# **ENVIRONMENTAL + SUSTAINABILITY**



#### TREE PROTECTION

Critical Root Zone (CRZ) while the full root system may extend three to four times the diameter of the dripline, the CRZ is an area surrounding the tree where root protection is important to tree survival, represented by a circle with a radius in feet equal to the diameter of the tree in inches; guarter, half, and full CRZ areas limit impact

Tree Diameter (DBH) trunk diameter taken 4-½ feet above grade (diameter at breast height) to the half inch, rounded down; multi-trunk tree diameters equal the diameter of the largest trunk plus ½ the diameter of each additional trunk greater than 1"

**Tree Mitigation** removed trees are primarily mitigated by planting trees or preservation of unregulated trees; alternative mitigation by payment to the Urban Forest Replenishment Fund may be approved (typically at \$200/inch or \$75/inch for affordable housing projects)

#### TREE CLASSIFICATION BY SIZE

**Heritage Trees** trees with a diameter of 24" or more and is one of the Heritage species; **removal is prohibited** unless a permit for removal has been issued; mitigated at 300% DBH

Protected Trees trees with a diameter of 19" or more; permit is required for removal of protected trees; mitigated at 100% for Appendix F Species and 50% for other species

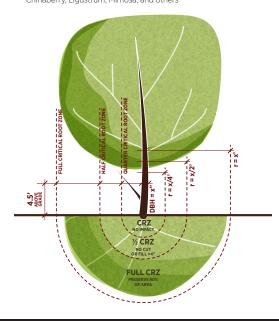
Surveyed Trees Site Plan applications require a survey of all trees 8" and larger; mitigated at 50% for Appendix F Species and 25% for other species

## TREE CLASSIFICATION BY SPECIES

Heritage Species Texas Ash, Bald Cypress, American Elm, Cedar Elm, Texas Madrone, Bigtooth Maple, all Oak species, Pecan, Arizona Walnut, Eastern Black Walnut

**Appendix F Species** native species in this list require higher mitigated rates; replacement trees must be from this list

Mitigation-Exempt Species the ECM provides a list of invasive and detrimental species that do not require mitigation; species include: Chinaberry, Ligustrum, Mimosa, and others



### **ENVIRONMENTAL PROTECTION**

#### **Critical Environmental Features**

features that are of critical importance to the protection of environmental resources: bluffs, canyon rimrocks, caves, faults and fractures, seeps, sinkholes, springs, and wetlands; known features are included in City GIS data or may be identified through an ERI

## **Environmental Resource Inventory (ERI)**

survey comprising hydrogeologic, vegetation, and wastewater reports to identify critical environmental features and propose protection measures, environmental justification for spoil disposal locations or roadway alignments, methods to achieve overland flow, and pollution abatement

**ERI Required** for development within the Edwards Aquifer recharge zone, sites with any area within 150' of a wetland feature, or sites that contain CWQZ or gradient of more than 15%

## **AUSTIN ENERGY GREEN BUILDING**

Austin Energy Green Building (AEGB) cultivates innovation in building and transportation for the enrichment of the community's environmental, economic, and human well-being. Green building is the art and science of designing and constructing buildings to reduce their negative effect on human health and the natural environment, and promote positive sustainability impacts.

**AEGB Required** participation in AEGB may be required by zoning, often in a PUD or PDA, by participation in other opt-in programs such as SMART Housing, or as an elective program

**AEGB Rating Systems** distinct rating systems cover Single Family, Multifamily and Commercial buildings each with different measures and criteria all three ratings follow a similar format and address:

**Basic (Required) Measures** each rating system includes minimum standards from across the categories below that must be met for all ratings; meeting only these requirements earns a 1-star rating

**Integrated Project Team** (MF Only) project teams can earn points for previous Green Building experience & holding planning charrettes

Site & Transportation encourages intentional site selection with density, diverse and walkable communities, brownfield redevelopment, wildfire and flood resilience, and connectivity; efforts to reduce light pollution, protect and restore habitat, reduce heat island effect, and manage parking fall under this category

**Energy** overall building performance, renewable energy, efficient appliances and equipment, and additional commissioning earn points under the Energy category

**Water** rewards reductions in indoor and outdoor water use reduction as well as irrigation, rainwater and condensate harvesting, and enhanced stormwater management

Health & Indoor Environmental Quality covers a wide range of health and wellness measures from ventilation and humidity controls to daylighting, views, and auditory comfort; pollutant controls, lowemitting materials and products, and construction indoor air quality controls contribute to improved air quality

