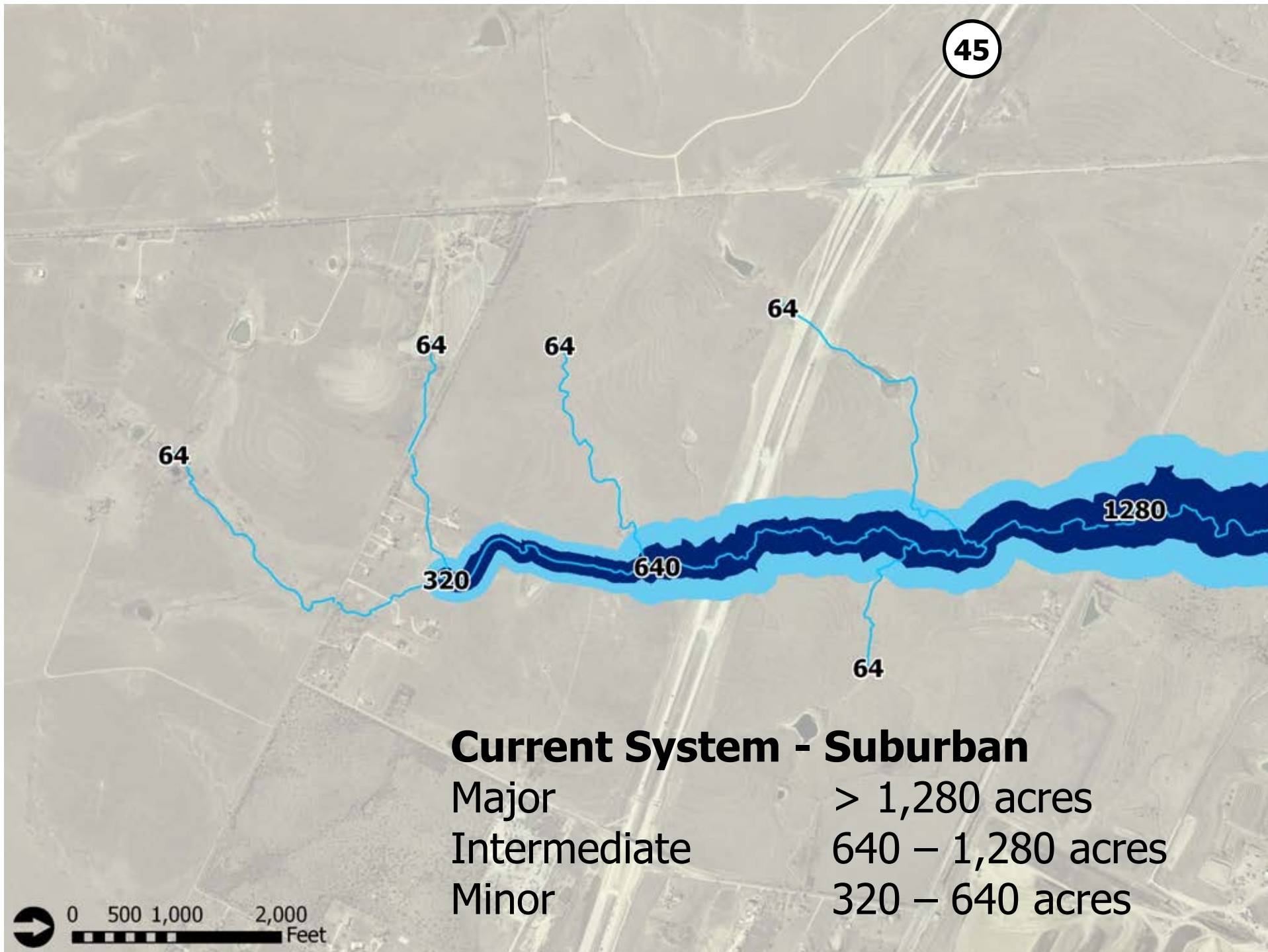
**"Improve stream buffer requirements, including critical headwater areas, to protect water quality and reduce erosion, flooding, and long-range costs for infrastructure maintenance."**



