



# Landscape Standards – Soil, Xeriscape and Trees



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Staff have partnered to draft codes that align across soil, xeriscape and tree priority areas:

- City Council Priorities (#s 14, 19, and 28)
- Municipal Code, Chapters 12 and 26
- Land Use Code 3.2.1 and 3.8.21
  - Landscaping and Tree Protection

Benefits of Landscapes	Benefits of Landscape Codes
<ul style="list-style-type: none"><li>• Reduce air temperature/heat island effect</li><li>• Stormwater quality</li><li>• Reduce runoff</li><li>• Better air quality</li><li>• Wildlife habitat</li><li>• Recreation</li><li>• Visual Appeal</li></ul>	<ul style="list-style-type: none"><li>• Landscapes built “smart from the start”</li><li>• Better prepared for future needs or changes</li><li>• Reduced frequency of low to no benefit landscapes</li></ul>

## Council Priority 14

Effective soil amendment policies and compliance (water usage)

## Council Priority 19

Xeriscape – increase rebates and education, less green lawns with new development

## Council Priority 28

Improve tree policies

## Status Update

- Key Improvements
- Additional Considerations
- Resource Needs
- Themes from Engagement
- Timeline
- Next Phases



## **Specific to Xeriscape and Irrigation**

1. What feedback or questions does Council have on applying landscape and irrigation standards to single-unit dwelling front yards?
  
2. On daytime watering restrictions, what feedback or questions does Council have regarding:
  - a. application to all water districts within city limits?
  - b. staff continuing conversations with raw water users and providers?

## **General feedback for all sections**

3. What feedback or questions does Council have on the proposed path forward?

## Land Use Code 3.2.1

- Improved mitigation standards incentivizing tree preservation
- Creation of separate street tree escrow and timeframe for tree replacement responsibility
- Specified repercussions for tree damage or healthy tree removal violations
- Improved tree diversity requirements
- Improved tree protection during construction

## Resources and Impacts

- 2 FTE Zoning Landscape Inspectors funded, hired one in 2023 and another in 2024
- Increase in tree mitigation requirements

**Proposed Implementation - January 1, 2024**



# Trees – Mitigation Standard Comparison

## Sample Project: Kum & Go Prospect and Lemay

Species	Size (Diameter at Breast Height)	Tree Condition	Current Mitigation Standard	Proposed Mitigation Standard
Honeylocust	20"	Fair	3 trees = \$1500	\$8,404
Honeylocust	17"	Fair	3 = 1500	\$6,072
Boxelder	6"	Fair	1 = 500	\$1,500
Boxelder	8"	Fair	.5 = 250	\$2,000
Boxelder	12"	Fair	1.5 = 750	\$3,000
Siberian Elm	18"	Fair minus	1.5 = 750	\$2,778
Siberian Elm	5"	Fair minus	0	0
Siberian Elm	6"	Fair minus	0	0
Siberian Elm	16"	Fair minus	1.5 = 750	\$2,195
Boxelder	10"	Fair	1 = 500	\$1,500
Honeylocust	26"	Fair	3.5 = 1750	\$14,204
Rocky Mountain Juniper	18"	Fair	2.5 = 1250	\$5,189
Rocky Mountain Juniper	20"	Fair	2.5 = 1250	\$6,406
Ponderosa Pine	20"	Fair minus	2 = 1000	\$8,516
Ponderosa Pine	20"	Fair minus	2 = 1000	\$8,516
Ponderosa Pine	24"	Fair minus	2.5 = 1250	\$12,263
Ponderosa Pine	19"	Fair minus	2 = 1000	\$7,685
Siberian Elm	11"	Fair minus	1 = 500	\$750
			<b>31 trees = \$15,500</b>	<b>\$90,978</b>

**~\$63,000 savings**



## Municipal Code, Chapter 12

- Define standards for soil compaction and soil quality
- Clearly define thresholds for applicability
  - Residential seeking Certificate of Occupancy and > 1000 sf where plant materials will be installed
  - Non-residential requiring development review and > 1000 sf where plant materials will be installed
- Remove barriers for considering existing soil and/or plant type

## Program-related

- Implement comprehensive field inspection program for all sites

**Proposed Implementation - January 1, 2025**



## Proposed changes to Land Use Code 3.2.1

- 30% of landscape can be irrigated turf
  - Front yards up to 1,000 sf
  - Commercial up to 10,000 sf
- Artificial turf restriction with limited exceptions
- 50% living plant coverage on the surface of landscaped areas
- Irrigation equipment and design standards for front yards
- Dedicated irrigation to trees

## Proposed change to Municipal Code Sec. [12-123]

- Limit overhead irrigation of landscaping and turf between 10 a.m. and 6 p.m.