Materials & Resources lifecycle assessments, durable materials, advanced framing, and reuse of existing buildings reduce material waste alongside Environmental Product Declarations, certified wood, locally-sourced and sustainably-sourced materials

**Innovation** exemplary performance, measures in development for future editions, and proposals for new measures specific to projects

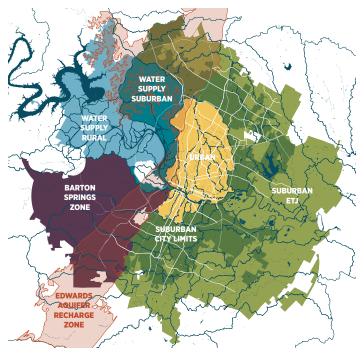




## **AUSTIN WATERSHED PROTECTION**



Watershed Protection protects lives, property and the environment of our community by reducing the impact of flood, erosion and water pollution. Austin City Council passed the current Watershed Protection Ordinance (WPO) in 2013 which modifies development entitlements based on watershed protection areas and proximity to waterways and other critical environmental features.



IMPERVIOUS COVER UPLANDS MODIFICATIONS			AREA CALC BASIS	SINGLE FAMILY			сом	
				LOT >= 5,750 sf	LOT < 5,750 sf	MULTI- FAMILY	MER CIAL	
DESIRED DEVELOPMENT	URBAN	Standard (No IC Transfer)	Gross	ross Per Base Zoning				
		With IC Transfer	NP					
	SUBURBAN CITY LIMITS	Standard (No IC Transfer)	Gross	50%	55%	60%	80%	
		With IC Transfer	Gross	60%	60%	70%	90%	
	SUBURBAN ETJ	Standard (No IC Transfer)	Gross	45%	55%	60%	65%	
		With IC Transfer	Gross	50%	60%	65%	70%	
DRINKING WATER PROTECTION	WATER SUPPLY SUBURBAN	Standard (No IC Transfer)	Net <sup>A</sup>	30%	30%	40%	40%	
		With IC Transfer	Net <sup>A</sup>	40%	40%	55%	55%	
	WATER SUPPLY RURAL	Standard (No IC Transfer)	Net <sup>A</sup>	2 ac <sup>B</sup>	2 ac <sup>B</sup>	20%	20%	
		With IC Transfer	Net <sup>A</sup>	1 ac <sup>B</sup>	1 ac <sup>B</sup>	25%	25%	
	BARTON SPRINGS ZONE	In Recharge Zone	Net <sup>A</sup>	15%	15%	15%	15%	
		In Barton Creek Zone	Net <sup>A</sup>	20%	20%	20%	20%	
		Other Contributing Zone	Net <sup>A</sup>	25%	25%	25%	25%	
		With IC Transfer		<u> </u>	NP			

#### PROTECTION ZONES

### Critical Water Quality Zone (CWQZ)

primary protective stream buffer 50-400' from centerline depending on the drainage area size and the watershed classification; most development prohibited, see §25-8-261

## Water Quality Transition Zone (WQTZ)

secondary protective stream buffer in some watershed classifications; development restricted in this zone, see ECM 1.5.4

Uplands Zone areas outside CWQZ or WQTZ

Erosion Hazard Zone an area where future stream channel erosion is predicted; analysis required if development is within 100' of a waterway or if significant erosion is present; if designated, development only allowed with protective works

Critical Environmental Feature Buffer Zone generally 150' from the boundary of a CEF (up to 300' for recharge features) identified in an Environmental Resource Inventory (ERI); most development prohibited in this area, see LDC §30-5-281

#### **MODIFICATIONS + TOOLS**

Buffer Averaging reducing the width of CWQZ by up to one-half if the overall amount of area protected remains the same (relocation to another area on the same site)

Floodplain Modification usually prohibited in CWQZ; Functional Assessment required to permit Floodplain Modification

IC Transfer allows for increased development intensity by transferring rights from land dedicated or restricted to be maintained as impervious cover, see §25-8-393

Protective Works engineered stream bank stabilization or structural design for development, see DCM Appendix F

Redevelopment Exemption exempts sites from LDC 25-8 Subchapter A if development does not increase impervious cover and additional requirements based on Watershed are met, see §25-8-25 through 27: Council approval may be required

- A. Impervious Cover percentages in the Drinking Water Protection Watersheds are percentages of Net Site Area (see definition above), defined as Gross Site Area minus area within CWQZ, WQTZ, and wastewater irrigations; areas with slopes > 15% area also deducted at a factor based on the slope (see ECM Appendix Q.1)
- B. Single Family uses in the Water Supply Rural Watersheds are based on the site area in acres required per dwelling unit, not percentages



Housing

Committee