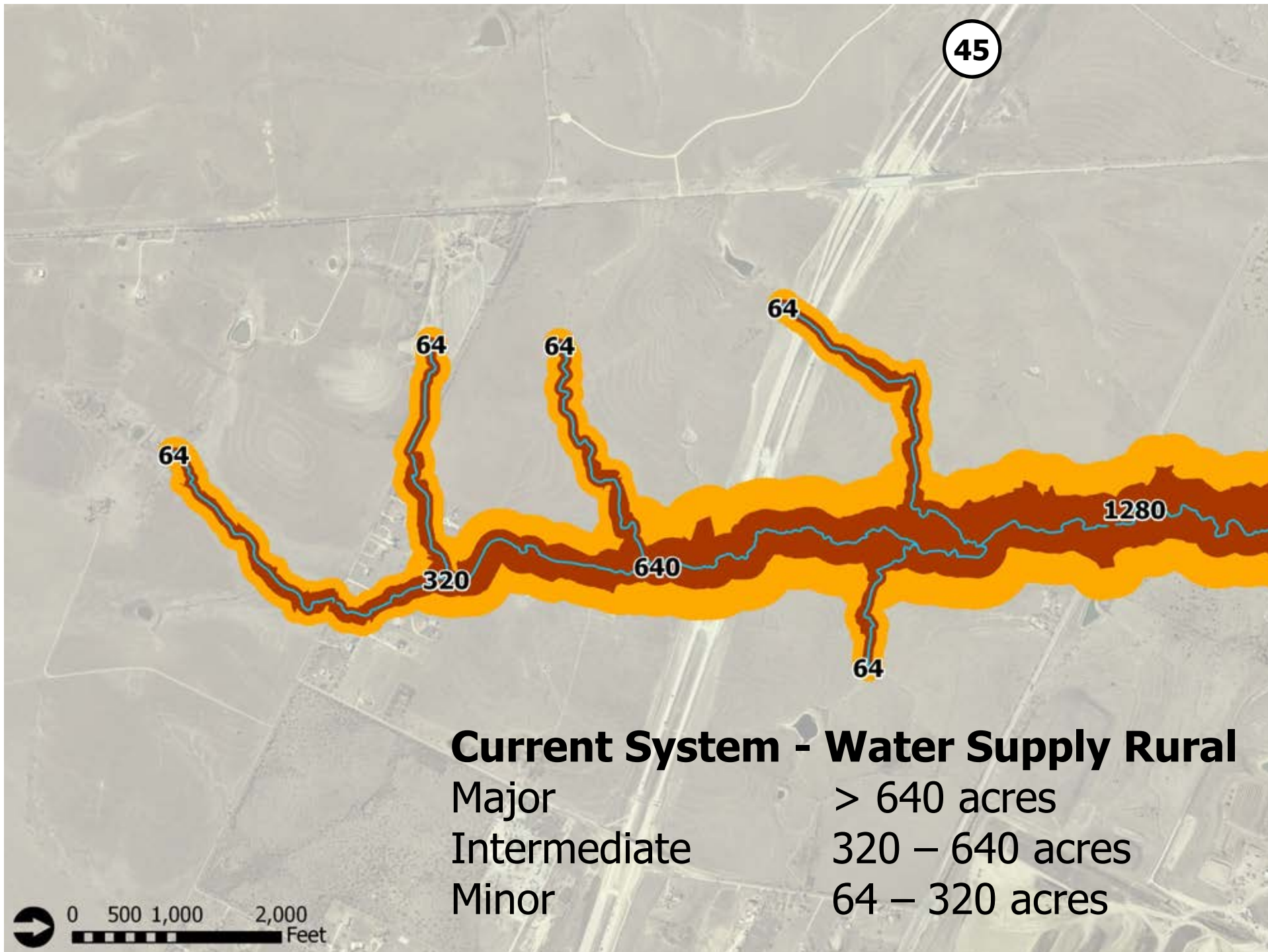


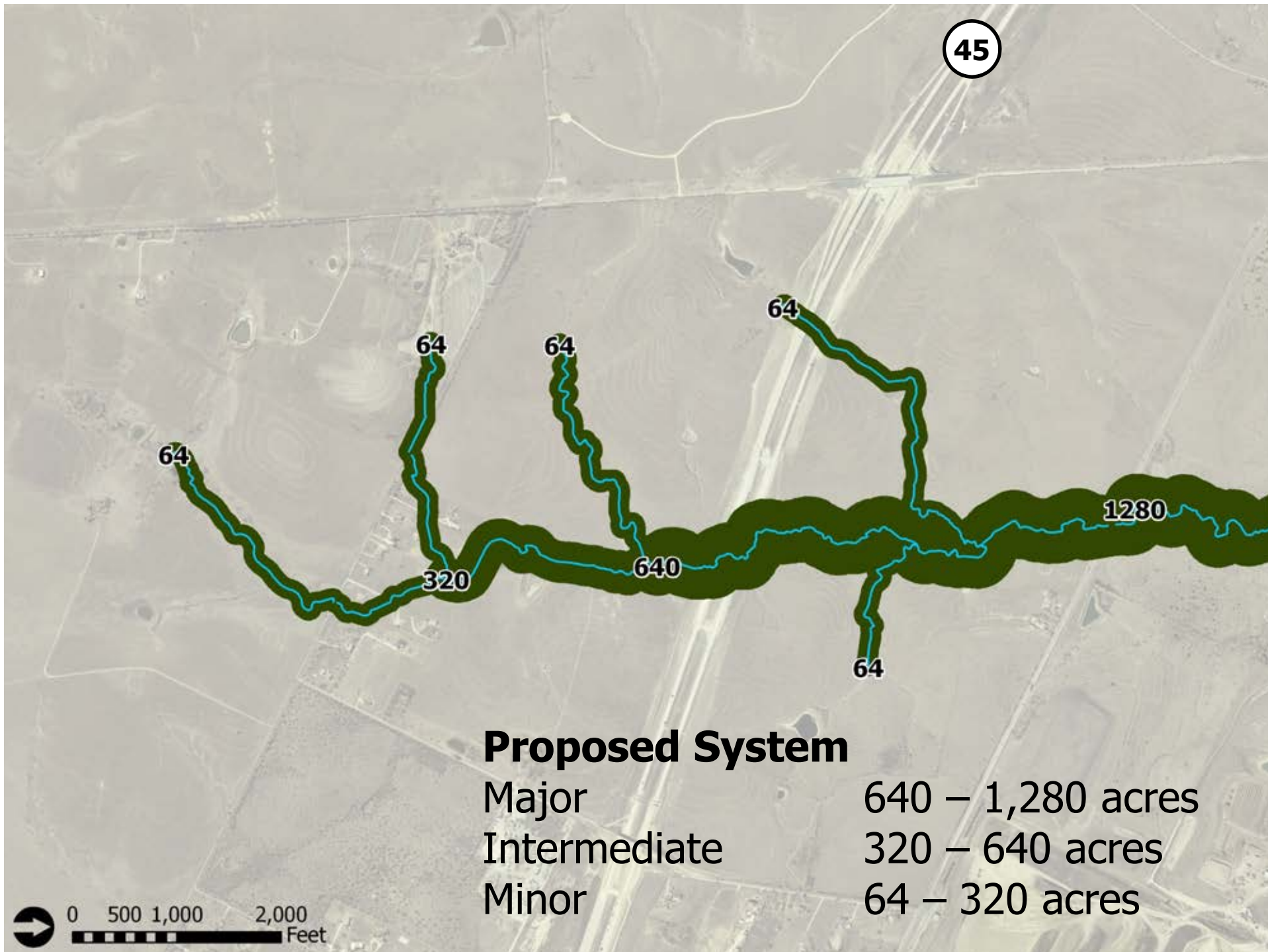
## Major Changes

- Extend minor “headwater” stream buffers to 64 acres of drainage citywide §25-8-91
- Standardize Critical Water Quality Zone (CWQZ) buffer drainage area thresholds citywide:
  - 64 ac. – 320 ac. drainage area (minor)
  - 320 ac. – 640 ac. drainage area (intermediate)
  - > 640 ac. drainage area (major) §25-8-91
- Simplify CWQZ buffer widths in Urban & Suburban watersheds:
  - 100 feet (minor)
  - 200 feet (intermediate)
  - 300 feet (major) §25-8-92