## Program-related

- Continue to promote programs and provide education

## Proposed Implementation - January 1, 2025





# Soil and Xeriscape - Resources per Proposal

Proposal	# FTE	Description of Role	Ongoing Cost	One-time Cost
Soil Inspection Program	1	Review plans and perform site inspections for sites required to meet soil standards.	\$93,300	\$3,000
Daytime Watering Restriction	0.5	Enforcement	\$53,760	\$3,000
Landscape Standards, non-single-unit residential	1	Review landscape and irrigation plans and perform inspections.	\$98,960	\$1,500
Landscape Standards, single-unit residential	1	Review landscape and irrigation plans and perform inspections.	\$87,334	\$38,000
Landscape Education Programming	1	Develop landscape resources; education and outreach	\$105,871	\$1,500
<b>Total</b>	<b>4.5</b>		<b>\$439,225</b>	<b>\$47,000</b>

**100% General Fund assuming applicability throughout city limits and fully implemented inspections.**

## Daytime Watering Limit



### In City Limits?

- › Utilities service area vs. all treated water
- › City staff responsible to enforce

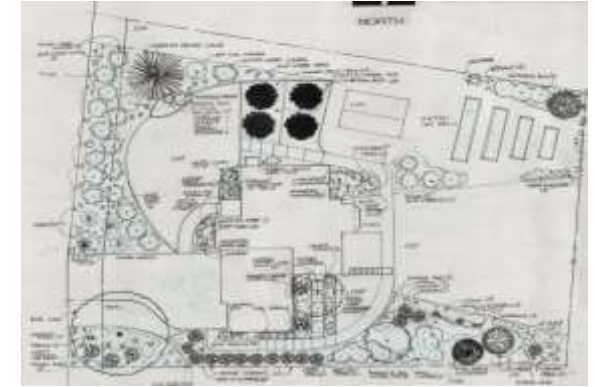
## Daytime Watering Limit



### For Raw Water?

- › Maximizes benefits of water efficiency
- › City overreach?
- › Impact on functionality
- › Impact to delivery window?
- \* Raw water will not be considered until further vetting

## Xeriscape Standards



### For Single-Unit Dwellings?

- › Built “smart from the start”
- › Reduces water demand
- › Front yards only
- › Best supported with education
- › New processes and additional staff
- › Development fees don’t match landscape type

# Xeriscape Standards – Cost Comparison



Property, Landscape Type	Total Landscape Area (% high-water grass)	Design & Install. cost	Estimated Water Supply Req.*	20-year cost to irrigate**	Total	Water-wise cost difference over 20 years
Commercial, typical	26,000 (80%)	\$110,000	\$82,530	\$68,067	\$260,597	- \$15,536
Commercial, water-wise	26,000 (30%)	\$140,000	\$51,975	\$53,086	\$245,061	
Res. front yard, typical	900 (70%)	\$6,500	\$21,168	\$5,287	\$23,633	+ \$4,936
Res. front yard, water-wise	900 (30%)	\$12,000	\$21,168	\$4,723	\$28,569	

\* Fort Collins Utilities 2023 Rates. Residential estimates based on 4-bedroom house on 7,300 sf lot with 5,200 sf outdoor area. Commercial assumes irrigation-only tap.

\*\* Based on Fort Collins Utilities 10-year rates forecast. Residential water bill estimate is for front yard only with 3/4" tap. Indoor and remaining outdoor water use estimates are not included in 20-year cost to irrigate. Commercial water bill estimate is based on 1-1/2" irrigation-only tap.