100 50 0 ft



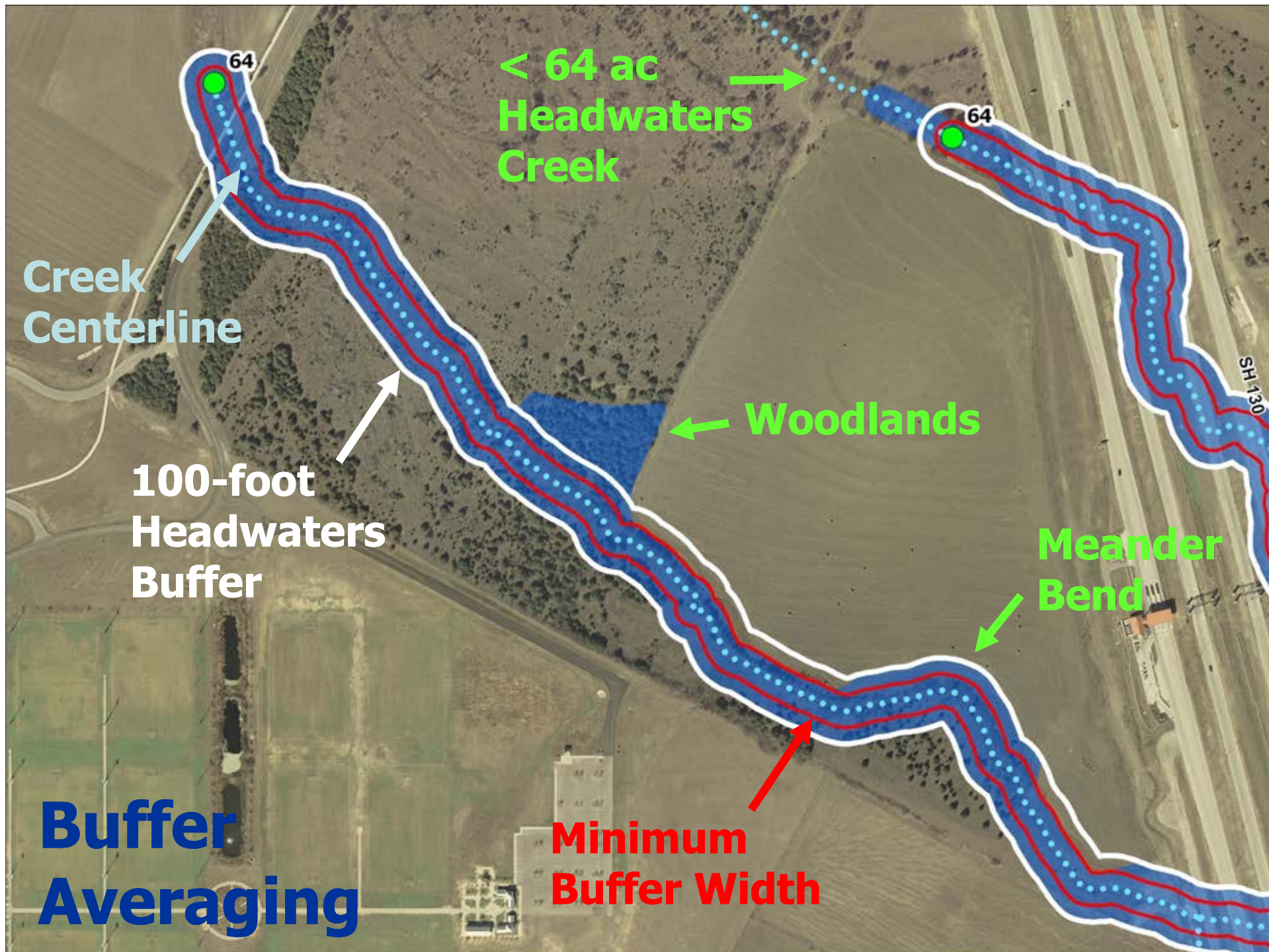
**Proposed Buffers**

Centerline

## Major Changes

- Eliminate Water Quality Transition Zone buffers in Suburban watersheds (like Urban) §25-8-93
- Use Gross Site Area basis for impervious cover in Suburban watersheds (discontinue Net Site Area) §25-8-392
- Allow “buffer averaging” in Urban & Suburban watersheds to reduce buffers by up to one-half if the overall area protected remains the same §25-8-92







## Major Changes

- Allow “green” water quality controls in the upper half of CWQZ buffers (but out of 100-yr floodplain) in Urban & Suburban watersheds  
§25-8-261
- Allow utility lines in the upper half of CWQZ buffers (but out of the erosion hazard zone) in Urban & Suburban watersheds  
§25-8-261
- Adjust street crossing requirements: allowances for crossings in centers & corridors as identified in Imagine Austin  
§25-8-262

## Additional Changes

- Allow multi-use trails in the CWQZ §25-8-261
- Allow community gardens & sustainable urban agriculture in the CWQZ §25-8-261
- Exclude managed golf course areas from the CWQZ §25-8-261
- Additional CWQZ uses for master-planned parks in Water Supply Rural areas §25-8-261
- Utility crossing requirements (direct path, outside erosion hazard zone) §25-8-261
- Disallow small single-family lots in the CWQZ §25-8-261

## Additional Changes

- Critical Zone exemptions for roadside ditches §25-8-92
- Eliminate crest of bluff exception §25-8-92
- Water quality controls within WQTZ in water supply watersheds §25-8-422, 452
- Clarification of lot requirements for water supply rural watersheds §25-8-452



## Elements Not Changing

- Retain current CWQZ buffer widths in Drinking Water Protection Zone
- Retain WQ Transition Zone buffers in Drinking Water Protection Zone
- Retain Net Site Area in Drinking Water Protection Zone
- No buffers within Downtown area
- No change to buffers on lakes or Colorado River

## Future Phases

### Phase 2 (Spring 2012)

- Establish erosion hazard zone (EHZ) protections §25-7-61
- Modify redevelopment exception to consider minimum stream setback & disallow additional non-compliance §25-8-26, 27
- Improvements to the Open Channels section of the Drainage Criteria Manual DCM Chapter 6

### Phase 3 (Imagine Austin Revisions)

- Consider options for centers & corridors (see Mitigation below)

# Floodplain Protection

**"Promote, encourage and/or require the preservation and restoration of floodplains and stream buffers as well as the beneficial re-purposing of mining quarries."**





## Major Changes

- Adjust definition of "natural & traditional character" to protect & enable the recovery of degraded waterways  
**25-8-364; §25-7-61 (spring)**
- Add new floodplain modification section to Code
  - Disallow modification in the Critical Water Quality Zone and areas with existing natural and traditional character
  - Sites proposing modification must restore natural and traditional character and design for both existing and fully-vegetated conditions
  - Exceptions for cases of protecting the environment or public health & safety as well as for development allowed within the CWQZ (e.g., crossings, trails, etc.)