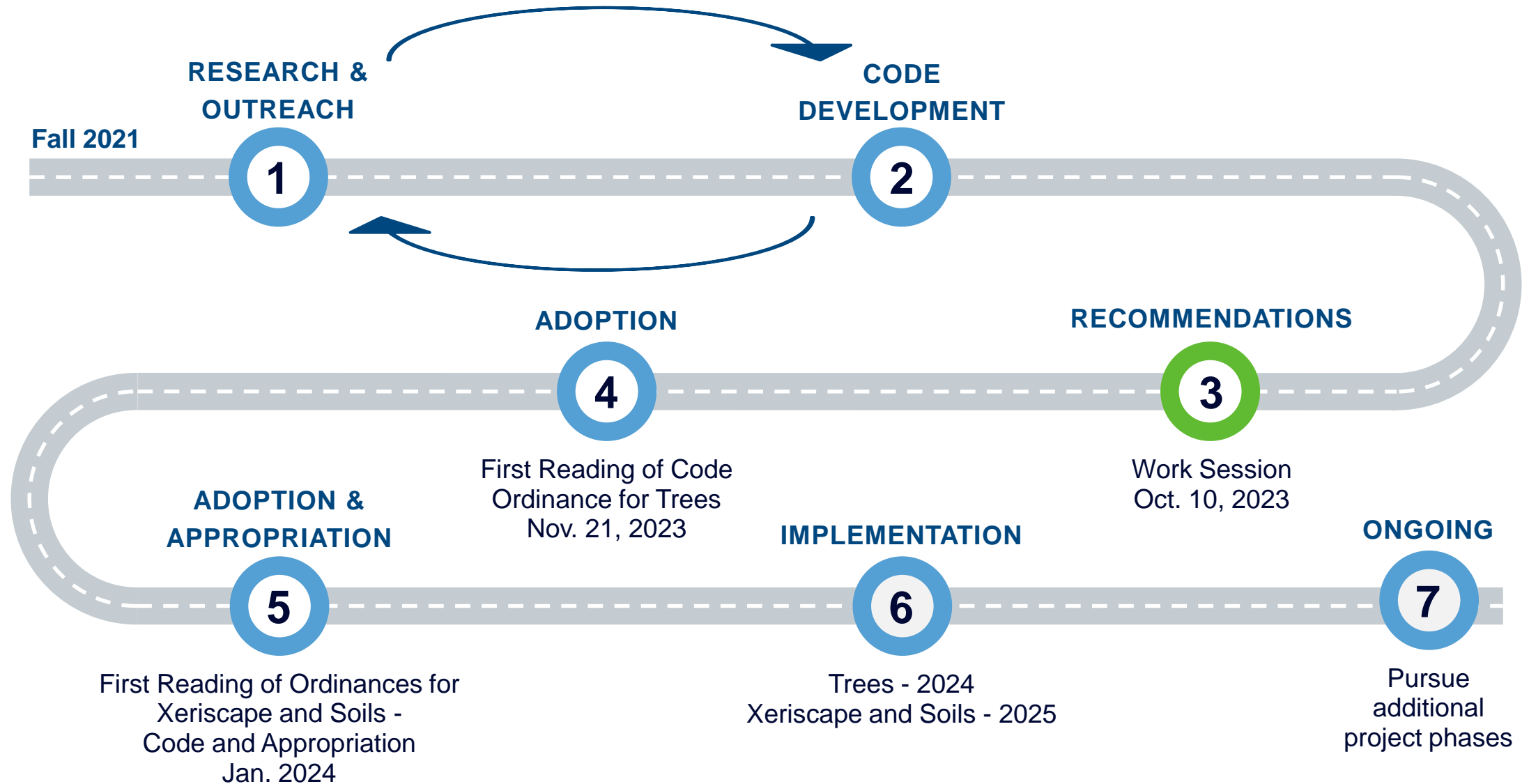
## Public, Community Partners, Boards and Commissions expressed

### Support for:

- General direction
- Importance of education and outreach
- Applicability citywide
- Importance of simple, predictable processes for implementation

### Concerns about:

- Impact to costs, affordability
- Funding sources for additional staff and processes
- Applicability for single-unit houses
- Consideration of unique public sites such as parks, downtown core
- Allowing turfgrass in parkways
- Artificial turf – what's the alternative?



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## In Progress



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### Assessment of Compliance with Local Environmental Policy (Q1 2024)

- Alignment of related permitting, inspection and enforcement efforts
  - Where would additional resources provide the most benefit
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## In Progress



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### Urban Forest Strategic Plan (Q2 2024)

- Heritage Tree Program
  - Tree preservation and protection on single-unit properties
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## In Progress



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### Water Efficiency Plan (Q4 2024)

- Goalsetting for water efficiency
  - Effective strategies to meet goals
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## Future Exploration



- Turfgrass in parkways
  - Unique public areas - such as parks, and downtown core
  - Raw water opportunities
  - Single-unit development fees
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