**§25-8-364**

## Additional Changes

- Transfer of Development Rights (TDR) credit for upland floodplain (and/or other environmentally sensitive areas)  
**§25-8-393**
- Remove conflicting storm drain requirements  
**25-8-185; §25-7 (spring)**

## Future Phases

### Phase 2 (Spring 2012)

- Flood mitigation options for redevelopment **DCM**
- Mannings-n changes in DCM (relates to vegetation management along creeks) **DCM**
- Make improvements to the Floodplain Modification guidelines in the Environmental Criteria Manual **ECM**

### Phase 3 (Imagine Austin Revisions)

- Consider options for centers & corridors (see Mitigation Options below)



# Development Patterns & Greenways

**"Explore opportunities to encourage a development pattern that better protects public and private property, preserves floodplains, creeks and open spaces, and provides access and connectivity with greenways and trails."**



## Major Changes

- Align definitions of impervious cover for zoning and watershed regulations §25-1-23, 25-8-63
- Add exemptions to impervious cover calculations:
  - Public multi-use trails
  - Porous pavement for pedestrian walkways
  - Interlocking pavers for fire lanes §25-8-63
- Eliminate the Boundary Street Deduction §25-8-65
- Limit interbasin transfers §25-8-365

## Future Phases

### Phase 2 (Spring 2012)

- Add environmental superiority options for Planned Unit Developments (PUDs) §25-2, Art. 2, Div. 5, 2.4
- Evaluate potential credit for vehicular porous pavement and artificial turf
- Modify and potentially expand the redevelopment exception to improve both redevelopment opportunities and environmental protection

### Phase 3 (Imagine Austin Revisions)

- Evaluate impervious cover limits in Suburban watersheds



# Improved Stormwater Controls

**"Improve permanent stormwater controls to better moderate runoff and help reduce streambank erosion."**



## Major Changes

- Require Water Quality (WQ) controls for projects with over 8,000 sq. ft. of impervious cover (instead of 20% IC trigger) **§25-8-211**
- Allow potential for “stacking” WQ & flood detention volumes in one pond **§25-8-213**
- Require maintenance plan & third-party inspections for subsurface controls **§25-8-231**

## Additional Changes

- Clarification of innovative management practices (water quality controls vs. CEFs) **§25-8-151**
- Require ponds to be accessible for maintenance and inspection **§25-8-213**
- Allow wet ponds within the CWQZ outside of the Barton Springs Zone **§25-8-261**
- Remove code barriers to incentivize green infrastructure **§25-2-1062, 1063 (Spring)**



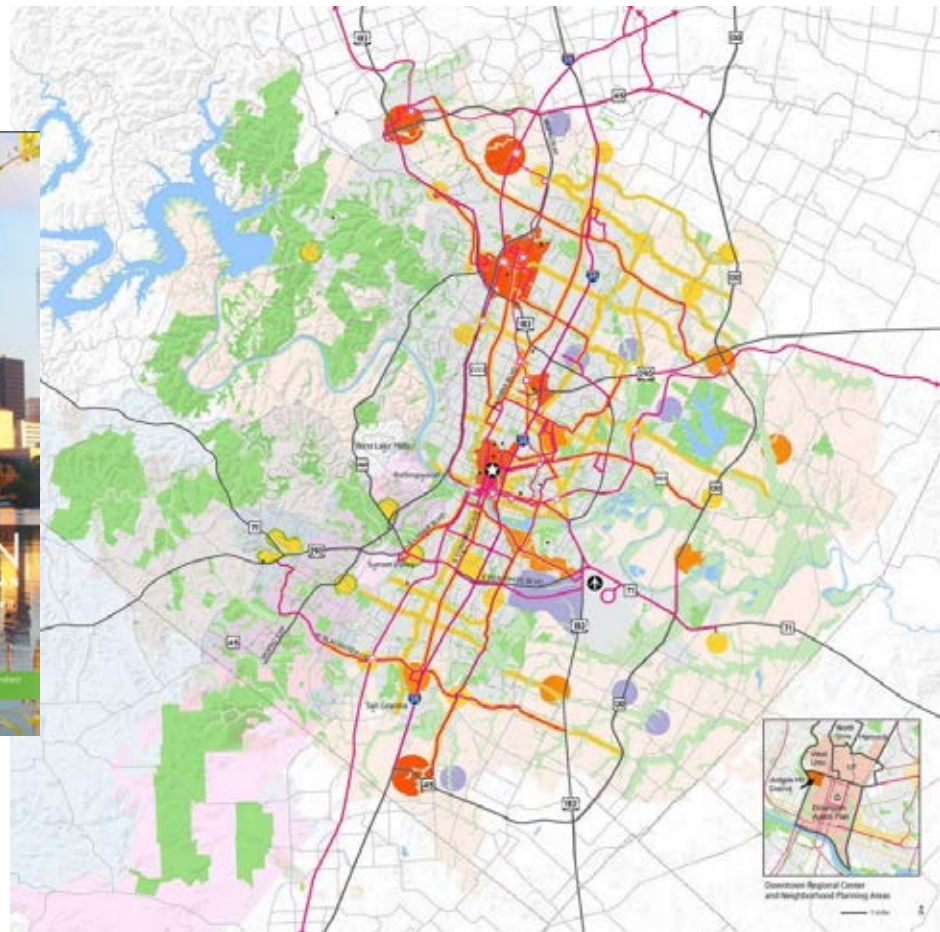
## Future Phases

### Phase 2 (Spring 2012)

- Evaluate capture volume and performance standards for water quality controls 25-8-213
- Evaluate expansion of payment-in-lieu and cost recovery systems for water quality controls 25-8-214
- Evaluate changes to Dedicated Fund for water quality monitoring and maintenance 25-8-232
- Water quality control options for Downtown 25-8-213
- Evaluate expanded credits for:
  - vehicular porous pavement
  - rainwater harvesting, and ECM
  - rain gardens (BSZ and single-family)
- Limit wet pond application based on geology, soils ECM
- Add volumetric detention option to DCM DCM

# Mitigation Options

**"Explore better ways to regulate the modification of floodplains, including options for off-site mitigation for developments in areas that are planned for higher density developments."**



## Future Phases

### Phase 3 (Imagine Austin Revisions)

- Consider redefining the Desired Development Zone to align with the centers & corridors identified by Imagine Austin
- Consider mitigation options for centers & corridors
- Evaluate expansion of transfer of development rights (TDR) system
- Consider strengthened cut & fill and steep slope protections for areas outside of centers & corridors



# Simplify Regulations

**"Simplify development regulations where possible and minimize the impact of any changes on individual and collective abilities to develop land."**

ELEMENT	DESIRED DEVELOPMENT ZONE			DRINKING WATER PROTECTION ZONE		
	Urban	Suburban City Limits	Suburban N. Edwards/ ETJ	Water Supply Suburban	Water Supply Rural	Barton Springs Zone
<b>Watershed Classification</b>						
Minor	64 ac.	320 - 640 ac.	320 - 640 ac.	128 - 320 ac.	64 - 320 ac.	64/128 - 320 ac.
Intermediate	64 ac.	640 - 1280 ac.	640 - 1280 ac.	320 - 640 ac.	320 - 640 ac.	320 - 640 ac.
Major	64 ac.	over 1,280 ac.	over 1,280 ac.	over 640 ac.	over 640 ac.	over 640 ac.
<b>Critical Water Quality Zone</b>						
Minor	50 - 400 ft.	50 - 100 ft.	50 - 100 ft.	50 - 100 ft.	50 - 100 ft.	50 - 100 ft.
Intermediate	50 - 400 ft.	100 - 200 ft.	100 - 200 ft.	100 - 200 ft.	100 - 200 ft.	100 - 200 ft.
Major	50 - 400 ft.	200 - 400 ft.	200 - 400 ft.	200 - 400 ft.	200 - 400 ft.	200 - 400 ft.
<b>Water Quality Transition Zone</b>						
Minor	None	100 ft.	100 ft.	100 ft.	100 ft.	100 ft.
Intermediate	None	200 ft.	200 ft.	200 ft.	200 ft.	200 ft.
Major	None	300 ft.	300 ft.	300 ft.	300 ft.	300 ft.

## Miscellaneous

- Correct WPD vs. PDRD references within Code (instead of WPDRD) §25-8, §25-7 (spring)
- Change Town Lake to Lady Bird Lake §25-8, §25-7
- Add definitions
  - Cluster Housing, Director, Erosion Hazard Zone, Multi-Use Trail, Open Space §25-8-1
- Correct watershed names and classifications §25-8-2
- Update Urban Watershed exceptions §25-8-23

## Miscellaneous

- Clarify variance for Barton Springs Zone WQTZ (must meet conditions) §25-8-41
- Administrative CWQZ variances for projects that protect environment, health & human safety §25-8-42
- Administrative cut/fill variance for drainage conveyance §25-8-42



## Miscellaneous

- Environmental assessment clarifications **§25-8-121**
- Organize erosion & sedimentation requirements **§25-8-186**
- Add CEF buffer & void mitigation provisions **§25-8-281**
- Clarify wetland protection area **§25-8-282**
- Clarify wastewater restrictions, modify per State requirements **§25-8-361**
- Add section for Urban Watersheds **§25-8, Article 8**

## Miscellaneous

- Rework the Transfer of Development Rights (TDR) process
  - Remove credit for wastewater irrig. areas, CEF buffers, golf courses §25-8-393, 424, 454
  - Allow transfers between two site plans
  - Allow transfers between two subdivided tracts in same watershed class
- Clarification of cluster housing requirements for Water Supply Rural watersheds §25-8-453
- Align WQTZ requirements in Barton Springs Zone and Water Supply Rural §25-8-452, 482
- Update pollutant list in SOS Ordinance (bacteria) §25-8-514

## Future Phases

### Phase 2 (Spring 2012)

- Clarification of Landscaping Code requirements §25-2-982
- Clarify that trails are allowed within compatibility setbacks §25-2
- Clarify endangered species requirements §25-8 Subch. B Article 2
- Organize shoreline modification review requirements §25-8-652

### Phase 3

- Consider new names for watershed classifications (e.g., "Suburban")
- Align stream crossing requirements with connectivity requirements proposed during Imagine Austin code revision

# Minimize Impact to Development

## Impact Analysis

- Council resolution: "...minimize the impact of any changes on individual and collective abilities to develop land."
- WPD conducting analysis of properties to evaluate effect of ordinance proposals on:
  - Creek buffer geometry
  - Developable area
  - Allowable impervious cover



# Minimize Impact to Development

## Impact Analysis

- Preliminary analysis for undeveloped properties in Suburban watersheds shows:
  - A slight gain in impervious cover for the undeveloped portion of the watersheds
  - Majority of properties are in the uplands and have a net site area equal to gross site area (thus are unaffected)
  - Majority of affected sites are within a range of +/-10 percent for impervious cover impact
- Welcome stakeholder input into final analysis; more stakeholder input to come

## Coordinate with Regional Partners

**"Work in coordination with Travis County and neighboring communities to develop the above changes."**



# Adoption Schedule

Council Resolution	January 2011
Stakeholder Meetings	Sep. 2011 – April 2012
Staff develops Draft Ordinance	April – November
Informal Interdepartmental Review*	Nov. 2 – Nov. 30
Brief the Environmental Board	December 5
Stakeholder Feedback on Draft Ordinance*	Dec. 14 – March 2013
Formal Interdepartmental Review*	March 2013
Boards & Commissions	April – May 2013
City Council	June 2013
Travis County Commissioner's Court	Summer 2013

\* City staff also happy to meet with interested groups upon request.

# Contact/Additional Information

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**[www.austintexas.gov/page/  
watershed-protection-ordinance-0](http://www.austintexas.gov/page/watershed-protection-ordinance-0)**